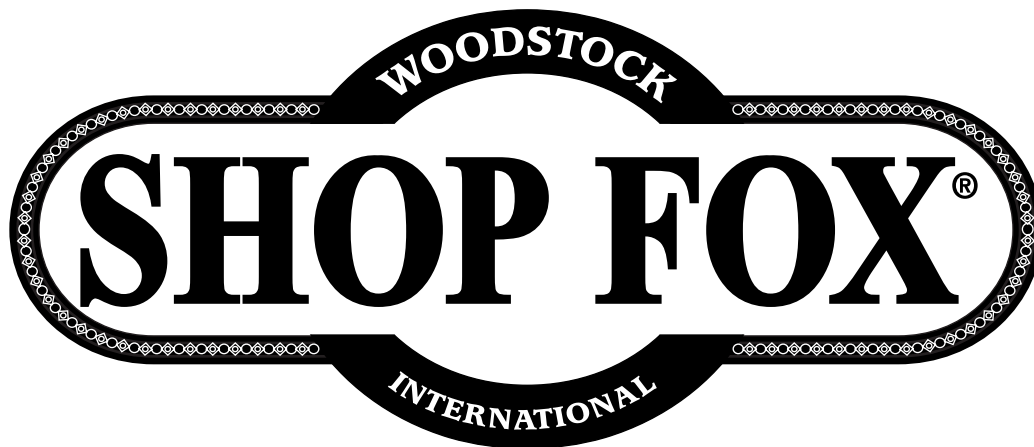




MODEL W1812 VARIABLE SPEED PLANER/ MOULDER WITH STAND



OWNER'S MANUAL *(FOR MODELS MANUFACTURED SINCE 02/11)*

Phone: (360) 734-3482 • Online Technical Support: tech-support@shopfox.biz



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

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.

#11399CR Printed in Taiwan



WARNING!

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

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

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

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



WARNING!

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

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

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

Contents

INTRODUCTION	2	ACCESSORIES	31
Woodstock Technical Support	2	MAINTENANCE	33
Controls & Features	2	General	33
Machine Specifications	3	Cleaning	33
SAFETY	5	Cleaning Feed Motor	33
Standard Machinery Safety Instructions	5	Table & Base	33
Additional Safety for Planer/Moulders	7	Lubrication	34
ELECTRICAL	8	SERVICE	35
Circuit Requirements	8	General	35
Grounding Requirements	9	Changing Feed Motor Brushes	35
Extension Cords	9	Feed Roller-to-Table Alignment	36
SETUP	10	Drive Chain Adjustment	37
Unpacking	10	Gib Adjustment	38
Inventory	10	Electrical Safety Instructions	39
Machine Placement	11	Wiring Diagram	40
Cleaning Machine	11	Electrical Component Locations	41
Lifting & Moving	12	Troubleshooting	42
Mounting Options	12	PARTS	45
Assembly	13	Headstock	45
Dust Collection	16	Headstock Parts List	46
Test Run	17	Main Motor & Cabinet	47
OPERATIONS	18	Feed Motor & Controls	48
General	18	Feed Motor & Controls Parts List	49
Locking Power Switch	18	Label Placement	50
Installing Planing Knives	19	WARRANTY	53
Installing Moulding Knives	20		
Feed Roller Height & Spring Tension	21		
Workpiece Inspection	23		
Planing Do's & Don'ts	24		
Planing Operation	25		
Moulding Do's & Don'ts	26		
Moulding Operation	30		



INTRODUCTION

Woodstock Technical Support

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

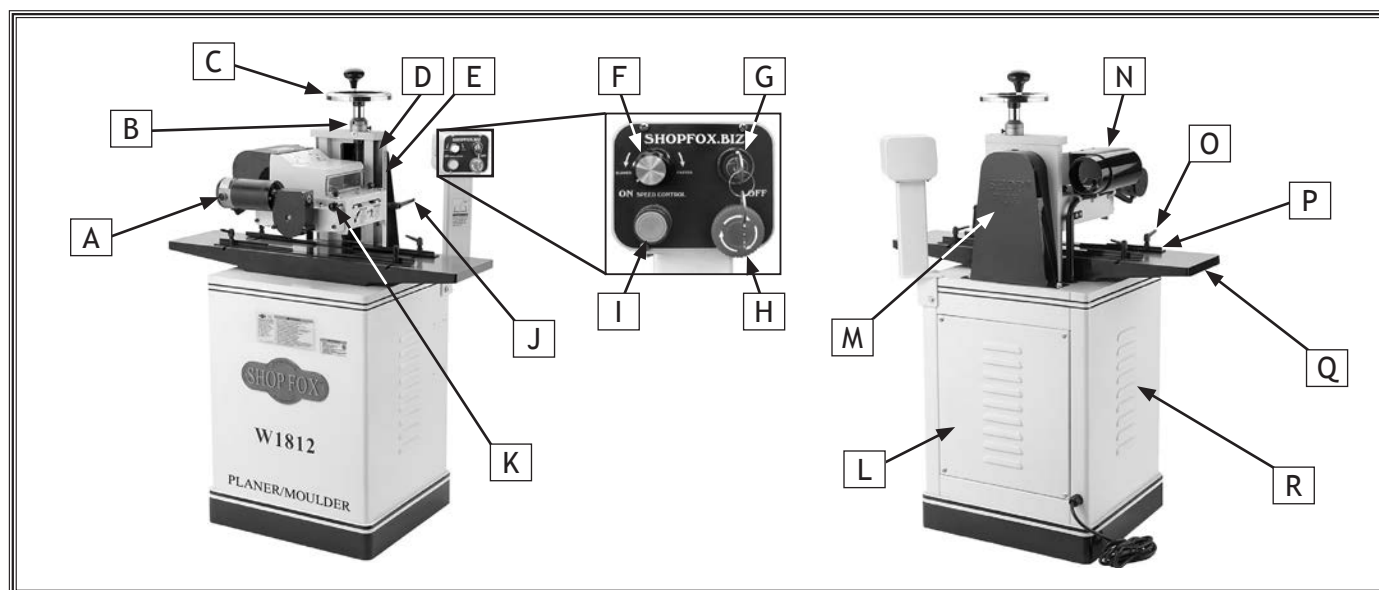
Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

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

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

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

Controls & Features



W1812 Controls & Features.

- | | | |
|-------------------------------|----------------------------|------------------------------|
| A. Feed Motor | G. Keyed Power Switch | M. Belt guard |
| B. Handwheel Scale | H. OFF Button | N. Dust Cover w/Port |
| C. Headstock Height Handwheel | I. Cutterhead ON Button | O. Guide Rail Lock Lever |
| D. Dovetailed Column | J. Headstock Lock Lever | P. Guide Rail Set |
| E. Headstock Scale | K. Chip Deflector Lock Pin | Q. Cast Iron Table and Wings |
| F. Feed Speed Control Dial | L. Rear Panel | R. Vented Sheet Metal Stand |

MACHINE SPECIFICATIONS



Phone #: (360) 734-3482 • Online Tech Support: tech-support@shopfox.biz • Web: www.shopfox.biz

MODEL W1812 SHOP FOX VARIABLE SPEED PLANER/MOULDER WITH STAND

Overall Dimensions

Weight	306 lbs.
Length	36 ¹ / ₄ in.
Width	22 in.
Height	34 ¹ / ₂ in.
Foot Print (Length x Width)	21" x 19 in.

Shipping Dimensions

Total Shipping Weight	324 lbs.
Box 1 Length x Width x Height	40 ¹ / ₈ x 19 ³ / ₄ x 22 ¹ / ₈ in.
Box 1 Weight	185 lbs.
Box 2 Length x Width x Height	22 ⁷ / ₈ x 21 ¹ / ₄ x 30 ¹ / ₄ in.
Box 2 Weight	139 lbs.

Electrical

Switch	Magnetic Switch w/Thermal Overload Protection
Switch Voltage	240V
Cord Length	6 ft.
Cord Gauge	14 AWG
Recommended Breaker Size	15A
Plug Included	NEMA 6-15

Motors

Cutterhead

Type	TEFC Capacitor Start Induction
Horsepower	2 HP
Voltage	240V
Phase	Single
Amps	10.8A
Speed	3450 RPM
Cycle	60 Hz
Number Of Speeds	1
Power Transfer	Power Twist V-Belt
Bearings	Shielded and Lubricated

Feed Rollers

Type	DC Universal
Horsepower	¹ / ₈ HP
Voltage, Amps	180VDC, 1.2A
Motor Speed	0-55 RPM (w/ (Voltage Reduction)
Feed Speed	0-18 FPM
Cycle	60 Hz
Number Of Speeds	Variable Speed
Power Transfer	Chain Drive



Main Specifications

Cutting Capacities

Maximum Planing Width.....	7 in.
Maximum Planing Depth	$\frac{1}{8}$ in.
Maximum Planing Height.....	$7\frac{1}{2}$ in.
Maximum Profile Width	$6\frac{3}{4}$ in.
Maximum Profile Depth	$\frac{3}{4}$ in.
Minimum Stock Thickness.....	$\frac{1}{4}$ in.
Minimum Stock Length	9 in.

Knife Information

Number of Knives	2
Knife Type	HSS
Knife Length	$7\frac{1}{8}$ in.
Knife Width.....	$1\frac{1}{2}$ in.
Knife Thickness	$\frac{1}{4}$ in.
Number of Cuts Per Minute.....	14,000
Number of Cuts Per Inch	64-300

Cutterhead Information

Cutterhead Type.....	Square
Cutterhead Diameter	$1\frac{1}{4}$ in.
Cutterhead Speed	7000 RPM

Table Information

Table Length w/Wings.....	$36\frac{1}{4}$ in.
Table Length w/o Wings.....	$14\frac{1}{8}$ in.
Table Width	10 in.
Table Thickness	$\frac{7}{16}$ in.
Extension Wing Length	11 in.
Extension Wing Width	$8\frac{9}{16}$ in.
Floor to Table Height	$30\frac{3}{8}$ in.

Other Information

Number of Dust Ports.....	1
Dust Port Size	4 in.
Measurement Scale Units	Inches

Construction Materials

Cabinet	Formed Steel
Body Assembly.....	Cast Iron
Cutterhead Assembly.....	Steel
Table & Extension Wing.....	Precision Ground Cast Iron
Paint	Powder Coat
Infeed and Outfeed Rollers	Rubber Coated Steel

Other

Country of Origin	Taiwan
Warranty	2 Year
Approximate Assembly Time	45 Minutes
Serial Number Location.....	Machine ID Label
Certified by a Nationally Recognized Testing Laboratory (NRTL)	Yes

Features

Heavy-Duty Cast Iron Handwheel with Inch Measurement Scale for Cutterhead Housing Lift
 Precision-Ground Cast Iron Infeed and Outfeed Extension Wings
 Dovetailed Way for Cutterhead Housing with Precision Gib Adjustments
 Pedestal-Mounted Control Switch with Variable Speed Control

SAFETY

For Your Own Safety, Read Manual Before Operating Machine

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



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



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



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

NOTICE

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

Standard Machinery Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine. Untrained users can be seriously hurt.

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

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

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

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

MENTAL ALERTNESS. Be mentally alert when running machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

DISCONNECTING POWER SUPPLY. Always disconnect machine from power supply before servicing, adjusting, or changing cutting tools (bits, blades, cutters, etc.). Make sure switch is in OFF position before reconnecting to avoid an unexpected or unintentional start.

DANGEROUS ENVIRONMENTS. Do not use machinery in wet or rainy locations, cluttered areas, around flammables, or in poorly-lit areas. Keep work area clean, dry, and well-lighted to minimize risk of injury.

APPROVED OPERATION. Untrained operators can be seriously hurt by machinery. Only allow trained or properly supervised people to use machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

ONLY USE AS INTENDED. Only use machine for its intended purpose. Never modify or alter machine for a purpose not intended by the manufacturer or serious injury may result!

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

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

REMOVE ADJUSTING TOOLS. Never leave adjustment tools, chuck keys, wrenches, etc. in or on machine—especially near moving parts. Verify removal before starting!

SECURING WORKPIECE. When required, use clamps or vises to secure workpiece. A secured workpiece protects hands and frees both of them to operate the machine.

FEED DIRECTION. Unless otherwise noted, feed work against the rotation of blades or cutters. Feeding in the same direction of rotation may pull your hand into the cut.

GUARDS & COVERS. Guards and covers can protect you from accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly before using machine.

NEVER STAND ON MACHINE. Serious injury or accidental contact with cutting tool may occur if machine is tipped. Machine may be damaged.

STABLE MACHINE. Unexpected movement during operations greatly increases the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.

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

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

UNATTENDED OPERATION. Never leave machine running while unattended. Turn machine off and ensure all moving parts completely stop before walking away.

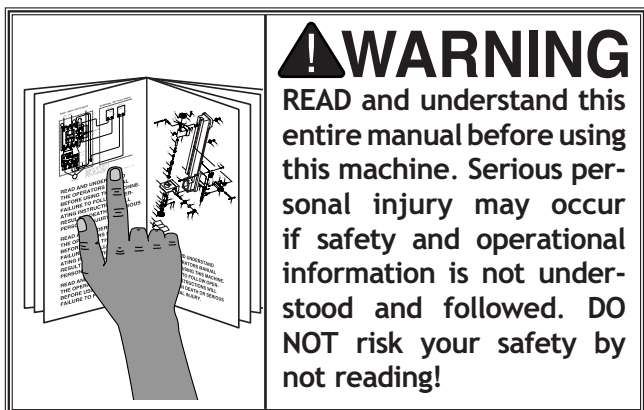
MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. An improperly maintained machine may increase the risk of serious injury.

CHECK DAMAGED PARTS. Regularly inspect machine for damaged parts, loose bolts, mis-adjusted or mis-aligned parts, binding, or any other conditions that may affect safe operation. Always repair or replace damaged parts, wires, cords, or plugs before operating machine.

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

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

Additional Safety for Planer/Moulders



REACHING INSIDE PLANER/MOULDER. Never reach inside planer/moulder or remove covers when the planer/moulder is connected to power.

INFEEED CLEARANCE SAFETY. The infeed roller is designed to pull material into the cutterhead. Always keep hands, clothing, and long hair away from the infeed roller during operation to prevent serious injury.

PLANING CORRECT MATERIAL. Only plane natural wood stock with this planer/moulder. **DO NOT** plane MDF, plywood, laminates, or other synthetic products.

WORKPIECE CLEARANCE. Always verify workpiece has enough room to exit the planer before starting.

REMOVING JAMMED WORKPIECES. To avoid serious injury, always stop the planer/moulder and disconnect power before removing jammed workpieces.

DULL/DAMAGED CUTTERS. The planer/moulder may kick out a workpiece at the operator or give poor finish results if it is operated with dull or damaged knives.

GRAIN DIRECTION. Cutting across or against the grain is hard on the planer/moulder and may increase the risk of workpiece kick out. Always cut with the grain or at a slight angle with the grain.

BODY POSITION WHILE OPERATING. The workpiece may kick out during operation. To avoid getting hit, stand to the side of the planer/moulder during the entire operation.

KNIFE CLEARANCE. Before starting the machine, always verify that the moulding knives do not contact any part of the workpiece guide rails, feed roller swing arm, or the table surface. **Failure to verify knife clearance may result in severe injury and machine damage!**

LOOKING INSIDE PLANER/MOULDER. Wood chips fly around inside the planer/moulder at a high rate of speed. **DO NOT** look inside the machine or remove any guards or covers during operation.

UNPLUGGING DURING ADJUSTMENTS. When connected to power, the planer/moulder can be accidentally turned ON. Always disconnect power when servicing or adjusting machine components.

ELECTRICAL

Circuit Requirements

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

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

Full-Load Current Rating

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

Full-Load Current Rating at 230V 12 Amps

Circuit Requirements for 230V

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

Circuit Type 230V, 60 Hz, Single-Phase
Circuit Size 15 Amps
Plug/Receptacle NEMA 6-15

⚠ WARNING

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

⚠ WARNING



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

NOTICE

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

Grounding Requirements

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

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

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

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 6-15 grounding plug. The plug must only be inserted into a matching receptacle (see **Figure**) that is properly installed and grounded in accordance with local codes and ordinances.

Extension Cords

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

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

- Minimum Gauge Size at 230V 14 AWG
- Maximum Length (Shorter is Better) 50 ft.

! WARNING

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

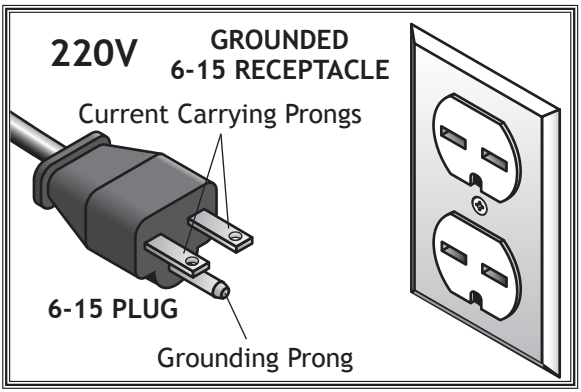
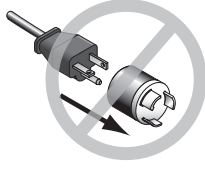


Figure 1. NEMA 6-15 plug & receptacle.

! CAUTION



No adapter should be used with the required plug. If the plug does not fit the available receptacle, or the machine must be reconnected to a different type of circuit, the reconnection must be made by an electrician or qualified service personnel and it must comply with all local codes and ordinances.

SETUP

Unpacking

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

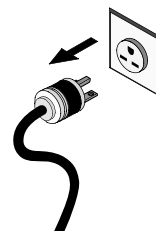
Inventory

The following is a description of the main components shipped with the Model W1812. Lay the components out to inventory them.

Note: If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for safer shipping.

Box Inventory (see Figure 2)	Qty
A. Dust Hood	1
B. Planer/Moulder Head/Table Assembly	1
C. Link Belt	1
D. Stand	1
E. Belt Guard	1
F. Guide Rail Set	1
G. Pedestal Control Panel	1
H. Handwheel w/Knob	1
I. Steel Conduit	1
J. Hardware Bag	1
– Hex Bolts $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " (Planer/Moulder Head) ...	4
– Flat Washers $\frac{5}{16}$ " (Planer/Moulder Head)	4
– Hex Bolts $\frac{5}{16}$ "-18 x 1" (Pedestal Control Panel) ...	3
– Flat Washers $\frac{5}{16}$ " (Pedestal Control Panel)	3
– Flange Screws $\frac{5}{16}$ "-18 x $\frac{3}{8}$ " (Steel Conduit)	2
– Flange Screws #10-24 x $\frac{1}{2}$ " (Dust Port Support) ..	3
– Hex Bolts $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " (Belt Guard)	2
– Flat Washers $\frac{5}{16}$ " (Drive Belt guard)	4
– Hex Nuts $\frac{5}{16}$ "-18 (Drive Belt guard)	2
– Lock Levers $\frac{1}{4}$ "-20 x $\frac{3}{8}$ " (Guide Rail)	4
– T-Slot Nuts $\frac{1}{4}$ "-20 (Guide Rail)	4
– Feet (Stand)	4
– Hex Nuts $\frac{3}{8}$ " x 16 (Feet)	8
– Hex Bolts $\frac{3}{8}$ " x 16 x $1\frac{1}{4}$ " (Feet)	4
– Hex Wrenches $\frac{3}{32}$ ", 4, 5mm	1 Ea
– Open-End Wrench 12/14mm	1
– Depth Stop Hex Bolt $\frac{5}{16}$ "-18 x 1" (Depth Stop)	1
– Hex Nut $\frac{5}{16}$ "-18 (Depth Stop)	1

! WARNING



Keep machine disconnected from power until instructed otherwise.



