MODEL G4173
BABY POWER FEEDER
OWNER'S MANUAL
(For models manufactured since 8/97)

C US
LR109179

#CR10760 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.

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INTRODUCTION

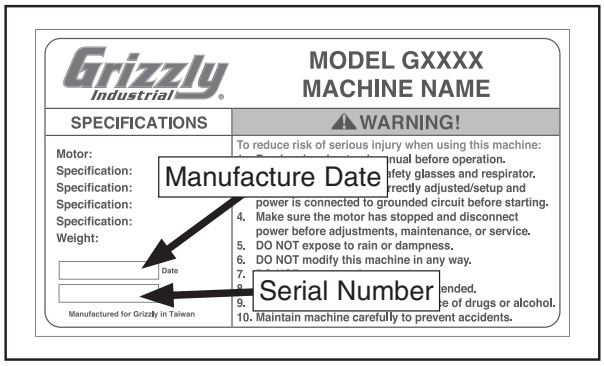
Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs contained inside. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive will be slightly different than what is shown in the manual**.

If you find this to be the case, and the difference between the manual and machine leaves you confused about a procedure, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, please write down the **Manufacture Date** and **Serial Number** stamped into the machine ID label (see below). This information helps us determine if updated documentation is available for your machine.



Contact Info

We stand behind our machines. If you have any questions or need help, use the information below to contact us. Before contacting, please get the serial number and manufacture date of your machine. This will help us help you faster.

Grizzly Technical Support
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G4173 BABY POWER FEEDER

Product Dimensions:

Weight..... 20 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 31 x 11 x 12 in.
Footprint (Length x Width)..... N/A x N/A

Shipping Dimensions:

Type..... Cardboard
Content..... Machine
Weight..... 27 lbs.
Length x Width x Height..... 11 x 22 x 9 in.

Electrical:

Power Requirement..... 120V, Single-Phase, 60 Hz
Minimum Circuit Size..... 15A
Switch..... On/Off Variable Speed
Switch Voltage..... 110V
Cord Length..... 9 ft.
Cord Gauge..... 18 AWG
Plug Included..... Yes
Included Plug Type..... NEMA 5-15

Motors:

Main

Type..... Universal Variable Speed
Horsepower..... 1/8 HP
Voltage..... 120V
Phase..... Single
Amps..... 1.2A
Speed..... 550 – 3300 RPM
Cycle..... 60 Hz
Number of Speeds..... Variable
Power Transfer ..... Gear Box
Bearings..... Lubricated for Life

Main Specifications:

Workpiece Capacities

Min WorkPiece Length..... 5 in.

Operation Info

No. Of Feed Speeds..... Variable
Feed Speeds..... 6-1/2 – 39 FPM
Swing..... 360 deg.
Vertical Movement..... 10-1/4 in.
Horizontal Movement..... 10-1/4 in.
Rotation..... Forward, Reverse

Roller Info

Number of Rollers..... 3
Roller Width..... 1-3/16 in.
Roller Diameter..... 3 in.
Roller Suspension..... 5/16 in.
Maximum Height Rollers Parallel Table Surface..... 6 in.
Centers Between Rollers..... 3-3/4 in.

Other

Column Diameter..... 15/16 in.

Construction Info

Roller..... Synthetic Rubber
Housing..... Cast Aluminum
Supports..... Cast Iron
Column..... Steel
Paint..... Epoxy

Other Specifications:

ISO 9001 Factory ..... Yes
CSA Certified ..... Yes
Country Of Origin ..... Taiwan
Warranty ..... 1 Year
Serial Number Location ..... Serial Number Sticker On Motor Specification Plate Outside The Motor
Customer Assembly & Setup Time ..... 20 Minutes

Features:

Rollers are Spring Tensioned
Heavy-Duty Gear Reduction with Hardened Gears
Universal Positioning with Handle Locks

Components & Terminology

Refer to **Figure 1** and your power feeder to familiarize yourself with the controls, features, and terminology used in this manual. Doing so will make setup, use, and any future maintenance easier.

