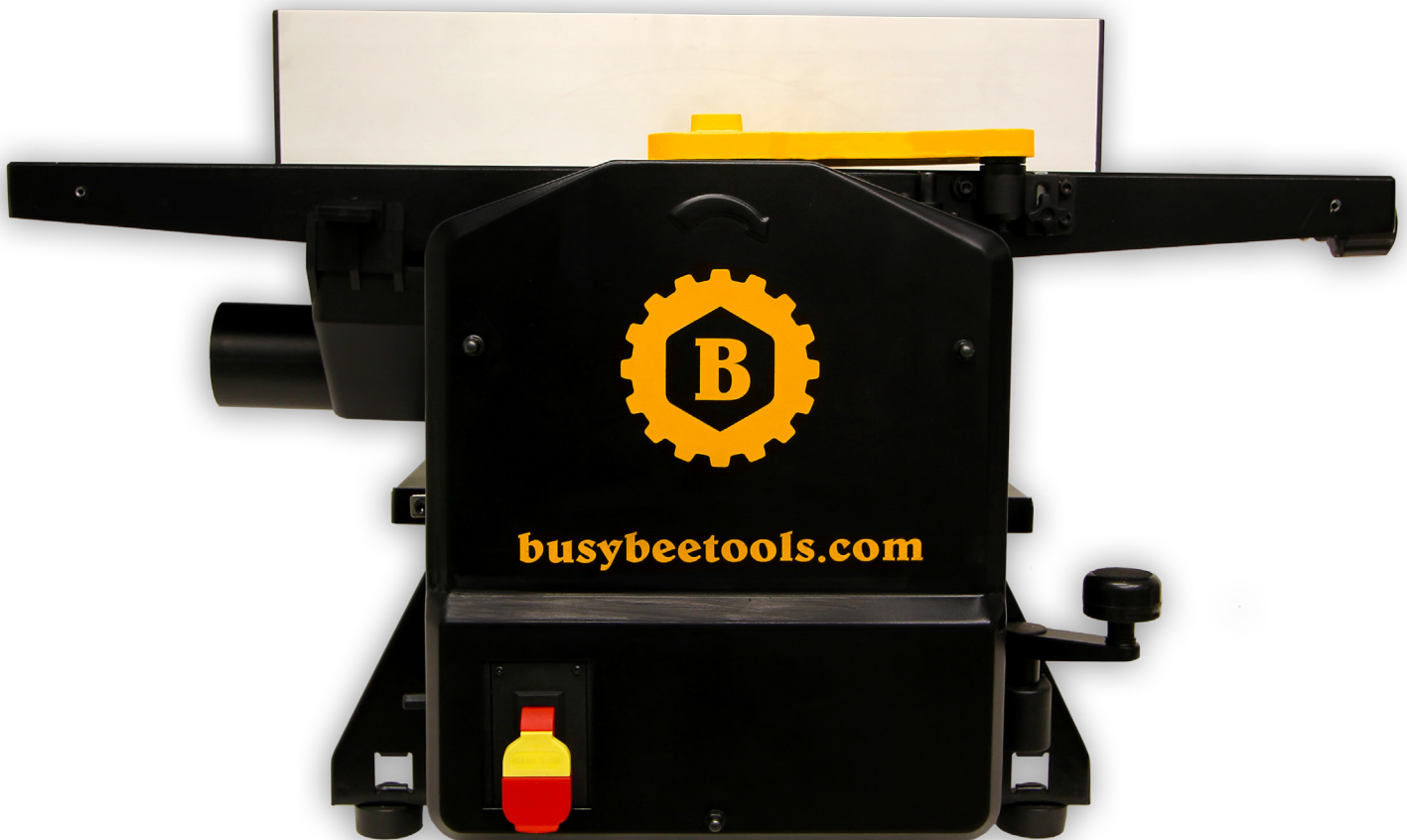




# Busy Bee Tools

## Jointer Planer Combo Machine

### BBJP8



## User's Manual



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## Warnings



**This manual contains critical information regarding the setup, operation, maintenance, and servicing of this machine. It is imperative to not only retain this document but also to study its contents thoroughly and utilize it for training other operators as necessary.**

**Failure to heed the information provided in this manual may lead to grave consequences, including but not limited to amputation, electrocution, or loss of life. The responsibility for the safe usage and operation of this machine rests solely with the owner. This duty encompasses, among other things, proper installation within a secure and suitable environment, comprehensive training and authorization of all individuals tasked with operating the machine, regular inspection, and maintenance, as well as ensuring the availability and utilization of safety and personal protective equipment. It is vital to note that Busy Bee Tools cannot be held responsible or liable for any injuries or property damage arising from negligence, inadequate training, unauthorized machine modification, or misuse.**



The act of sanding, sawing, grinding, drilling, and similar activities can generate dust containing chemicals potentially harmful to the operator's health. Thus, it is imperative to always wear a mask and appropriate protective gear when operating this machine.

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Please refrain from discarding this manual; retain it for future reference. Your safety and well-being are of paramount importance.



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## Introduction

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

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

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

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

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

### Contact Information

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

Busy Bee Tools  
130 Great Gulf Drive  
Concord, ON L4K 5W1  
1-800-461-2879  
[Busybeetools.com](http://Busybeetools.com)



## Manual Accuracy

While we have made every endeavor to produce a manual replete with accurate specifications, drawings, and photographs, errors can sometimes occur. In our relentless pursuit of improvement and evolution, you may receive the machine in a slightly different configuration than what is depicted in the photos.

In the event of any such discrepancy that leaves you uncertain about a particular aspect, we encourage you to visit our website for an updated version of the manual. Your understanding and satisfaction are paramount.

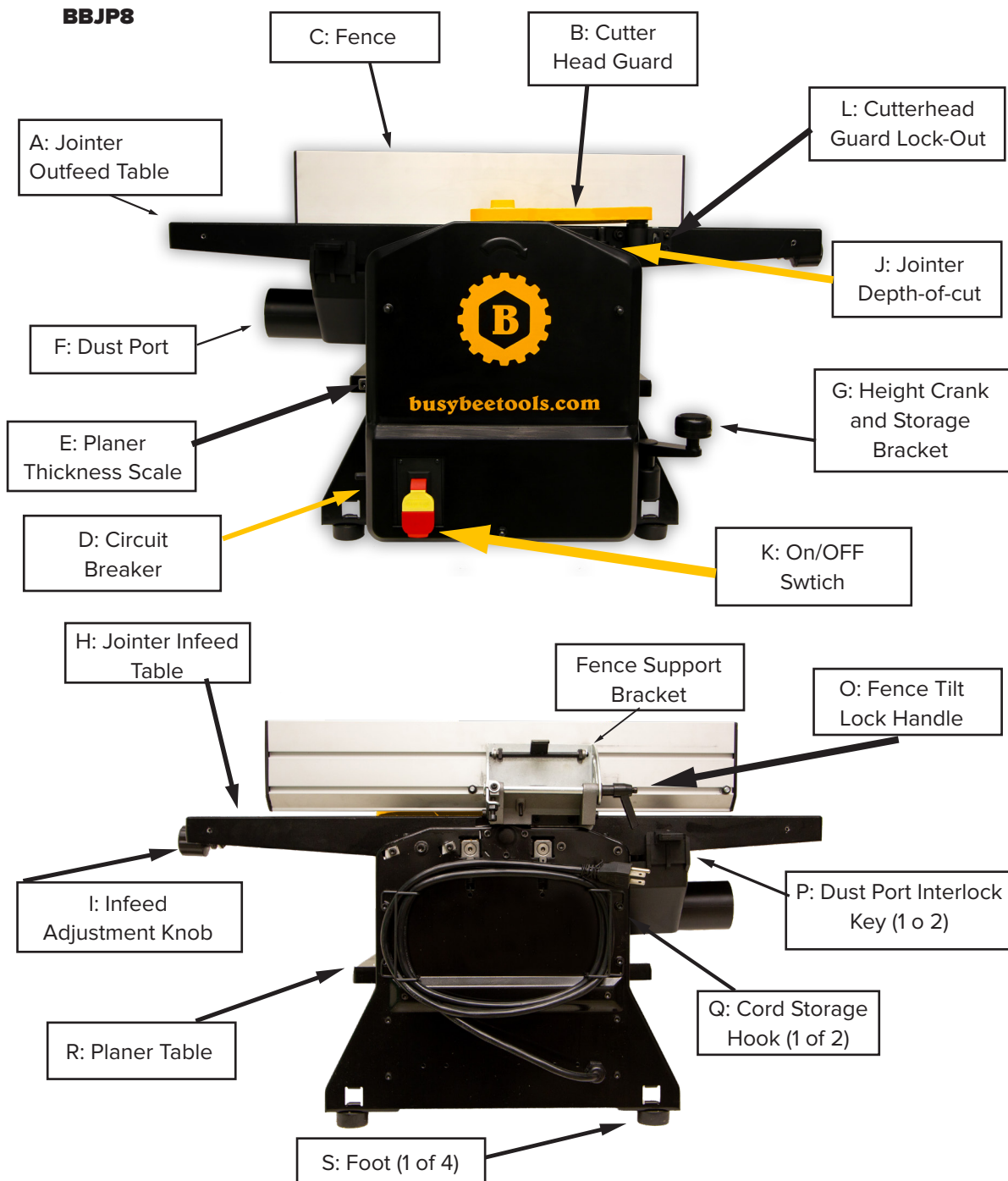


Figure 1: Machine Identification.

## Machine Identification

**Model Number:** BBJP8 Jointer Planer Combo Machine



## Controls and Components

*To mitigate the risk of severe injury, it is imperative to read this manual BEFORE using your new machine. Please refer to the following figures and their descriptions to acquaint yourself with the fundamental controls and primary components of this machine. A solid comprehension of these elements will not only enhance your grasp of the rest of the manual but also reduce the potential for injury during machine operation.*

Please refer to the following figures and their descriptions to familiarize yourself with basic controls and main parts of this machine. By understanding these components will aid in better understand the rest of the manual and reduce your risk of injury when operating the machine.

### Main Controls & components

Please see figure 1 on page 7.

- A. Jointer Outfeed Table:** Support the workpiece after it passes over the cutter head.
- B. Cutterhead Guard:** Covers the cutterhead until pushed out of the way by the workpiece during the jointing operation. When the workpiece leaves the cutterhead the guard spring will reposition the guard at the start position.
- C. Fence:** The fence is to guide the workpiece as it is moved across the cutterhead keeping it straight and perfectly aligned with the cutter head.
- D. Circuit Breaker Reset Button:** When a thermal overload trips the reset button to protect the motor from permanent damage, this reset button allows the operator to restart the machine by bushing the ON/OFF button to OFF position, wait for the motor to cool down few minutes, then press the reset button down if it stays depressed you must allow the motor to cool down further, then try one more time.
- E. Planer Thickness Scale:** this indicator shows the height of the cutterhead above the outfeed table, The measurement is indicated by a red line, this line shows the thickness of the workpiece after planing.
- F. Dust Port Housing:** the dust port is installed under the table for jointing and above the table for planing. There are two keys to secure the dust port to the table. Please Note: Machine will not start unless the dust port is installed correctly above or under the outfeed table.
- G. Planer Table Height Crank:** this crank's only job is to raise and lower the planer table to accommodate the workpiece thickness. The height change is 1/8" for each full rotation.
- H. Jointer Infeed Table:** this table supports the workpiece before it reaches the cutterhead. The position of this table in relation to the cutter head will determine the depth of cut.
- I. Infeed Table Adjustment Knob:** its purpose is to adjust the infeed table for the required depth of cut.
- J. Jointer Depth of cut scale:** It indicates the depth of cut per pass.
- K. ON/OFF Switch:** this is the main power switch; it turns the machine ON when moved up and OFF when pushed down. The yellow part of the Button is a key to disable the switch preventing any accidental start ups, thus protecting you while performing any maintenance or servicing the machine.
- L. Cutterhead Guard Lock-out:** it prevents the guard from moving into of position over the cutterhead during while using the planing operations.



- M. Lock-Out Lock Knob:** when tightened it secures the position of lock-out. To raise or lower the lock-out, loosen the lock knob.
- N. Fence Slide Lock Handle:** to secure the position of the fence over the tables. Move this handle up to tighten and move down to loosen. Once it is loosened you can adjust the desired position then move up to lock that position in place.
- O. Fence Tilt Lock Handle:** This handle secures the fence 's angle. The range of angle adjustment is between 0° and 45°. Always tighten lock before starting the machine.
- P. Dust port interlock key:** A safety feature preventing the accidental machine startup what the dust hood isn't installed correctly.
- Q. Cord storage hook:** When the machine is stored, the cord hook ensures the cord is well protected.
- R. Planer Table:** this is the table used when the machine is in planing function.
- S. Rubber Feet (4):** 4 rubber feet to reduce the noise from vibration.

**Internal Components (Planer)**

Please see figure 2.

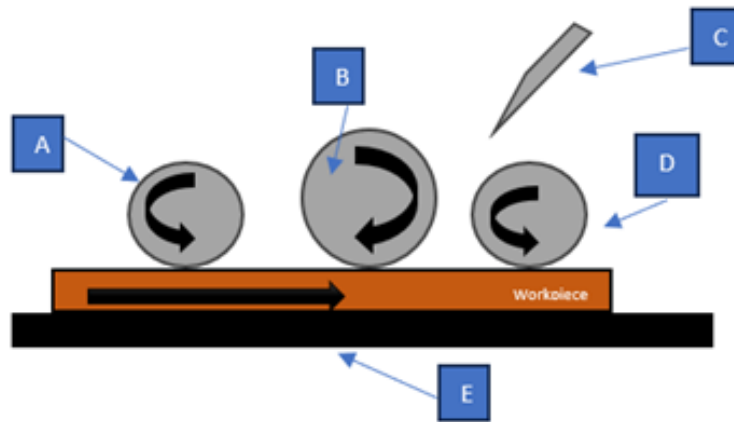


Figure 2: The path and components planing function

- A. Infeed Roller:** this roller rotates counter clockwise to feed the wood into the cutterhead.
- B. Cutterhead:** This is the main part of this machine. It holds the inserts that remove material from the workpeice it rotates clockwise
- C. Chip Deflector:** its job is to direct the wood chips into the dust port.
- D. Outfeed Roller:** Rotates with the direction of the feed roller to pull the wood trough.
- E. Planer Table:** it provides a smooth, flat surface allowing the workpiece to slide through the planer.



**WARNING!**

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



**WARNING!**

No list of safety guidelines can be complete. Every shop environment is different because it applied to your individual conditions. Always use all machinery with acuation and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# Machine Data Sheet

## 8" Jointer/ Planer with Helical Cutterhead:

### Product Dimensions:

Weight ..... 48lbs.  
Width X Depth X Height ..... 31" X 17-1/2" X 18-1/2".  
Footprint ..... 15-1/2" X 10-1/2".

### Shipping Dimensions:

Package type ..... Cardboard box.  
Weight ..... 57lbs.  
LXWXH ..... 34" X 19" X 18".  
Must ship upright ..... Yes.

### Electrical:

Power Requirement ..... 120V, 1PH, 60Hz.  
Full-Load current rating ..... 15A.  
Minimum circuit breaker size ..... 20A.  
Connection type ..... Cord and Plug.  
Power cord included ..... Yes.  
Power cord length ..... 72".  
Power cord gauge ..... 14AWG.  
Switch type ..... Paddle safety switch w/ key.

### Motor:

Main  
Horsepower ..... 1-1/2 HP.  
Phase ..... Single phase.  
Amps ..... 15A.  
Speed ..... 15,000 RPM.  
Type ..... Universal.  
Power transfer ..... Belt.  
Bearings ..... Shielded permanently lubricated.

### Main Specifications:

#### Cutting Capacities (Jointer):

Jointer size ..... 8"  
Bevel Jointing ..... 0° to 45°  
Maximum width cut ..... 8"  
Maximum depth cut ..... 1/16"  
Minimum workpiece length ..... 6"  
Minimum workpiece thickness ..... 1/4"  
Number of cuts per minutes ..... 17,000

#### Cutting Capacity (planer):

Planer size ..... 8"  
Maximum width of cut ..... 8"  
Minimum stock length ..... 6"  
Minimum stock thickness ..... 1/4"  
Number of cuts per inch ..... 64

Number of cuts per minute ..... 17,000.  
Planing feed rate ..... 22FPM.  
Maximum cut depth planing full width ..... 3/64".  
Max. cut depth planing 6" wide boards . 1/16".

### Fence Information:

Fence length ..... 21".  
Fence width ..... 1/2".  
Fence Height ..... 4".  
Fence stops ..... 0° to 45°.

### Cutterhead information:

Cutterhead type ..... Helical.  
Cutterhead diameter ..... 2".  
Number of cutter rows ..... 2.  
Number of indexable inserts ..... 18.  
Cutterhead speed ..... 8500RPM.

### Cutterhead inserts information:

Cutter inserts type ..... 4-side indexable carbide.  
Cutter inserts length ..... 15mm.  
Cutter inserts width ..... 15mm.  
Cutter inserts thickness ..... 2.5mm.

### Table information (Jointer):

Table length ..... 29-1/4".  
Table width ..... 8-1/4".  
Table thickness ..... 1-1/2".  
Floor to table height ..... 14".  
Table adjustment type ..... Knob.  
Table movement type ..... Swing.

### Table information (planer):

Table length ..... 13-3/4".  
Table width ..... 8".  
Table Thickness ..... 3/4".  
Floor to table height ..... 7-1/2".

### Construction:

Body assembly ..... Steel.  
Cutterhead ..... Steel.  
Infeed roller ..... Rubber.  
Outfeed roller ..... Rubber.  
Fence assembly ..... Aluminium.  
Guard ..... Plastic.  
Table (Jointer) ..... Die-cast Aluminum.  
Table (Planer) ..... Die-cast Aluminum.  
Paint type/Finish ..... Powder coated.

### Other information:

Number of dust ports ..... 1.  
Dust port size ..... 2-1/2".  
Measurement scale (Jointer) ..... Inch.





Measurement scale (Planer).....Inch.  
Country of origin.....China.  
Warranty.....2 Years.  
Approximate assembly time.....30 Minutes.

**Features:**

Helical cutterhead with 18 indexable carbide inserts.  
Die-cast Aluminum infeed and outfeed tables.  
One push block and one push stick.  
Torx T-20 T-handle driver.  
Quick-release fence.  
2-1/2" dust port.