Figure 2. Inventory.

Lifting & Moving

The Model W1812 can be moved short distances if two people lift the ends of the cast iron extension wings and walk the machine to the new location. For ease of mobility, the machine can be placed on a Shop Fox Model D2057A Heavy Duty Mobile Base.

For long distance moving, we recommend using a forklift or other mechanical lifting or moving device.

Mounting Options

Before beginning assembly, review the general mounting options below, while keeping in mind your current and future machine operation and storage needs. We generally recommend that most machinery be fastened to the floor to dampen vibration and provide maximum stability. However, since floor materials vary, mounting hardware is not included. Some machinery may find its way into industrial shops or specialized settings where unique mounting fasteners and electrical grounding requirements apply. Make sure to follow all necessary codes and regulations when installing this machine.

Fastening to Floors

If you choose to physically fasten the machine to the floor, do not install the included rubber feet. With the Model W1812, the anchor studs or lag screws shown in **Figure 5** will pass through the four $\frac{3}{8}$ " diameter reinforced holes (see **Figure 6**) that are for the rubber feet.

Anchor studs are stronger and more permanent alternatives to lag screws and anchors; however, anchor studs will stick out of the floor, which may cause a tripping hazard later if you decide to move your machine. NEVER use air tools or excessively tighten the fasteners to level or eliminate the machine from rocking on an uneven floor. Doing so can bend or twist machine components and damage the fasteners. Instead add shims between the machine base and the floor to achieve stability and alignment before tightening the fasteners by hand.

Machine Feet

If you install the rubber feet included with the W1812, independent foot adjustment for stability will be possible. The rubber portions of the feet will also help dampen machine vibration.



Figure 4. Lifting location.

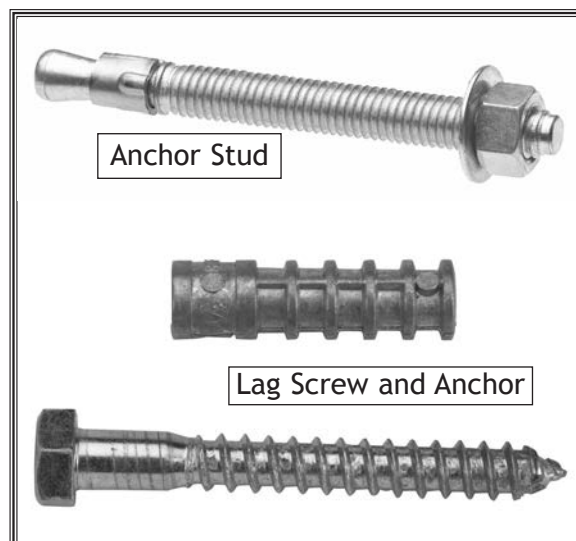


Figure 5. Typical fasteners for mounting to concrete floors.

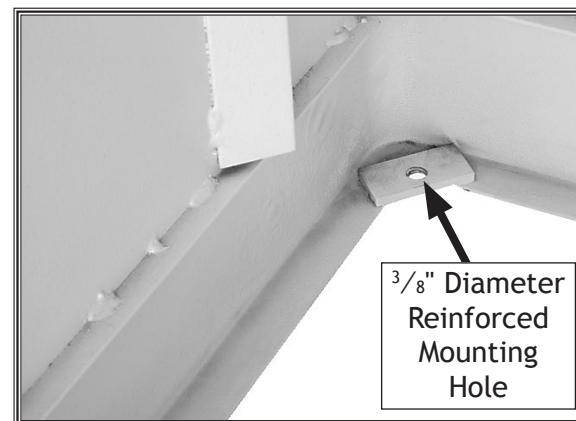


Figure 6. Foot installation location.

Assembly

The Model W1812 Planer/Moulder is shipped with an off-the-shelf 48" Power Twist™ Link V-Belt. The planer/moulder is designed for a 45" V-belt, so the included V-belt must be modified before installing it.

To remove links, do the following:

1. Count 5 links away from the end of the belt, turn the belt inside out and squeeze it together where the 5th link connects, as shown in **Figure 7**.
 2. Twist one of the tabs sideways, as shown in **Figure 8**, and push it down through the two layers of links.
- Note:** If you have difficulty twisting the tab, you can use pliers, but take care not to over-twist the tab or you could damage the belt.
3. Repeat **Step 2** with the second tab on the link, but only pulling that tab out of one layer. The section of 5 links are now removed from the belt.

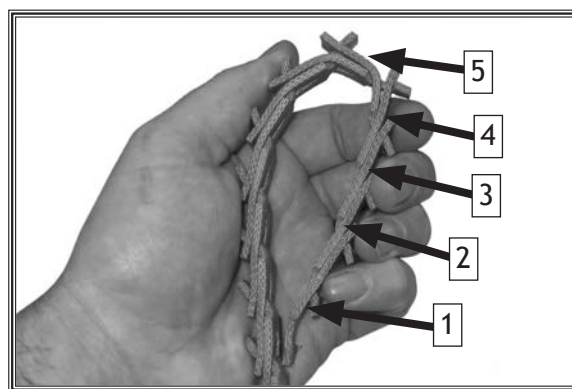


Figure 7. Bending belt inside-out at the 5th link.



Figure 8. Twisting the tab.

To connect the belt together, do the following steps:

1. Push the first tab on one end of the belt through the second slot (the one with two layers) on the other end of the belt, as shown in **Figure 9**.
2. Rotate the tab-end of the belt 90°, so the tabs point the same direction as the other tabs on the belt.
3. Bend the belt backwards (similar to **Figure 7**), twist the second tab, and push it through the hole.
4. Turn the belt outside-out and install it on the machine as described in the owner's manual.

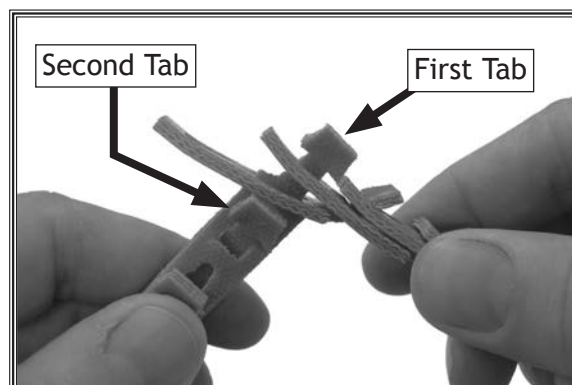


Figure 9. Connecting belt together.

To assemble the planer/moulder, do these steps:

1. Lay the stand on its side, insert the $\frac{3}{8}$ "-16 x $1\frac{1}{4}$ " hex bolts through the rubber feet, then thread a $\frac{3}{8}$ "-16 hex nut onto each bolt.
2. Thread each bolt into the reinforced holes shown in **Figure 6** on **Page 12**, and then thread the four remaining $\frac{3}{8}$ "-16 hex nuts onto each bolt to lock the feet in place.

3. Position the stand upright, adjust the feet so the stand sits level on the floor, then tighten the lock nuts to lock the feet in place.
4. Remove the shipping brace shown in **Figure 10**, reinstall fasteners in the brace, and save it for possible later use.

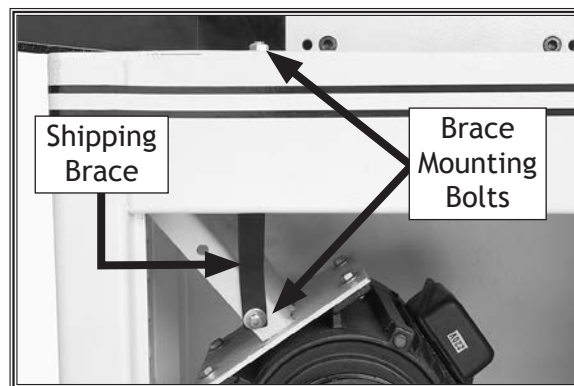


Figure 10. Shipping brace.

5. With the help of an assistant, lift the planer/moulder head/table assembly and position it onto the stand, as shown in **Figure 11**.
6. Remove the rear panel, then secure the head/table to the stand with four $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " hex bolts and $\frac{5}{16}$ " flat washers.
7. Place the belt onto the cutterhead pulley with the belt direction arrow pointing the direction of pulley rotation. When installed correctly, the internal belt tangs should be facing against the pulley rotation.
8. Keeping your fingers clear of pinch points, lift the motor and roll the belt onto the motor pulley as shown in **Figure 12**.

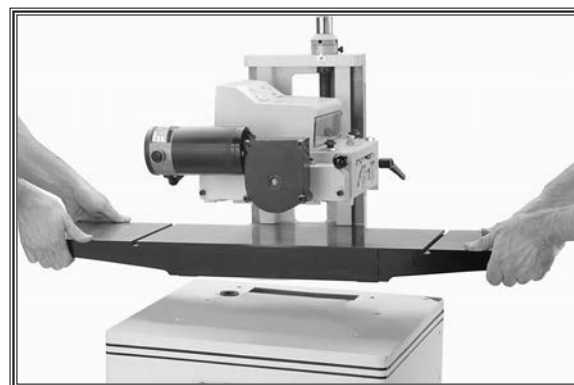


Figure 11. Placing planer/moulder on stand.

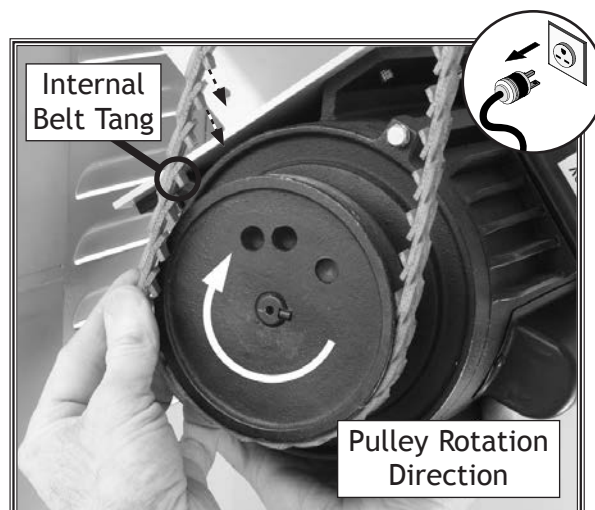


Figure 12. Motor pulley belt installation.

9. Attach the belt guard to the stand (see **Figure 13**) with two $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " hex bolts, four $\frac{5}{16}$ " flat washers, and two $\frac{5}{16}$ "-18 hex nuts.
10. Slide the handwheel hub over the shaft (see **Figure 13**) and tighten the set screw with a 5mm hex wrench.



Figure 13. Belt guard and handwheel installation.

11. Feed the control panel wiring harnesses through the hole in the stand, and secure the pedestal control panel to the stand, as shown in **Figure 14**, using three $\frac{5}{16}$ "-18 x 1" hex bolts and $\frac{5}{16}$ " flat washers.
12. Plug the harnesses into their respective sockets just below the pedestal control panel.

Note: A $\frac{5}{16}$ "-18 x $\frac{3}{8}$ " Phillips head screw is pre-installed in the headstock to keep the moulding knives clear of the table surface when the headstock is at its lowest position. To replace the screw with the included $\frac{5}{16}$ "-18 x 1" depth stop bolt and hex nut, simply remove the screw, thread the bolt with the nut into the hole, then tighten the nut against the headstock at the location shown in **Figure 14**.

The minimum workpiece thickness is $\frac{1}{4}$ " with the Phillips head screw and $\frac{1}{2}$ " with the depth stop bolt.

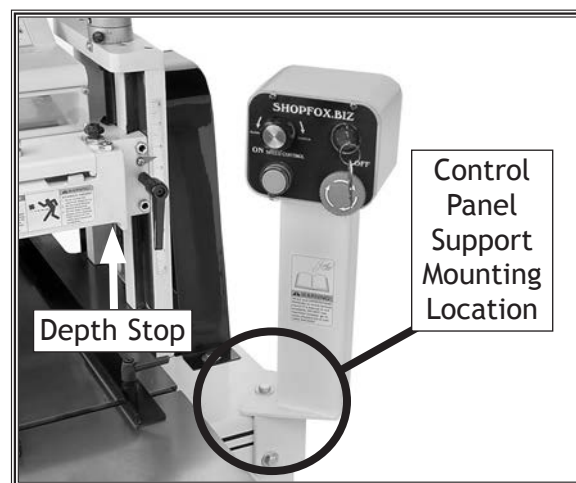


Figure 14. Control panel support installation.

13. Insert the feed motor wiring harness through the conduit and loom clamps, then plug it into the motor.
14. Fasten the conduit mounting bracket (see **Figure 15**) to the headstock with two $\frac{5}{16}$ "-18 x $\frac{3}{8}$ " flange screws.

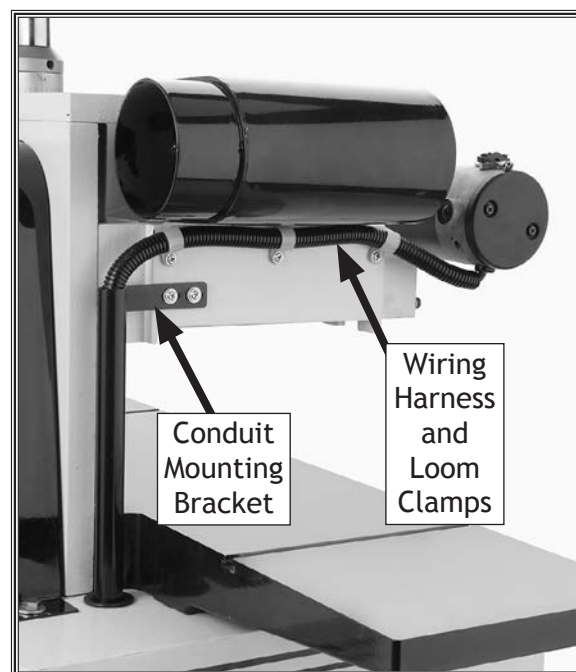


Figure 15. Conduit installation.

15. Install two T-nuts in each table slot (see **Figure 16**).
16. Position the inner and outer guide rails so the elongated T-nut slots (see **Figure 16**) are positioned on the infeed table.
17. Insert the lock levers through the guide rails, then thread them into the T-nuts.
18. Snug the levers in place.

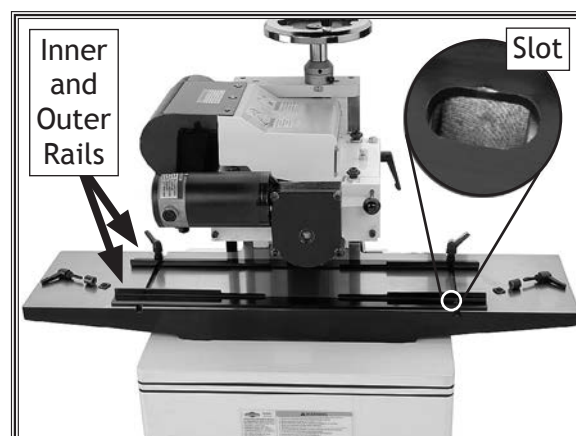


Figure 16. Rail installation.

19. Install the dust hood (see **Figure 17**) with three #10-24 x 1/2" flange screws.
20. Install a 4" flexible hose to the dust port, as shown in **Figure 17**.

Dust Collection

Recommended CFM at Dust Port: 400 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must take into account many variables, including the CFM rating of the dust collector, the length of hose between the dust collector and the machine, the number of branches or Y's, and the amount of other open lines throughout the system. Explaining this calculation is beyond the scope of this manual. If you are unsure of your system, consult an expert or purchase a good dust collection "how-to" book.



Figure 17. Installing the dust hood.

CAUTION

DO NOT operate this machine without an adequate dust collection system. This machine creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

Test Run

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation. The test run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the safety disabling mechanisms work correctly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting on Page 42** for correction. If you still cannot remedy a problem, contact our Tech Support at (360) 734-3482 for assistance.

To test run the machine, do these steps:

1. DISCONNECT MACHINE FROM POWER AND MAKE SURE KEY IS REMOVED FROM POWER SWITCH!
2. Raise the headstock to provide plenty of room for safe operation of the feed rollers and the cutterhead.
3. Pull out the retaining pin (see **Figure 18**) and remove the chip deflector.
4. Refer to **Installing Planer Knives** in on **Page 19**, and make sure the knives are tight and installed correctly.
5. Make sure the rest of the machine is set up properly.
6. Connect machine to power.
7. Push the OFF button in (see **Figure 19**), then turn it clockwise so it pops out. This will ensure it resets.
8. Insert the power switch key (see **Figure 19**), and turn it clockwise.
9. Push the ON button and the main motor will start.
10. Turn the speed control dial left and right to test the feed motor speed control.
11. Reset the OFF button.
12. Press the OFF button to stop the machine.
13. WITHOUT resetting the OFF button, press the ON button again. The machine should NOT start.
14. Remove the power switch key, and push the ON button one last time. The machine should not start.

WARNING



Projectiles thrown from the machine could cause serious eye injury. Wear safety glasses to reduce the risk of injury.



Figure 18. Removing chip deflector retaining pin.

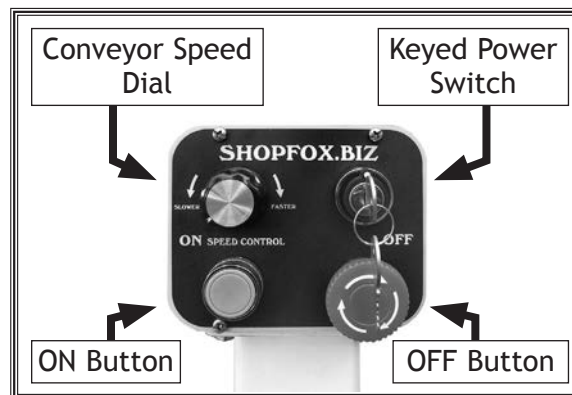


Figure 19. Control panel.

OPERATIONS

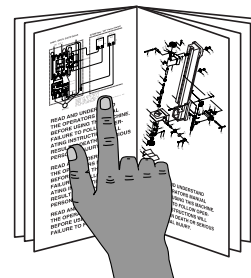
General

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

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

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced planer/moulder operator before performing any unfamiliar operations. **Above all, your safety should come first!**

! WARNING



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

Locking Power Switch

! WARNING

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

Removing the key from the power switch disables the cutterhead ON button (see **Figures 20 & 21**) which can prevent unauthorized machine operation. If the machine is located where untrained people have access, this is especially important. However, when adjusting or servicing this machine, disabling the machine in this manner is **NOT** a safe substitute for disconnecting the machine completely from power.