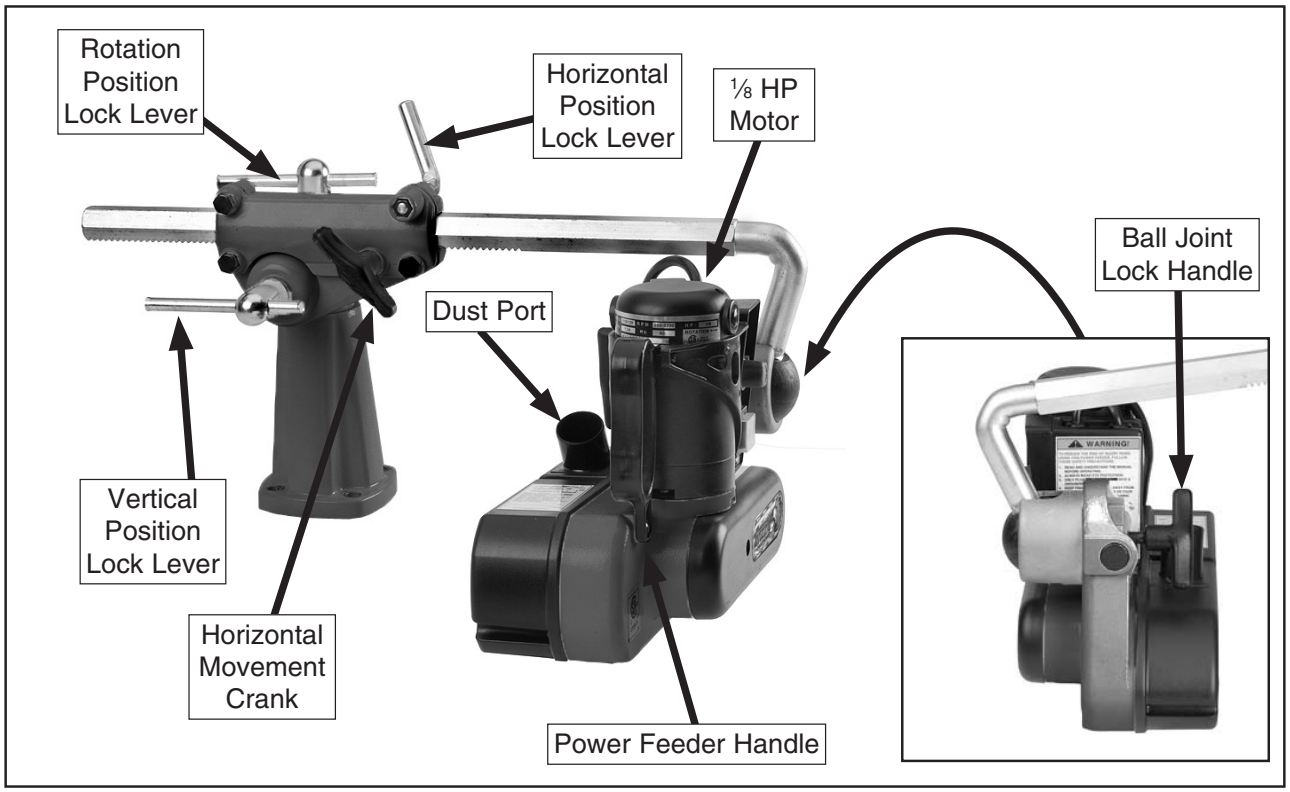
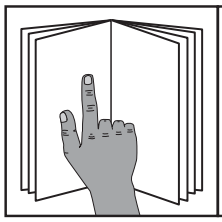


Figure 1. Controls and features.



⚠WARNING

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

SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating this 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. Always use common sense and good judgement.

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

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

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

NOTICE **This symbol is used to alert the user to useful information about proper operation of the machine.**

Safety Instructions for Machinery

⚠WARNING

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

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

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

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

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

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

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

⚠WARNING

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

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

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

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

INTENDED USAGE. Only use machine for its intended purpose and never make modifications not approved by Grizzly. Modifying machine or using it differently than intended may result in malfunction or mechanical failure that can lead to serious personal injury or death!

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

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

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

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

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

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

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

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

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

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

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

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Power Feeders

⚠WARNING

MAIN INJURY HAZARDS: Death, amputation, or crushing injuries from getting entangled in moving parts—which may include being pulled into the cutting tool on attached machinery; and death, blindness, broken bones, or bruises from being struck by an ejected workpiece (kickback). To minimize your risk of these hazards, always heed the following information:

ATTACHED MACHINERY. Follow all warnings and safety information for the attached machine doing the cutting work.

HAND SAFETY. Keep hands away from rotating parts on power feeder and spinning blade or cutter of associated machine. Turn power feeder and associated machine ***OFF*** and only use a brush or compressed air to remove sawdust.

INSTALLING GUARDS. Install guards, fences, and hold-downs before starting attached machine or power feeder. Repair or replace guards promptly if they become damaged.

KICKBACK. Occurs when workpiece is ejected from machine with great force, striking operator or bystanders. Commonly caused by improper machine or power feeder setup.

VERIFY EACH SETUP. Ensure that power feeder is set up correctly and firmly secured before feeding workpiece. An improperly adjusted power feeder could increase the risk of kickback, because it will continue feeding when stock is not properly positioned for the cut.

FEATHERBOARD. When cutting long or large stock that is difficult to feed properly, use a featherboard before powerfeeder (on the infeed side) to maintain even pressure and control of workpiece against fence, and help reduce risk of kickback.

FEED WORKPIECE PROPERLY. Verify blade or cutter of associated machine is at full speed before feeding stock with power feeder. Do not feed workpiece too quickly. Verify power feeder wheels are slightly lower than workpiece. Stop power feeder before stopping cutting tool.

WORKPIECE SUPPORT. Support workpiece continuously during operation as required. Use auxiliary stands or support tables for long or wide stock.

ADJUSTMENTS/MAINTENANCE. Make sure power feeder is turned ***OFF***, disconnected from power, and all moving parts are completely stopped before doing adjustments or maintenance.

⚠WARNING

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

⚠CAUTION

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

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrican or qualified service personnel in accordance with all applicable codes and standards.

⚠WARNING

Electrocution, fire, or equipment damage may occur if machine is not correctly grounded and connected to the power supply.

Full-Load Current Rating

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

Full-Load Current Rating at 120V 1.2A

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements in the following section.