## Safety

**Prioritize your safety by thoroughly reviewing the instruction manual before operating this machine.**

Safety symbols serve the critical function of directing your attention to potential hazards. Throughout this manual, we employ a range of symbols and signs to emphasize the significance of safety messages. It is essential to familiarize yourself with the significance of each sign, as the messages themselves do not eliminate danger and should not supplant proper accident prevention practices. Rely on common sense and sound judgment in conjunction with these safety indicators for comprehensive safety measures. Your well-being is our utmost concern.



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

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

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

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

### Safety Instructions for Machinery

**OWNER'S MANUAL:** Please read and thoroughly understand this owner's manual BEFORE operating the machine.

**TRAINED OPERATORS:** Untrained operators have a higher risk of severe injury or death. Only permit trained/supervised individuals to use this machine. When the machine is not in use, disconnect the power, remove switch keys, or lockout the machine to prevent unauthorized use, especially around children. Ensure your workshop is childproof.

**OPERATING ENVIRONMENT:** Do not operate machinery in wet, cluttered, or poorly lit areas. Operating machinery in such conditions significantly increases the risk of accidents and injuries.

**MENTAL ALERTNESS:** Operate machinery only when fully alert. Never use it under the influence of drugs or alcohol, when fatigued, or when distracted.

**ELECTRICAL INJURY RISKS:** Touching live electrical wires or improperly grounded machinery can result in shock, burns, or death. Only qualified service personnel should perform electrical installation or repairs, and always disconnect power before working on electrical components.

**DISCONNECT POWER (DE-ENERGIZE):** Always disconnect the machine from the power supply BEFORE modifying, changing tools and parts, or servicing the machine to prevent injury from unintended startup or contact with live electrical components.

**EYE PROTECTION:** CSA-approved safety glasses or a face shield must be worn when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.

**PROPER APPAREL:** Avoid clothing or jewelry that can become entangled in moving parts. Cover long hair, and wear non-slip, safety footwear to reduce the risk of slipping,



losing control, or accidentally contacting cutting tools or moving parts.

**DUST HAZARD:** Dust generated during woodworking operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each material used and always wear a CSA-approved respirator to reduce risk.

**HEARING PROTECTION:** Always wear hearing protection when operating or when exposed to loud machinery. Prolonged exposure to noise without hearing protection can cause permanent hearing loss.

**REMOVE TOOLS:** Tools left on machinery can become dangerous projectiles when the machine starts. Always verify that the machine is clear before turning it ON!

**USE THE RIGHT TOOL FOR THE JOB:** Only use a tool for its intended purpose. Do not force it or modify it for tasks it was not designed for, as this may lead to malfunction, mechanical failure, personal injury, or death.

**UNCOMFORTABLE POSITIONS:** Maintain appropriate footing and balance when operating any machine. Avoid overreaching and awkward hand positions that can compromise workpiece control or increase the risk of accidental injury.

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

**GUARDS & COVERS:** Guards and covers are installed for safety purposes. DO NOT remove them, as they prevent unintentional contact with moving/sharp parts or flying debris. Ensure they are properly installed, undamaged, and functioning BEFORE turning the machine ON!

**FORCING MACHINERY:** Do not force the machine. It operates more safely and effectively at the recommended rate. Follow the instructions in this manual for your safety and to protect the machine from damage.

**NEVER STAND ON THE MACHINE:** Serious injury may occur if the machine tips or if the cutting tool is unintentionally contacted. Standing on machinery is not safe or recommended—DO NOT DO IT.

**STABLE MACHINE:** Unexpected movement during operation significantly increases the risk of injury or loss of control. Before starting the machine, ensure it is stable, properly leveled, and, is secured, the mobile base is locked.

**USE RECOMMENDED ACCESSORIES:** *This owner's manual includes some recommended accessories. Using the wrong accessories increases the risk of serious injury.*

**UNATTENDED OPERATION:** To reduce the risk of accidental injury, turn the machine OFF and ensure all moving parts have completely stopped before walking away. Never leave the machine running unattended. If children or untrained individuals are present, use the lock-out switch.

**CARING FOR THE MACHINE:** Follow all maintenance instructions and lubrication schedules in this manual to keep the machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

**DAMAGED PARTS:** Regularly inspect the machine for damaged, loose, or mis-adjusted parts, or any condition that could affect safe operation. Repair or replace damaged parts BEFORE restarting the machine. For your own safety, DO NOT operate the machine with damaged parts!

**POWER CORDS:** When disconnecting cord-connected machines from power, pull the plug out—NOT the cord. Prolonged cord pulling can damage the wires inside. DO NOT handle the cord/plug with wet hands. Protect the cord from heated surfaces, high-traffic areas, harsh chemicals, and wet/damp floors to avoid damage.

**EXPERIENCING DIFFICULTIES:** If you encounter difficulties performing a particular operation, cease using the machine immediately! Contact our Technical Support by email at [cs@busybeetools.com](mailto:cs@busybeetools.com) or call us at 1-800-461-2879. Your safety is our priority.



## Additional Safety For Jointers



*Serious cuts, amputation, entanglement, or death can result from contact with the rotating*

*cutterhead or other moving components. Flying chips, can cause eye injuries or blindness. Workpieces or inserts/ knives thrown by the cutterhead can strike operators or bystanders with deadly force. To reduce the risk from these hazards, operators and bystanders MUST heed the following hazards and warnings:*

**KICKBACK:** Is when a workpiece is ejected from the machine at high speed, posing a risk of injury from being struck by the projectile or hands being pulled into the cutterhead.

### **TO REDUCE THE RISK OF KICKBACK:**

- Use properly inspected workpieces.
- Apply safe feeding techniques.
- Ensure proper machine setup and maintenance.

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

**DULL OR DAMAGED INSERTS:** Dull or damaged inserts increase the risk of kickback and result in poor finish quality. Only use sharp, undamaged inserts.

**OUTFEED TABLE ALIGNMENT:** Incorrect outfeed table alignment can cause workpieces to get stuck or rock while feeding, increasing the risk of kickback. Keep the outfeed table even with the inserts at their highest point during rotation.

**INSPECTING THE MATERIAL:** Impact injuries or kickback can result from using inadequate or damaged material. Thoroughly inspect and prepare workpieces before cutting. Verify that workpieces are free of nails, staples, loose knots, or foreign material. Always joint warped workpieces with the cupped side facing down.

**MAXIMUM CUTTING DEPTH:** To reduce the risk of kickback, never cut deeper than 1/16" per pass.  
Grain Direction: Jointing against or across the grain can increase the risk of kickback and produce chatter or

excessive chip out. Always joint or surface plane WITH the grain.

**CUTTING LIMIT:** Cutting workpieces that do not meet minimum dimension requirements can result in kickback or accidental contact with the cutterhead. Never perform jointing, planing, or rabbeting cuts on pieces smaller than the measurements specified in the machine's data sheet.

**PUSH BLOCKS:** Push blocks are essential accessories that reduce the 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 the cutterhead without a push block.

**WORKPIECE SUPPORT:** Poor workpiece support or control during feeding increases the risk of kickback or unintended contact with the cutterhead. Continuously support the workpiece against the fence during operation and use auxiliary tables for long stock if necessary.

**FEEDING WORKPIECE:** Feeding the workpiece incorrectly can result in kickback or accidental cutterhead contact. Allow the cutterhead to reach full speed before feeding, and never start the jointer with the workpiece touching the cutterhead. Always feed the workpiece from the infeed side to the outfeed side without stopping until the cut is complete. DO NOT move the workpiece backward while feeding.

**SECURE KNIVES/INSERTS:** Improperly set inserts can become projectiles, shooting out from the cutterhead with high force and velocity. As a daily practice, verify that knives/inserts are secure and properly adjusted before operation.



## Additional Safety For Planers



*Serious cuts, amputation, entanglement, or death can result from contact*

*with the rotating cutterhead or other moving components. Flying chips, can cause eye injuries or blindness. Workpieces or inserts thrown by the cutterhead can strike operators or bystanders with deadly force. To reduce the risk from these hazards, operators and bystanders MUST heed the following hazards and warnings:*

**KICKBACK:** Is when a workpiece is ejected from the machine at high speed, posing a risk of injury from being struck by the projectile or hands being pulled into the cutterhead.

### **TO REDUCE THE RISK OF KICKBACK:**

- Use properly inspected workpieces.
- Apply safe feeding techniques.
- Ensure proper machine setup and maintenance.

**PREVENT CONTACT WITH MOVING PARTS:** Never remove guards/covers or reach inside the planer during operation or while it is connected to power. Serious injury can result from accidental contact with the spinning cutterhead or getting caught in moving parts. If a workpiece becomes stuck or sawdust removal is necessary, turn the planer OFF, allow the cutterhead to stop, and disconnect power before clearing. Always follow a standardized set of safety steps to prevent injury.

**DULL OR DAMAGED INSERTS:** Only use sharp, undamaged cutterhead inserts. Dull or damaged inserts increase the risk of kickback.

**INSPECTING THE MATERIAL:** To reduce the risk of kickback injuries or machine damage, thoroughly inspect the workpiece before cutting to verify that the workpiece is free of nails, staples, loose knots, or foreign material. Workpieces with minor warping should be jointed first or planed with the cupped side facing the table.

**OPERATOR'S POSITION:** Stand to one side of the planer during the entire operation to avoid getting hit if kickback occurs.

**GRAIN DIRECTION:** Planing wood should be performed in the same direction or at an angle with the wood grain, Thus reducing the chance of injury as a result of kickback.

**PLANING CORRECT MATERIAL:** This planer / jointer combo machine was designed to work with wood. DO NOT plane

MDF, OSB, plywood, laminates, or other synthetic materials that can break up inside the planer and become projectiles. Looking Inside the Planer: NEVER look inside the planer during operation. Flying material traveling at a high rate of speed could cause serious injury.

**CUTTING LIMITATIONS:** DO NOT exceed the maximum depth of cut or minimum board length and thickness found in the Data Sheet. Only feed one board at a time.

**INFEEED ROLLER CLEARANCE:** To reduce the risk of entanglement, keep hands, clothing, jewelry, and long hair away from the infeed roller during operation. Serious injury could occur.

**FEEDING THE WORKPIECE:** Never start the planer with the workpiece touching the cutterhead. Allow the cutterhead to reach full speed before feeding, and do not change feed speed during the cutting operation.

**MATERIAL SUPPORT:** Using support stands for long stock is beneficial to keep the material flat and moving freely across the table during the operation.

**SECURE INSERTS:** Loose or improperly set inserts can become dangerous projectiles or cause machine damage. Always verify that inserts are secure and properly adjusted before operation.



# Power Supply

## Accessibility

Before setting up the machine, it is essential to consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, the installation of a new circuit is necessary. To reduce the risk of electrocution, fire, or equipment damage, all electrical wiring must be carried out by a qualified electrician or service person who are knowledgeable about electrical codes and standards.



## Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power.

**Full-Load Current Rating at 120V ..... 15 Amps** The full-load current rating represents the amperage that a machine draws when operating at 100% of its rated output power. It is crucial to note that the full-load current rating does not indicate the maximum number of amps that the machine can draw. If the machine is subjected to an overload, it may draw additional amps beyond its full-load rating. Prolonged overloading of the machine can lead to damage, overheating, or even the risk of fire, especially when the machine is connected to an undersized electrical circuit. To mitigate these hazards, it is essential to avoid overloading the machine during operation and ensure that it is connected to a power supply circuit that complies with the specified circuit requirements.



*Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.*

## Circuit Requirements

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

Nominal Voltage .....	110V- 120V
Cycle .....	60 Hz
Phase .....	Single-Phase
Power Supply Circuit .....	20 Amps

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



**CAUTION**

*For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.*

**Note:** Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.

## Grounding & Plug Requirements

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

The machine comes equipped with a power cord that includes an equipment-grounding wire and a grounding plug. You should only insert this plug into a matching receptacle (outlet) that is properly installed and grounded, in strict accordance with all local codes and ordinances. **DO NOT** modify the provided plug under any circumstances.

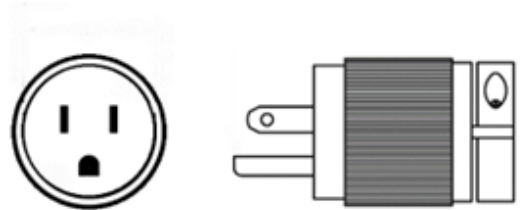


Figure 3: Plug and receptacle type 5-15





**SHOCK HAZARD!**

*Two-prong outlets do not meet the grounding requirements for this machine. Do not modify or use an adapter on the plug provided—if it will not fit the outlet, have a qualified electrician install the proper outlet with a verified ground.*

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal. Check with qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

**Extension Cords**

While it is not recommended to use an extension cord with this machine, there may be instances where it becomes necessary for temporary use. Be aware that extension cords can lead to voltage drop, which has the potential to damage electrical components and shorten the life of the motor. Voltage drop becomes more pronounced as the extension cord length increases and the gauge size decreases. If you must employ an extension cord with this machine, ensure that it is in good condition, possesses a ground wire, and is equipped with a matching plug and receptacle. Furthermore, it must adhere to the following size requirements:

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

## Setup your Machine

**Unboxing**

The packaging of this machine has been executed with meticulous care to ensure secure transportation. During the unboxing process, it is imperative to segregate all enclosed components from their packaging materials and subject them to a comprehensive inspection to identify any potential

shipping-induced damage. In the event that such damage is detected, we kindly request you to promptly reach out to us at 1-800-461-2879.

**Required Tools**

The following are needed to complete the setup process but are not included with your machine.

Description .....	Qty
Safety Glasses.....	1 pair
Cleaner/Degreaser .....	As Needed
Disposable Shop Rags.....	As Needed
Disposable Gloves.....	As Needed
Phillips Screwdriver #2 .....	1
Dust Hose .....	1
Hose Clamp .....	1
Dust Collection System.....	1

**Inventory**

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



them. If any non-proprietary parts are missing (e.g., a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

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.

**Hardware Inventory**

Please refer to figure 4 and the hardware recognition chart on page 26.

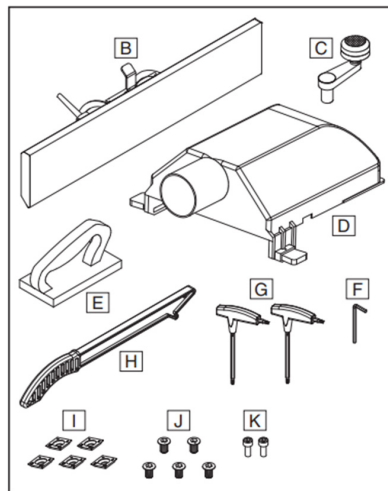


Figure 4: BBJP8 accessories inventory.



**Box 1 (Fig 4)**

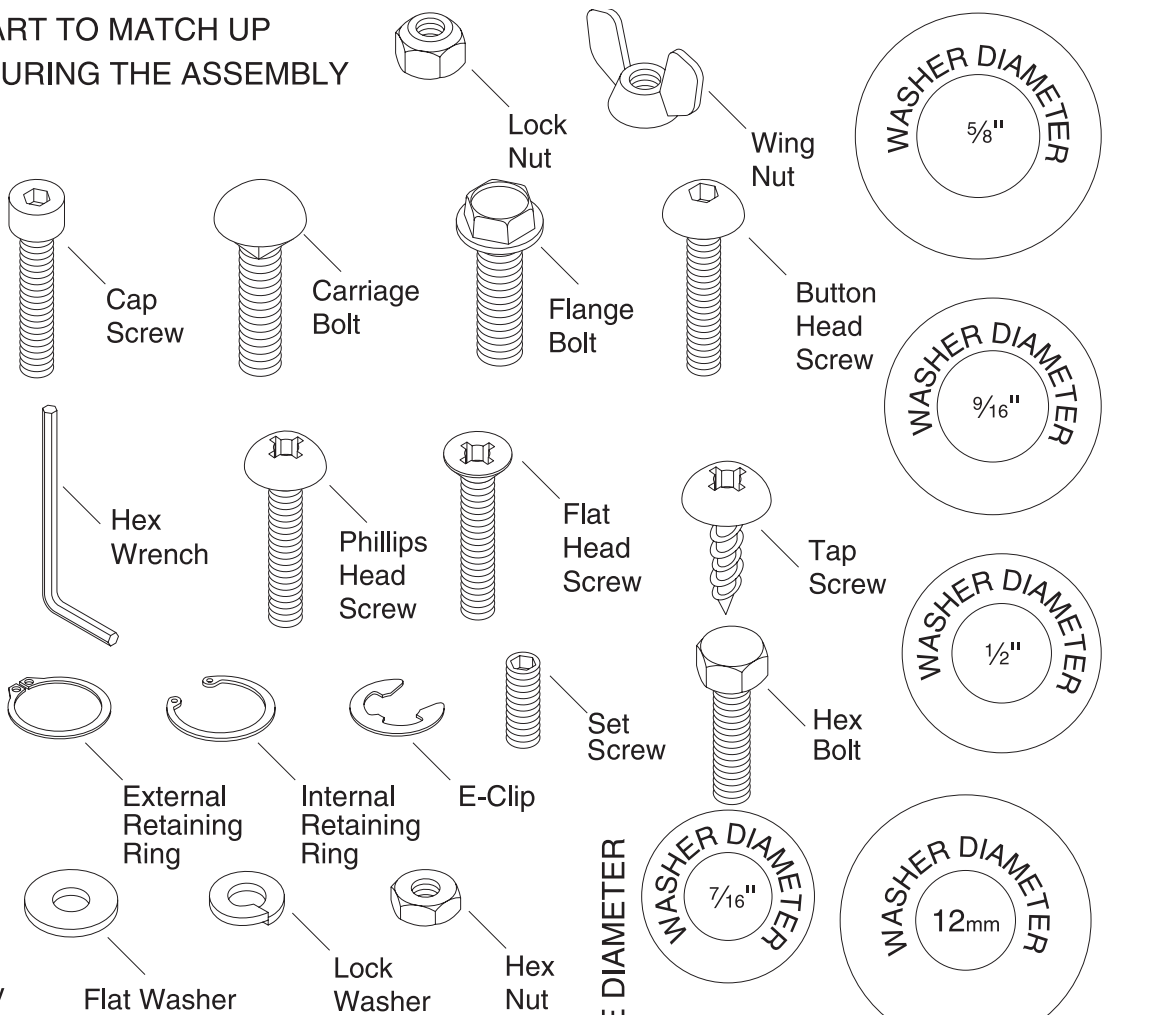
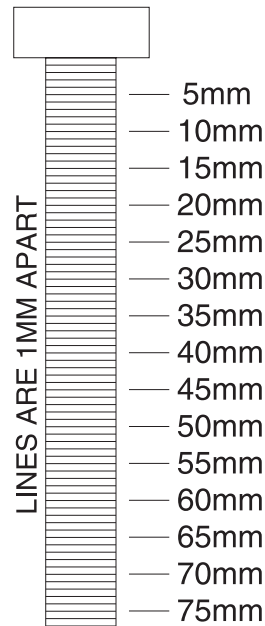
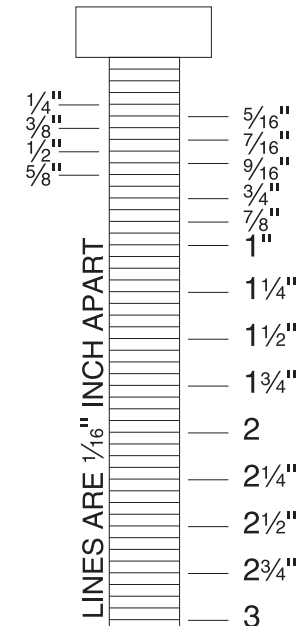
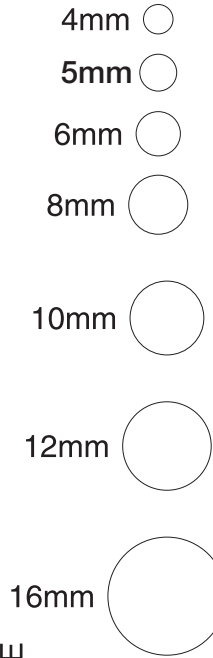
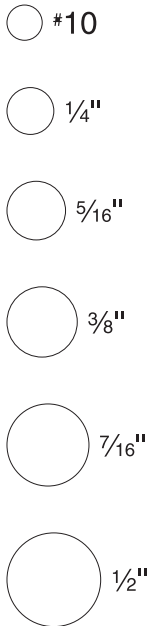
- A. Joints/Planer Unit (Not Shown).....1
- B. Fence Assembly .....1
- C. Planer Table Height Crank.....1
- D. Dust Port Assembly .....1
- E. Push Block.....1