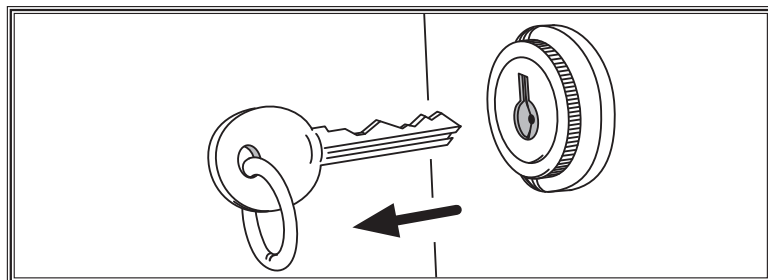


Figure 20. Disabling the machine.

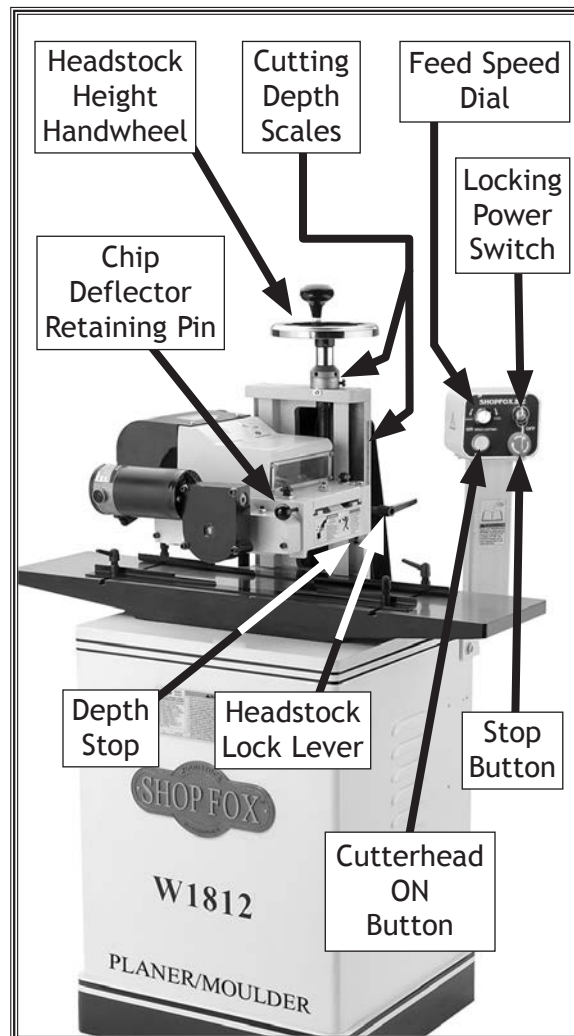
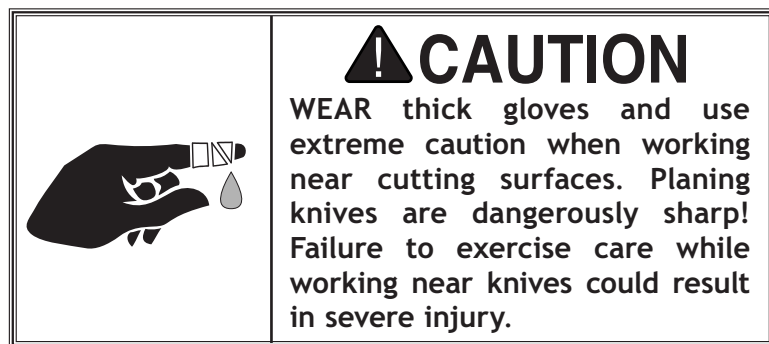


Figure 21. Machine controls.

Installing Planing Knives



To install the planing knives, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Pull the pin shown in **Figure 22**, and remove the chip deflector.
3. Put on heavy leather gloves, and use a 14mm wrench to remove the knife bolts, washers, and any knives (if installed).
4. Remove any dust, wood chips, or pitch from the cutterhead where the planing knife will seat.
5. Place the new planing knife against the cutterhead lip with the beveled side of the knife facing up, as shown in **Figure 23**.
6. Line up the holes in the planing knife and the cutterhead, and install a $\frac{3}{8}$ "-16 x 1" knife bolt and $\frac{3}{8}$ " flat washer in each of the upper hole positions shown in **Figure 23**. Make sure to keep the planing knife seated against the cutterhead lip while tightening the bolts.
7. Visually inspect to make sure that the planing knife did not move away from the cutterhead lip (see **Figure 24**) during the tightening process. If so, reinstall the knife until it is correctly seated.
8. Rotate the cutterhead and install the other planing knife.
9. Adjust the depth stop (see **Figure 21**) so the planing knives stay clear of the table surface when the headstock is at its lowest position.
10. Adjust the feed rollers and spring tension as outlined in **Feed Roller Height & Spring Tension** on Page 21.

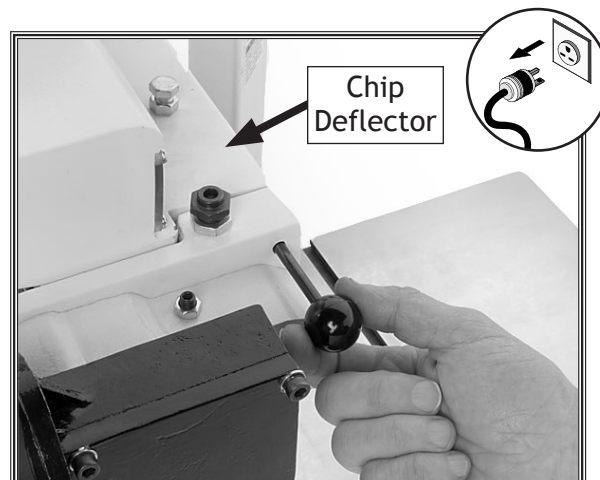


Figure 22. Removing chip deflector retaining pin.

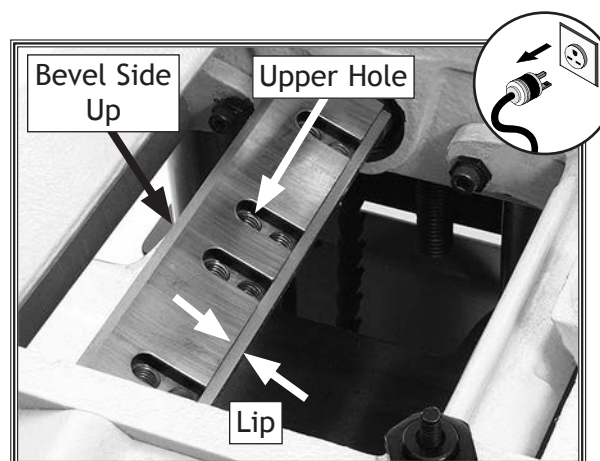


Figure 23. Correct planing knife position.

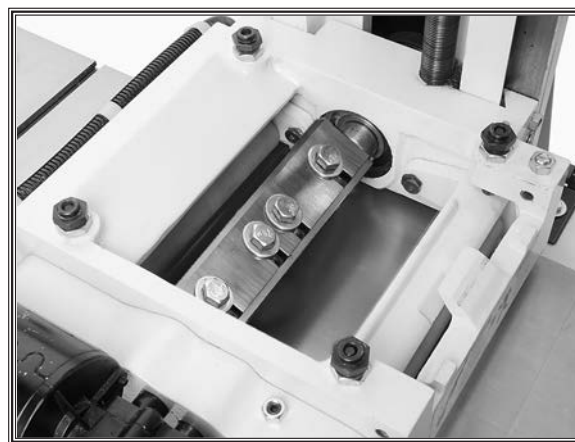


Figure 24. Planing knives installed.

Installing Moulding Knives

⚠ CAUTION

Moulding knives have many different profiles. Before starting the machine, always verify that the moulding knives do not contact any part of the workpiece guide rails, feed roller swing arm, or the table surface. Failure to verify knife clearance may result in severe injury and machine damage!

To install moulding knives, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Pull the retaining pin shown in **Figure 25**, and remove the chip deflector.
3. Put on heavy leather gloves, and use a 14mm wrench to remove the knife bolts, washers, and knives (if installed).
4. Remove any dust, wood chips, and pitch from the cutterhead knife seat and lip (see **Figure 26**).
5. With the beveled side of the knife facing up, place the moulding knife against the cutterhead lip as shown in **Figure 26**.
6. Slide the knife to the inboard side of the cutterhead and fasten it with the knife bolts as shown in **Figure 27**. Typically only one set of holes will be open on the inboard side.
7. Make sure the knife did not move away from the cutterhead lip when tightened, then rotate the cutterhead and install the other moulding knife.
8. Set the guide rail alignment so the edge of the knives do not hit the rails, and adjust the depth stop (see **Figure 21**) so the moulding knives stay clear of the table surface when the headstock is at its lowest position.
9. Adjust the feed rollers and spring tension as outlined in **Feed Roller Height & Spring Tension** on Page 21.

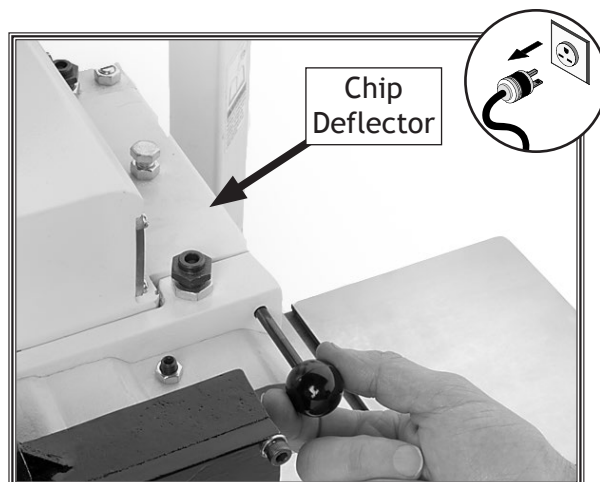


Figure 25. Removing chip deflector retaining pin.

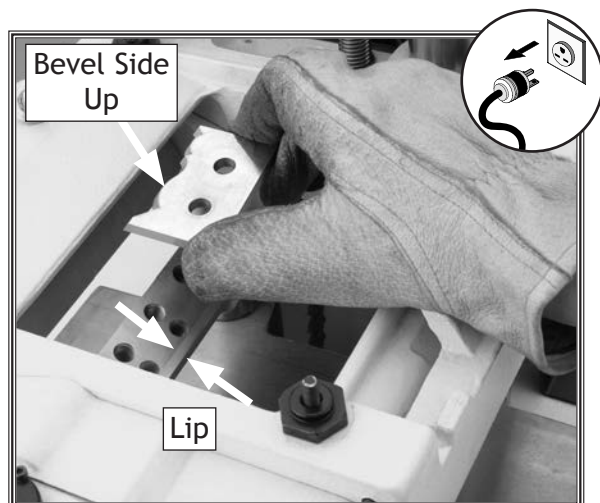


Figure 26. Installing moulding knife.

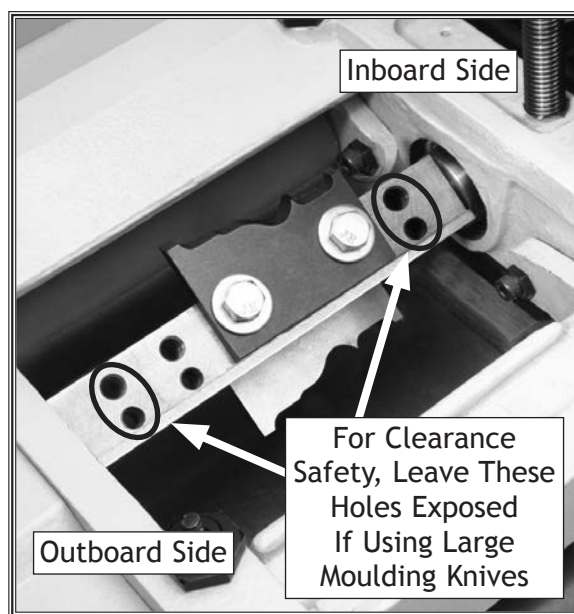


Figure 27. Knives positioned inboard.

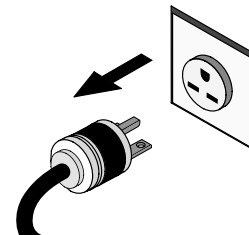
Feed Roller Height & Spring Tension

After switching between planing and molding operations, you must re-adjust the feed roller height and spring tension, so the workpiece is drawn through the planer/moulder without chatter or slip. Rollers that are too high, or have light spring tension can cause workpiece chatter or slip. Feed rollers that are too low or have excessive spring tension can make workpiece insertion into the planer/moulder difficult, and prematurely wear the feed roller shafts and bearings. The settings below are starting points and some trial-and-error when adjusting will be required.

To adjust the feed roller height and spring tension, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen the lock nuts (see **Figure 28**) and rotate the eccentric stops with a 5mm hex wrench until the rollers are positioned as follows:
 - For planing, lower the roller approximately 1mm below the lowest sweep of the planing knife.
 - For moulding, lower the roller approximately $\frac{3}{16}$ " below the highest point of the moulding knife profile. Refer to **Figure 29** to find the highest point of the moulding knife profile when the knife is at the lowest point of its sweep.

WARNING



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

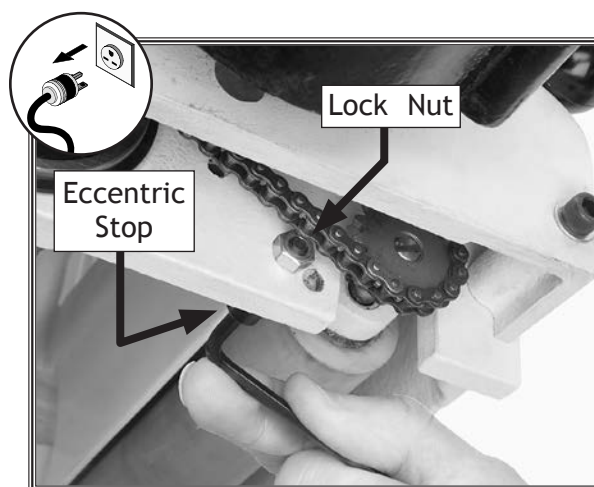


Figure 28. Adjusting feed roller height.

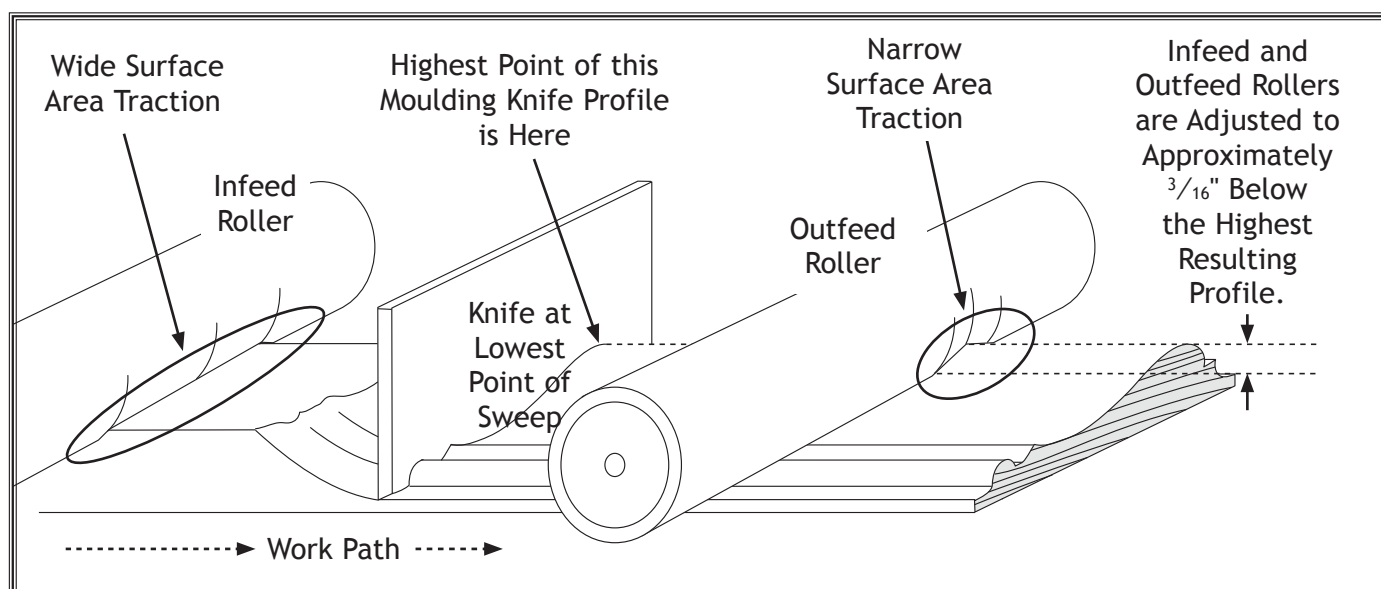


Figure 29. Relationship between feed roller height and moulding knife profile.

—If a certain moulding knife profile does not allow you to adjust the outfeed roller down far enough for proper roller traction, the eccentric stop must be repositioned to the lower hole. To do this, remove the lock nut (see **Figure 30**), reposition the eccentric stop in the lower hole (see **Figure 31**), and finger tighten the lock nut. Next, rotate the eccentric stop to lower or raise the roller, and retighten the lock nut.

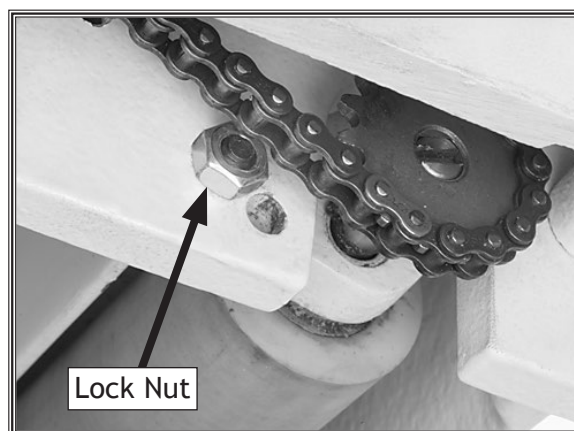


Figure 30. Lower hole for alternate stop location.

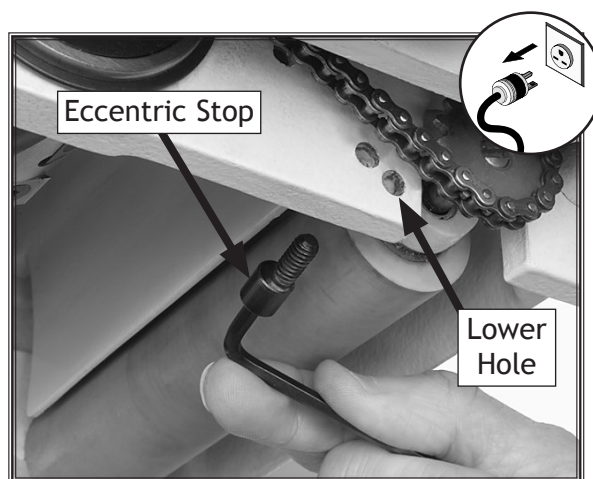


Figure 31. Removing eccentric stop.