⚠WARNING

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

120V Circuit Requirements

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

Nominal Voltage 120V
Cycle .....60 Hz
Phase ..... Single-Phase
Power Supply Circuit 15A

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.)

⚠CAUTION

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

Note: *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 & Plug Requirements

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

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug (similar to the figure below). The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances.

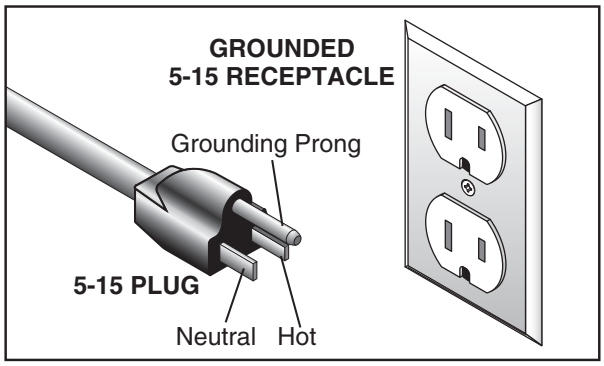
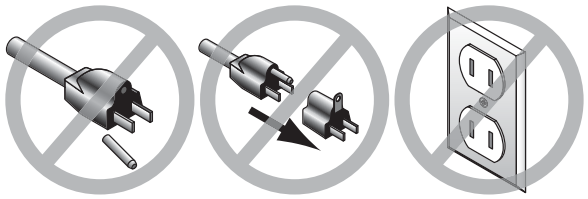


Figure 2. Typical 5-15 plug and receptacle.

⚠CAUTION



SHOCK HAZARD!

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

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

Check with 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.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (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 .....16 AWG
Maximum Length (Shorter is Better).....50 ft.

SECTION 3: SETUP

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover any damage, *please call us immediately at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

⚠WARNING

SUFFOCATION HAZARD!

Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.

Needed for Setup

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

Description	Qty
• Safety Glasses	1
• Cleaner/Degreaser	As Needed
• Disposable Shop Rags	As Needed
• Straightedge 24"	1
• Shop Vacuum or Dust Collection System	1
• Shop Vacuum Hose 1⅜" ID	1
• Combination Wrench 14mm	1
• Hex Wrench 8mm	1
• Standard Screwdriver #2	1

Inventory

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

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

Box Inventory (Figures 3 & 4) **Qty**

A. Base 1
B. Arm Bracket 1
C. Power Feeder Unit 1
D. Arm 1
E. Base Mounting Template 1
F. Elbow Clamp Assembly 1
G. Ball Joint Assembly 1
H. Hardware Bag (**Figure 4**) 1
—Cap Screw M10-1.5 x 25mm (Elbow Clamp) 1
—Hex Bolt M10-1.5 x 50mm (Elbow Clamp) 3
—Lock Lever (Arm Bracket Clamp) 1
—Hex Nut M8-1.25mm (Arm Bracket Clamp) 1
—Flat Washer 8mm (Arm Bracket Clamp) 1
—T-Handle and Pivot Bar (Ball Joint Assembly) 1
—Hex Bolt M10-1.5 x 35mm (Base) 4
—Lock Washer 10mm (Base) 4
—Hex Nut M10-1.5mm (Base) 4

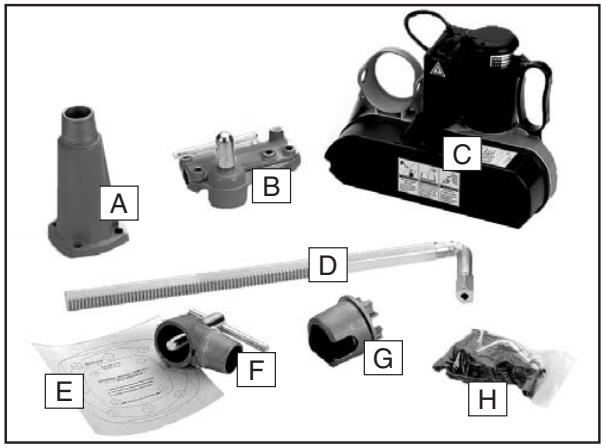


Figure 3. Box inventory.