- F. Hex Wrench 4mm .....1
- G. T-Handle Torx Wrenches T-20.....2
- H. Push Stick.....1
- I. Indexable Carbide Inserts 15 x 15 x 2.5mm.....5
- J. Flat Head Torx Screws T-20 M5-8 x 12.....5
- K. Cap Screws M5-8 x 20.....2

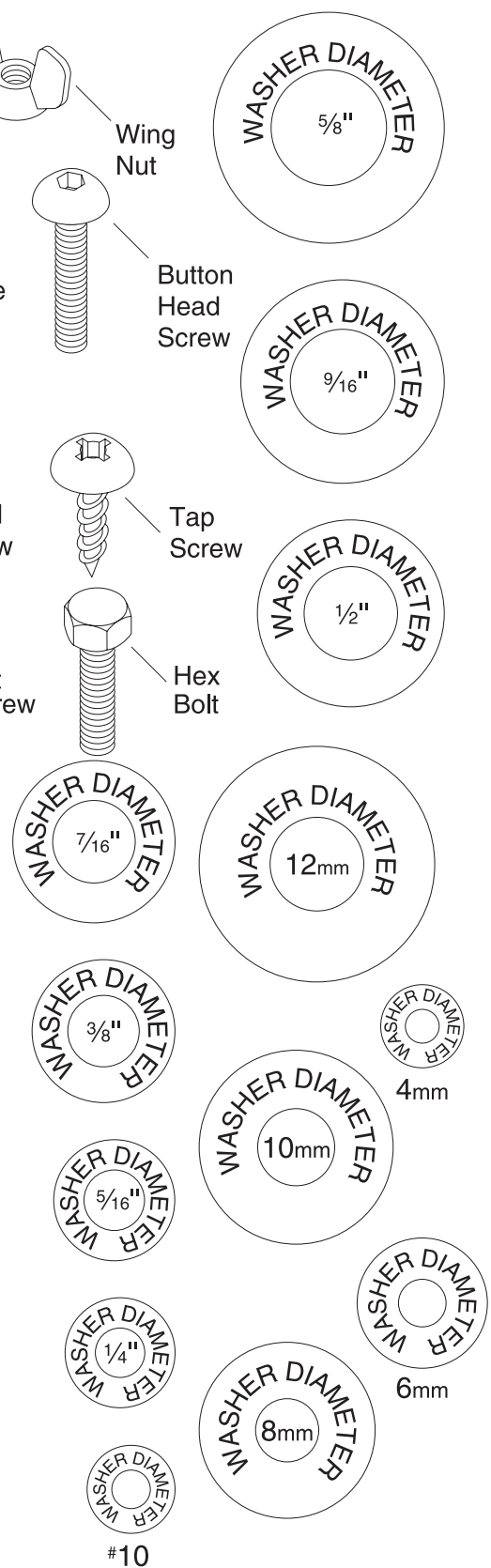
USE THIS CHART TO MATCH UP  
HARDWARE DURING THE ASSEMBLY  
PROCESS.

**HARDWARE RECOGNITION CHART**

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE



WASHERS ARE MEASURED BY THE INSIDE DIAMETER



## Site Considerations

### Weight Load

Please consult the Machine Data Sheet to determine the weight of your machine. Moreover, this weight load analysis must extend its purview to encompass the added mass contributed by the machine operator. It is paramount to recognize that the operator's weight introduces an additional static load that necessitates accommodation within the surface's weight-bearing capacity. Furthermore, the analysis should not be confined to static loading alone; dynamic loading scenarios that may transpire during machine operation should be contemplated as well. These dynamic factors could encompass various forces and vibrations generated during the machine's normal functioning, all of which must be factored into the overall weight load assessment for the sake of operational safety and the longevity of the equipment.

### Space Allocation

In your site planning, consider the dimensions of the largest workpiece that will be processed using this machine. Allocate sufficient space around the machine to facilitate efficient material handling by the operator or the installation of auxiliary equipment.

Please refer to the space allocation guidelines provided in Figure 5.



# CAUTION

*This machine poses a significant risk of serious injury to children and untrained*

*individuals. Therefore, it should only be installed in a location with restricted access to prevent unauthorized or inexperienced individuals from coming into contact with it. Safety should always be the top priority when setting up and using this equipment.*

## Operator Safety and Environmental Considerations

### Operator Safety

To ensure operator safety and protect untrained individuals from potential harm, it is imperative to install this machine in a location with restricted access.

### Physical Environment

The physical environment in which the machine operates significantly impacts both safe operation and the durability of machine components. For optimal results, operate this machine within a dry environment that is devoid of excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions, in the context of this machinery, refer to environments where

the ambient temperature falls outside the range of 41°F to 104°F, where relative humidity exceeds 20% to 95% (without condensation), or where the machine may be subjected to vibration, shocks, or impacts. Please adhere to the recommendations outlined in Figure 5.

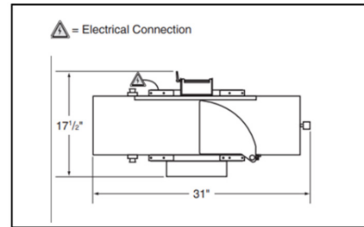


Figure 5: minimum working clearance.

### Electrical Installation

Position this machine in close proximity to an existing power source. Ensure that all power cords are shielded from potential hazards such as traffic, material handling, moisture, chemicals, or other environmental risks. Moreover, allocate sufficient space around the machine to facilitate power supply disconnection or the application of a lockout/tagout device, should it be required.

### Lighting

Adequate lighting in the vicinity of the machine is essential to enable safe operations. Eliminate any shadows, glare, or strobe effects that could distract or impede the operator, thus ensuring a conducive and secure working environment.

### Assembly Procedure

Prior to initiating the assembly process, ensure you have gathered all the required tools and materials listed. Additionally, take a moment to clean any components that may be covered in heavy-duty rust preventative to ensure a smooth assembly process.

To assemble the BBJP8 machine, follow these steps:

1- Begin by removing the four support rods that connect the infeed/outfeed tables to the base. These rods are for shipping purposes only and must be removed before the machine can be used.

2- Install the dust port housing beneath the outfeed table, as shown in Figures 6 and 7, and secure it by inserting interlock keys into the slots on each side of the table.

**Note:** The machine will not start if the dust port housing keys are not correctly installed in the slots on the outfeed table.







Fig 6: Support Brackets.

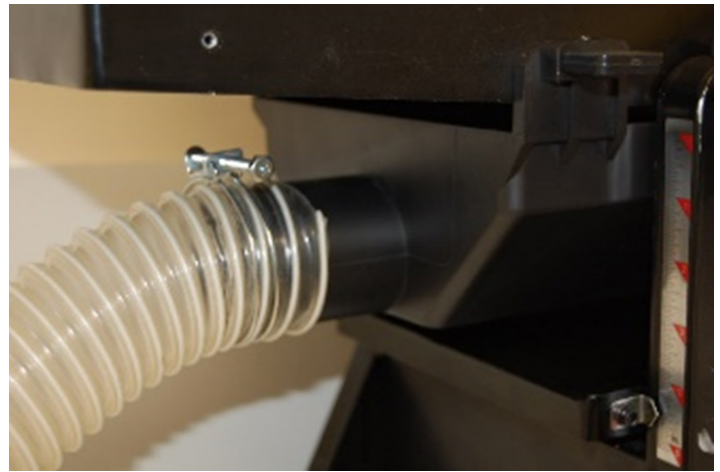


Figure 8: dust Port connection.



Figure 7: Dust Port and interlock Keys installed.

### Dust Collection

This machine generates a substantial amount of wood chips and dust during operation, which can pose a health hazard when inhaled regularly. To mitigate this risk, it is crucial to wear a respirator and employ a dust-collection system.

For the BBJP8 machine with a 2-1/2" dust port, the recommended CFM (Cubic Feet per Minute) is 150. Please note that this CFM recommendation is specific to the dust port and should not be confused with the dust collector's rating. Calculating the CFM at the dust port involves considering various factors, including the CFM rating of the dust collector, hose type and length between the dust collector and the machine, the number of branches or wyes, and the presence of other open lines throughout the system. Detailed instructions for calculating these variables are beyond the scope of this manual. It is advisable to consult an expert or refer to a comprehensive dust collection guide.

### To connect the dust collection hose:

1- Fit the 2-1/2" dust hose over the dust port and secure it with a hose clamp, as illustrated in Figure 8.

2- Ensure the hose is securely attached by gently tugging on it. A tight fit is necessary for proper performance.

### Test Run

Upon completing the assembly, it is essential to conduct a test run to ensure the machine is correctly connected to power and that safety features are functioning as expected. The test run involves verifying the following:

- The motor starts and runs smoothly.
- The safety disabling feature on the ON/OFF switch operates correctly.
- The safety disabling feature on the interlock switch functions properly.

It is crucial to perform this test run before any actual operation to prevent potential harm or equipment damage. Never operate the machine until you thoroughly understand its controls and related safety information.

To conduct the test run, follow these steps:

1- Ensure all tools and objects used during setup are cleared away from the machine.

2- Connect the machine to the power source.

3- Turn the machine ON, verify the motor's operation, and then turn the machine OFF. The motor should run smoothly without any unusual problems or noises.

4- Remove the ON/OFF switch disabling key, as depicted in Figure 9.



Figure 9: Machine Lock-out Key.

5- Attempt to start the machine.

- If the machine does not start, the switch disabling feature is functioning correctly. Proceed to Step 6.

- If the machine starts, immediately turn it OFF and disconnect it from power. The switch disabling feature is not working correctly, and it must be resolved before regular operations. Contact Tech Support for assistance.

6- Re-install the disabling key in the ON/OFF switch. (Figure 9 lockout key photo here).

7- Remove the dust port housing.

8- Try to start the machine.

9- If the machine does not start, the interlock switch disabling feature is working as intended. Congratulations, the test run is complete!

- If the machine starts, immediately turn it OFF and disconnect it from power. The interlock switch disabling feature is not functioning correctly, and it must be resolved before regular operations. Contact Tech Support for assistance.

### Recommended Adjustments

While the factory has performed initial adjustments, it is advisable to verify these settings due to shipping variables. Ensuring precise adjustments will result in optimal machine performance.

The following factory adjustments should be verified:

- Tensioning or replacing V-belts
- Calibration of jointer depth of cut scale
- Calibration of planer thickness scale

After approximately 16 hours of operation, the motor V-belt may experience some stretching and seat into pulley grooves, necessitating proper tension to prevent premature wear. Refer to the “Tensioning/Replacing V-Belts” section on page 31 for detailed instructions on this adjustment.

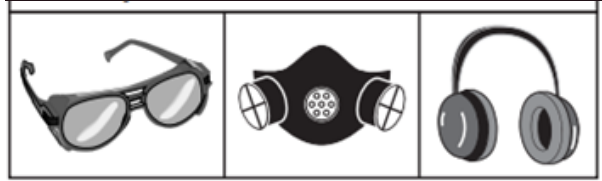
## Operations

### Operation Overview

This section aims to furnish both novice and experienced machine operators with comprehensive insights into the operational procedures for the jointer/planer machine. However, for a deeper understanding of specific operations and to ensure safe usage, operators are strongly advised to read this entire manual, seek guidance from seasoned

machine operators, and engage in supplementary research through relevant literature, trade publications, or reputable websites.

To mitigate the risk of severe injuries, it is imperative to thoroughly acquaint oneself with this manual before engaging with the machine.



The operation of this machine may entail potential hazards such as eye injuries, respiratory issues, or hearing loss. Hence, it is imperative to don the appropriate personal protective equipment to safeguard against these risks.



For individuals lacking experience with this type of machinery, we strongly recommend pursuing additional

training beyond the confines of this manual. This may include studying relevant books and magazines or seeking formal training opportunities. It is crucial to recognize that Busy Bee Tools shall not be held responsible for accidents arising from inadequate training.

### Typical Jointing Operation

- 1- Workpiece Examination:** Prior to any cutting operation, it is vital to assess the workpiece to ensure its safety and suitability.
- 2- Fence Adjustment:** If necessary, adjust the fence tilt and securely lock it in place.
- 3- Infeed Table Height Adjustment:** Configure the infeed table height to establish the desired depth of cut per pass.
- 4- Dust Port Housing Installation:** Below the outfeed table, install the dust port housing, ensuring that interlock keys are inserted into the table slots.
- 5- Safety Gear:** Before initiating the machine, equip yourself with safety glasses or a face shield, a respirator, and ear protection.
- 6- Machine Start-Up:** Activate the jointer.
- 7- Workpiece Feed:** Using push blocks as required, firmly hold the workpiece against the infeed table and fence. Feed



the workpiece into the cutterhead at a controlled, consistent rate until it has passed entirely over the cutterhead and cleared the outfeed table.

**8- Repetitive Cutting:** Repeat the cutting process as necessary to achieve the desired results.

**9- Machine Shutdown:** Cease operation of the jointer.

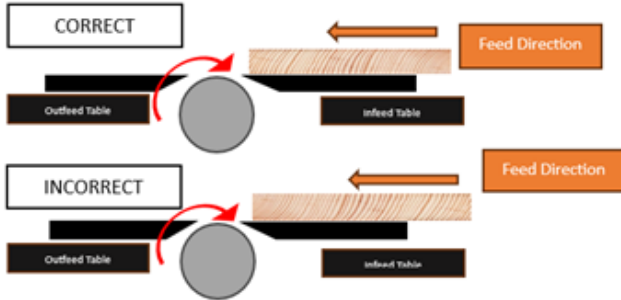


Figure 10: Proper grain alignment for jointing directions.

### Typical Planing Operation

**1- Workpiece Examination:** Examine the workpiece to ensure it is suitable for planing.

**2- Safety Gear:** Don safety glasses or a face shield, a respirator, and ear protection.

**3- Cutterhead Guard Adjustment:** Rotate the cutterhead guard over the jointer infeed table and secure it with a lockout.

**4- Dust Port Housing Installation:** Place the dust port housing atop the jointer outfeed table, inserting interlock keys into the table slots.

**5- Workpiece Placement:** Position the workpiece on the planer table with the flat side facing downward. Adjust the table height according to the workpiece thickness and the intended depth of cut. If the workpiece is bowed, it should be surface planed on the jointer until one side is flat to ensure stability during planing.

**6- Machine Activation:** Turn on the planer.

**7- Safe Positioning:** Stand to the side of the planer's path to reduce the risk of injuries. Carefully feed the workpiece into the planer, allowing the infeed roller to engage it. Do not exert excessive force on the workpiece. If the cut is too deep and the planer bogs down, immediately reduce the depth of cut.

**8- Checking Thickness:** After the workpiece clears the outfeed roller and stops moving, remove it from the

outfeed table and measure its thickness. If further planing is required, adjust the table height accordingly and repeat the planing process.

**9- Machine Shutdown:** Turn off the machine.

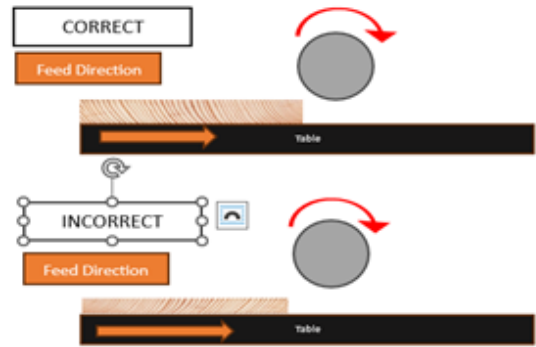


Figure 11: Proper grain alignment for planing.