3. Completely loosen the four spring tensioner nuts (see **Figure 32**), and unthread the tensioner assemblies until they are not touching the springs.
4. Thread the tensioners back into the housings until you feel the tensioner just contact the springs.
5. Rotate each tensioner approximately two full turns to preload the springs, then tighten the nuts.
6. Reinstall the chip deflector.

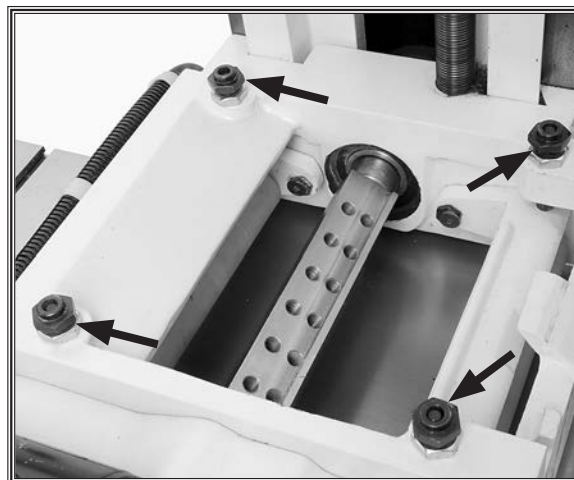


Figure 32. Feed roller spring tension nuts.

Workpiece Inspection

Before using this planer/moulder, inspect each and every workpiece for the following problems, and be familiar with the hardness of the wood.

- Each workpiece must have at least one flat surface to slide along the planer/moulder table. To create a flat surface, pass the workpiece over a jointer (see **Figure 33**). Defects such as twisting, loose knots or severe cracks may make the stock unusable.
- When possible, square up stock before moulding. Plane equal amounts on each side of the board to reduce the chance of twisting or cupping.
- Recognize the workpiece density. Planing is more difficult in hard species of wood and may require several shallow cuts to reach the desired thickness. **Figure 34** lists the hardness of many common woods based on shear strength.
- Only use clean lumber. Scrape off all glue from joined boards before processing. Remove all dirt, nails, staples, imbedded gravel, etc. from any workpiece you plan on using. Metal or gravel in a workpiece will instantly damage the knives.
- Avoid processing a workpiece with a high moisture content. Wood with more than 20% moisture, or wood that has been exposed to rain or snow, will cut poorly and cause unnecessary wear on the knives and motor.
- Process ONLY wooden workpieces. Never process particle board, plywood, MDF, laminates, or other synthetic materials.
- Feed wood in the same direction as the grain. Never feed end-cut or end-grained lumber into the planer/moulder.

CAUTION

ONLY cut wood with this machine! Cutting workpieces that are made of or contain plastic, melamine, metal, fiberglass, epoxy, resins, glues, or other non wood materials can lead to machine damage or serious personal injury!

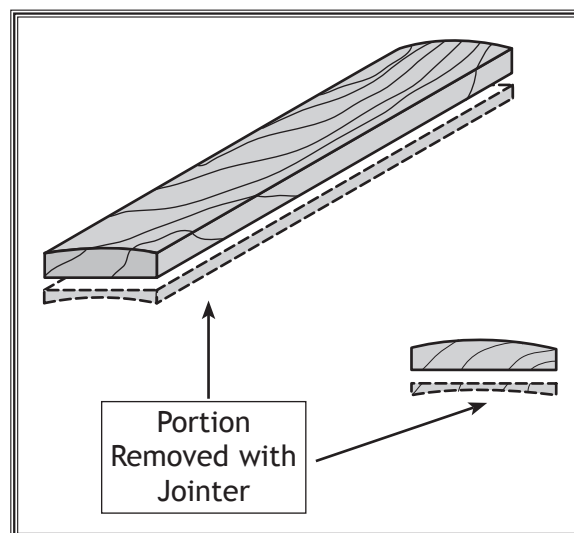


Figure 33. Face joint the concave side of cupped workpiece before milling.

	TYPE	SHEAR (PSI)
HARD ↑ ↓	Black Locust.....	2,480
	Sugar Maple	2,330
	Pecan Hickory.....	2,080
	White Oak	2,000
	White Ash.....	1,950
	Black Cherry	1,700
	American Elm	1,510
	Black Walnut	1,410
	Red Alder	1,370
	Basswood	1,280
	Cottonwood	1,160
	Western Larch	1,150
	Tamarack	1,130
	Douglas Fir	1,080
	Alaska Cedar	1,050
	Sitka Spruce	1,000
	Sugar Pine	980
	Cypress.....	940
	Redwood (OG)	930
SOFT	Red Cedar	860
	White Pine.....	850
	Balsam Fir	710

Figure 34. Wood density table.

Planing Do's & Don'ts

There are common mistakes that must be avoided when planing.

Multiple Boards

Only plane one board at a time (see **Figure 35**). Whether you use guide rails or not, never attempt to plane more than one board at a time side-by-side. If one board is slightly lower than the other, the feed roller will only hold the highest board, while the lower board will be free to slip when the knife contacts it. This hazardous situation can result in one board being ejected from the machine, causing serious injury.

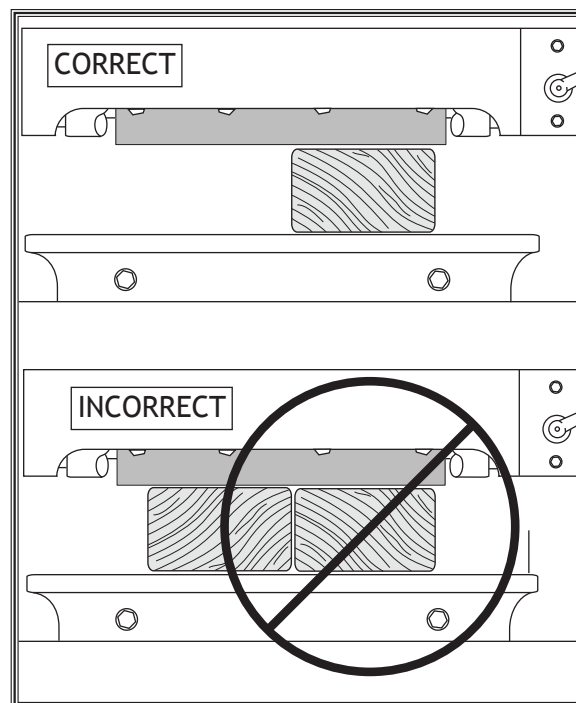


Figure 35. Only plane one board at a time.

Sacrificial Table Use

If using a sacrificial table, you must clamp it to the cast iron table (see **Figure 36**) to prevent workpiece ejection. Never stack two boards on top of one another and feed them both into the planer/moulder to compensate for a workpiece that may be too thin. Planing with two loose stacked boards can result in workpiece ejection, causing injury.

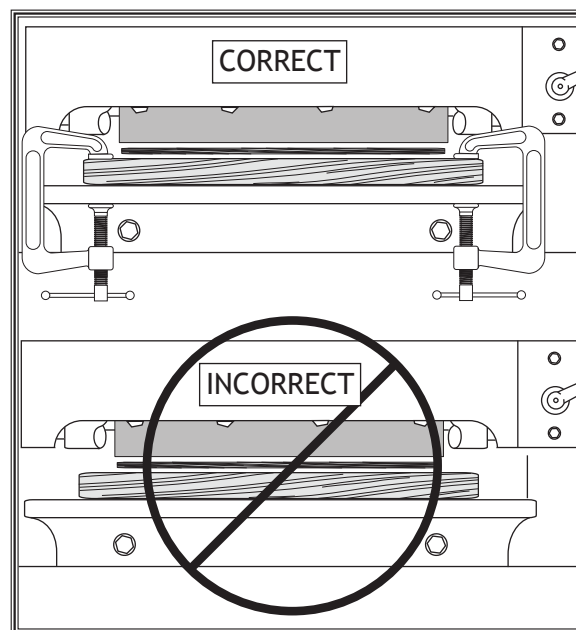


Figure 36. Sacrificial table mounting.

Planing Operation

The maximum cutting depth for soft wood at full cutterhead width is no more than $\frac{1}{8}$ " deep; however, keep in mind that the harder the wood, the shallower the cutting depth and the slower the feed rate should be. A series of light passes typically results in a smoother finish with less snipe.

The basic steps for operating the machine as a planer are as follows:

1. DISCONNECT MACHINE FROM POWER!
2. Review the **Workpiece Inspection** list on **Page 23** and the **AVOIDING KICKBACK** warning on this page.
3. Review **Planing Do's & Don'ts** on **Page 24**, and take the appropriate safety measures.
4. If you have not already done so, adjust the feed rollers and spring tension as outlined in the **Feed Roller Height & Spring Tension** section on **Page 21**.
5. Measure the workpiece thickness, loosen the headstock lock lever, and use the handwheel (see **Figure 37**) to adjust the headstock for a light pass.
6. Wearing gloves, manually rotate the cutterhead to make sure that the knives do not contact the table or guide rails if used.
7. PUT ON SAFETY GLASSES, EAR PROTECTION, AND A RESPIRATOR.
8. Tighten the headstock lock lever, start the machine, and turn the feed speed control dial to a medium speed.
9. Stand clear of the workpiece path, place the flat side of the board down on the table, and slowly feed the workpiece into the machine until the feed roller begins to pull the workpiece.
10. For subsequent passes, adjust the headstock height and feed rate as necessary until the desired thickness and finish is achieved.

Note: To reduce snipe, use roller tables and feed multiple pieces of stock butted up end-to-end, or experiment with a lighter feed roller spring tension. You can also try to raise one or both feed rollers up slightly.

WARNING

AVOIDING KICKBACK!

- Always stand to one side of the machine—rather than behind the workpiece.
- DO NOT plane more than one piece at a time.
- Always plane WITH the grain direction of the wood. Never plain cross-grain or end-grain.
- DO NOT remove more than $\frac{1}{8}$ " of material on each pass.
- Support the workpiece on both ends. Get assistance if you are planing long lumber, or use roller stands to support the workpiece.
- Carefully inspect all stock to make sure it is free of large knots or foreign objects that may damage your knives.

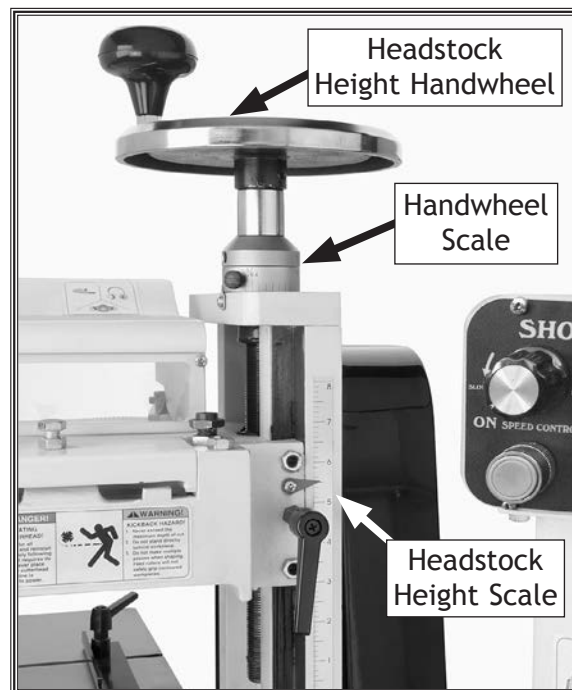


Figure 37. Depth controls and scales.

Moulding Do's & Don'ts

The Model W1812 will accommodate most moulding knife profiles. However, you must still pay special attention to workpiece support and knife-to-table clearance. Refer to the following examples to avoid common workpiece setup mistakes.

⚠ CAUTION

Moulding knives have many different profiles. Before starting the machine, always verify that the moulding knives do not contact any part of the workpiece guide rails, feed roller swing arm, or the table surface. Failure to verify knife clearance may result in severe injury and machine damage!

Edge-Forming Knife Clearance

A wooden sacrificial table clamped to the cast iron table and a three-piece guide system (see **Figure 38**) can prevent tool and table damage by absorbing the full sweep of the knife.

Never attempt to use edge-forming profile knives without pre-installing a wooden sacrificial table. Often these types of knives sweep lower than the workpiece and could contact the table at the bottom, as shown in **Figure 38**, causing severe machine damage or personal injury.

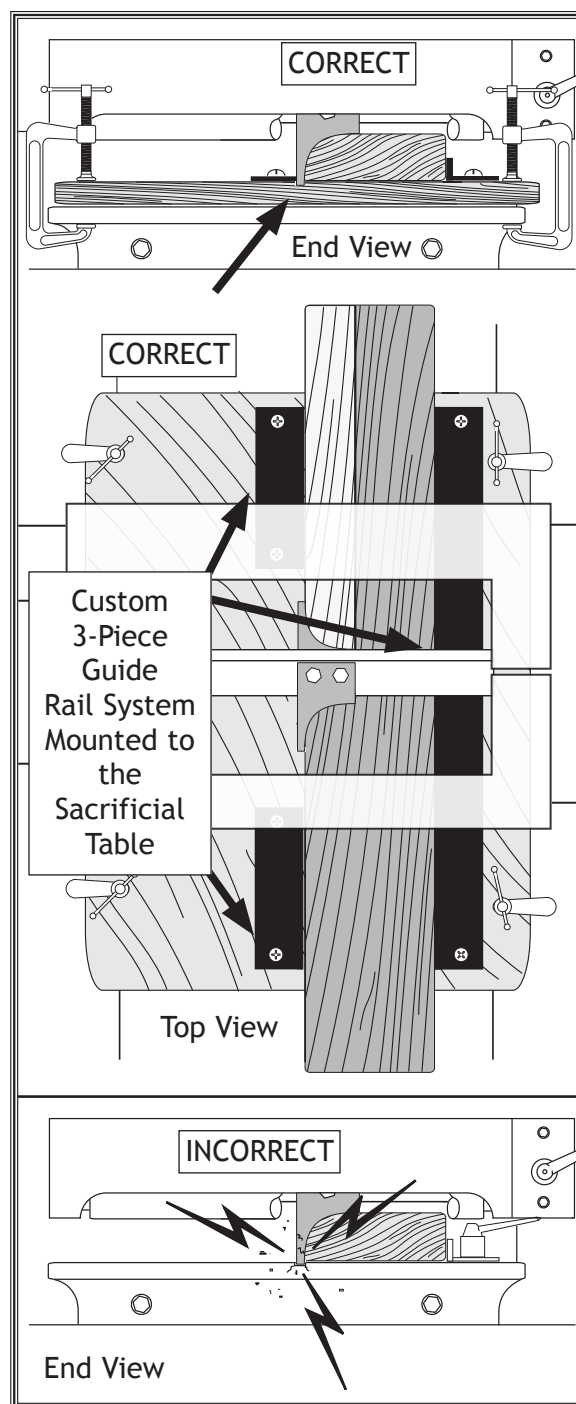


Figure 38. Edge-forming profile hazards.

Crown Moulding Support

When cutting crown moulding (see **Figure 39**), make a wooden V-track that can be clamped to the table. The V-track must support at least 50% of the workpiece height on both sides.

Do not use the guide rails that came with your machine for crown moulding support. If you do, the workpiece can dislodge and be ejected from the machine, causing severe injury or damage.

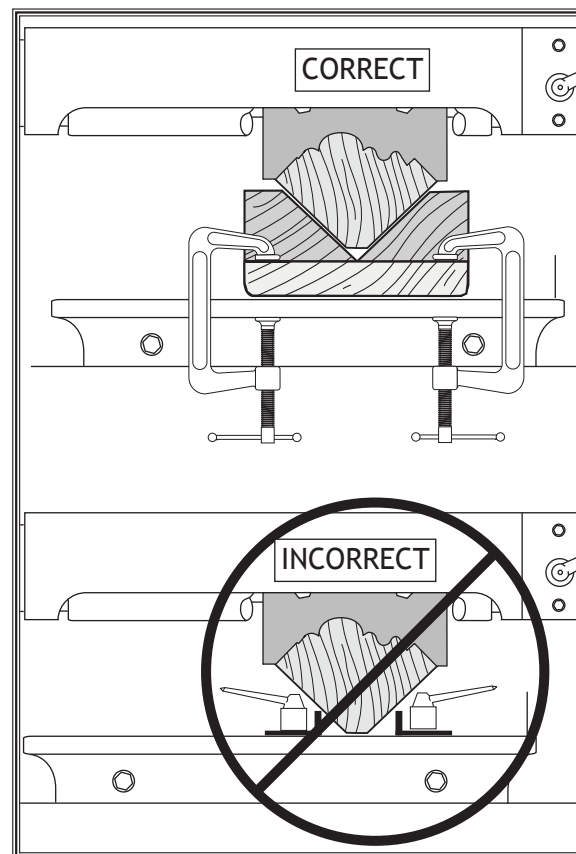


Figure 39. Crown moulding track.

Knife Positioning

When cutting harder woods, some moulding knife profiles are prone to vibration that leave chatter marks on the workpiece. To counteract this problem you can stabilize the cut by installing the moulding knives closer to column for the best support (see **Figure 40**).

CAUTION

Moulding knives have many different profiles. Before starting the machine, always verify that the moulding knives do not contact any part of the workpiece guide rails, feed roller swing arm, or the table surface. Failure to verify knife clearance may result in severe injury and machine damage!

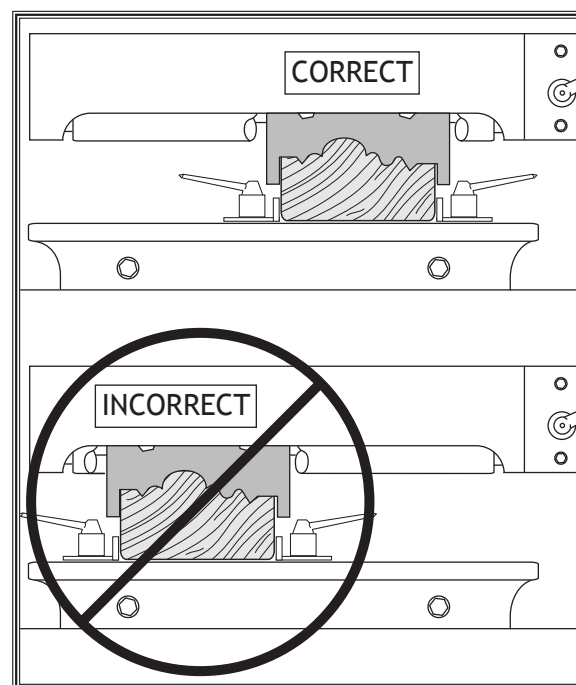


Figure 40. Knife positioning.

Size Workpiece Appropriately

Make sure to cut your workpiece to the correct width for the knife being used (see **Figure 41**). To improve knife life and workpiece results when cutting in very hard woods, use a table saw to rabbet out some of the profile before running the workpiece through the planer/moulder.