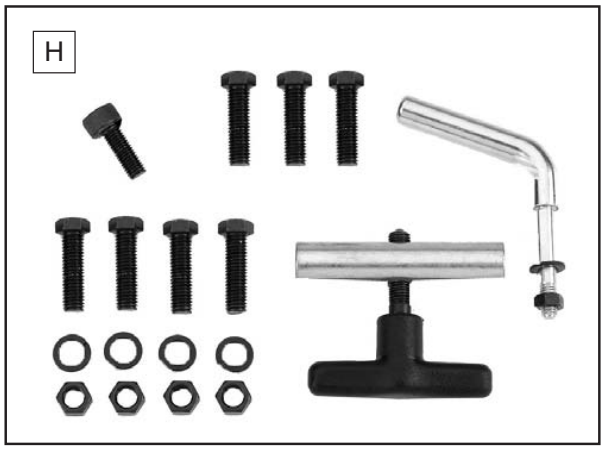
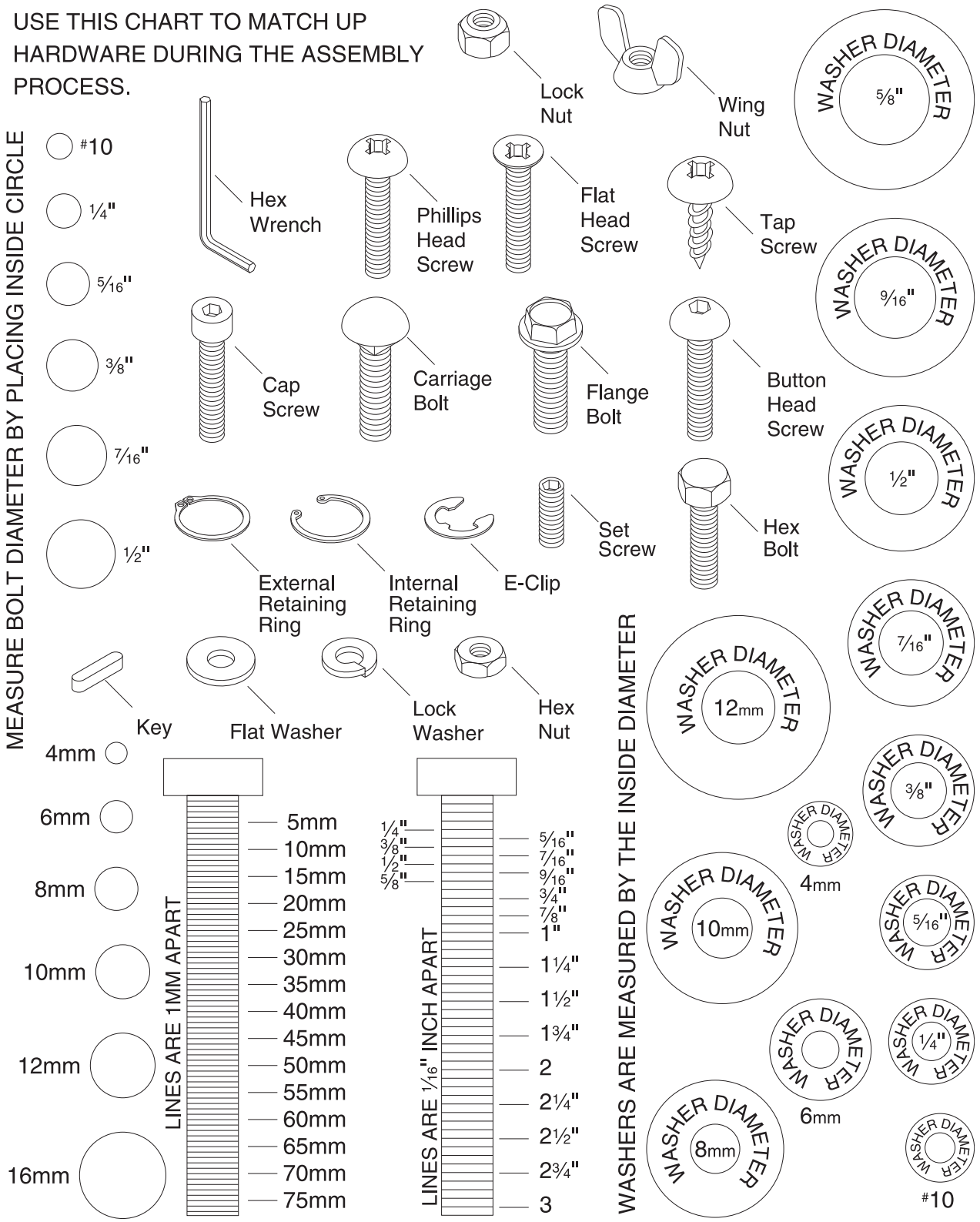


Figure 4. Hardware inventory.

NOTICE

If you cannot find an item on this list, carefully check the machine and the packaging materials. Some of these items may be preinstalled for shipping or become misplaced during unpacking.

Hardware Recognition Chart



Cleanup

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

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

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

Before cleaning, gather the following:
- Disposable Rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

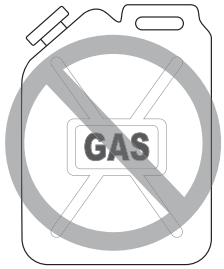
Basic steps for removing rust preventative:

1. Put on safety glasses.

2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.

3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.

4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.



⚠WARNING

Gasoline or products with low flash points can explode or cause fire if used to clean machinery. Avoid cleaning with these products.

⚠CAUTION

Many cleaning solvents are toxic if concentrated amounts are inhaled. Only work in a well-ventilated area.

NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces. Test all cleaners in an inconspicuous area before using to make sure they will not damage paint.

T23692—Orange Power Degreaser
A great product for removing the waxy shipping grease from your machine during clean up.

Figure 5. T23692 Orange Power Degreaser.

Assembly

To correctly position this power feeder on your table top, completely assemble the power feeder first, then refer to **Base Mounting** on **Page 19**. With the power feeder unit completely assembled, it will be easier to locate where on the table top you will need to drill your base mounting holes, so you can take advantage of the full range of power feeder swing and adjustments.