### Stock Inspection & Requirements

When selecting stock for jointing or planing, adhere to the following guidelines:

- **Avoid Large or Loose Knots:** Do not process stock containing large or loose knots, as these could dislodge during cutting operations, resulting in operator injury or damage to the workpiece.
- **Grain Direction:** Do not joint or surface-plane against the grain direction, as this increases the risk of kickback and tear-out.
- **Cupped Side Down:** When jointing, place the cupped side of the workpiece facing down to prevent rocking during the cut.
- **Cutting with the Grain:** Joint and surface-plane with the grain for a better finish and increased safety.
- **Wood Selection:** Only cut natural wood with the machine, avoiding materials such as MDF, particle board, plywood, laminates, metals, glass, stone, tile, products with lead-based paint, or those containing asbestos, as using the machine on these materials may lead to injury or machine damage. See figures 10, 11 for proper grain orientation.
- **Glue Removal:** Scrape off all glue deposits from the workpiece before jointing or planing, as glue residues can impair cutterhead performance.
- **Foreign Objects:** Ensure the workpiece is free of foreign objects such as dirt, nails, staples, rocks, or other debris, which could damage the cutterhead or pose a fire hazard.

- **Wood Moisture Content:** Verify that all stock has an appropriate moisture content, as wood with moisture levels exceeding 20% can accelerate wear on the cutters, resulting in subpar cutting.

To ensure safe and effective machine operation, it is imperative that your workpiece meets or exceeds the minimum dimensions outlined below before proceeding with any machining operation. Failure to adhere to these specifications may lead to workpiece breakage or kickback during operation, posing a risk of injury to the operator and potential damage to the machine.



*Please consult Figures 12 and 13 to verify that your workpiece dimensions are in compliance with the specified minimum requirements before commencing machine operations. This precautionary measure is vital for maintaining operational safety and the integrity of both the workpiece and the machine.*

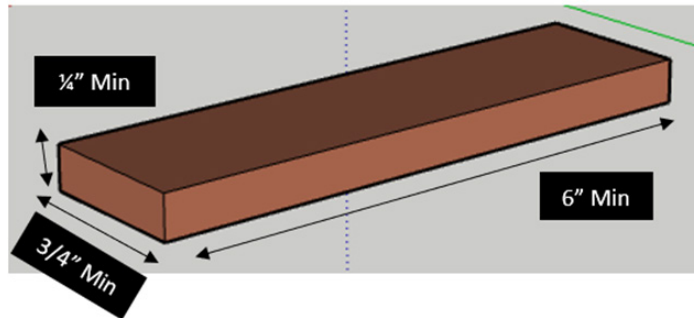


Figure 12: Minimum Dimension for Planing.

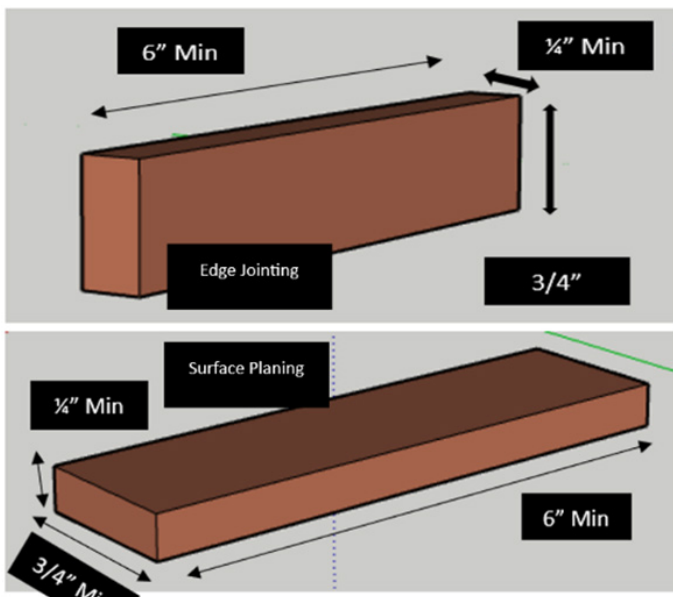


Figure 13: Minimum dimension for Jointing.

## Planing Best Practices

In order to optimize the planing process, adhere to the following technical guidelines and professional recommendations:

1- **Lumber Inspection:** Prior to planing, meticulously examine your lumber for any indications of twisting or cupping. Rectify any discrepancies by surfacing one face on a jointer if deemed necessary.

2- **Glue Removal:** When dealing with glued-up panels, ensure the complete removal of any dried glue residues. Neglecting this step can rapidly diminish the sharpness of your inserts.

3- **Single-Piece Planing:** It is imperative to emphasize that only one piece should be subjected to planing at any given time. Never endeavor to plane multiple pieces side by side.

4- **Material Removal:** Adhere strictly to the recommended material removal rates during each pass. Excessive material removal, particularly when planing wide or dense stock, can lead to suboptimal results and unnecessary machine strain.

5- **Workpiece Support:** For extended or lengthy lumber pieces, it is advisable to enlist the assistance of another person or utilize roller stands to provide adequate support throughout the planing process.

6- **Precise Measurement:** Employ calipers to gauge the exact thickness of the workpiece, ensuring precision and uniformity in your machining operations.

7- **Stock Inspection:** Exercise vigilance in inspecting all stock for the presence of large knots or foreign objects that could jeopardize the integrity of your inserts, cause kickback, or be expelled from the planer.

8- **Balanced Planing:** Whenever possible, distribute material removal evenly across both sides of the board to minimize the risk of distortion or cupping.

9- **Maximize Insert Lifespan:** Utilize the full width of the planer to evenly distribute wear on inserts. For narrow workpieces, alternate between the far left, far right, and middle sections of the table to prolong the sharpness of your cutting tools.

10- **Grain Alignment:** To prevent “chip marks,” exclusively plane in the direction of the wood grain. Cross-grain or end-grain planing should be strictly avoided.

11- **Material Compatibility:** Planing operations should be confined to natural wood fiber exclusively. Avoid planing

wood composites or other materials that may disintegrate within the planer, posing potential operator hazards or causing damage to the machine.

**12- Jointing Prerequisite:** Prior to planing, it is essential to rectify any cupped or warped stock on a jointer, ensuring a stable workpiece foundation for the planing process.

**Troubleshooting Common Planing Issues**

Listed below are common wood characteristics and associated problems that may arise during planing operations. Subsequent to each problem description, viable solutions are presented:

**Chipped Grain:**

**Problem:** Occurs typically when planing against the grain, processing lumber with knots, excessive cross grain, or using dull inserts.

**Solution:** Decrease the depth of cut, reduce the feed rate, inspect lumber for grain patterns, and examine the condition of inserts.

**Fuzzy Grain:**

**Problem:** Often a result of surfacing lumber with excessive moisture content or inherent to certain wood types like basswood. Dull inserts may also contribute.

**Solution:** Check lumber moisture content, allow proper drying if moisture exceeds 20%, and assess the condition of inserts.

**Snipe:**

**Problem:** Typically observed when board ends exhibit more material removal than the rest of the board. Misalignment or inadequate support during machining can be causal factors.

**Solution:** Lift the workpiece slightly as it exits the planer to mitigate snipe. To prevent snipe altogether, plane lumber slightly longer than the intended work length and trim excess afterward.

**Pitch & Glue-up:**

**Problem:** Accumulated glue and resin on rollers and the cutterhead can lead to overheating, reduced cutting efficiency, scorched lumber, uneven insert marks, and machine chatter.

**Solution:** Thoroughly clean the rollers and cutterhead to remove glue and resin buildup.

**Chip Marks or Indentations:**

**Problem:** Wood chips are not efficiently expelled from the cutterhead, leading to chip indentation, or bruising on the wood surface.

**Solution:** Implement a proper dust collection system, ensure dry lumber, maintain sharp inserts, and reduce the depth of cut to mitigate chip marks.

**Wood Species Impact**

The species of wood, in conjunction with its condition, significantly influences the depth of cut that the jointer/planer can effectively achieve per pass. Refer to the Janka Hardness Rating chart in Figure 14, where higher Janka numbers indicate harder wood. For optimal results, limit the material removal per pass, particularly with harder wood species, to preserve the quality of your machining operations.

**Note:** The Janka Hardness Rating quantifies the force (in pounds) required to embed a 0.444” steel ball into the wood’s surface to a depth equivalent to half the ball’s diameter.

Species	Janka Hardness
Ebony	3220
Red Mahogany	2697
Rosewood	1780
Red Pine	1630
Sugar Maple	1450
White Oak	1360
White Ash	1320
American Beech	1300
Red Oak	1290
Black Walnut	1010
Teak	1000
Black Cherry	950
Cedar	900
Sycamore	770
Douglas Fir	660
Chestnut	540
Hemlock	500
White Pine	420
Basswood	410
Eastern White Pine	380
Balsa	100

Figure 14: Janka hardness table.



## Setting Jointer Depth Cut

In the realm of woodworking precision, setting the depth of cut on a jointer is a fundamental operation. This parameter governs the amount of material extracted from the underside of the workpiece as it traverses the cutterhead. Precision and safety are paramount, and thus, the process demands meticulous attention.

**Depth of Cut Configuration:** The depth of cut is determined by the precise adjustment of the infeed table in relation to the cutterhead inserts at the Top Dead Center (TDC) position.

**Depth-of-Cut Scale:** An invaluable tool for this task is the depth-of-cut scale, as illustrated in Figure 15 (Refer to the appropriate diagram). While it extends to 5/64", it is imperative to underscore that the maximum depth of cut should never surpass 1/16".



Figure 15: Location of the depth indicator.



**CAUTION**

*Safety Reminder:  
An essential caveat  
cannot be overstated:  
DO NOT exceed the*

*recommended 1/18" depth of cut per pass. Disregarding  
this guideline may lead to kickback and grave injury.*

## Infeed Table Elevation Adjustment

The infeed table adjustment knob (Figure 16) plays a pivotal role in raising or lowering the infeed table. Precision and control are essential here, where clockwise rotation elevates the table, while counterclockwise turns effectively lower it.

Equally significant is the depth-of-cut scale (Figure 16) positioned on the front of the machine. This scale provides direct reference for monitoring the depth of cut throughout the operation.

It is noteworthy that the depth scale can be calibrated or "zeroed" if found to be inaccurate. A comprehensive guide for this calibration process is expounded in the "Calibrating Jointer Depth-of-Cut Scale" section on page 35.



Figure 16: Location of Infeed Adjustment Knob.

## Achieving Squared Stock for Jointing

In the sphere of woodworking, achieving "squared stock" is the process of rendering it flat and parallel along both its length and width while ensuring that the length and width are perfectly perpendicular to each other. This meticulous endeavor serves as a foundational step in preparing wood for precise cuts and construction.

The importance of "squared up" workpieces cannot be overstated. They form the bedrock for tasks such as precise table saw cuts, glue-ups, laminations, accurate bevel cuts on a bandsaw, and countless other applications where one surface of a workpiece serves as a reference for another.

To embark on this journey of squaring stock, the following tools are indispensable:

- Jointer.....1 unit
- Planer.....1 unit
- Table Saw.....1 unit

## The Squaring Process Encompasses Four Sequential Steps:

### 1- Surface Planing on Jointer (Figure 17):

- In this inaugural step, the concave face of the workpiece is meticulously surfaced on the jointer, ensuring it is rendered impeccably flat.





Using a jointer to square the concave

Figure 17: Squaring step 1

### 2. Surface Planing on a Thickness Planer (Figure 18)

- Subsequent to the jointer, the opposite face of the workpiece is subjected to surface planing using a thickness planer to guarantee uniform flatness.



Using a planer to square the opposite surface.

Figure 18: Squaring step 2

### 3. Edge Jointing on Jointer (Figure 19):

- To achieve an absolutely flat and true surface along the side of the workpiece, the concave edge undergoes jointing on the jointer.



On a jointer straighten the concave edge of the workpiece then cut the narrow edge 90° to the newly straightened edge.

Figure 19: jointing the concave edge of the workpiece.

### 4. Rip Cut on a Table Saw:

- With the jointed edge of the workpiece firmly placed against the table saw fence, the opposite edge is carefully trimmed, ensuring both edges are parallel then rip cut the opposite edge, this will ensure a perfectly square workpiece.

### Surface Planing on Jointer

Surface planing, as exemplified in Figure 20, involves the creation of a flat surface on a piece of stock. This process readies the workpiece for subsequent thickness planing on a planer.



**CAUTION**

*Safety is paramount in this operation. Hence, it is imperative to use push blocks*

*throughout the process to minimize the risk of contact with the rotating cutter, which can result in severe personal injury.*

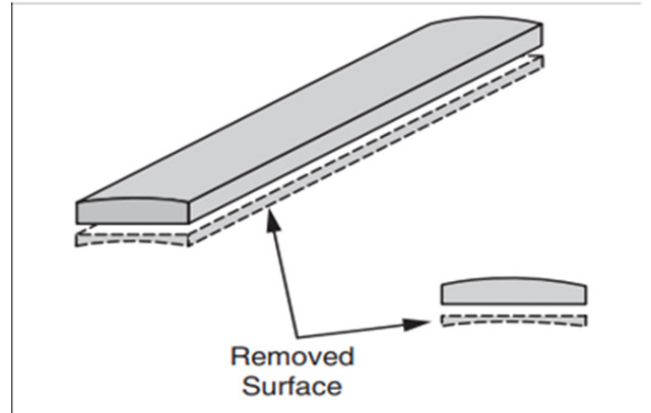


Figure 20: surface planing on jointer.

### The process unfolds as follows:

- 1- Stock Inspection:** Scrutinize the stock to ascertain its suitability and safety for the operation, adhering to the guidelines outlined in the “Stock Inspection & Requirements” section.
- 2-Table Height Adjustment:** Configure the infeed table height to attain the desired cutting depth for each pass. It’s crucial to note that, for safety and optimal results, the cutting depth should not exceed 1/16” maximum per pass during surface planing.
- 3-Fence Alignment:** Set the fence to a precise 90° configuration.
- 4-Commence Operation:** Start the jointer and position the workpiece firmly against the fence and infeed table. To ensure the workpiece remains stable during the cut, the concave sides of the workpiece must face the table and fence.
- 5-Feed the Workpiece:** Feed the workpiece entirely across the cutterhead, maintaining firm contact with the fence and tables throughout the operation. To safeguard your hands, maintain a minimum distance of 4” from the cutterhead at all times. Instead of allowing your hand to pass directly



over the cutterhead, elevate it above and beyond the cutterhead's path, subsequently repositioning it safely on the outfeed side to continue supporting the workpiece. The use of push blocks is highly recommended wherever practical to further mitigate the risk of inadvertent hand contact with the cutterhead.

**6- Repeat Until Flat:** Continue the operation following Step 5 until the entire surface is uniformly flat.

**Tip:** For the squared-up stock, use a planer instead of the jointer to process the opposite side of the workpiece, ensuring parallelism between both sides.

### Edge Jointing on Jointer

Edge jointing, illustrated in Figure 21, is a precision operation aimed at creating a flat and true surface along the side of a workpiece by eliminating any irregularities. This step is pivotal when addressing warped or rough stock, as well as when preparing a workpiece for joinery or finishing.

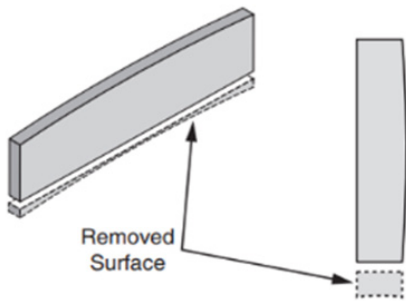


Figure 21: Example of edge jointing on jointer.

### To edge joint on jointer:

**1- Stock Inspection:** As with all woodworking operations, commence by inspecting the stock to ensure its safety and suitability for the task, aligning with the guidelines established in the "Stock Inspection & Requirements" section.

**2- Surface Planing:** If not already completed, surface plane the workpiece as detailed in the "Surface Planing on Jointer" section.

**3- Infeed Table Adjustment:** Configure the infeed table height to attain the desired cutting depth for each pass. It is crucial to note that, for safety reasons, the cutting depth should not exceed 1/16" maximum per pass.

**4- Fence Alignment:** Precisely set the fence to a 90° orientation.

**5- Initiate the Jointer:** Start the jointer and place the workpiece firmly against the fence and infeed table. To ensure workpiece stability throughout the operation, the concave side of the workpiece must face downward.

**6- Feed the Workpiece:** Feed the workpiece entirely across the cutterhead while maintaining consistent contact with the. Repeat this step until the surface is perfectly 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.

### Bevel Cutting on Jointer

Bevel cuts, exemplified in Figure 22, involve configuring the fence to the desired angle and steadily advancing the workpiece alongside the fence's face. The bottom inside corner of the workpiece should maintain firm contact with the table. Achieving a complete bevel typically necessitates multiple passes or cuts to cover the entire edge of the workpiece.

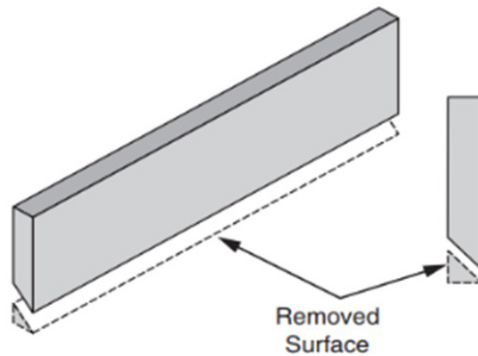


Figure 22: Bevel cutting on the jointer.



**To execute bevel cuts on the jointer, follow these meticulous steps:**

- 1- **Stock Inspection:** As a preliminary measure, evaluate the stock to ensure it meets safety and suitability criteria, consistent with the guidelines outlined in the “Stock Inspection & Requirements” section.
- 2- **Surface Planing:** If not already conducted, execute surface planing on the workpiece as elucidated in the “Surface Planing on Jointer” section.
- 3- **Edge Jointing:** Surface plane the workpiece’s edge, as specified in the “Edge Jointing on Jointer” section.
- 4- **Table Height Configuration:** Adjust the infeed table height to achieve the desired cutting depth for each pass. It is critical to adhere to the guideline that the cutting depth should not exceed 1/16” maximum per pass.
- 5- **Fence Tilt Setting:** Set the fence to the desired angle of cut.
- 6- **Workpiece Placement:** Position the workpiece against the fence and infeed table, ensuring that the concave side faces downward.
- 7- **Activate the Jointer:** Start the jointer.
- 8- **Feed the Workpiece:** Employ a push block in your leading hand to exert pressure on the workpiece, ensuring it remains in contact with the table and fence. Feed the workpiece over the cutterhead, using another push block in your trailing hand to provide support.