Never cut into moulding that is wider than the knife. Otherwise, the knife will overheat, burn the wood, and dull rapidly.

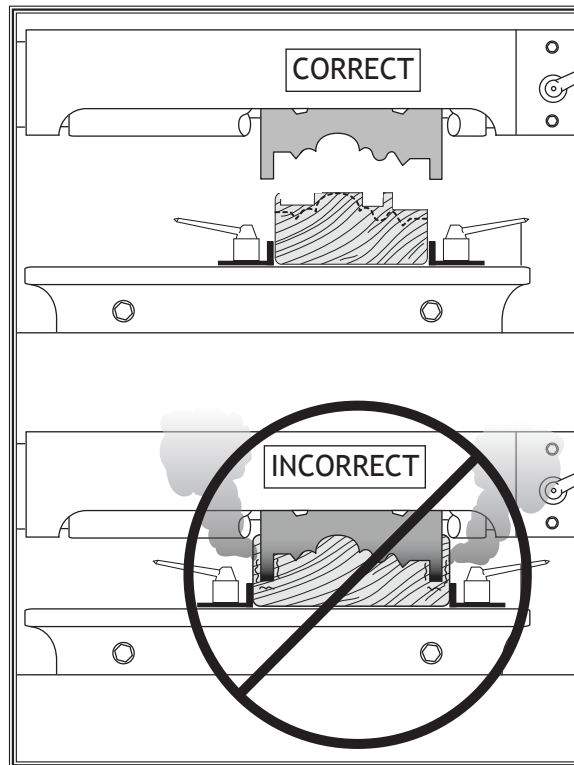


Figure 41. Correct workpiece sizing.

Always Use Guide Rails When Moulding

Make sure to use the guide rails (see **Figure 42**), so the moulding profile can be cut with maximum safety and without wander, twisting, or profile misalignment.

Do not attempt to cut moulding without using the guide rails. Otherwise, the workpiece could shift and be ejected from the machine, or the moulding pattern could be inconsistent from one strip of molding to another.

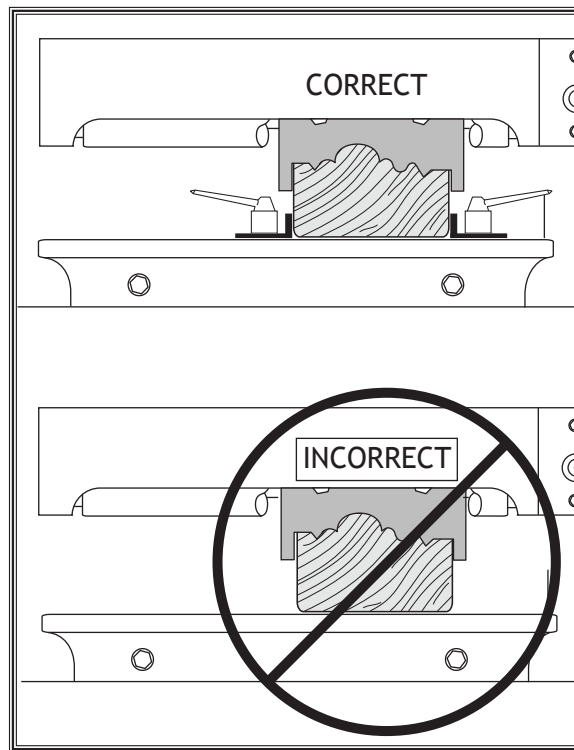


Figure 42. Using the guide rails.

Edge Moulding Tall Workpieces

When cutting edge profiles on workpieces that are taller than they are wide, you must clamp wooden extension rails to the table so they support at least 75% of the workpiece height on both sides (see **Figure 43**).

Never attempt to use the low profile metal guide rails that came with this machine if they do not adequately support tall workpieces. If the workpiece slips out of the rails because they are too low, the workpiece can be ejected from the machine, causing severe injury.

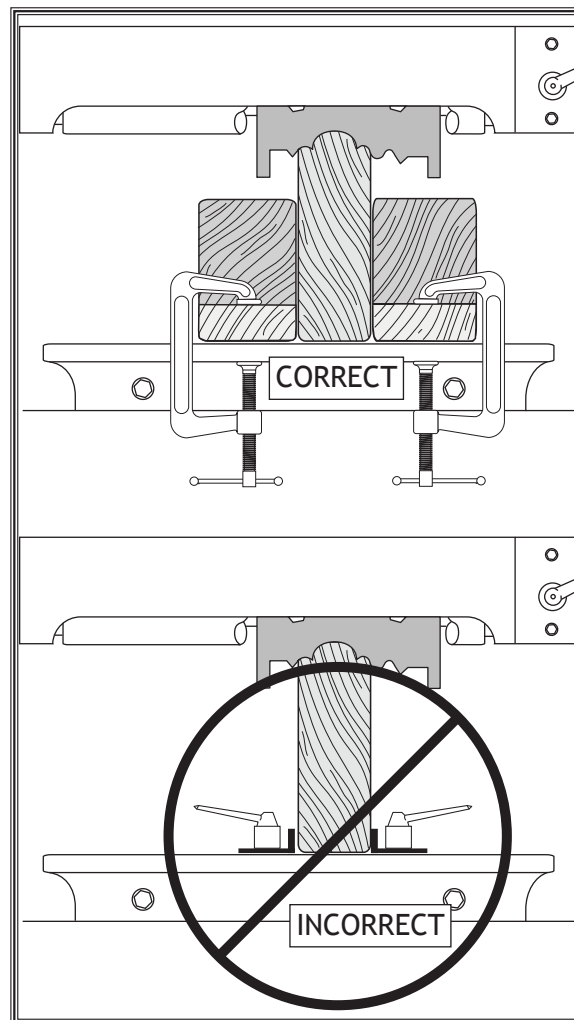


Figure 43. Correct support for tall workpieces.

Moulding Operation

The maximum depth of a moulding cut in soft wood is $\frac{3}{4}$ ". For hard or knotty wood the maximum depth of cut must be less, and the feed rate may have to be reduced. If both of these options are not enough, then a table saw can be used to rabbet out some of the material that the knives would of have had to remove. See **Figure 41** for an example of this.

The basic steps for a moulding operation are as follows:

1. DISCONNECT MACHINE FROM POWER!
2. Review the **Workpiece Inspection** list on **Page 23** and the **AVOIDING KICKBACK** warning on this page.
3. Review **Moulding Do's & Don'ts** on **Page 26**, and take the appropriate safety measures.
4. Adjust the guide rails against the sides of the workpiece it will be is directed into the planing knives without binding, then tighten the rail lock levers.
5. If you have not already done so, adjust the feed rollers and spring tension as outlined in the **Feed Roller Height & Spring Tension** section on **Page 21**.
6. Loosen the headstock lock lever, and use the handwheel (see **Figure 44**) to adjust the headstock down far enough to make a full pass.
7. Put on heavy leather gloves and rotate the cutterhead manually to verify that the knives do not contact the table or the guide rails.
8. PUT ON SAFETY GLASSES, EAR PROTECTION, AND A RESPIRATOR.
9. Connect the machine to power.
10. Turn the feed speed control dial to a slow speed and start the machine. Finding the best feed rate will be a process of trial-and-error based on finding a balance between the wood type, moulding knife profile, and the quality of finish desired.
11. Stand to the side of the table, place the workpiece on the table, and slowly feed it into the machine until the feed roller begins to pull the workpiece.

WARNING

AVOIDING KICKBACK!

- Always stand to one side of the machine—rather than directly behind the workpiece.
- Always check and reset outfeed roller height after changing knives.
- Always cut mouldings **WITH** the grain direction. Never cut across the grain or on the end-grain.
- Do not make a second pass after cutting the initial profile. The first pass has full roller-to-workpiece contact, but on the second pass, both the infeed and outfeed rollers have minimum contact and the workpiece may be ejected.
- Use roller stands to support long workpieces.
- Carefully inspect all stock to make sure it is free of large knots and foreign objects.

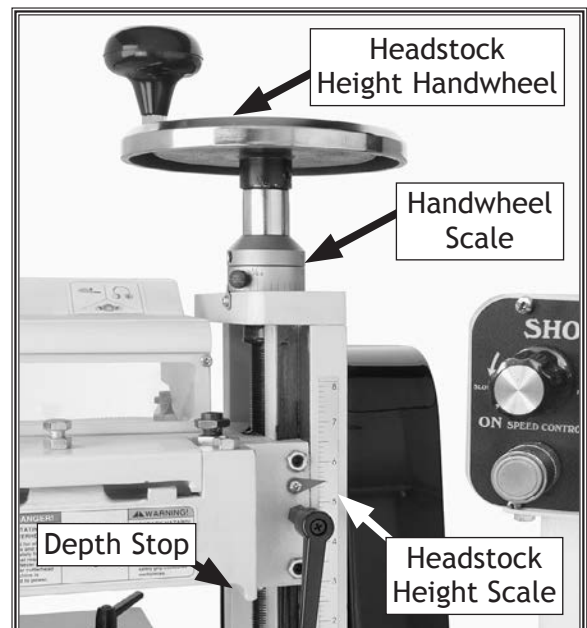


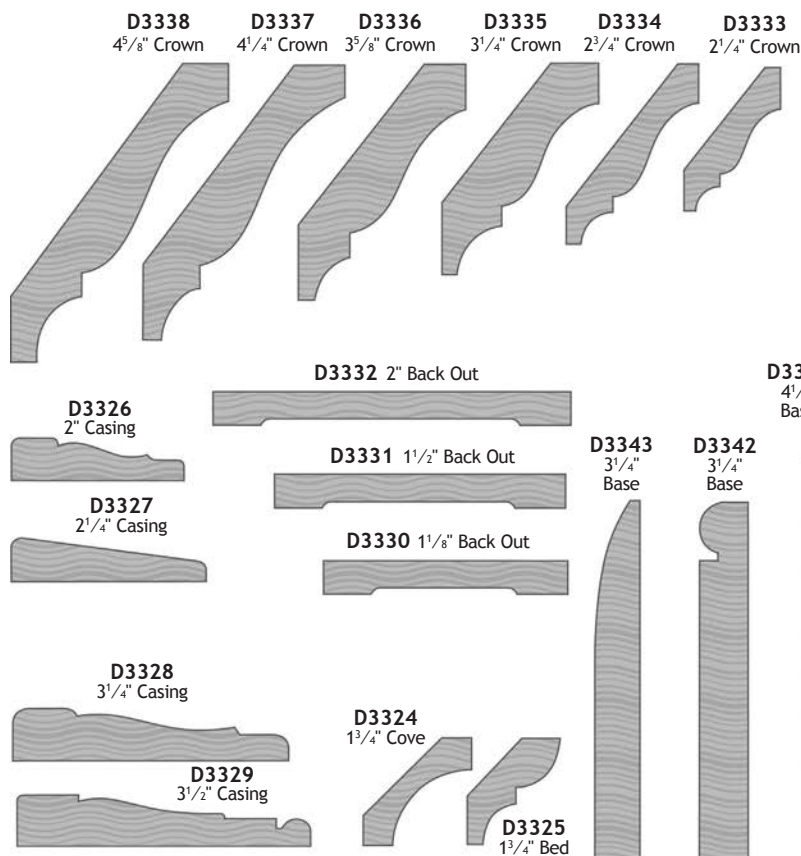
Figure 44. Depth controls and scales.

ACCESSORIES

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

Moulding Knives

This selection of HSS Moulding Knives fits our Shop Fox® Planer/Moulders. Each moulding profile includes a set of two indexable knives, so knife setting is quick and easy.



BACK CUTTERS

For Crown Moulding Knives
(Sold in pairs).



- D3674 Back Cutter for D3333 2 1/4" Crown
- D3675 Back Cutter for D3334 2 3/4" Crown
- D3676 Back Cutter for D3335 3 1/4" Crown
- D3677 Back Cutter for D3336 3 5/8" Crown
- D3678 Back Cutter for D3337 4 1/4" Crown
- D3679 Back Cutter for D3338 4 5/8" Crown

Model D3393—Elliptical Jig

This is an ideal accessory to create round-top windows and arched panelways that are characteristic of custom woodwork. Using the existing guide rail mounting hardware from the W1812 planer/moulder, this jig easily fastens to the planer/moulder table. The jig hand crank feeds arched wood into the cutterhead to create extremely high quality casings and mouldings that match any previously cut straight mouldings with the same profile. This jig requires a shop-made 3/4" thick template of the same arc or radius as the workpiece. Maximum width capacity is 5 1/2".



Figure 45. Model D3393 elliptical jig.

W1727—1 HP Dust Collector

A perfect dedicated dust collector for a planer/moulder on a job site or in a shop. The motor is 1HP, 110V/220V, single-phase; and the flow specifications are 800 CFM with a static pressure of 5.67" H₂O. The bag capacity is 2.1 cubic feet with a filtration level down to 2.5-micron.



Figure 46. W1727 1HP dust collector.

W1049—Large Dust Collection Separator

Our Dust Collection Separator increases the chip collection capacity of dust collection systems that are rated 800 CFM or greater. Designed to fit securely on top of a standard 30-gallon metal trash can, this molded ABS fitting is engineered to use cyclonic action to drop out larger particles from the dust flow. The fitting features molded inlets and outlets that can be easily connected to standard systems using 4" flexible hose. You'll be amazed at how well it works!



Figure 47. W1049 large dust collection separator.

Model D2273—Single Roller Stand

Large diameter ball bearing roller stand features smooth operation for a variety of processing and work support applications. Heavy pedestal base is stable and secure.

Model D2274—5 Roller Stand

For greater work stability and support, this 5 roller stand features large diameter, ball bearing rollers mounted on a sturdy adjustable pedestal base.



Figure 48. Models D2273 and D2274 Shop Fox roller stands.

D2057A—Heavy-Duty Shop Fox Mobile Base

Make your machine mobile with this popular patented mobile base. The unique outrigger type supports increased stability and lower machine height. This heavy duty mobile base is rated for up to a 600 lb. capacity.



Figure 49. D2057A Shop Fox mobile base.

MAINTENANCE

General

Regular maintenance on your machine will ensure its optimum performance. Make a habit of inspecting your machine each time you use it.

- Loose mounting bolts.
- Worn switch, damaged cords, and plugs.
- Damaged V-belt.
- Any other unsafe condition.

Cleaning

Frequently vacuum sawdust away from the internal working parts of the machine and motor fan cover. Dust build-up around the motor is a sure way to decrease its lifespan.

Occasionally it will become necessary to clean the internal parts with mineral spirits and a stiff brush. Make sure the internal workings are dry and have been re-lubricated before using the machine again. When using mineral spirits and cleaners, do not allow them to contact the viewing window or it may become etched and cloudy. Remove the chip deflector, and use only warm water with a mild dish soap to clean the window. Do not let water come in contact with metal parts or rust may occur.

Cleaning Feed Motor

Every three months of daily use, remove the motor dust cover (see **Figure 50**), and vacuum the carbon dust buildup from inside of the motor. Under very heavy-use, increase the cleaning interval. **DO NOT** blow motor out with compressed air, as this may force contaminants into bearings!

Table & Base

Tables can be kept rust-free with regular applications of products like SLIPIT®. For long term storage you may want to consider products like Boeshield T-9™.

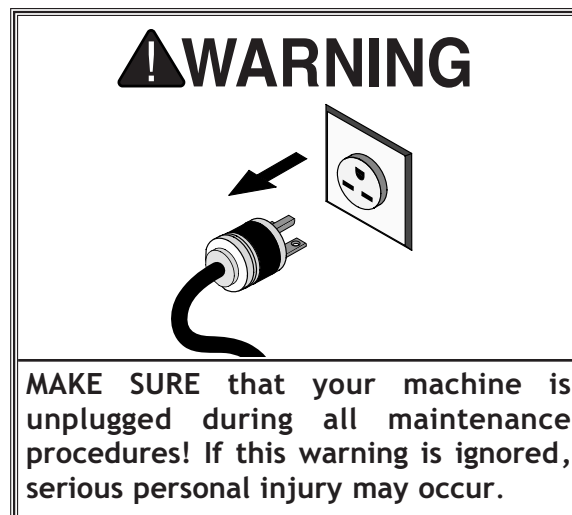


Figure 50. Feed motor dust cover.

Lubrication

Figures 51–53 show lubrication locations that need attention every six months; however, under heavy use or adverse working conditions, increase lubrication intervals accordingly.

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced.

To lubricate the machine, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Measure and record the distance each tensioner protrudes from the top of the headstock.
3. Loosen the nuts and un-thread the tensioner assemblies, one of which is shown in **Figure 51**.
4. Clean the tensioner assembly with mineral spirits, apply a thin layer of light machine oil or motor oil, and reinstall the tensioner to the previously recorded height.
5. Place the nozzle under the chain housing, vacuum out all dust, then brush a coat of light machine oil or motor oil on the drive chains (see **Figure 52**).
6. Clean the column ways and leadscrew with mineral spirits, and brush a coat of light machine oil or motor oil on all cleaned locations (see **Figure 53**).
7. Apply a few drops of light machine oil or motor oil onto the gib at the top, so the oil drains down inside the gib seat, keeping the gib lubricated.
8. Apply a few drops of light machine oil or motor oil onto the handwheel scale hub, and work the hub to make sure that it draws the oil down inside.
9. Wipe away excess oil with a clean rag.

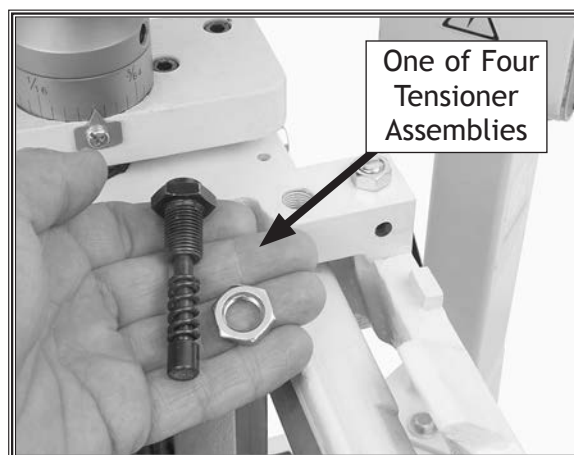


Figure 51. Tensioner assembly.

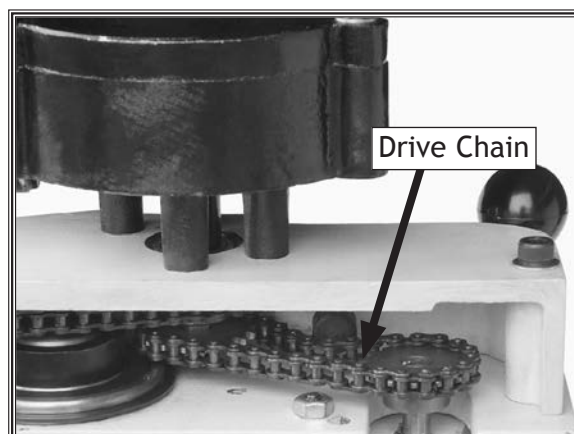


Figure 52. Drive chain assembly.