To assemble the power feeder:

1. Oil the T-handle threads and position the elbow clamp assembly onto the feeder base, as shown in **Figure 6.**

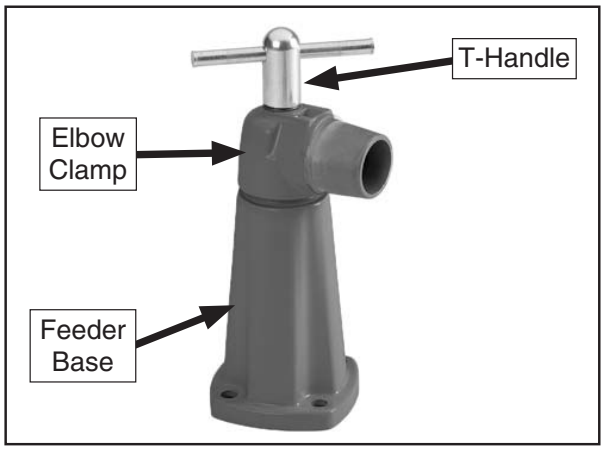


Figure 6. Assembled elbow clamp assembly.

2. Thread the T-handle into the feeder base until the elbow is snug.

3. Insert the arm into the ball-joint ball and secure both together with the M10-1.5 x 25 cap screw shown in **Figure 7.**

4. Insert the ball joint assembly into the power feed socket shown in **Figure 7.**

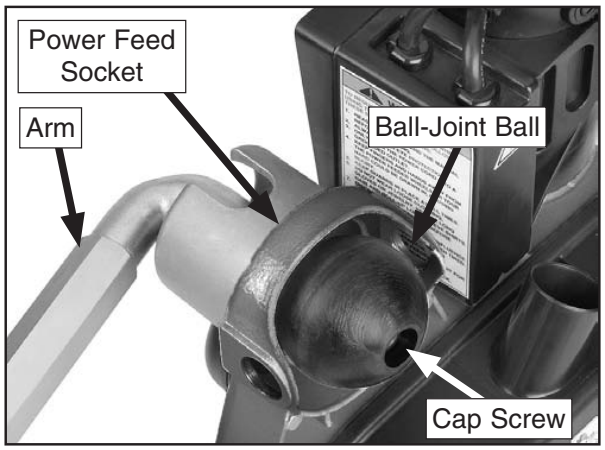


Figure 7. Arm, ball joint and socket assembly.

5. Insert the ball-joint socket into the power feed socket as shown in **Figures 7–8**, so it rests against the ball-joint ball.

   Note: *Lubrication is not necessary for the ball joint assembly.*

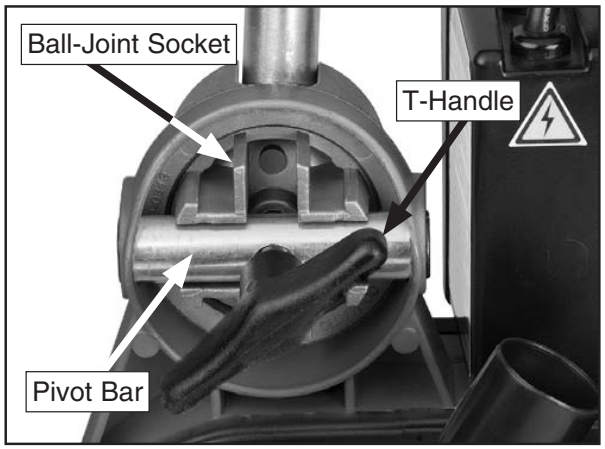


Figure 8. Assembled ball joint assembly.

6. Align the ball-joint socket with the power feeder socket and insert the pivot bar, as shown in **Figure 8.**

7. Lightly oil the T-handle threads.

8. Thread the T-handle through the pivot bar so the end of the T-handle bolt presses against the ball-joint socket firmly (see **Figure 8**).

9. Place the arm into the arm bracket so the teeth of the gear and arm mesh, as shown in **Figure 9**.

Note: *No lubrication is required for the gear or rack teeth. Oil or grease will gather debris, making the horizontal adjustment of the power feeder difficult.*

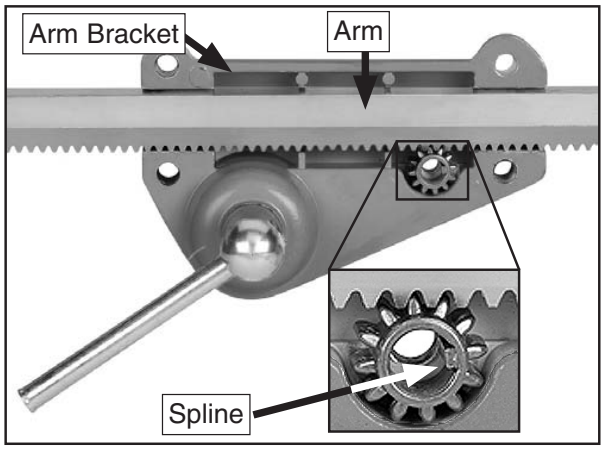


Figure 9. Arm bracket gearing.

10. Install the arm bracket cover and lock lever with the remaining hex bolts washers and nut, as shown in **Figure 10**.