**CAUTION**

*When your leading hand approaches within 4” of the cutterhead, raise it above the cutterhead*

*and place the push block on the workpiece 4” past the cutterhead. Focus your pressure on the outfeed end of the workpiece while feeding it and repeat the same action with your trailing hand when it approaches within 4” of the cutterhead. To safeguard your hands, ensure they remain at a minimum distance of 4” from the moving cutterhead at all times during the operation.*

- 9- **Repeat as Necessary:** Continue the cutting process, repeating it as many times as required to attain the desired bevel angle and quality.

## Jointer / Planer Conversion

After completing the assembly process detailed on Page 23, the machine is configured for jointer operations. To transition the machine for planer operations, a series of essential conversion steps must be executed. These pivotal tasks encompass relocating the dust port housing from the bottom of the outfeed table to the top and engaging the cutterhead guard lock-out to prevent the guard from assuming its position over the cutterhead during planer operations.

To effectuate the Planer/ Jointer conversion, meticulously follow these precise steps:

1. **Disconnect Power:** As a foundational safety measure, disconnect the machine from its power source.
2. **Fence Positioning:** Shift the fence entirely to the right and tilt it outward at a 45° angle, subsequently locking it securely in this position.
3. **Release Interlock Keys\*\*:** On both sides of the outfeed table, release the interlock keys. These keys facilitate the removal of the dust port housing (Figure 23).

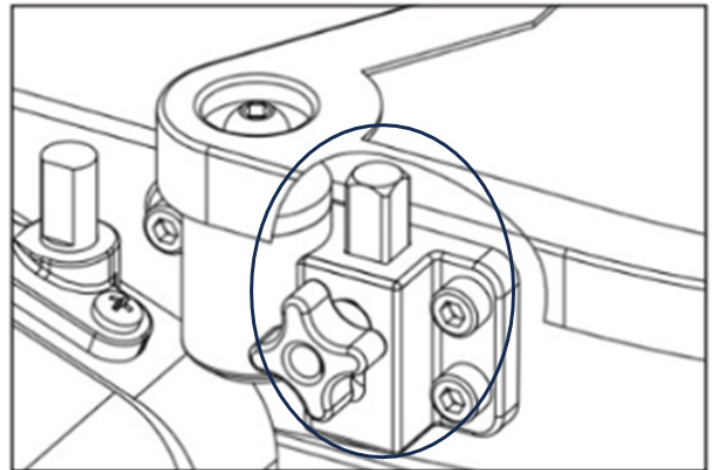


Figure 23: Moving the Cutterhead Guard.

4. **Cutterhead Guard:** Rotate the cutterhead guard over the infeed table and secure it in place using the lock-out mechanism (Figure 24).



Figure 24: The Cutterhead Exposed after moving the guard.

**5. Dust Port Housing:** Position the dust port housing atop the outfeed table (Figure 25), ensuring secure placement by inserting the interlock keys into the table slots.



Figure 25: the dust hood is secured for planing operation.

**6. Table Height Crank Installation:** Proceed to install the table height crank (Figure 26).



Figure 26: Table height crank. (Planing)

**7. Dust Collector Connection:** The final step entails connecting the machine to the dust collector.

With these conversion steps meticulously executed, the machine seamlessly transitions into a planer configuration, primed for precision planing operations.

### Precise Planer Depth Adjustment

The art of woodworking extends its demand for precision to planer depth adjustment. This parameter, critical for the removal of material from the top surface of the workpiece as it traverses beneath the cutterhead, is regulated with the utmost precision.

**1- Table Movement per Handwheel Revolution:** In each full revolution of the handwheel, the table precisely shifts

$\frac{1}{8}$ ". The material thickness range that the planer can handle ranges from  $\frac{1}{4}$ " to  $4\frac{3}{4}$ ".

**2- Depth of Cut Configuration:** The depth of cut, denoting the quantity of material to be removed, is determined by adjusting the table's distance beneath the cutterhead. This adjustment is achieved through the utilization of the table height crank situated on the right side of the machine, as illustrated in Figure 27.

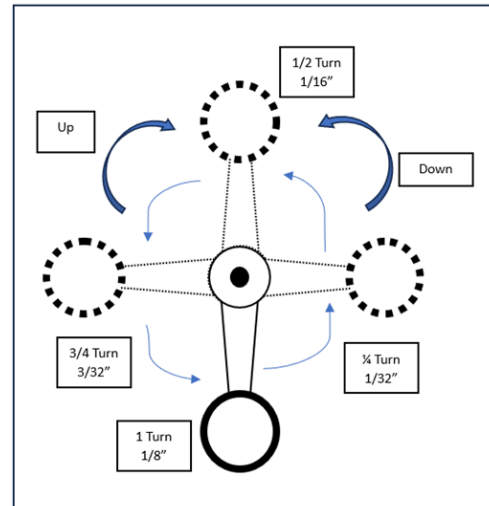


Figure 27: planer height adjustment recommendation.

While the specific depth of cut may fluctuate depending on wood hardness and workpiece width, adhering to the recommended guideline of a maximum  $\frac{3}{64}$ " depth of cut per pass is paramount. This strategy of multiple light passes is not only safer but also preserves the well-being of the planer.

**Thickness Scale:** The thickness scale (Figure 28) positioned on the right-hand side panel at the front of the machine serves as a general guide to monitor workpiece thickness post-planing. However, it should be emphasized that this scale is intended for approximate measurements, not precise tolerances. It is important to note that a small degree of backlash may be present when reversing height directions, with the first full turn of the crank after a directional change resulting in slightly less than  $\frac{1}{8}$ ". Yet, with consistent rotation in the same direction during operation, backlash ceases to be a concern.

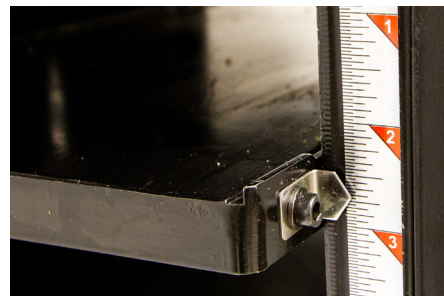


Figure 28: Planer's thickness scale.



## Feeding the Workpiece

The planer operates at a pre-set feed rate of 22 FPM (Feet Per Minute). The infeed and outfeed rollers collaboratively convey the workpiece through the planer, securing it firmly against the table while ensuring a consistent rate of advancement.

**To initiate the process of feeding the workpiece into the planer, the following procedure is recommended:**

**1- Workpiece Placement:** Position the workpiece on the planer table, ensuring the side to be planed faces upward toward the cutterhead. A crucial consideration is that boards exceeding 24" in length should be adequately supported on both sides of the planer.

**2- Table Elevation:** Gradually raise the planer table until the workpiece (as depicted in Figures 27 - 29) lightly contacts the bottom of the outfeed table.

**Note:** Following a change in height direction with the table height crank, there might be a minimal amount of backlash—thus, the initial full turn of the crank following a directional shift will be slightly less than 1/8". Nonetheless, as long as the crank is consistently turned in the same direction during operation, backlash remains inconsequential.

**3- Depth of Cut Adjustment:** Rotate the table height crank approximately 3/4 turn counterclockwise to lower the table by roughly 3/32", thereby setting the depth of cut to 1/32". Following this adjustment, remove the workpiece from the planer.

**4- Activating the Planer:** Switch on the planer.

**5- Feed the Workpiece:** Gently guide the workpiece into the front of the planer, being cautious not to stand directly in front of or behind it to minimize the risk of kickback injury.

**6- Monitoring Cut Depth:** Should the cut be excessively deep and result in planer strain, immediately power off the planer and allow it to come to a complete stop. Subsequently, lower the table, remove the workpiece, reduce the depth of cut, and then repeat Step 5.

**7- Automatic Feed Rollers:** Please note that the infeed and outfeed rollers automatically advance the workpiece during planer operation. Hence, it is unnecessary to exert pressure on the workpiece once the feed rollers have engaged.



Figure 29: Raising the planer's table.

## Rotating/ Replacing Cutterhead Inserts

The helical cutterhead is equipped with indexable carbide inserts, each possessing four distinct cutting edges. When one edge becomes dull or damaged, a simple rotation transforms the insert, exposing a fresh cutting edge (as illustrated in Figure 30).

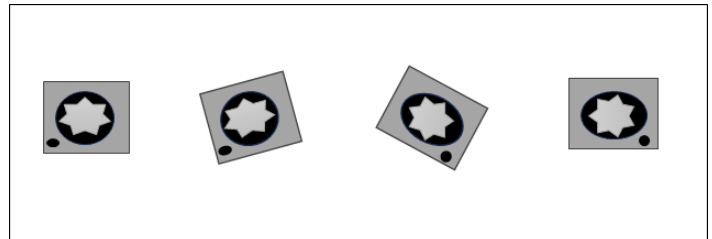


Figure 30a: Rotating the cutterhead inserts.

Items Needed .....	Qty
Torque Wrench .....	1
T-Handle Torx Wrench T-20 .....	1
Heavy Leather Gloves.....	1
Light Machine Oil .....	As Needed
Replacement Inserts.....	As Needed

**To execute the rotation or replacement of cutterhead inserts, adhere to this methodical procedure:**

**1- Safety Precautions:** To mitigate the risk of injury, disconnect the machine from its power source.

**2- Dust Port Housing Removal:** If the dust port housing is affixed to the top of the outfeed table, remove it (as indicated in Figure 30b). This will allow access to the cutterhead and guard.



Figure 30b: The cutterhead exposed ready for insert replacement

**3- Protective Gear:** Prior to handling the carbide inserts, don heavy leather gloves to safeguard your fingers and hands. Carbide inserts are exceptionally sharp and can cause swift and severe cuts.

**4- Cleanliness:** Clear any sawdust or debris from the insert's head, Torx screw, and the surrounding area.

**5- Remove Torx Screw and Insert:** Carefully disengage the Torx screw and remove the insert. Subsequently, eliminate all dust and debris from both the insert and the pocket from which they were extracted.

**Note:** Thorough cleaning of the insert, Torx screw, and cutterhead pocket is critical to achieving a flawless finish. The presence of dirt or dust trapped between the insert and the cutterhead will elevate the insert, leading to imperfections on the workpiece during jointing or planing.

**Tip:** Employ low-pressure compressed air or a vacuum nozzle to effectively cleanse the cutterhead pocket.

**6- Insert Rotation:** Rotate the insert by 90°, ensuring that a fresh cutting edge is positioned outward. Once all four cutting edges have been employed, it becomes necessary to replace the insert with a new one. During insert replacement, always maintain the reference dot's alignment to facilitate sequential rotation.

**7- Lubrication:** Apply a minimal amount of light machine oil to the threads of the Torx screw. Subsequently, wipe away any excess oil, and then torque the screw to a range of 50–55 inch/pounds.

**Note:** Excessive oil application may lead to leakage from the threaded hole, causing the insert to rise during installation and compromising its height alignment.

**8- Completion:** With the operation successfully executed, reinstall the dust port housing, release the lock-out, and allow the guard to return to its position over the cutterhead.

These comprehensive instructions empower the woodworker with the knowledge and precision necessary for safe and precise woodworking operations on both the jointer and planer. As woodworking enthusiasts embark on their projects, these guidelines stand as a testament to the commitment to precision, safety, and craftsmanship.

## Accessories

The utilization of non-approved accessories has the potential to induce malfunctions in the machinery, thereby leading to severe personal injuries or equipment damage. In order to substantially mitigate this risk, it is imperative that exclusively those accessories endorsed by Busy Bee Tools for deployment with this specific machine are employed.



For a comprehensive listing of recommended accessories, please consult our website or the most recent catalog.

### Noteworthy Recommended Accessories Include:

1- CXHCINS Solid Carbide Indexable Inserts (Size: 15 X 15 X 2.5 mm, Pack of 10) Compatibility: Suitable for BBJP8. [See Figure 31 for Visual Reference: Recommended Replacement Cutterhead Inserts]

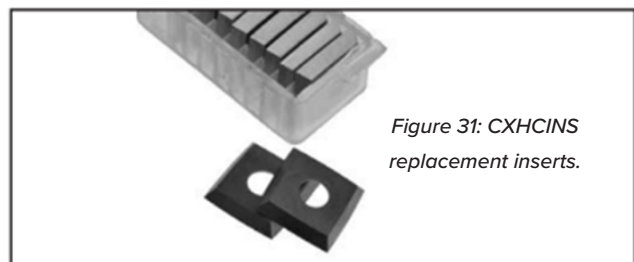


Figure 31: CXHCINS replacement inserts.

2- Way Oil Viscosity 68 or Equivalent Lubricant Suggested for Lubrication Purposes

3- Synthetic Hydrocarbon-Based Grease with Special Thickeners and Additives (Non-Melting, High Temperature). Appropriate for Specific Lubrication Needs

4- 68078 Dry Lubricant and Parting Compound. Utilized as a Spray-On Lubricant for Saw Blades, Router Bits, Shaper Cutters, and Jointer/Planer Cutter Head Inserts.

Please adhere diligently to these recommendations for accessory deployment, thus ensuring optimal machine performance and upholding safety standards.



# Maintenance



*In order to enhance operational safety and ensure peak machine performance, meticulous*

*adherence to a maintenance schedule is paramount. Please consult the specific instructions provided in this section for comprehensive maintenance guidance.*

## Ongoing Inspection:

To maintain a low risk of injury and safeguard proper machine operation, any of the following anomalies should be promptly addressed:

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

In the event of any observed issues, immediately halt machine operation and rectify the problem before resuming.

## Monthly Inspection Checklist:

1- Chains and Sprockets: Clean chains and sprockets meticulously to remove dust, wood chips, and aged grease. Apply a light coating of NLGI#2 grease to chains and sprockets.

2- Table Height Leadscrews: Utilize a spray lubricant to lubricate the table height leadscrews.

3- Belt Inspection: Examine the belt for proper tension, damage, or signs of wear. Additionally, ensure the belt remains free of oil or grease that could lead to slippage.

4- Under-Machine Cleanliness: Conduct a thorough cleaning to remove accumulated sawdust and chips from underneath the machine and the motor vicinity.

## Cleaning and Preservation:

### Cleaning:

Cleaning the Model BBJP8 is a straightforward process:

1. Vacuum any excess wood chips and sawdust.
2. Employ a dry cloth to wipe off any residual dust.
3. Employ a resin-dissolving cleaner, as needed, to eliminate resin build-up.

## Lubrication:

Since all bearings are sealed and permanently lubricated, they require no additional lubrication. It is imperative to clean components before lubrication, as dust and chips accumulation can hinder smooth movement. The following components necessitate attention:

### 1- Table Height Lead Screws:

- Lubrication Type: 68078 Dry Coating Lube Oil
- Lubrication Frequency: Monthly
- Raise the infeed table to its highest position.
- Employ mineral spirits and shop rags for cleaning, followed by the application of a light coat of dry lube to the leadscrew threads.

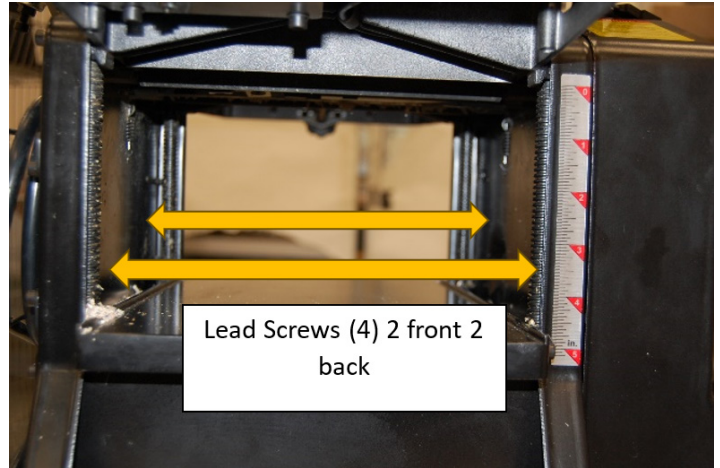


Figure 32: Table's lead screws location.

### 2- Infeed Table Adjustment Shaft:

- Lubrication Type: Mobil #2 ISO 68 Equivalent Oil
- Lubrication Amount: Thin Coat
- Lubrication Frequency: As Needed

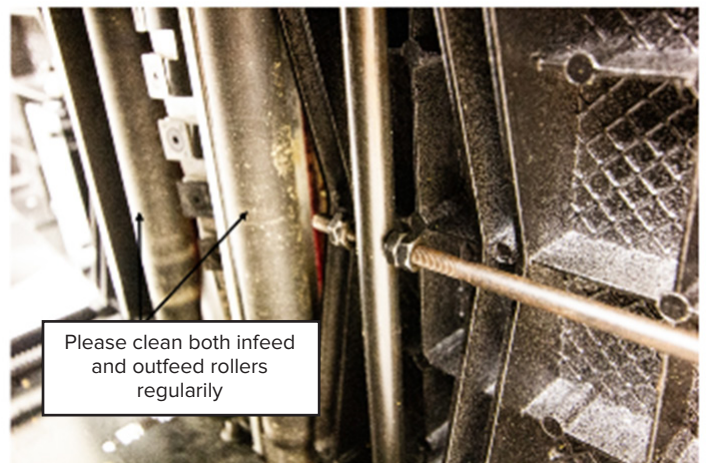


Figure 33: Jointer table adjustment shaft.

### 3- Feed Rollers Drive Chain:

- Grease Type: NLGI#2 or Equivalent
- Lubrication Amount: Light Coat
- Lubrication Frequency: Monthly

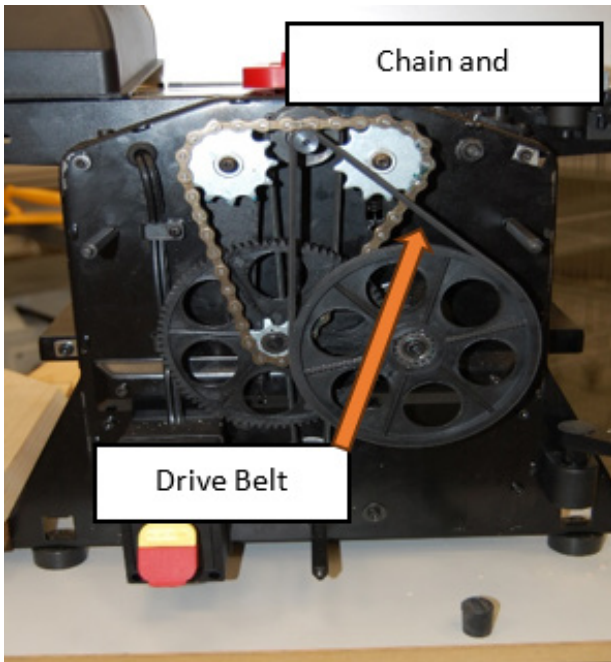


Figure 34: Chain, sprockets, and drive belt.