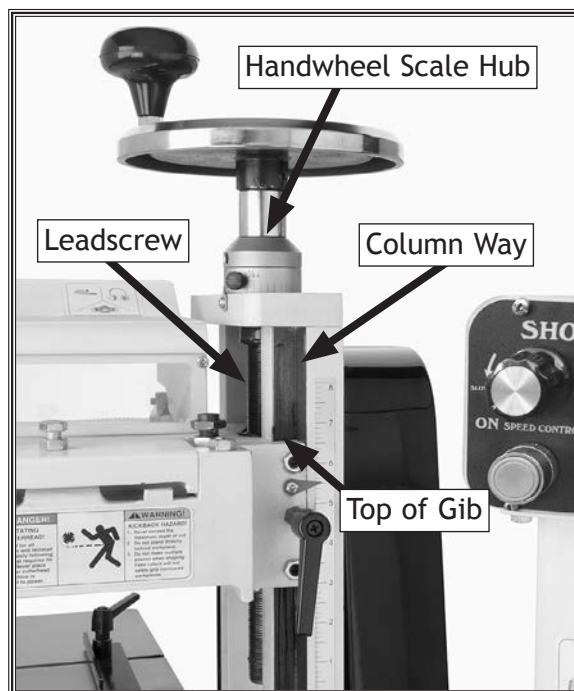


Figure 53. Gib, way, and leadscrew locations.

SERVICE

General

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

If you require additional machine service information not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send an e-mail to: tech-support@shopfox.biz.

Changing Feed Motor Brushes

If the feed motor fails, is noisy, warmer than usual, or appears to run sluggishly, the brushes may need to be replaced.

To replace feed motor brushes, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Unscrew both dust cover retaining screws and remove the dust cover shown in Figure 54.
3. Unscrew the brush caps from both sides of the motor, and remove the brushes, as shown in Figure 55.
4. Vacuum carbon dust from the motor and both brush bores. DO NOT blow dust out with compressed air!
5. Insert new brushes into the slots located on both side of the brush bores.
6. Reinstall the brush caps.
7. Reinstall the motor dust cover.
8. Test run the feed motor.

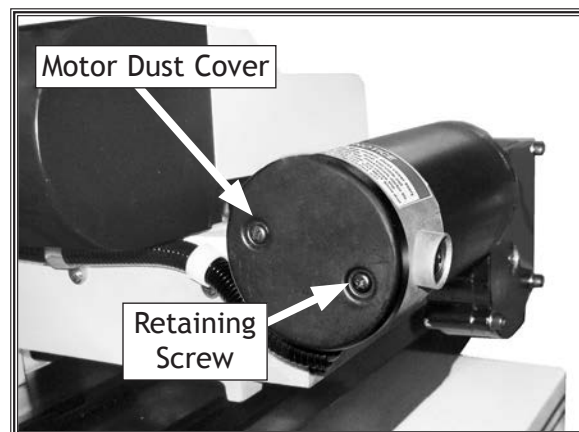
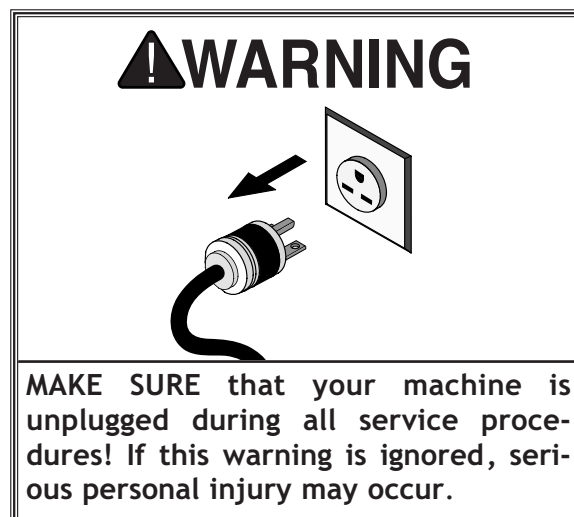


Figure 54. Feed motor end view.

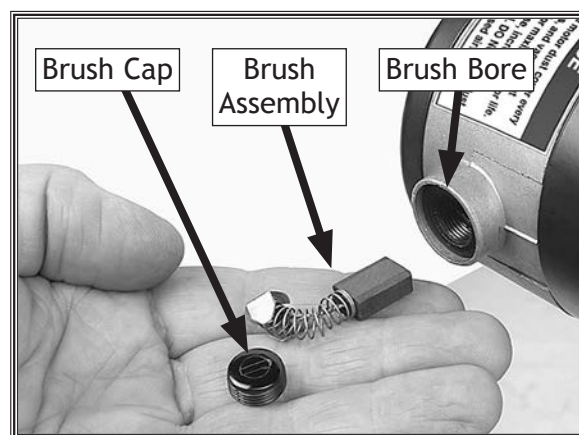


Figure 55. Feed motor brush and cap.

Feed Roller-to-Table Alignment

The feed rollers must be aligned correctly with the table to maintain a smooth and straight feed.

To check the feed roller-to-table alignment, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Pull the retaining pin out (see **Figure 57**), and set the chip deflector aside.
3. Make the wooden gauge block shown in **Figure 56**.
4. Place the finished block on the table, directly under one end of the infeed roller, as shown in **Figure 57**.
5. Lower the cutterhead housing so the infeed roller barely touches the gauge block the lowest end of the roller (see **Figure 57**).
6. Slide the block over to the other end of the roller.
7. Using a set of feeler gauges, measure the gap between the roller and the block.
 - If the gap is more than 0.005", proceed to **Step 8** and adjust the swing arm downward so the roller just touches the block or the gap is less than 0.005".
8. Loosen the cap screw shown in **Figure 58**, then rotate the cam nut until the swingarm lowers or raises, so the roller just touches the block without compressing the roller springs.
9. Remove the gauge block and retighten the cap screw.
10. Check and adjust the outfeed roller in the same manner as above.
11. Complete the **Feed Roller Height & Spring Tension** adjustments on **Page 21**.
12. When finished, reinstall the chip deflector.

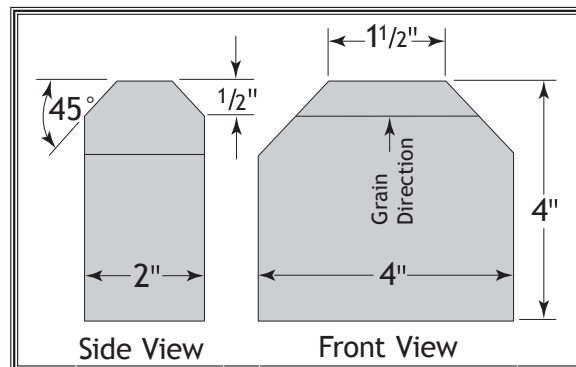


Figure 56. Gauge block dimensions.

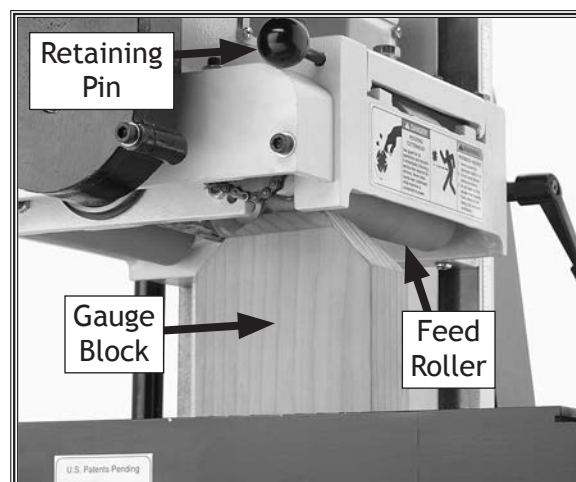


Figure 57. Gauge block placed under feed roller.

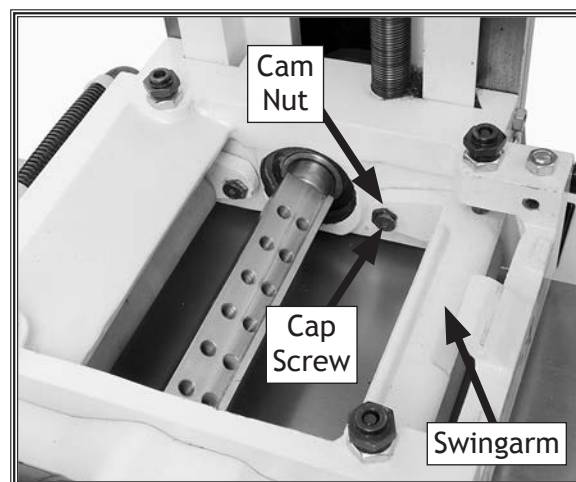


Figure 58. Feed roller components.

Drive Chain Adjustment

After long-term machine use, the rubber pad on the end of the drive chain tensioner (see **Figure 59**) will wear. The result is that the drive chain will become overly slack and can jump its sprockets, causing damage. This situation can be avoided by removing the excess chain slack.

When properly adjusted, keep in mind that the chain should not be in tension like a V-belt, but rather it should hang slightly with 3-5mm of hanging slack (see **Figure 60**), so the sprocket shafts are free floating with no chain tension against them.

To remove excess chain slack, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Raise the headstock until you have easy access to the chain area.
3. Loosen the lock nut on the chain tensioner screw (see **Figure 61**).
4. Use a 4mm hex wrench to adjust the tensioner until there is 3-5mm of hanging slack in the chain (see **Figure 60**).
5. Tighten the lock nut, and test the operation.

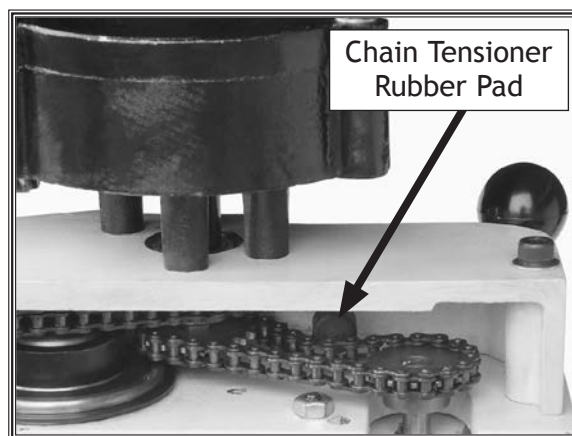


Figure 59. Drive chain tensioner rubber pad.

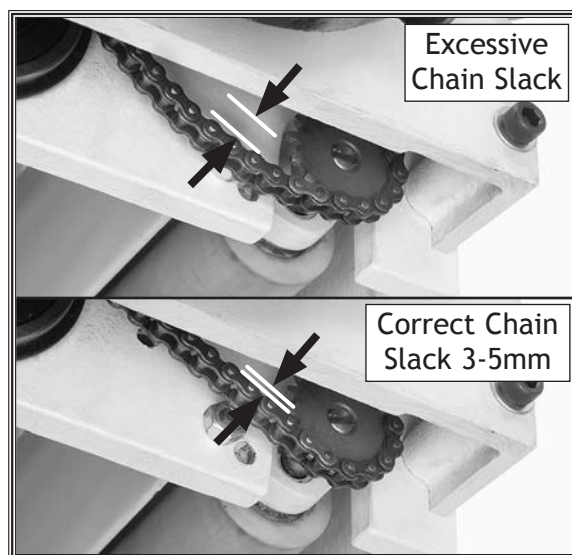


Figure 60. Chain slack examples.

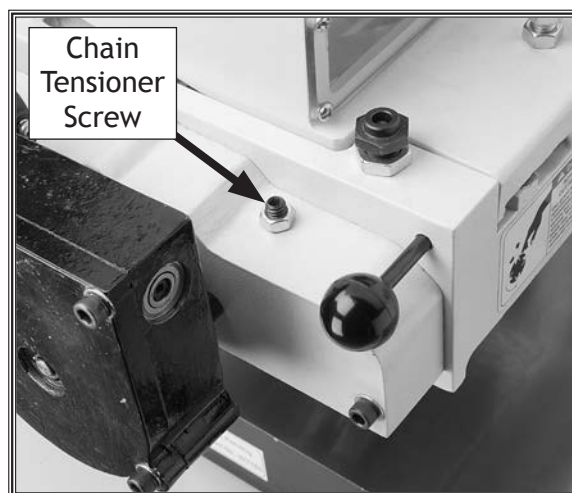


Figure 61. Chain tensioner screw location.

Gib Adjustment

Due to normal wear, the headstock gib will eventually have to be re-adjusted to remove any play in the ways.

To adjust the headstock gib, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Clean and lubricate the column leadscrew, gib, and ways.
3. Loosen the gib lock nuts shown in **Figure 62**.
4. Using a 4mm hex wrench, adjust the upper and lower gib screws in an alternating fashion until a slight drag is detected in the headstock slide when the handwheel is cranked.
5. Tighten the lock nuts.

NOTICE

When adjusting gibs, the goal is to remove unnecessary sloppiness or binding from the headstock when it slides up and down on the column. A loose gib will allow the headstock to vibrate and the knives to chatter. An overly tight gib will prematurely wear the column and leadscrew.

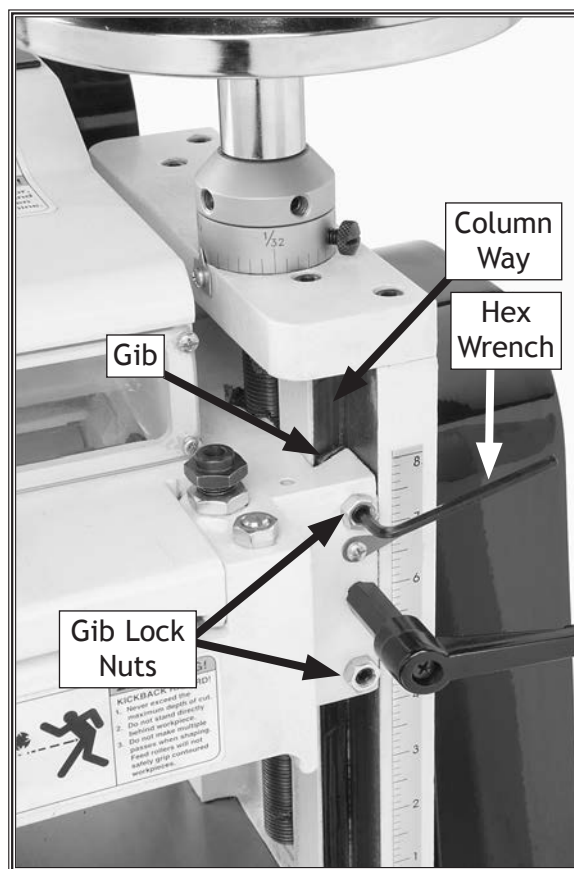
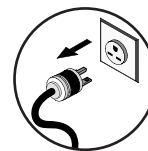


Figure 62. Gib locations.

Electrical Safety Instructions

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Study this diagram carefully. If you notice differences between your machine and these wiring diagrams, call Woodstock International Technical Support at (360) 734-3482.



WARNING

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

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

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

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

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

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

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

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

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

NOTICE

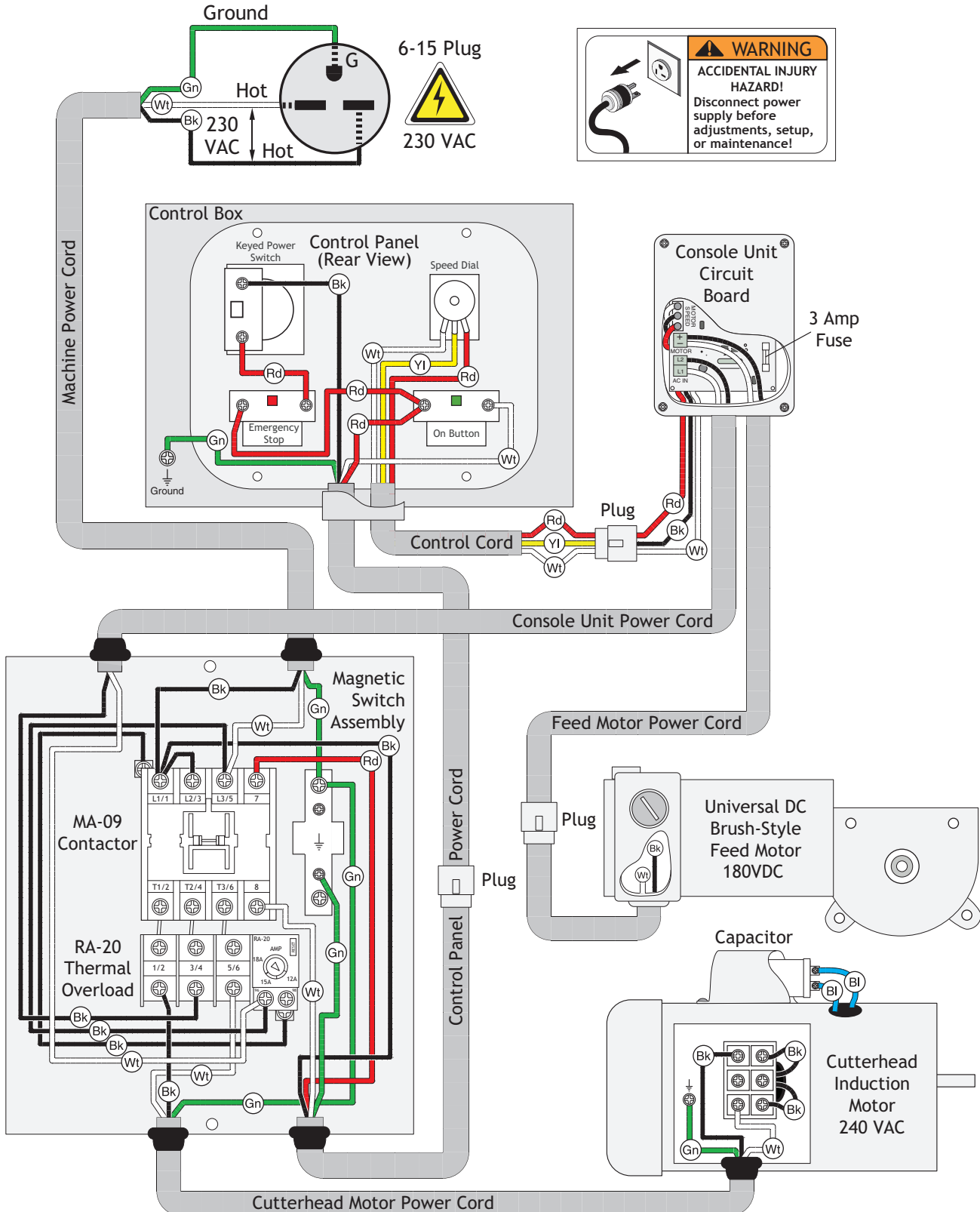
The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.shopfox.biz.