Note: *Make sure that you do not tighten the hex bolts so much as to prevent the arm from sliding in and out of the arm bracket when the horizontal crank is turned.*

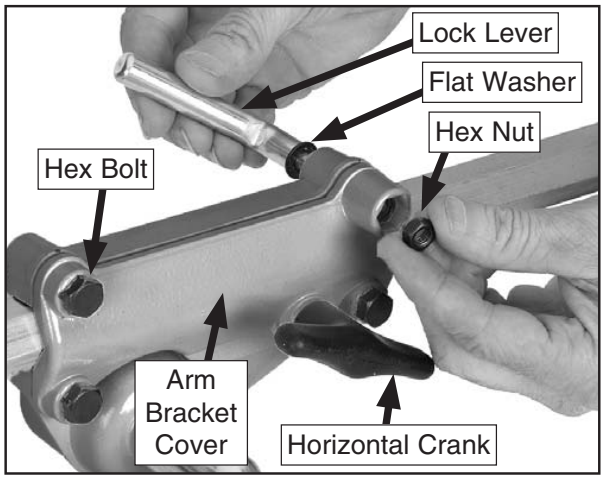


Figure 10. Assembling arm bracket.

11. Insert the horizontal crank (see **Figure 10**) completely so it engages the spline in the gear (see **Figure 9**).

12. Place the E-clip on the end of the horizontal crank to retain the crank, as shown in **Figure 11**.

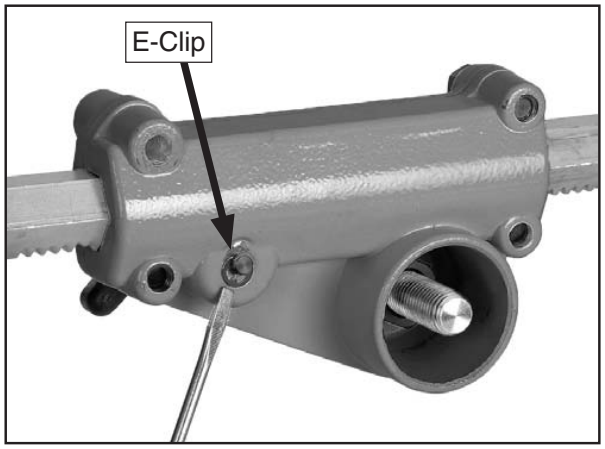


Figure 11. Horizontal crank handle E-clip.

13. Turn the horizontal crank to make sure that the cover bolts are not too tight or too lose. Adjust the three cover hex bolts as required to achieve a slight drag between the arm and arm bracket.

14. Lightly oil the T-handle threads shown in **Figure 12**.

Note: *No lubrication is required for the arm bracket and the elbow clamp connection.*

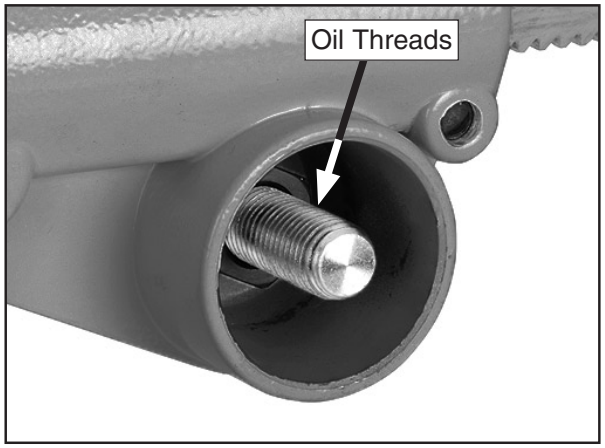


Figure 12. Arm bracket handle threads.

15. Position the arm bracket onto the elbow clamp, as shown in **Figure 13**.

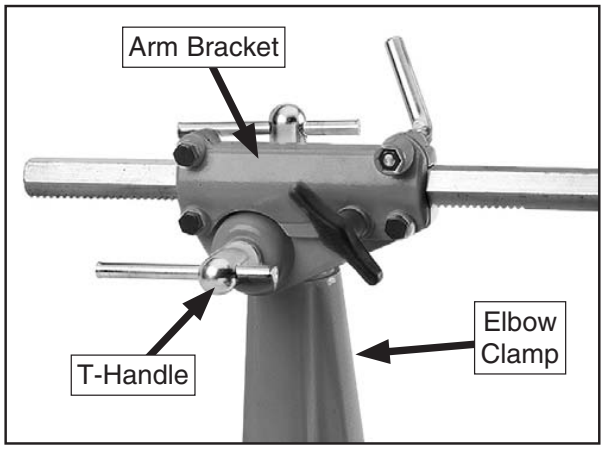


Figure 13. Arm bracket and elbow clamp assembly.

16. Thread the T-handle into the elbow clamp so both assemblies are secure, as shown in **Figure 13**.

17. Use the levers to lock the power feeder into position, as shown in **Figure 14**.

Figure 14. Typical power feed mounting using optional Model G4175 Quick Holder.

Base Mounting

Position the power feeder on the table top to determine where to drill your base mounting holes, so you can maximize power feeder swing and adjustment options.

There are thee mounting options available: **Through Bolt Mounting**, **Direct Mounting**, and **Quick Holder Kit Mounting** (discussed on **Page 19**). Choose an option that suits your requirements.

Whichever way you mount your power feeder, you must be able to use the handwheels and lock levers to position the rubber wheels parallel with the table surface and approximately ⅛" lower than the thickness of your workpiece.