- Remove the cover, clean debris and grime with mineral spirits and shop rags, then apply a light coat of grease to the chain and sprockets.

### 4- Table Height Chain & Sprockets:

- Lubrication Type: NLGI#2 or Equivalent Oil
- Lubrication Amount: Light Coat
- Lubrication Frequency: As Needed

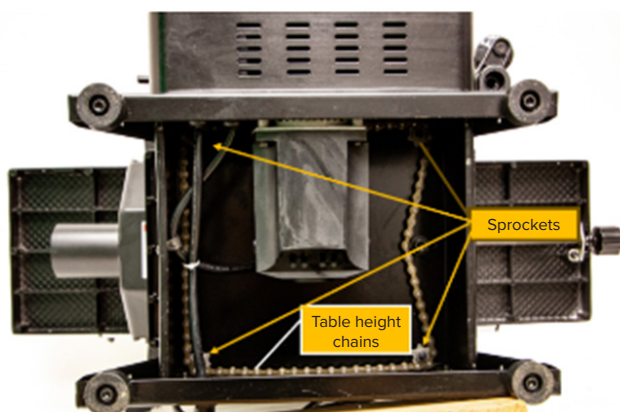


Figure 35: Location of the table's height chain and sprockets.

- These components are located beneath the base of the machine, accessible when the machine is positioned on its back. Clean with mineral spirits and shop rags, then apply a light coat of grease to the chain and sprockets. Move the table up and down to evenly distribute the grease.

### Cleaning the Infeed/Outfeed Rollers:

Sawdust and workpiece residue can accumulate on the infeed and outfeed rollers, potentially causing inconsistencies in workpiece pressure as it traverses the cutterhead. See figure 36.

### Items Needed:

- Solvent
- Shop Rags



**CAUTION**

*Carbide inserts are sharp and may cause injury. Always exercise caution and wear leather gloves.*

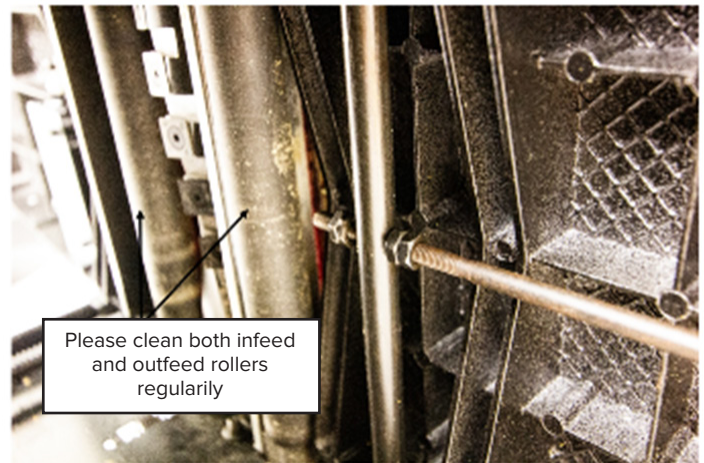


Figure 36: Jointer table adjustment shaft.

### To clean the infeed and outfeed rollers:

1- DISCONNECT MACHINE FROM POWER!

2- Lower the planer table entirely to expose the infeed and outfeed rollers.

3- Thoroughly clean the rubber infeed and outfeed rollers with solvent to remove any pitch or adhered chips.

4- Utilize a vacuum and a cleaning brush to eliminate any trapped materials between the roller and headstock. Your strict adherence to these maintenance and cleaning procedures will not only ensure the longevity of the machine but also contribute significantly to operational safety.

## V-Belt Tensioning and Replacement Procedure

The BBJP8 Combo machine employs two V-belts: the drive belt, responsible for power transmission from the motor to the cutterhead, and the feed belt, facilitating power transfer from the cutterhead to the infeed and outfeed rollers. Ensuring optimal power transfer to these systems necessitates the consistent maintenance of proper belt tension and their overall condition.

Should the belts exhibit signs of wear, cracks, or damage, immediate replacement is imperative. The following procedure outlines the steps for both feed and drive belt replacement.

### Required Tools:

- Hex Wrenches 4mm - 1
- Open-End Wrench or Socket 8mm - 1
- Feed Belt BBJP8 (PBBJP8123) - 1
- Drive Belt BBJP8 (PBBJP8124) - 1



# CAUTION

*V-belts and pulleys may become hot during operation. Allow them to cool before handling.*

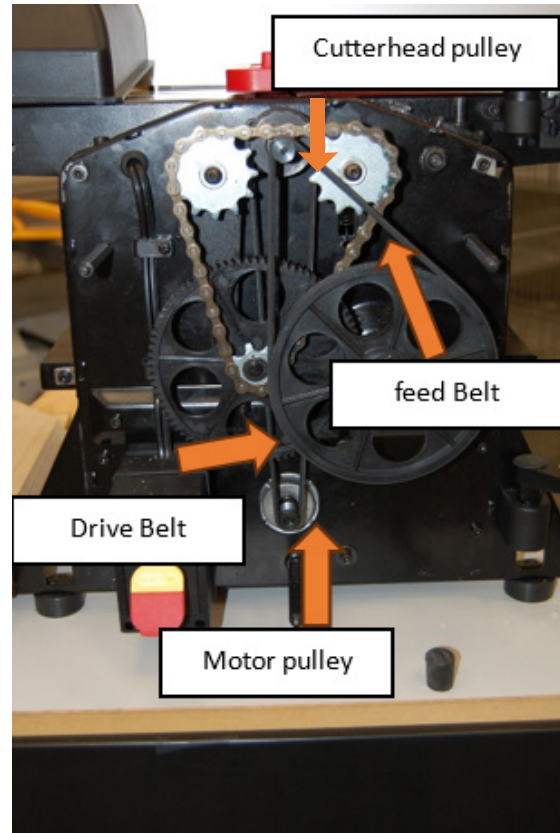


Figure 37: Drive belt components.

### Replacing Feed Belt

The feed belt can be replaced without a specific mechanism for tension due to the machine's design. Correct installation inherently ensures proper belt tension.

#### To replace feed belt:

- 1- DISCONNECT MACHINE FROM POWER SUPPLY!
- 2- Remove the front cover.
- 3- Roll the old belt off the pulleys and install the new belt (refer to Figure 38).

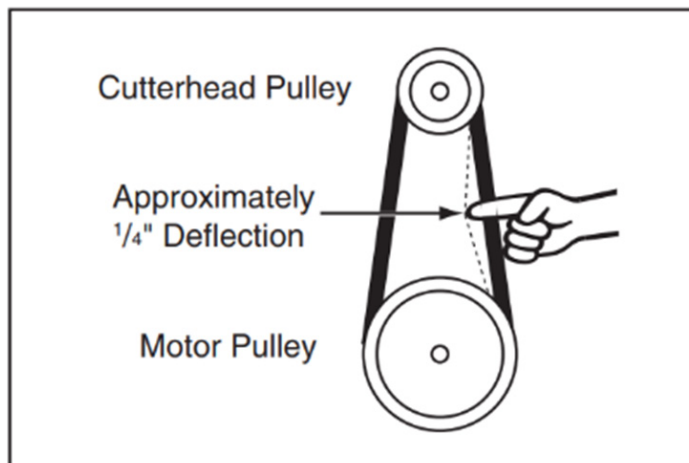


Figure 38: Proper amount of deflection on belts.

**Note:** The elasticity of the feed belt makes it possible to easily stretch it over the pulleys.

4 - Once the belt is fully installed on both pulleys, rotate it several times to make sure belt ribs are fully seated in pulley grooves.

5 - Re-install front cover.

### Tensioning/ Replacing Drive Belt

To remove the drive belt, the feed belt must first be removed.

#### To tension/replace drive belt:

**1 - DISCONNECT MACHINE FROM POWER SUPPLY!**

2 - Remove front cover.

3 - If drive belt needs to be replaced, roll feed belt off pulleys (see Figure 39).

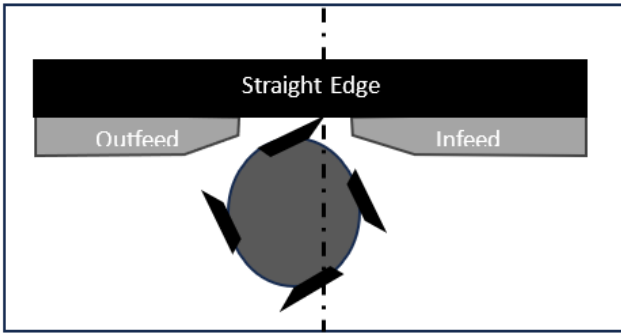


Figure 39: Alignment of the infeed/outfeed tables with the cutterhead.

4 - Loosen (do not remove) (4) motor mount screws see figure 40 to release tension on drive belt, then roll belt off pulleys and install new belt.

5. Once the new belt is installed on both pulleys, rotate it several times to ensure the belt ribs fully seat in the pulley grooves.

6. To adjust belt tension, press down on the motor to maintain tension on the belt.

7. Assess belt tension by pressing the belt's center with moderate pressure. Correct tension is achieved when there is approximately 1/4" deflection (as shown in Figure 40).

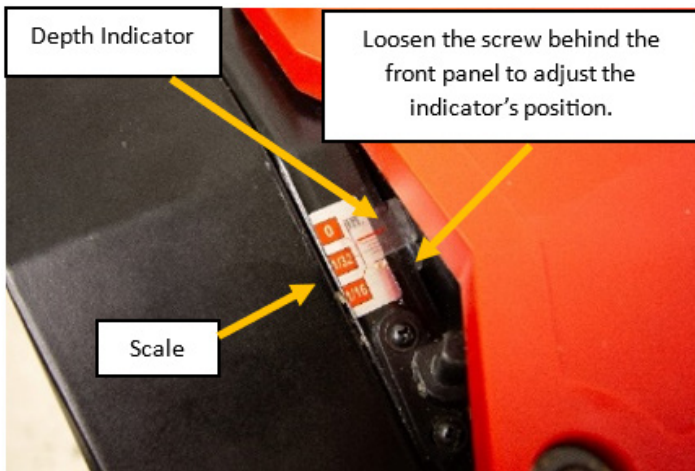


Figure 40: Adjusting the planing scale to zero.

### Calibrating Jointer Depth-of-Cut Scale

The jointer's depth-of-cut scale can be calibrated or "zeroed" if it becomes inaccurate.

#### Required Tools:

- Straightedge - 1
- Phillips Head Screwdriver #2 - 1

#### To calibrate the jointer depth-of-cut scale:

1- DISCONNECT MACHINE FROM POWER SUPPLY!

2- Use a straightedge to ensure the infeed table aligns

precisely with the outfeed table (refer to Figure 39).

3- Loosen the Phillips head screw (as shown in Figure 40), adjust the scale pointer to zero, then tighten the screw.

### Calibrating Planer Thickness Scale

Although set correctly at the factory, the planer thickness scale can be adjusted for accuracy if required.

#### Required Tools:

- Phillips Head Screwdriver #2 - 1
- Hex Wrench 4mm - 1
- Scrap Piece of Stock - 1
- Calipers - 1

#### To calibrate the planer thickness scale:

1. Plane a scrap piece of stock until it is flat on both sides and maintains consistent thickness along its length. Alternate sides during each pass to ensure parallel surfaces.
2. Use calipers to measure the board's thickness.

3. If there is a discrepancy between the board's thickness and the reading on the height scale, loosen the cap screw shown in Figure 41, adjust the arrow's position to indicate the correct thickness, then tighten the screw.

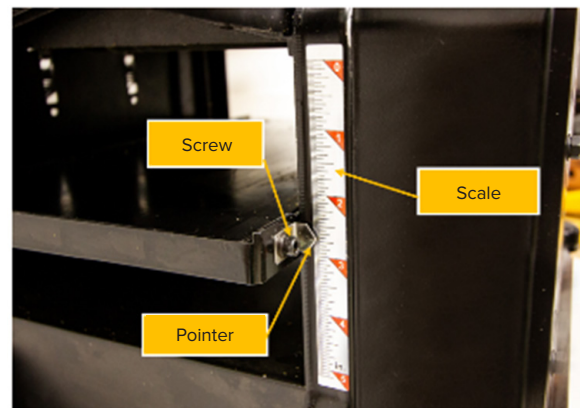


Figure 41: Planer's scale components.

### Setting Fence Stops

The fence features adjustable stops at 90° and 45° outward (135°) positions for precise fence angle settings.

#### Required Tools:

- Hex Wrenches 2.5, 4, 5mm - 1 each
- Open-End Wrench 7, 8, 10mm - 1 each
- Combination Square - 1
- Phillips Head Screwdriver #2 - 1

#### Setting the 90° Fence Stop:

1. \*\*DISCONNECT MACHINE FROM POWER SUPPLY!\*\*





2. Loosen the fence tilt lock handle (refer to Figure 42) and adjust the fence to the 90° position (0° on the fence scale), then tighten the handle.

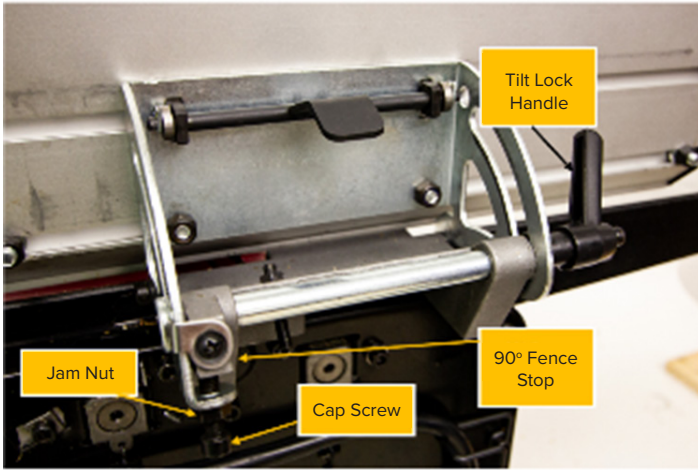


Figure 42: Setting 90° Angle.

3. Place a combination square on the jointer table with the 90° side against the fence. If the fence aligns flush with the combination square, the 90° fence stop is correctly set. No adjustment is necessary. If not flush, proceed to Step 4.

4. Loosen the jam nut and cap screw as shown in Figure 42.

5. Loosen the fence tilt lock handle, adjust the fence until it aligns flush with the combination square, then tighten the handle.

6. Adjust the cap screw until it lightly contacts the 90° fence stop, then secure the jam nut without allowing the cap screw to move.

### Setting 45° Outward (135°) Fence Stop

1. **\*\*DISCONNECT MACHINE FROM POWER SUPPLY!\*\***

2. Loosen the fence tilt lock handle (see Figure 42) and adjust the fence to the 45° outward position, then tighten the handle.

3. Place a combination square on the jointer table with the 45° side against the fence. If the fence aligns flush with the combination square, the 45° fence stop is correctly set. No adjustment is necessary. If not flush, proceed to Step 4.

4. Loosen the fence tilt lock handle, adjust the fence until it aligns flush with the combination square, then tighten the handle.

### Setting Infeed Table Positive Stops

The infeed tables feature adjustable positive stops that

allow rapid adjustment of table height between cuts. For most operations, it is recommended to set the minimum depth of cut to 1/32" and the maximum depth of cut to 1/16". Do not exceed a 1/16" cut per pass to mitigate the risk of kickback and injury.

Each positive stop governs the top or bottom range of movement for the infeed table, with jam nuts locking them in place during operations.

### Required Tools:

- Hex Wrench 3mm - 1
- Open-End Wrench 10mm - 1

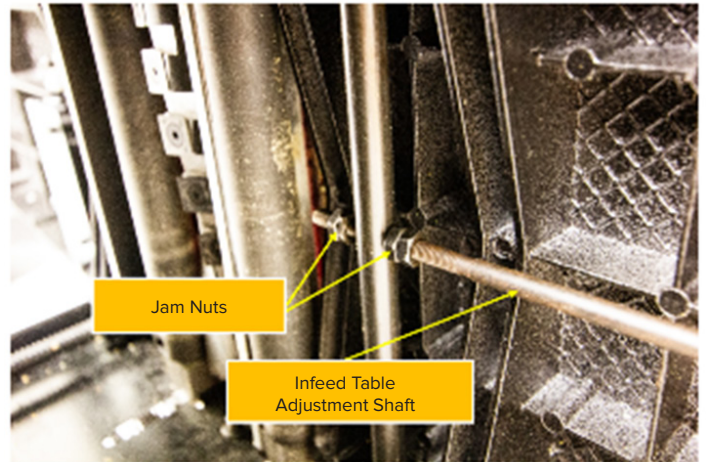


Figure 43: Location of the infeed table positive stop.

### Adjusting the Table Height Chain

The table height chain transfers motion from the planer table height crank to the columns that control table height. Over time, the chain may stretch, requiring adjustment.

### Required Tools:

- Hex Wrench 6mm - 1

### To adjust the table height chain:

1. **\*\*DISCONNECT MACHINE FROM POWER SUPPLY!\*\***

2. Gently lay the machine on its back to access the table height chain beneath the machine base.

3. Avoid allowing the chain to fall off the sprockets, as returning it to its proper location can be challenging without

altering table adjustments.

4. Loosen the cap screw as depicted in Figure 44, then apply moderate pressure to push the idler sprocket against the chain. Maintain this pressure while tightening the cap screw.

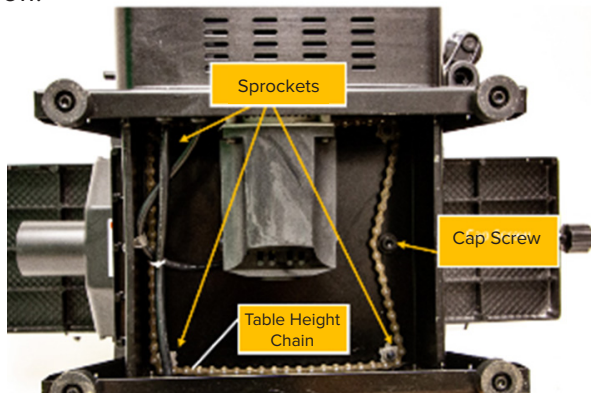


Figure 44: the planer's table elevation chain and sprockets.