WIRING DIAGRAM COLOR KEY

BLACK 	BLUE 	YELLOW 	LIGHT BLUE 
WHITE 	BROWN 	YELLOW GREEN 	BLUE WHITE 
GREEN 	GRAY 	PURPLE 	TUR-QUOISE 
RED 	ORANGE 	PINK 	



Wiring Diagram





Electrical Component Locations

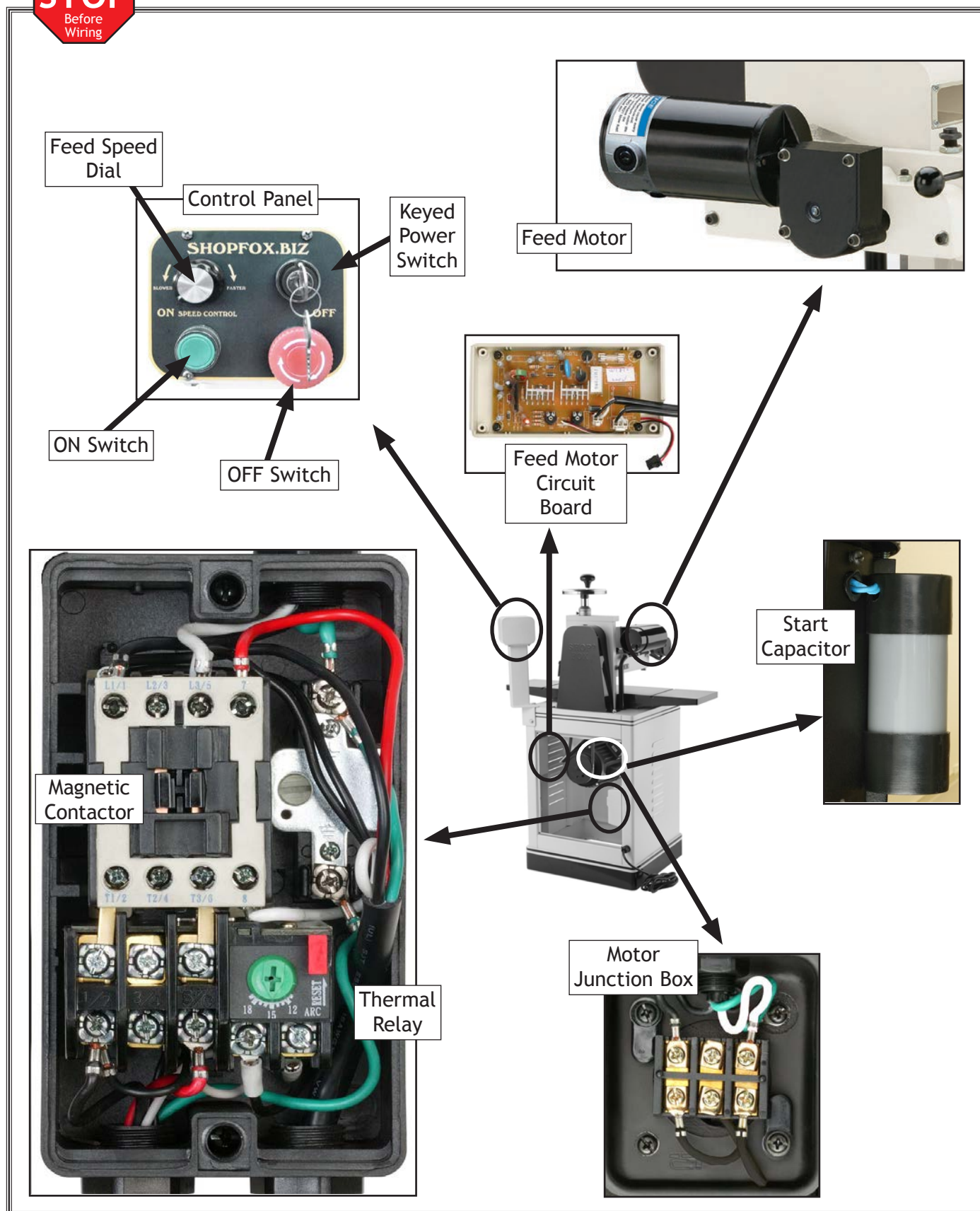


Figure 63. Electrical component locations.

Troubleshooting

This section covers the most common problems and corrections with this type of machine. **WARNING! DO NOT** make any adjustments until power is disconnected and moving parts have come to a complete stop!



PROBLEM	POSSIBLE	CORRECTIVE ACTION
Motor will not start.	1. The OFF Button is applied, or the power switch is at fault. 2. Break or short in wiring; or loose connections. 3. Has incorrect power supply voltage/power supply switch is OFF. 4. Blown fuse tripped circuit breaker at main panel. 5. Thermal overload relay in mag switch tripped (main motor only). 6. Motor connection wired incorrectly. 7. Contactor not energized/has poor contacts (main motor only). 8. Motor ON switch at fault (main motor only). 9. Plug or receptacle is corroded or mis-wired. 10. Start capacitor has blown (main motor only). 11. Circuit board fuse has blown (feed motor only). 12. Motor speed rheostat at fault (feed motor only). 13. Motor brushes worn/at fault (feed motor only). 14. Centrifugal switch at fault (main motor only). 15. Motor at fault.	1. Turn the power switch on with its key, reset or replace the OFF Button or power switch. 2. Trace/replace broken or corroded wires; fix loose connections (wiring diagram on Page 40). 3. Verify and correct voltage/insert the key and turn the power switch ON. 4. Repair for short, then reset/replace fuse or breaker. 5. Allow relay/motor to cool. If necessary, press reset button inside switch. 6. Wire motor correctly (refer to inside junction box cover or manual wiring diagram on Page 40). 7. Test all legs for power, test field coil and replace if at fault (wiring diagram on Page 40). 8. Replace switch. 9. Clean/retighten contacts; correct the wiring (wiring diagram on Page 40). 10. Test/replace if at fault. 11. Correct overload cause; replace blown fuse on circuit board. 12. Test/replace if at fault. 13. Replace brush set. 14. Adjust/replace centrifugal switch. 15. Test for shorted windings or bad bearings; repair or replace.

PROBLEM	POSSIBLE	CORRECTIVE ACTION
Machine has excessive vibration or noise.	1. Motor fan rubbing on fan cover. 2. Machine incorrectly mounted on floor or mobile base. 3. Motor mounting loose. 4. V-belt at fault. 5. Headstock gib loose. 6. Knives are dull. 7. Motor brushes worn/at fault (feed motor only). 8. Pulley loose or not in alignment; shaft bent. 9. Gearbox at fault (feed motor only). 10. Centrifugal switch out of adjustment; at fault (main motor only). 11. Motor bearings worn or damaged. 12. Cutterhead bearings at fault.	1. Fix/replace fan cover; replace loose or damaged fan. 2. Level/shim base; tighten/adjust mounting hardware or feet. 3. Tighten mounting bolts/nuts; use thread locking fluid. 4. Replace V-belt. 5. Clean, re-lubricate, and readjust headstock gib (Page 38). 6. Re-sharpen/replace knives. 7. Replace brush set (Page 35). 8. Replace worn pulley, key, and shaft, and realign. 9. Rebuild gearbox for bad gear(s)/bearing(s). 10. Adjust/replace centrifugal switch. 11. Replace motor bearings or replace motor. 12. Replace bearing(s)/realign cutterhead.
Machine stalls or slows when operating.	1. Too much pressure when feeding workpiece. 2. Workpiece is warped. 3. Rails are incorrectly adjusted. 4. Workpiece material not suitable for machine. 5. Feed rate or cutting speed too fast. 6. Belt slipping. 7. Pulley or sprocket slipping on shaft. 8. Motor connection wired incorrectly. 9. Motor brushes at fault (feed motor only). 10. Circuit board at fault. 11. Motor speed rheostat at fault. 12. Contactor has poor contacts. 13. Centrifugal switch at fault. 14. Motor at fault. 15. Gears in gearbox broken, slipping, or stuck.	1. Reduce pressure when feeding workpiece. 2. Straighten workpiece or use a different one. 3. Adjust/calibrate rails. 4. Only cut wood or wood-based material; ensure moisture is 20% or less. 5. Decrease feed rate or cutting speed. 6. Tension/replace belt; ensure pulleys are aligned. 7. Replace pulley and key or set screw. Replace shaft if worn. 8. Review wiring diagram under motor junction box cover; correct wire connections. 9. Remove/replace brushes. 10. Inspect circuitry for arcing or burns. Replace if at fault (wiring diagram on Page 40). 11. Test and replace if at fault. 12. Test all legs for continuity and power, test field coil and replace if at fault. 13. Adjust/replace centrifugal switch. 14. Test for shorted windings, bad bearings and repair or replace. 15. Replace for broken or slipping gears.
Handwheel binds or is difficult to move.	1. Lock lever is tightened. 2. Burr, debris, or gunk hindering way and column slide. 3. Bushings worn, dry, or damaged.	1. Loosen lock lever knob. 2. De-burr, clean and re-lubricate the handwheel leadscrew, ways, and gib. 3. Clean/lubricate/replace shaft and bushings.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Excessive snipe (there is a dip in the end of the board that is uneven with the rest of the cut).	1. One or both of the feed rollers are set too low. 2. Feed roller springs are applying too much roller pressure. 3. Workpiece is not supported as it leaves the planer/moulder.	1. Adjust feed rollers to correct height (Page 21). 2. Reduce the feed roller spring tension (Page 21). 3. Hold the workpiece up slightly as it leaves the outfeed end of the planer/moulder.
Workpiece stops/slows in the middle of the cut.	1. Taking too heavy of a cut. 2. One or both of the feed rollers are adjusted too high and workpiece slips. 3. Feed roller spring tension is too light. 4. Guide or fence is interfering with the workpiece travel. 5. Pitch and glue build-up on planer components.	1. Raise headstock to take a lighter cut. 2. Lower the feed rollers (Page 21) to what is specified in manual. 3. Increase the feed roller spring tension (Page 21). 4. Adjust guides or fence for adequate support without workpiece interference. 5. Clean internal cutterhead components with a pitch/resin dissolving solvent.
Chipping (consistent pattern).	1. Knots or conflicting grain direction in wood. 2. Nicked or chipped knife. 3. Feeding workpiece too fast. 4. Taking too deep of a cut.	1. Inspect workpiece for knots and grain direction; only process clean stock (Page 23). 2. Replace the affected knife, or have it sharpened. 3. Slow down the feed rate. 4. Take a smaller depth of cut. Always reduce cutting depth when surface planing or working with hard woods (Page 23).
Chipping (inconsistent pattern).	1. Chips are not being properly expelled from the cutterhead area.	1. Provide a minimum of 400 CFM at the port, and keep dust collector and ducting free of clogs and restrictions.
Fuzzy grain.	1. Wood may have high moisture content or surface wetness. 2. Dull knives. 3. Chips are not being properly expelled from the cutterhead area.	1. Check moisture content and allow to dry if moisture is too high (Page 23). 2. Replace the knives or have them professionally sharpened. 3. Provide a minimum of 400 CFM at the port, and keep dust collector and ducting free of clogs and restrictions.
Long lines or ridges that run the length of the board.	1. Nicked or chipped knife(s).	1. Replace or sharpen the knives.
Uneven knife marks, wavy surface, or chatter marks across the face of the board.	1. Moulding knife is installed at outboard side of cutterhead. 2. Feeding workpiece too fast. 3. Feed roller spring tension is too light. 4. Knives are loose. 5. Headstock is loose. 6. Worn cutterhead bearings.	1. Install moulding knife at the inboard side of cutterhead. 2. Slow down the feed rate. 3. Increase the feed roller spring tension (Page 21). 4. Remove the knives, clean knife mounting surfaces, and reinstall knives. 5. Adjust headstock gib (Page 38), and be sure to use headstock lock lever. 6. Replace cutterhead bearings.
Glossy surface.	1. Knives are dull. 2. Feed rate too slow. 3. Cutting depth too shallow.	1. Replace or sharpen the knives. 2. Increase the feed rate. 3. Increase the depth of cut.

This diagram is an exploded view of a mechanical assembly, likely a pump or motor component. It shows the following parts and their assembly relationships:

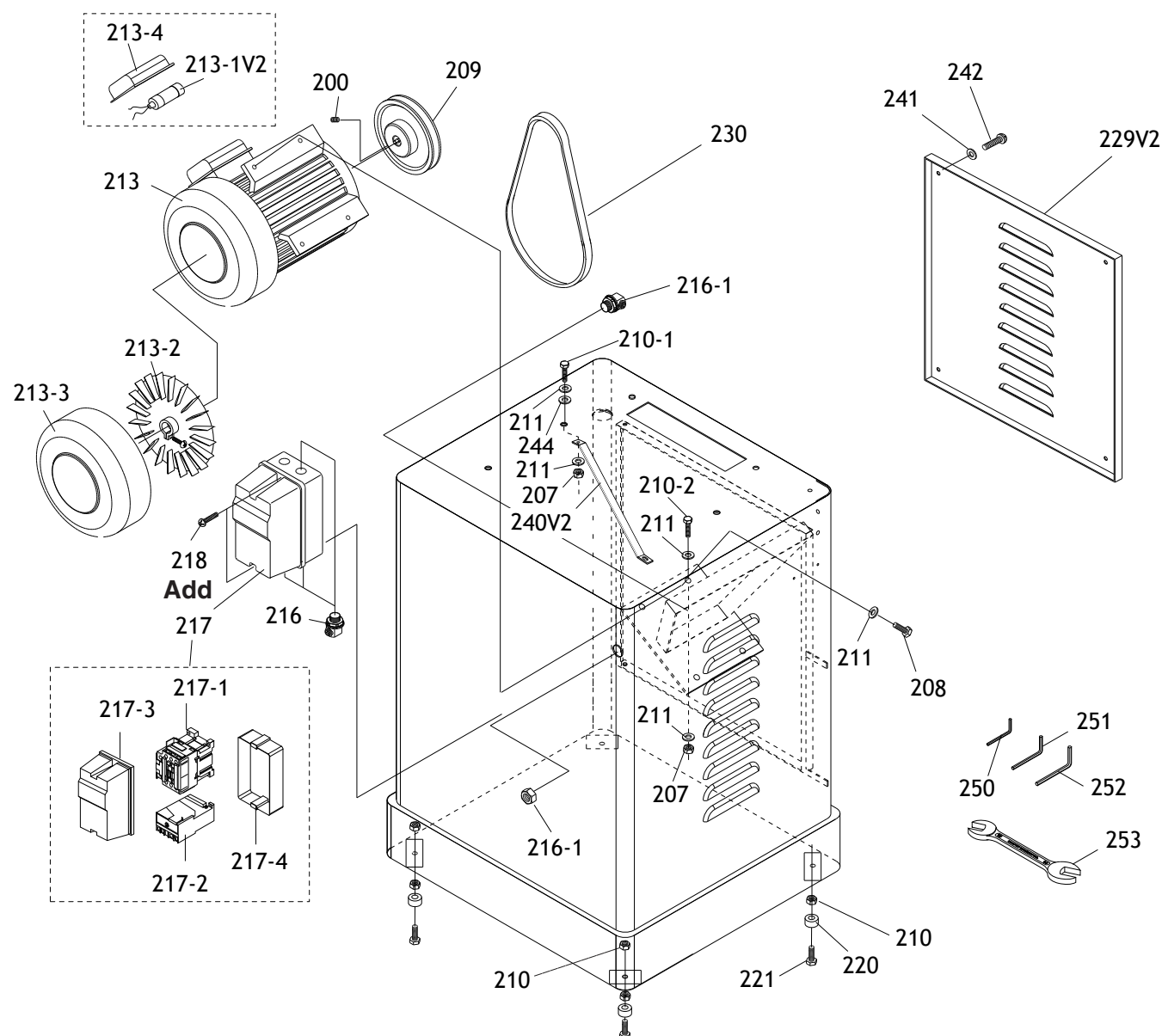
- Top Assembly:** Includes a cap (4) with a screw (5) and a pin (9). Below it is a gear (6) mounted on a shaft (10). The shaft passes through a bearing (24) and a seal (18). A pin (97) and a screw (68) are used to secure the shaft assembly to a base plate (13).
- Central Frame:** A large U-shaped frame (12) with a central vertical support (19). A pin (14) and a screw (11V2) are used to secure the top of the frame. A pin (95V2) is used to secure the bottom of the frame.
- Left Side Assembly:** Includes a housing (30V2) with a screw (92). Below it is a component (31) with a pin (32) and a screw (7). A pin (80) and a screw (98) are used to secure the housing.
- Right Side Assembly:** Includes a component (26) with a pin (23V2) and a screw (25V2). A pin (71) and a screw (70) are used to secure the component. A pin (20) and a screw (22) are used to secure the component.
- Bottom Assembly:** Includes a base plate (27V2) with a pin (56) and a screw (57). A pin (72) and a screw (84) are used to secure the base plate. A pin (73) and a screw (83) are used to secure the base plate.
- Internal Components:** Includes a gear (34) with a pin (35) and a screw (33). A pin (36) and a screw (38) are used to secure the gear. A pin (62) and a screw (61) are used to secure the gear. A pin (40) and a screw (43) are used to secure the gear. A pin (2) and a screw (41V2) are used to secure the gear. A pin (42) and a screw (44) are used to secure the gear. A pin (45) and a screw (46) are used to secure the gear. A pin (63) and a screw (64) are used to secure the gear. A pin (91) and a screw (93) are used to secure the gear. A pin (39) and a screw (47) are used to secure the gear. A pin (36) and a screw (40) are used to secure the gear. A pin (37) and a screw (93) are used to secure the gear.