Also, you must be able to point the power feeder slightly towards the machine fence (see **Figure 15**). In other words, the tracking of the power feeder must be toed-in approximately 1° to 1.5° degrees toward the machine fence so the rubber wheels slightly push the workpiece against the fence during cutting operations.

If cutting long or large stock that is difficult to feed properly, use a featherboard *before* the powerfeeder (on the infeed side) to maintain even pressure and control of the workpiece against the fence.

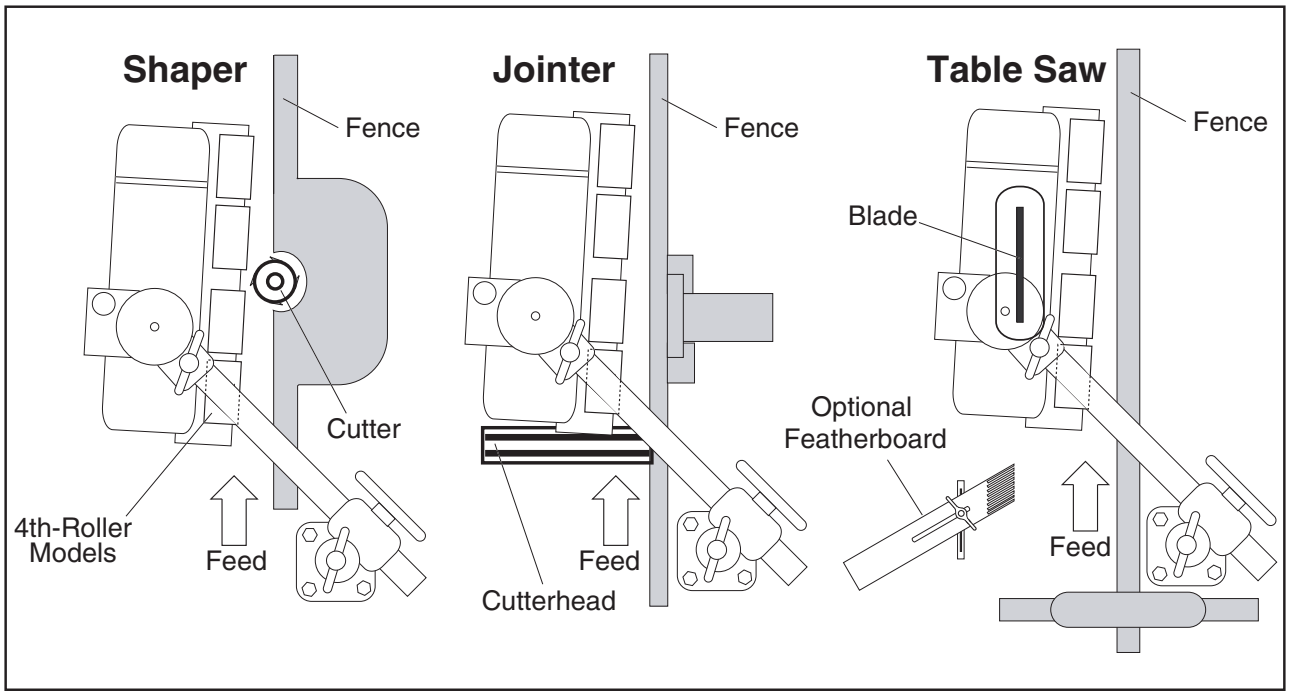


Figure 15. Typical power feed mounting on a shaper, jointer, and table saw.

Mounting Options

To correctly position this power feeder on your table top, completely assemble the power feeder first, then refer this section and mount your base to the table using one of the three methods below. The reason for this order is that with the power feeder unit completely assembled, it will be easier to locate where on the table top you will need to drill your base mounting holes, so you can take advantage of the full range of power feeder swing and adjustments.

Through-Bolt Mounting

We recommend that you mount your new power feeder to the machine table with through bolts, nuts, and washers (see **Figure 16**). This option will give the most rigidity and clamping strength to prevent the feeder base from twisting out of alignment during use. However, if under-table support webs interfere with washer or nut locations under the table, you must use the optional Model G4175 Quick Holder (see **Accessories** on **Page 23**) or drill and thread holes directly into the table as described in **Direct Mounting**.

Direct Mounting

Use the included mounting template to drill and tap your table, so the power feeder base can be directly mounted to the table surface (see **Figure 17**). If the table is thinner than ⅜" thick where the threaded holes would be drilled and tapped, or if support webbing is in the way, the threads may strip or loosen as the power feeder is used. Thread locking compound will not cure this situation. Revert to the **Through-Bolt Mounting** option. In any case, make sure to use a medium-grade liquid thread locking compound on all threads.

Quick Holder Kit Mounting

For temporary or permanent installation of your power feeder without drilling into the table, you can purchase and install the Model G4175 Quick Holder Kit (see **Figure 18**). These kits, while not as rigid as the through-bolt or direct mount options, require no drilling or tapping, and are adequate for most power feeder applications. Make sure to use a medium-grade liquid thread locking compound on all threads.