### Checking/ Replacing Motor Brushes

The BBJP8 motor incorporates two long-life carbon brushes, one on each side. The brush life depends on motor loads and usage. Worn brushes may lead to intermittent operation and motor starting difficulties. If either brush measures 1/4" (6mm) or less in length, it is advisable to replace both brushes as a set.

#### Required Tools

- Flat Head Screwdriver 3/16" - 1
- Motor Brushes PBBJP8MOT-1 - 2

#### To check/replace motor brushes:

1. **\*\*DISCONNECT MACHINE FROM POWER SUPPLY!\*\***
  2. Gently lay the machine on its back to access the motor beneath the machine base.
  3. Unscrew the plastic brush covers and remove the motor brush assemblies (refer to Figure 45).
- Note:** When removing brush assemblies, ensure to note the carbon tip's orientation. If found acceptable, re-install them in the same manner.
4. Measure the carbon tip's length. If worn down to 1/4" (6mm) or less, replace both brush assemblies with new ones.
  5. Insert the brush assemblies back into the motor, re-install the plastic caps, and return the machine to an upright position.



Figure 45: Motor Brush replacement.

# Wiring

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 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.



## Wiring Safety Instructions

**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!

**MODIFICATIONS.** Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts & void warranty.

**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.

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

**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.

**MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, 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.

**EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support

## Wiring Diagram

**STOP, READ ELECTRICAL SAFETY ON PAGE 13.**

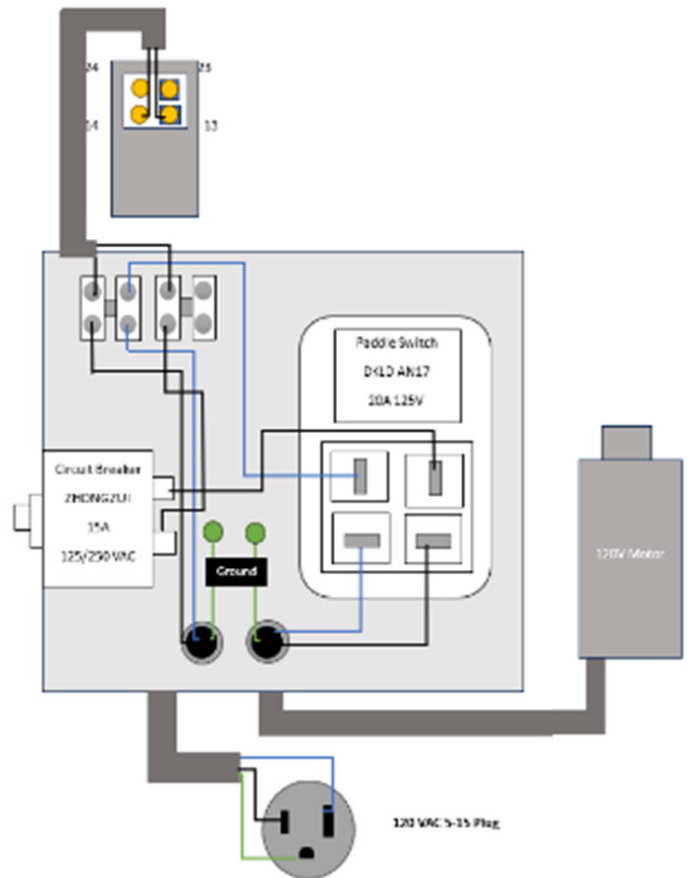


Figure 46: Wiring Diagram.

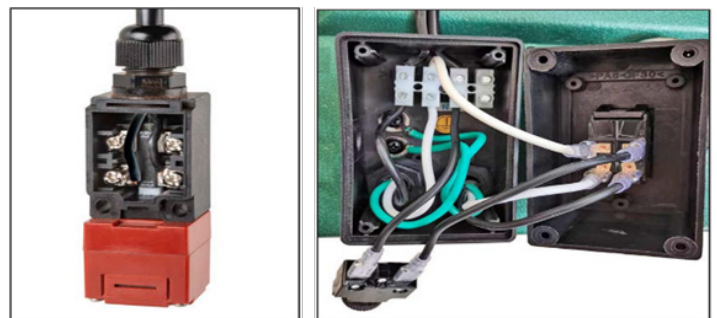


Figure 47: Interlock switch and Switch box wiring Photo.



# Parts and Diagrams

## Planer Table and Frame Diagram

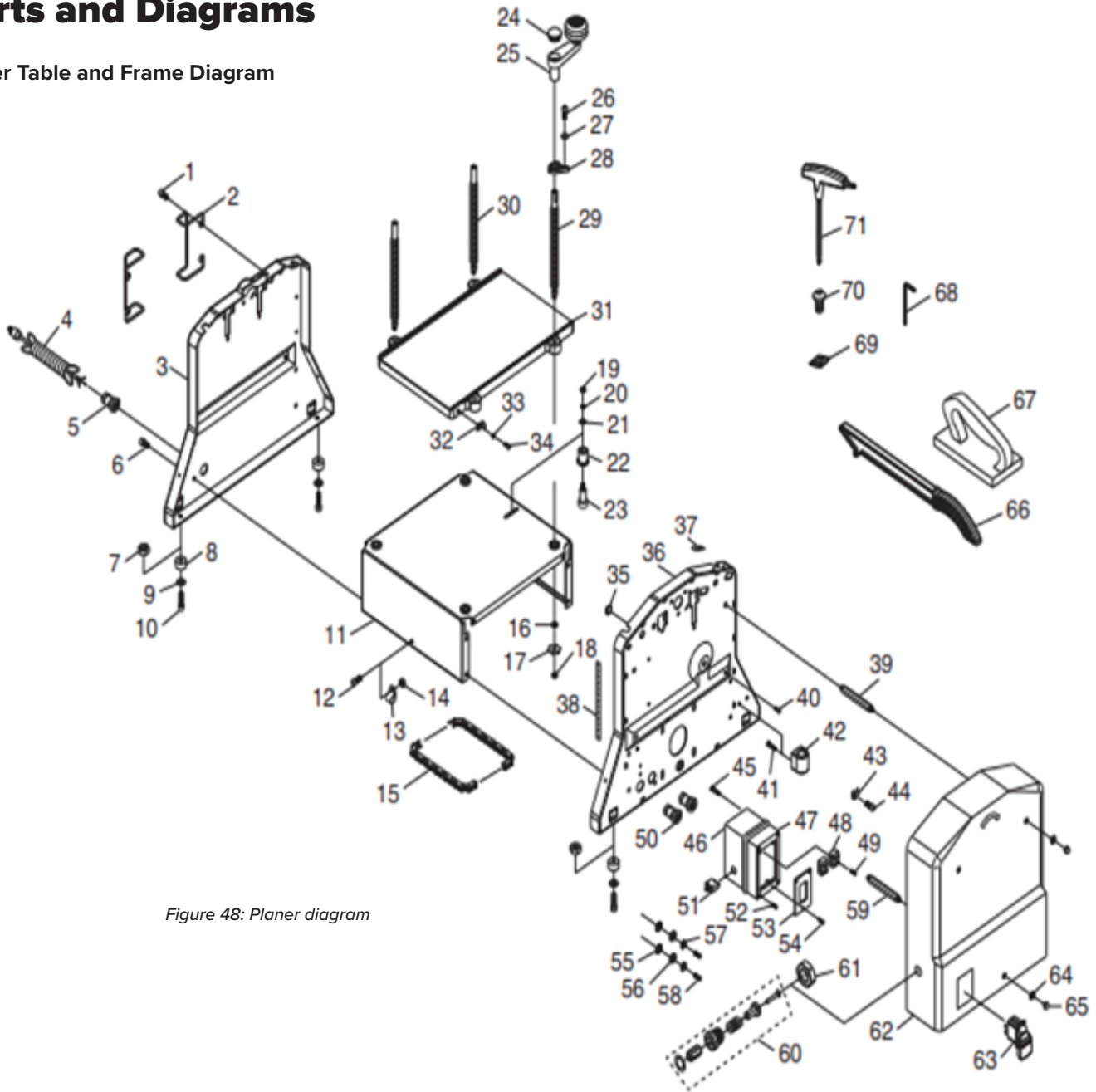


Figure 48: Planer diagram

### Planer Table and Frame Parts List

Index	Part Number	Description	Quantity
1	PBBJP8001	CAP SCREW M5-0.8 X 10	4
2	PBBJP8002	CORD HOOK	2
3	PBBJP8003	Rear wall plate	1
4	PBBJP8004	POWER CORD 14G 3W 72" 5-15P	1
5	PBBJP8005	STRAIN RELIEF TYPE-3 M16-1.5	1
6	PBBJP8006	CAP SCREW M5-0.8 X 10	8
7	PBBJP8007	HEX NUT M8-1.25	4
8	PBBJP8008	FOOT (RUBBER)	4
9	PBBJP8009	FLAT WASHER 8MM	4



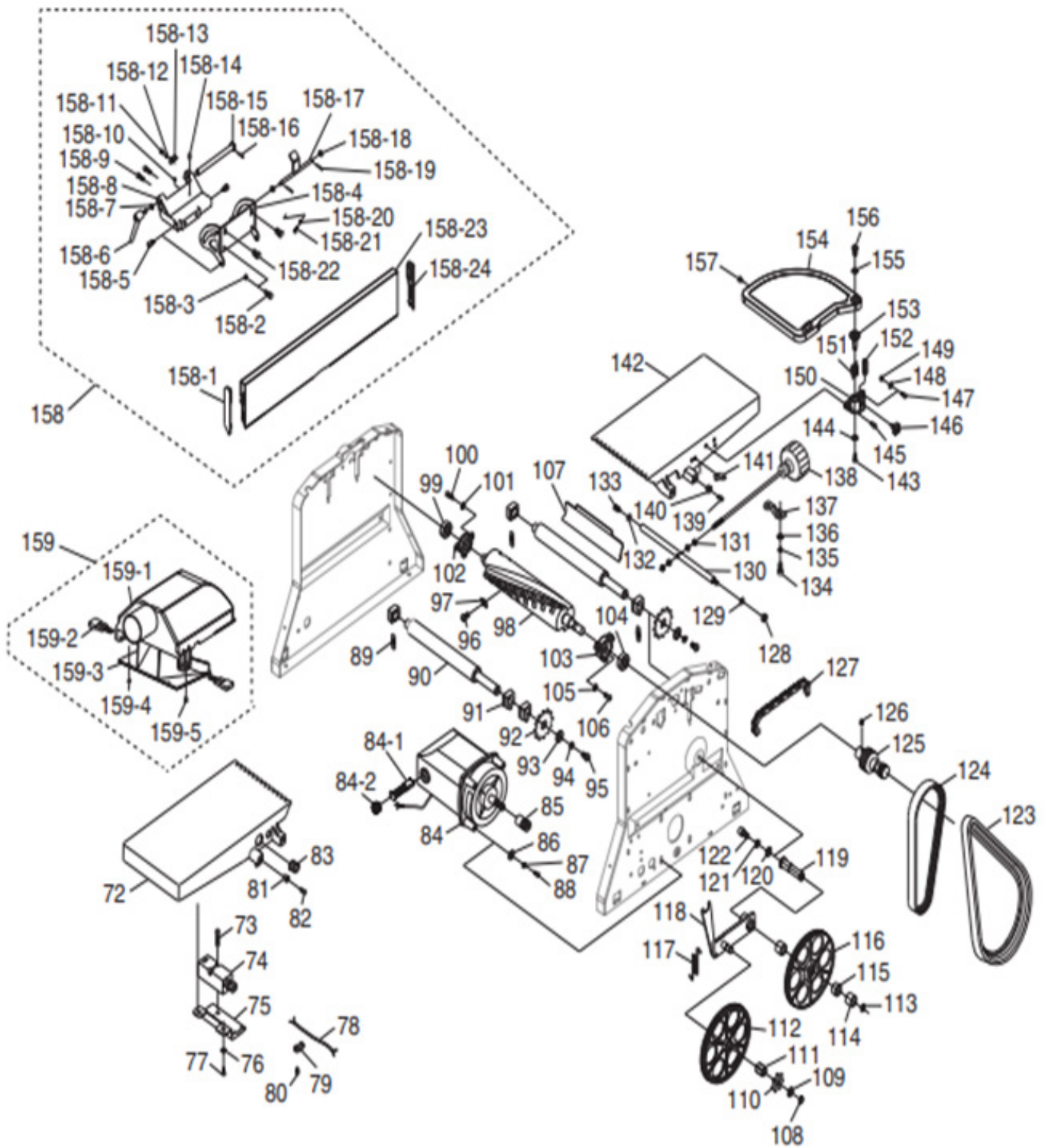
Index	Part Number	Description	Quantity
10	PBBJP8010	CAP SCREW M8-1.25 X 16	4
11	PBBJP8011	BASE	1
12	PBBJP8012	PHLP HD SCR M5-0.8 X 14	1
13	PBBJP8013	CORD CLAMP	1
14	PBBJP8014	HEX NUT M5-0.8	1
15	PBBJP8015	CHAIN 78L X 12.7 TYPE 081	1
16	PBBJP8016	FLAT WASHER 8MM	4
17	PBBJP8017	SPROCKET 6T	4
18	PBBJP8018	LOCK NUT M5-0.8	4
19	PBBJP8019	HEX NUT M5-0.8	1
20	PBBJP8020	LOCK WASHER 5MM	1
21	PBBJP8021	FLAT WASHER 5MM	1
22	PBBJP8022	CHAIN TENSION WHEEL	1
23	PBBJP8023	SHOULDER SCREW M5-0.8 X 10, 10 X 21.5	1
24	PBBJP8024	HANDLE CAP	1
25	PBBJP8025	PLANER TABLE ELEVATION CRANK	1
26	PBBJP8026	PHLP HD SCR M4-0.7 X 8	2
27	PBBJP8027	FLAT WASHER 4MM	2
28	PBBJP8028	GUIDE BLOCK	1
29	PBBJP8029	LEADSCREW (PRIMARY)	1
30	PBBJP8030	LEADSCREW (SECONDARY)	3
31	PBBJP8031	PLANER TABLE	1
32	PBBJP8032	POINTER	1
33	PBBJP8033	FLAT WASHER 5MM	1
34	PBBJP8034	PHLP HD SCR M5-0.8 X 12	1
35	PBBJP8035	BUSHING (RUBBER)	1
36	PBBJP8036	FRONT SUPPORT PLATE	1
37	PBBJP8037	DEPTH-OF-CUT SCALE (JOINTER)	1
38	PBBJP8038	THICKNESS SCALE (PLANER)	1
39	PBBJP8039	STANDOFF-HEX MM M5-0.8 X 8, 78	2
40	PBBJP8040	CAP SCREW M5-0.8 X 6	4
41	PBBJP8041	TAP SCREW M3.5 X 13	2
42	PBBJP8042	CRANK HANDLE BRACKET	1
43	PBBJP8043	CORD CLAMP	2
44	PBBJP8044	PHLP HD SCR M5-0.8 X 10	2
45	PBBJP8045	TAP SCREW M3.5 X 13	2
46	PBBJP8046	JUNCTION BOX (BACK)	1
47	PBBJP8047	JUNCTION BOX (FRONT)	1
48	PBBJP8048	TERMINAL BAR 4P	1
49	PBBJP8049	TAP SCREW 2.9 X 19	1
50	PBBJP8050	STRAIN RELIEF TYPE-3 M16-1.5	2
51	PBBJP8051	CIRCUIT BREAKER ZHONGZUI 15A 125/250V	1



Index	Part Number	Description	Quantity
52	PBBJP8052	TAP SCREW 2.9 X 19	4
53	PBBJP8053	SWITCH MOUNTING PLATE	1
54	PBBJP8054	TAP SCREW 2.9 X 9.5	3
55	PBBJP8055	EXT TOOTH WASHER 5MM	2
56	PBBJP8056	FLAT WASHER 5MM	2
57	PBBJP8057	LOCK WASHER 5MM	2
58	PBBJP8058	PHLP HD SCR M5-0.8 X 10	2
59	PBBJP8059	STANDOFF-HEX MM M5-0.8 X 8, 78	1
60	PBBJP8060	RESET BUTTON	1
61	PBBJP8061	HEX NUT M14-2	1
62	PBBJP8062	FRONT COVER	1
63	PBBJP8063	PADDLE SWITCH DKLD AN17 20A 125V	1
64	PBBJP8064	FLAT WASHER 5MM	3
65	PBBJP8065	ACORN NUT M5-0.8	3
66	PBBJP8066	PUSH STICK	1
67	PBBJP8067	PUSH BLOCK	1
68	PBBJP8068	HEX WRENCH 4MM	1
69	PBBJP8069	CARBIDE INSERT 15 X 15 X 2.5MM-5PK	5
70	PBBJP8070	FLAT HD TORX SCR T20 M5-0.8 X 12	5
71	PBBJP8071	T-HANDLE TORX DRIVE T-20	2



## Jointer Table and Fence Diagram



## Jointer Table and Fence Parts List

Index	Part Number	Description	Quantity
72	PBBJP8072	OUTFEED TABLE	1
73	PBBJP8073	CAP SCREW M4-0.7 X 27	2
74	PBBJP8074	INTERLOCK SWITCH KEDU QKS8 14A 250V	1