Headstock Parts List

REF	PART #	DESCRIPTION
1	XPS07M	PHLP HD SCR M4-.7 X 8
2	XPNO6	HEX NUT 1/2-12
3	XPNO5	HEX NUT 1/4-20
4	XPB25	HEX BOLT 3/8-16 X 1-3/4
5	X1812005	KNOB
6	X1812006	HANDWHEEL
7	XPNO8	HEX NUT 3/8-16
8	XPSS11	SET SCREW 1/4-20 X 1/4
9	XPNO8	HEX NUT 3/8-16
10	XPSS08	SET SCREW 5/16-18 X 1/2
11V2	X1812011V2	TOP BRACE V2.12.10
12	XPW14	FLAT WASHER 5/8
13	XP51104	THRUST BEARING 51104
14	XPRP73M	ROLL PIN 4 X 30
15	XPSS01	SET SCREW 5/16-18 X 1
16	X1812016	DOVETAILED COLUMN
17	X1812017	SCALE
18	X1812018	SCALE COLLAR
19	X1812019	ELEVATING SCREW
20	XPSS02	SET SCREW 5/16-18 X 3/8
21	X1812021	CUTTERHEAD PULLEY
22	X1812022	ROTATION LABEL
23V2	X1812023V2	COLLAR V2.11.11
24	X1812024	SPACER
25V2	XP6006-2RSNR	BALL BEARING 6006-2RSNR W/SNAP RING
26	X1812026	CUTTERHEAD
27V2	X1812027V2	TABLE V2.11.11
28	X1812028	LOCK LEVER ASSEMBLY
29	XPCAP06	CAP SCREW 1/4-20 X 1
30V2	X1812030V2	DUST COVER V2.12.10
31	X1812031	CHIP DEFLECTOR
32	XPB18	HEX BOLT 3/8-16 X 1
33	X1812033	FEED ROLL SPROCKET
34	XPSS29	SET SCREW 10-24 X 1/4
35	X1812035	OUTFEED DRIVE AXLE
36	X1812036	NEEDLE BEARING
37	X1812037	RUBBER FEED ROLLER
38	X1812038	OUTFEED SWING ARM

REF	PART #	DESCRIPTION
39	X1812039	SWING ARM AXIS SCREW
40	X1812040	DRIVEN AXLE
41V2	X1812041V2	HEAD CASTING V2.11.11
42	X1812042	SWING ARM STOP PIN
43	X1812043	ROLLER PRESSURE SCREW
44	X1812044	COMPRESSION SPRING
45	X1812045	ROLLER PRESSURE PIN
46	X1812046	INFEED DRIVE AXLE
47	X1812047	INFEED SWING ARM
56	X1812056	KNOB 1/4-20
57	X1812057	CHIP DEFLECTOR AXIS PIN
59	XPCAP03	CAP SCREW 5/16-18 X 1
60	X1812060	BALL PLUNGER 3/8-16 X 3/4
61	X1812061	ECCENTRIC BUSHING
62	XPFH12	FLAT HD SCR 1/4-20 X 1
63	XPS27	PHLP HD SCR 5/16-18 X 3/8
64	X1812064	POINTER
65	X1812065	GIB
68	X1812068	SCALE ROLLER SCREW
69	X1812069	PLANER KNIFE SET
70	XPW02	FLAT WASHER 3/8
71	XPB18	HEX BOLT 3/8-16 X 1
72	X1812072	INNER RAIL
73	X1812073	OUTER RAIL
80	X1812080	WINDOW
83	X1812083	T-NUT 1/4"-20
84	X1812084	ADJUSTABLE HANDLE
87	XPB03	HEX BOLT 5/16-18 X 1
88	XPNO2	HEX NUT 5/16-18
90	X1812090	POINTER
91	XPNO2	HEX NUT 5/16-18
92	XPFB05	FLANGE BOLT 10-24 X 1/2
93	XPW07	FLAT WASHER 5/16
95	X1812095	COLLAR V1
95V2	X1812095V2	COLLAR V2.10.09
96	XPFB17	FLANGE BOLT 10-24 X 3/8
97	X1812097	SCALE HUB
98	XPS06	PHLP HD SCR 10-24 X 3/8

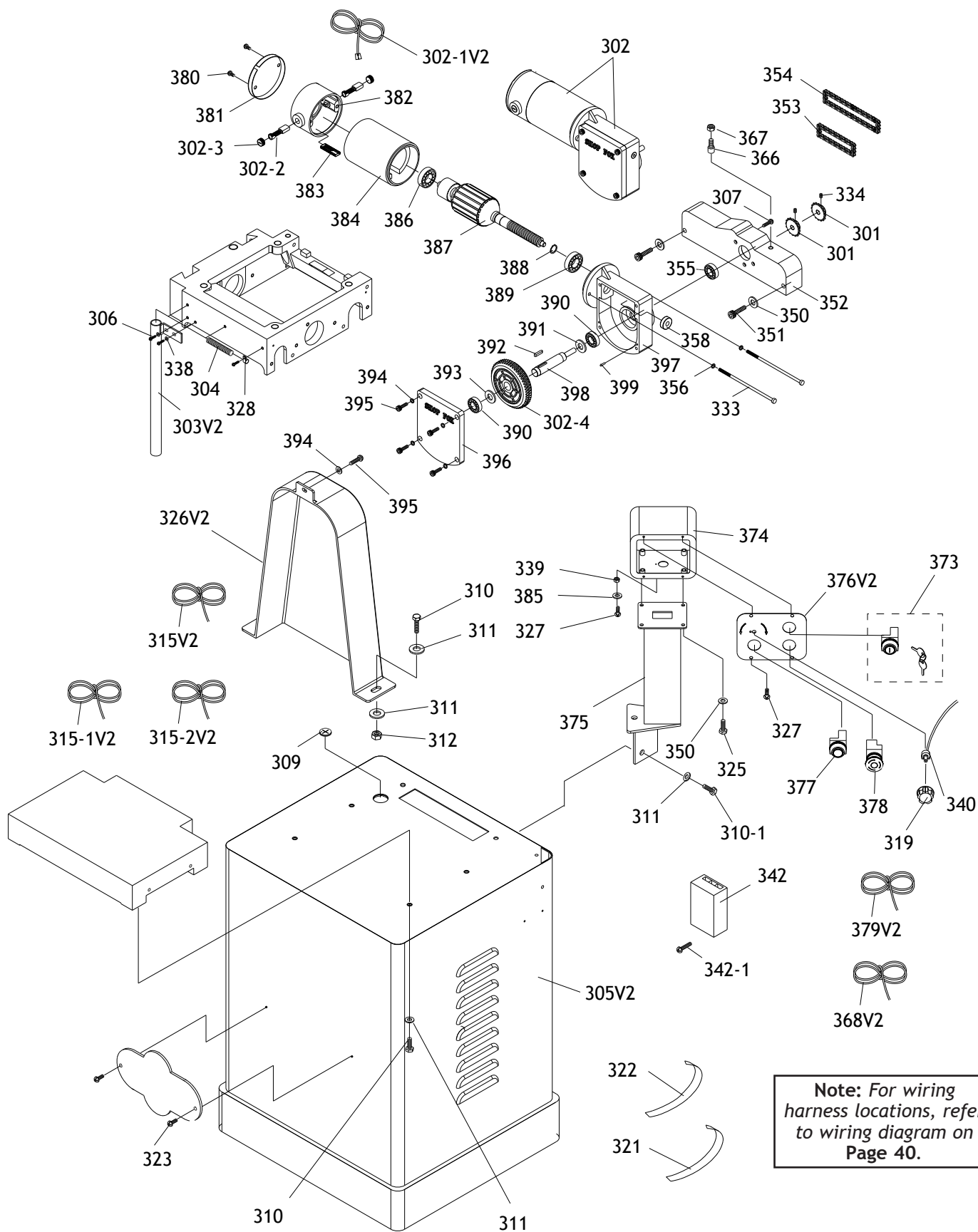
Main Motor & Cabinet



REF	PART #	DESCRIPTION
200	XPSS02	SET SCREW 5/16-18 X 3/8
207	XPNO2	HEX NUT 5/16-18
208	XPB07	HEX BOLT 5/16-18 X 3/4
209	X1812209	MOTOR PULLEY
210	XPNO8	HEX NUT 3/8-16
210-1	XPB03	HEX BOLT 5/16-18 X 1
210-2	XPB12	HEX BOLT 5/16-18 X 1-1/4
211	XPW07	FLAT WASHER 5/16
213	X1812213	MOTOR 2HP 220V
213-1V2	X1812213-1V2	S CAPACITOR 400M 125V 1-3/4 X 3-3/4 V2.02.11
213-2	X1812213-2	FAN
213-3	X1812213-3	FAN COVER
213-4	X1812213-4	CAPACITOR COVER
216	X1812216	STRAIN RELIEF
216-1	X1812216-1	STRAIN RELIEF
217	X1812217	MAGNETIC SWITCH ASSEMBLY MPE-09
217-1	X1812217-1	CONTACTOR SDE MA-09/15 220V

REF	PART #	DESCRIPTION
217-2	X1812217-2	OL RELAY SDE RA-20 12-18A
217-3	X1812217-3	COVER
217-4	X1812217-4	MAIN HOUSING
218	XPS22	PHLP HD SCR 10-24 x 5/8
220	X1812220	RUBBER FOOT
221	XPB24	HEX BOLT 3/8-16 X 1-1/4
229V2	X1812229V2	VENTED REAR PANEL V2.12.10
230	X1812230	LINK BELT 1/2 X 45"
240V2	X1812240V2	BRACKET V2.10.09
241	XPW03	FLAT WASHER #10
242	XPS08	PHLP HD SCR 10-24 X 3/4
244	X1812244	PLASTIC WASHER 5/16
250	XPAW02.5M	HEX WRENCH 2.5MM
251	XPAW04M	HEX WRENCH 4MM
252	XPAW05M	HEX WRENCH 5MM
253	XPWR1214	COMBO WRENCH 12/14MM

Feed Motor & Controls



Note: For wiring harness locations, refer to wiring diagram on Page 40.

Feed Motor & Controls Parts List

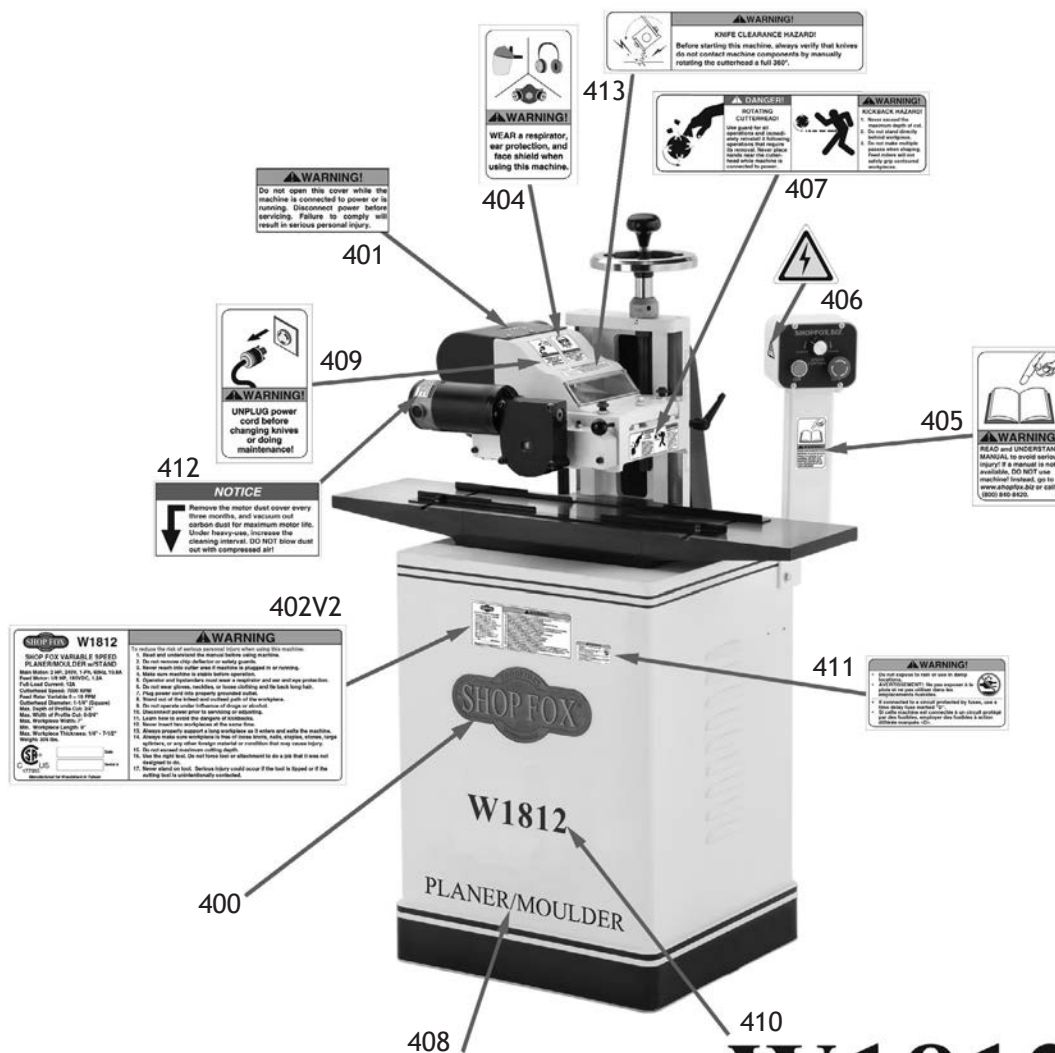
REF	PART #	DESCRIPTION
301	X1812301	FEED ROLL SPROCKET
302	X1812302	FEED MOTOR 1/8 HP 220V
302-1V2	X1812302-1V2	FEED MOTOR POWER CORD 18G 2C V2.12.10
302-2	X1812302-2	FEED MOTOR BRUSH SET V1
302-3	X1812302-3	PLASTIC LOCK SCREW V1
302-4	X1812302-4	DRIVE GEAR V1
303V2	X1812303V2	STEEL CONDUIT V2.12.10
304	X1812304	PLASTIC CONDUIT
305V2	X1812305V2	STAND V2.12.10
306	XPS06	PHLP HD SCR 10-24 X 3/8
307	XPFH05	FLAT HD SCR 1/4-20 X 3/4
309	X1812309	GROMMET 30MM
310	XPB07	HEX BOLT 5/16-18 X 3/4
310-1	XPB03	HEX BOLT 5/16-18 X 1
311	XPW07	FLAT WASHER 5/16
312	XPN02	HEX NUT 5/16-18
315-1V2	X1812315-1V2	CUTTERHEAD MOTOR CORD 14G 3C V2.12.10
315-2V2	X1812315-2V2	CONTROL PANEL CORD 18G 4C V2.12.10
315V2	X1812315V2	POWER CORD 14G 3C 6-15 V2.12.10
319	X1812319	VARIABLE SPEED CONTROL KNOB
321	X1812321	BOTTOM COLOR STRIPE
322	X1812322	UPPER COLOR STRIPE
323	XPHTK36	TAP SCREW #6 X 3/8
325	XPB19	HEX BOLT 1/4-20 X 1/2
326V2	X1812326V2	PULLEY COVER V2.12.10
327	XPS06	PHLP HD SCR 10-24 X 3/8
328	X1812328	CABLE CLAMPS
333	X1812333	MOTOR CASE SCREW M5-.8 X 133
334	XPSS29	SET SCREW 10-24 X 1/4
338	XPW03	FLAT WASHER #10
339	XPN07	HEX NUT 10-24
340	X1812340	SPEED CONTROL SWITCH
342	X1812342	CONSOLE UNIT
342-1	XPHTK28M	TAP SCREW M4 X 25
350	XPW06	FLAT WASHER 1/4
351	XPCAP159M	CAP SCREW 1/4-20 X 2

REF	PART #	DESCRIPTION
352	X1812352	CHAIN COVER
353	X1812353	INFEED ROLLER DRIVE CHAIN
354	X1812354	OUTFEED ROLLER DRIVE CHAIN
355	XP6206-2RS	BALL BEARING 6206 2RS
356	XPLW01M	LOCK WASHER 5MM
358	XP6082RS	BALL BEARING 608-2RS
366	X1812366	CHAIN TENSIONER FOOT
367	XPN02	HEX NUT 5/16-18
368V2	X1812368V2	CONSOLE CORD 18G 2C V2.12.10
373	X1812373	KEYED POWER SWITCH
374	X1812374	CONTROL BOX
375	X1812375	CONTROL BOX BRACKET
376V2	X1812376V2	CONTROL PLATE V2.12.10
377	X1812377	ON SWITCH
378	X1812378	OFF SWITCH
379V2	X1812379V2	CONTROL CORD 24G 4C V2.12.10
380	XPS19M	PHLP HD SCR M5-.8 X 6
381	X1812381	END CAP
382	X1812382	BRUSH HOUSING
383	X1812383	THERMOCOUPLE
384	X1812384	STATOR HOUSING
385	XPTLW08M	EXT TOOTH WASHER 10MM
386	XP6200-2RS	BALL BEARING 6200 2RS
387	X1812387	ARMATURE
388	XPR06M	EXT RETAINING RING 16MM
389	XP6203-2RS	BALL BEARING 6203-2RS
390	XP6202-2RS	BALL BEARING 6202-2RS
391	X1812391	SHIM
392	XP634M	KEY 5 X 5 X 20
393	X1812393	SPACER
394	XPLW01M	LOCK WASHER 5MM
395	XPS20M	PHLP HD SCR M5-.8 X 15
396	X1812396	COVER
397	X1812397	CASE
398	X1812398	GEAR SHAFT
399	XPRP44M	ROLL PIN 3 X 10

Label Placement

! WARNING

Safety labels warn about machine hazards and how to prevent machine damage or injury. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing the machine to enter service again. Contact Woodstock International, Inc. at (360) 734-3482 or www.shopfoxtools.com to order new labels.



PLANER/MOULDER W1812

REF	PART #	DESCRIPTION
400	D3377	LOGO SHOP FOX
401	X1812401	COVER WARNING LABEL
402V2	X1812402V2	MACHINE ID LABEL-CSA V2.12.10
404	X1812404	EYE/LUNG HAZARD LABEL
405	XLABEL-12	READ MANUAL LABEL
406	XLABEL-04	ELECTRICITY LABEL
407	X1812407	CUTTERHEAD WARNING LABEL

REF	PART #	DESCRIPTION
408	X1812408	MACHINE NAME LABEL
409	XPLABEL-63	DISCONNECT 220V LABEL
410	X1812410	MODEL NUMBER LABEL
411	X1812411	DAMPNESS HAZARD LABEL
412	X1812412	MOTOR DUST LABEL
413	X1812413	KNIFE CLEARANCE LABEL

Warranty Registration

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Serial # _____ Dealer Name _____ Purchase Date _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

_____ Advertisement

_____ Friend

_____ Local Store

_____ Mail Order Catalog

_____ Website

_____ Other:

2. How long have you been a woodworker/metalworker?

_____ 0-2 Years

_____ 2-8 Years

_____ 8-20 Years

_____ 20+ Years

3. How many of your machines or tools are Shop Fox?

_____ 0-2

_____ 3-5

_____ 6-9

_____ 10+

4. Do you think your machine represents a good value?

_____ Yes

_____ No

5. Would you recommend Shop Fox products to a friend?

_____ Yes

_____ No

6. What is your age group?

_____ 20-29

_____ 30-39

_____ 40-49

_____ 50-59

_____ 60-69

_____ 70+

7. What is your annual household income?

_____ \$20,000-\$29,000

_____ \$30,000-\$39,000

_____ \$40,000-\$49,000

_____ \$50,000-\$59,000

_____ \$60,000-\$69,000

_____ \$70,000+

8. Which of the following magazines do you subscribe to?

_____ Cabinet Maker

_____ Popular Mechanics

_____ Today's Homeowner

_____ Family Handyman

_____ Popular Science

_____ Wood

_____ Hand Loader

_____ Popular Woodworking

_____ Wooden Boat

_____ Handy

_____ Practical Homeowner

_____ Woodshop News

_____ Home Shop Machinist

_____ Precision Shooter

_____ Woodsmith

_____ Journal of Light Cont.

_____ Projects in Metal

_____ Woodwork

_____ Live Steam

_____ RC Modeler

_____ Woodworker West

_____ Model Airplane News

_____ Rifle

_____ Woodworker's Journal

_____ Modeltec

_____ Shop Notes

_____ Other:

_____ Old House Journal

_____ Shotgun News

9. Comments: _____

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WARRANTY

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

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

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

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



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