Index	Part Number	Description	Quantity
75	PBBJP8075	INTERLOCK SWITCH BRACKET	1
76	PBBJP8076	FLAT WASHER 5MM	4
77	PBBJP8077	CAP SCREW M5-0.8 X 8	4
78	PBBJP8078	INTERLOCK SWITCH CORD 14G 2W 23"	1
79	PBBJP8079	CORD CLAMP	3
80	PBBJP8080	CAP SCREW M5-0.8 X 10	3
81	PBBJP8081	OUTFEED TABLE BUSHING GUIDE	4
82	PBBJP8082	CAP SCREW M5-0.8 X 20	4
83	PBBJP8083	BUSHING (RUBBER)	1
84	BBJP8MOT	MOTOR 1.5 HP 120V 1-PH	1
84-1	PBBJP8084-1	MOTOR BRUSH	2
84-2	PBBJP8084-2	MOTOR BRUSH CAP	2
85	PBBJP8085	MOTOR PULLEY	4
86	PBBJP8086	FLAT WASHER 5MM	4
87	PBBJP8087	LOCK WASHER 5MM	3
88	PBBJP8088	CAP SCREW M5-.8 X 12	1
89	PBBJP8089	EXTENSION SPRING 1.2 X 9 X 28	5
90	PBBJP8090	FEED ROLLER	2
91	PBBJP8091	MOUNTED SLEEVE BEARING	2
92	PBBJP8092	SPROCKET 12T	2
93	PBBJP8093	FLAT WASHER 6MM	2
94	PBBJP8094	LOCK WASHER 6MM	18
95	PBBJP8095	CAP SCREW M6-1 X 12	18
96	PBBJP8096	FLAT HD TORX SCR M5-0.8 X 12	1
97	PBBJP8097	CARBIDE INSERT 15 X 15 X 2.5MM	1
98	PBBJP8098	HELICAL CUTTERHEAD 8"	3
99	PBBJP8099	BALL BEARING 6000ZZ	3
100	PBBJP8100	CAP SCREW M5-0.8 X 10	1
101	PBBJP8101	LOCK WASHER 5MM	1
102	PBBJP8102	CUTTERHEAD BEARING HOUSING (REAR)	1
103	PBBJP8103	CUTTERHEAD BEARING HOUSING (FRONT)	3
104	PBBJP8104	BALL BEARING 6001ZZ	3
105	PBBJP8105	LOCK WASHER 5MM	1
106	PBBJP8106	CAP SCREW M5-0.8 X 12	1
107	PBBJP8107	CHIP DEFLECTOR	1
108	PBBJP8108	EXT RETAINING RING 9MM	1
109	PBBJP8109	FLAT WASHER 8MM	1
110	PBBJP8110	SPROCKET 7T	1
111	PBBJP8111	SQUARE BUSHING	1
112	PBBJP8112	GEAR 86T	2





Index	Part Number	Description	Quantity
113	PBBJP8113	EXT RETAINING RING 9MM	1
114	PBBJP8114	NEEDLE BEARING HK1010	1
115	PBBJP8115	BUSHING 10.2 X 14 X 9.5	1
116	PBBJP8116	FEED PULLEY	1
117	PBBJP8117	EXTENSION SPRING 1.5 X 10.5 X 58	1
118	PBBJP8118	PULLEY SUPPORT BRACKET ASSEMBLY	1
119	PBBJP8119	SHAFT	1
120	PBBJP8120	CAP SCREW M8-1.25 X 16	1
121	PBBJP8121	LOCK WASHER 8MM	1
122	PBBJP8122	FLAT WASHER 8MM	1
123	PBBJP8123	V-BELT 4V X 470 RIBBED	1
124	PBBJP8124	V-BELT PJ230	2
125	PBBJP8125	CUTTERHEAD SPINDLE PULLEY	1
126	PBBJP8126	SET SCREW M6-1 X 8	1
127	PBBJP8127	CHAIN 36L X 12.7 TYPE 081	1
128	PBBJP8128	HEX NUT M8-1.25	1
129	PBBJP8129	FLAT WASHER 8M	4
130	PBBJP8130	CONNECTING ROD	1
131	PBBJP8131	HEX NUT M6-1	1
132	PBBJP8132	FLAT WASHER 8MM	2
133	PBBJP8133	CAP SCREW M8-1.25 X 16	2
134	PBBJP8134	CAP SCREW M5-0.8 X 12	2
135	PBBJP8135	LOCK WASHER 5MM	1
136	PBBJP8136	FLAT WASHER 5MM	1
137	PBBJP8137	TABLE ADJUSTING SCREW BRACKET	4
138	PBBJP8138	TABLE ADJUSTING SCREW W/ KNOB	4
139	PBBJP8139	CAP SCREW M5-0.8 X 20	1
140	PBBJP8140	INFEED TABLE BUSHING GUIDE	1
141	PBBJP8141	POINTER	1
142	PBBJP8142	INFEED TABLE	1
143	PBBJP8143	CAP SCREW M5-0.8 X 10	1
144	PBBJP8144	FLAT WASHER 5MM	1
145	PBBJP8145	CAP SCREW M5-0.8 X 16	2
146	PBBJP8146	KNOB BOLT M5-0.8 X 9, D17	2
147	PBBJP8147	CAP SCREW M5-0.8 X 16	2
148	PBBJP8148	FLAT WASHER 5MM	1
149	PBBJP8149	HEX NUT M5-0.8	1
150	PBBJP8150	CUTTERHEAD GUARD SUPPORT BRACKET	1



Index	Part Number	Description	Quantity
151	PBBJP8151	TORSION SPRING	1
152	PBBJP8152	SQUARE BAR	1
153	PBBJP8153	CUTTERHEAD GUARD SHAFT	1
154	PBBJP8154	CUTTERHEAD GUARD	1
155	PBBJP8155	FLAT WASHER 6MM	1
156	PBBJP8156	BUTTON HD CAP SCR M6-1 X 12	1
157	PBBJP8157	BUMPER	4
158	PBBJP8158	FENCE ASSEMBLY	1
158-1	PBBJP8158-1	FENCE COVER (LEFT)	1
158-2	PBBJP8158-2	HEX BOLT M6-1 X 10	2
158-3	PBBJP8158-3	LOCK NUT M6-1	1
158-4	PBBJP8158-4	ANGLE SUPPORT PLATE	1
158-5	PBBJP8158-5	SHOULDER SCREW M5-0.8 X 7, 6 X 3	1
158-6	PBBJP8158-6	ADJUSTABLE HANDLE M6-1 X 9, 43L	2
158-7	PBBJP8158-7	FLAT WASHER 6MM	1
158-8	PBBJP8158-8	FENCE SUPPORT	1
158-9	PBBJP8158-9	CAP SCREW M5-0.8 X 20	1
158-10	PBBJP8158-10	HEX NUT M5-0.8	1
158-11	PBBJP8158-11	PHLP HD SCR M4-0.7 X 8	1
158-12	PBBJP8158-12	FLAT WASHER 4MM	1
158-13	PBBJP8158-13	POINTER	1
158-14	PBBJP8158-14	HEX BOLT M5-0.8 X 25	1
158-15	PBBJP8158-15	ROD	2
158-16	PBBJP8158-16	ROLL PIN 3 X 10	2
158-17	PBBJP8158-17	LOCK LEVER	1
158-18	PBBJP8158-18	SPACER	1
158-19	PBBJP8158-19	ROLL PIN 1.6 X 14	2
158-20	PBBJP8158-20	HEX NUT M5-0.8	1
158-21	PBBJP8158-21	CAP SCREW M5-0.8 X 20	1
158-22	PBBJP8158-22	LOCK LEVER SLIDING BRACKET	1
158-23	PBBJP8158-23	FENCE	2
158-24	PBBJP8158-24	FENCE COVER (RIGHT)	1
159	PBBJP8159	DUST PORT ASSEMBLY	4
159-1	PBBJP8159-1	DUST PORT HOUSING	2
159-2	PBBJP8159-2	INTERLOCK SWITCH KEY	1
159-3	PBBJP8159-3	DUST PORT BASE	1
159-4	PBBJP8159-4	TAP SCREW M3-0.5 X 13	1
159-5	PBBJP8159-5	TAP SCREW M3-0.5 X 13	1



# Service

## Troubleshooting - Motor & Electrical

Symptom	Possible Cause	Solution
The machine does not start, or power supply breaker immediately trips after startup.	<ol style="list-style-type: none"> <li>1. ON/OFF switch disabling key removed.</li> <li>2. Interlock switch disabling key(s) removed.</li> <li>3. Machine circuit breaker tripped or at fault.</li> <li>4. Incorrect power supply voltage or circuit size.</li> <li>5. Power supply circuit breaker tripped, or fuse blown.</li> <li>6. Wiring broken, disconnected, or corroded.</li> <li>7. Motor brushes worn out.</li> <li>8. ON/OFF or circuit breaker switch at fault.</li> <li>9. Interlock switch at fault.</li> <li>10. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install ON/OFF switch disabling key.</li> <li>2. Install interlock switch disabling key(s).</li> <li>3. Reset circuit breaker on switch.</li> <li>4. Ensure correct power supply voltage and circuit size.</li> <li>5. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse.</li> <li>6. Fix broken wires or disconnected / corroded connections</li> <li>7. Remove/replace brushes (Page 39).</li> <li>8. Replace switch/circuit breaker.</li> <li>9. Replace switch.</li> <li>10. Replace motor.</li> </ol>
Machine stalls or is underpowered.	<ol style="list-style-type: none"> <li>1. Workpiece material unsuitable for machine.</li> <li>2. Feed rate/cutting speed too fast.</li> <li>3. Excessive depth of cut.</li> <li>4. Machine undersized for task.</li> <li>5. Belt(s) slipping/pulleys misaligned.</li> <li>6. Motor brushes worn out.</li> <li>7. Pulley/sprocket slipping on shaft.</li> <li>8. Motor overheated, tripping machine circuit breaker.</li> <li>9. Extension cord too long.</li> <li>10. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Only cut wood/ensure moisture is below 20%.</li> <li>2. Decrease feed rate/cutting speed (jointer).</li> <li>3. Decrease depth of cut (Pages 19-37).</li> <li>4. Use correct/sharp inserts (Page 29). Reduce feed rate or depth of cut (Page 27).</li> <li>5. Clean/tension/replace belt(s); ensure pulleys are aligned (Page 36).</li> <li>6. Replace motor brushes (Page 39).</li> <li>7. Tighten/replace loose pulley/shaft.</li> <li>8. Clean motor, let cool, and reduce workload. Reset breaker.</li> <li>9. Move machine closer to power supply; use shorter extension cord.</li> <li>10. Replace motor.</li> </ol>
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor or component loose.</li> <li>2. Feet not adjusted properly.</li> <li>3. V-belt(s) worn, loose, pulleys misaligned or belt slapping cover.</li> <li>4. Insert(s) at fault.</li> <li>5. Pulley loose.</li> <li>6. Motor mount loose/broken.</li> <li>7. Cutterhead bearings at fault.</li> <li>8. Motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace damaged or missing bolts/nuts or tighten if loose.</li> <li>2. Adjust feet to stabilize machine.</li> <li>3. Inspect/replace belts with a new matched set. Realign pulleys if necessary (Page 36).</li> <li>4. Replace/rotate insert(s) (28).</li> <li>5. Secure pulley on shaft.</li> <li>6. Tighten/replace.</li> <li>7. Replace bearing(s)/realign cutterhead.</li> <li>8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>



## Troubleshooting - Joints Operations

Symptom	Possible Cause	Solution
Table is hard to adjust.	<ol style="list-style-type: none"> <li>1. Table height shaft is dirty, or lock collars are misaligned.</li> <li>2. Infeed table lock screws too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean shaft and properly align collars (page 30).</li> <li>2. Loosen screws on both sides just enough to allow table to move smoothly.</li> </ol>
Excessive snipe (gouge in end of board that is uneven with rest of cut); back of workpiece is concave.	Operator pushing down on trailing end (infeed side) of workpiece as it leaves cutterhead.	Focus most of the workpiece pressure against outfeed table while cutting.
Workpiece chipping, tear-out, indentations, or overall rough cuts.	<ol style="list-style-type: none"> <li>1. Workpiece is rough or has loose knots/surface flaws; not suitable for jointing</li> <li>2. Not feeding workpiece to cut "with" the grain.</li> <li>3. Dull insert(s).</li> <li>4. Nicked or chipped insert(s).</li> <li>5. Feeding workpiece too fast.</li> <li>6. Excessive depth of cut.</li> <li>7. Lack of proper dust collection or clogged dust port.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect workpiece (page 19). Use smooth stock without loose knots/surface flaws.</li> <li>2. Flip workpiece 180° before feeding again.</li> <li>3. Rotate/replace insert(s) (28).</li> <li>4. Rotate/replace insert(s)</li> <li>5. Reduce feed rate.</li> <li>6. Reduce depth of cut (page 27).</li> <li>7. Clear blockages, ensure dust collection is operating efficiently; upgrade dust collector.</li> </ol>
Fuzzy grain left in workpiece.	<ol style="list-style-type: none"> <li>1. Wood has high moisture content.</li> <li>2. Dull insert(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure wood moisture content is less than 20%. Allow to dry if necessary.</li> <li>2. Replace/rotate insert(s) (Page 28).</li> </ol>
Long lines or ridges that run along the length of the board.	<ol style="list-style-type: none"> <li>1. Nicked or chipped insert(s).</li> <li>2. Loose or incorrectly installed insert(s).</li> <li>3. Dirt or debris under insert(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace/rotate insert(s) (page 28).</li> <li>2. Remove/replace insert(s) and install properly.</li> <li>3. Remove insert(s), clean bottom of insert/cutterhead mounting pocket, and re-install (page 28).</li> </ol>
Uneven cutter marks, wavy surface, or chatter marks across face of workpiece.	<ol style="list-style-type: none"> <li>1. Feeding workpiece too fast.</li> <li>2. Insert(s) not adjusted at even heights in cutterhead.</li> <li>3. Dirt or debris under insert(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce feed rate.</li> <li>2. Remove, clean, and re-install any inserts that are "raised" in cutterhead (page 28).</li> <li>3. Remove insert(s), clean bottom of insert/cutterhead mounting pocket, and re-install (Page 28).</li> </ol>
Glossy surface; scorching or burn marks on workpiece.	<ol style="list-style-type: none"> <li>1. Dull insert(s).</li> <li>2. Feed rate too slow.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rotate/replace insert(s) (page 28).</li> <li>2. Increase feed rate.</li> </ol>
Workpiece is concave or convex along its length after jointing.	<ol style="list-style-type: none"> <li>1. Workpiece not held with even pressure against outfeed table during cut.</li> <li>2. Workpiece too uneven at start of operation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Apply even downward pressure against workpiece throughout entire travel along outfeed side during cut.</li> <li>2. Take partial cuts to remove extreme high spots before doing a full pass.</li> </ol>



Symptom	Possible Cause	Solution
Workpiece edges not square; tapered cut produced.	<ol style="list-style-type: none"> <li>1. Fence not square to table; fence tilt unlocked.</li> <li>2. Warped infeed or outfeed table.</li> <li>3. Insert(s) not adjusted at even heights in cutterhead.</li> </ol>	<ol style="list-style-type: none"> <li>1. Square fence to table; lock fence.</li> <li>2. Replace table.</li> <li>3. Remove, clean, and re-install any inserts that are “raised” in cutterhead (page 28).</li> </ol>

### Troubleshooting - Planer Operations

Symptom	Possible Cause	Solution
Excessive snipe (gouge at the end of the workpiece that is uneven with the rest of the cut). Note: A small amount of snipe is inevitable with all types of planers—the key is to minimize it.	<ol style="list-style-type: none"> <li>1. Workpiece not supported as it leaves planer.</li> <li>2. Some snipe is inevitable.</li> </ol>	<ol style="list-style-type: none"> <li>1. Hold workpiece up slightly as it leaves outfeed end of planer.</li> <li>2. Plane lumber longer than your intended workpiece length, then cut off excess after planing complete.</li> </ol>
Workpiece stops/ slows in middle of cut.	<ol style="list-style-type: none"> <li>1. Excessive depth of cut.</li> <li>2. Pitch and glue buildup on planer components.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce depth of cut (page 27). Reduce cutting depth when planing hard woods.</li> <li>2. Clean internal cutterhead components with pitch/ resin dissolving solvent.</li> </ol>
Chipping (consistent pattern).	<ol style="list-style-type: none"> <li>1. Knots or conflicting grain direction in wood.</li> <li>2. Taking too deep of a cut.</li> <li>3. Nicked, chipped, or dull inserts.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect workpiece for knots and grain direction; only use clean stock and cut WITH the grain (page 19).</li> <li>2. Reduce depth of cut. (Reduce cutting depth when planing hard woods.) page 27-28.</li> <li>3. Rotate/replace insert(s) (Page 27-28).</li> </ol>
Chipping/indentation in workpiece surface (inconsistent pattern).	<ol style="list-style-type: none"> <li>1. Chips aren't being properly expelled from cutterhead.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use proper dust collection system.</li> </ol>
Fuzzy grain.	<ol style="list-style-type: none"> <li>1. Wood may have high moisture content or surface wetness.</li> <li>2. Dull insert(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check moisture content is below 20% and allow to dry if moisture is too high (page 19). 2. Rotate/replace insert(s) (page 27-28).</li> </ol>
Long lines or ridges that run along length of board.	<ol style="list-style-type: none"> <li>1. Insert(s) not properly installed.</li> <li>2. Worn cutterhead bearings.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove insert(s), properly clean mounting pocket, and re-install (page 27-28).</li> <li>2. Check/replace cutterhead bearings.</li> </ol>



Symptom	Possible Cause	Solution
Uneven cutting marks, wavy surface, or chatter marks across face of board.	<ol style="list-style-type: none"> <li>1. Insert(s) not properly installed.</li> <li>2. Worn cutterhead bearings.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove insert(s), properly clean mounting pocket, and re-install (page 27-28).</li> <li>2. Check/replace cutterhead bearings.</li> </ol>
Glossy surface.	<ol style="list-style-type: none"> <li>1. Dull insert(s).</li> <li>2. Cutting depth too shallow.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rotate/replace insert(s) (page 27-28).</li> <li>2. Increase depth of cut (page 28).</li> </ol>
Infeed/outfeed rollers not rotating.	Chain and sprockets are worn, misadjusted, disconnected, or broken.	Adjust chain and sprockets (page 39). replace if necessary.
Vibration when running or cutting.	<ol style="list-style-type: none"> <li>1. Loose/damaged insert(s).</li> <li>2. Damaged V-belt.</li> <li>3. Worn cutterhead bearings.</li> <li>4. Loose/damaged cutterhead.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten/replace insert(s) (page 27-28).</li> <li>2. Replace belt (page 35-36).</li> <li>3. Check/replace cutterhead bearings.</li> <li>4. Tighten/replace cutterhead.</li> </ol>





# Busy Bee Tools

## BUSY BEE TOOLS 2 YEARS LIMITED WARRANTY

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

***Proof of purchase is necessary.***

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

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

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

### **RETURNS, REPAIRS AND REPLACEMENTS**

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

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

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