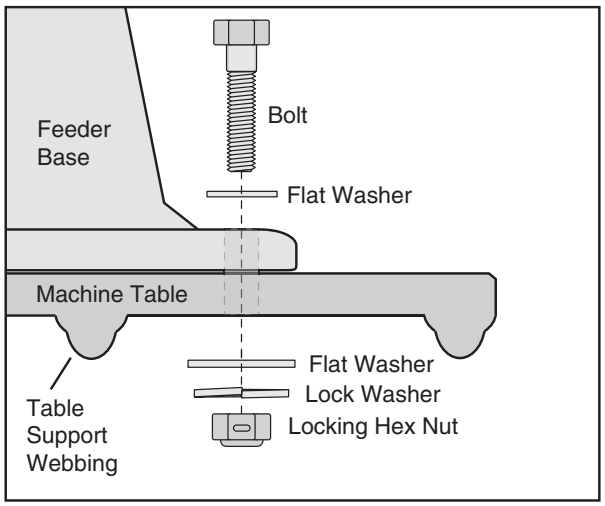


Figure 16. Through-bolt mounting.

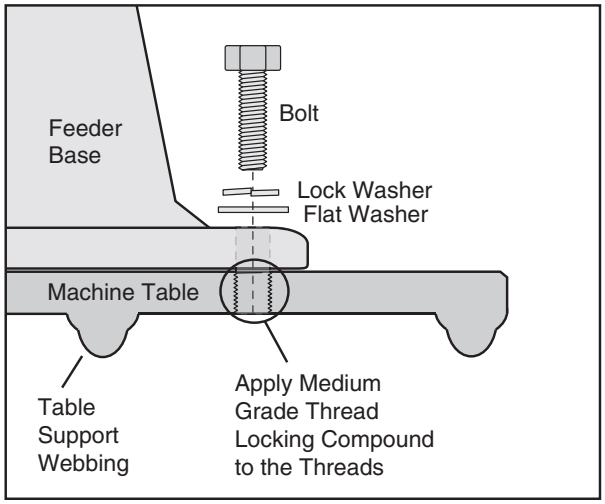


Figure 17. Direct mounting.

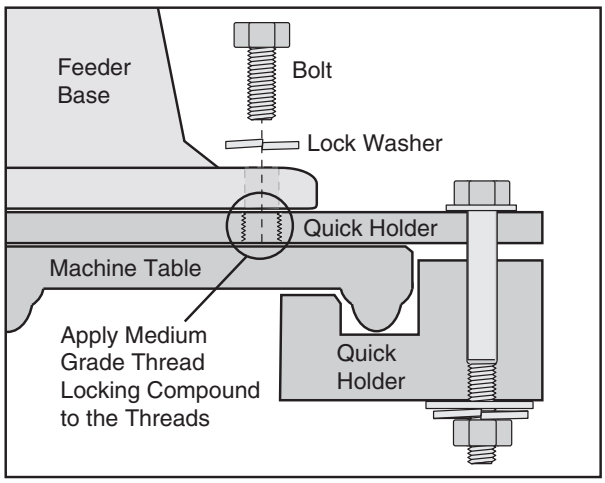
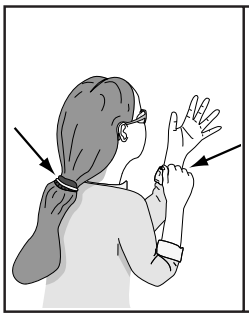


Figure 18. Quick holder mounting.

Test Run



⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

Once the assembly is complete, test run your power feeder to make sure it runs properly and is ready for regular operation. The test run consists of verifying that the motor powers up and runs correctly, and that the rollers operate.

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 25**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the power feed:

1. Read the entire instruction manual first!

2. Make sure all tools and foreign objects have been removed from the tabletop area.

3. Make sure the speed dial (see **Figure 19**) is pushed IN and turned all the way to the left.

4. Make sure the feed direction rocker switch (see **Figure 19**) is in the central position.

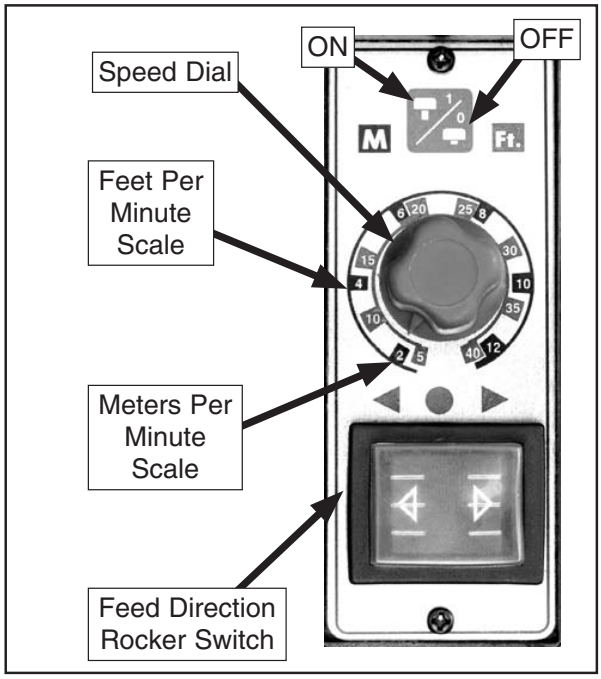


Figure 19. Feed direction and speed dial.

5. Adjust the power feeder so all wheels are approximately 1" above the table surface.

6. Connect the power feeder to the power source.

7. Push the feed direction rocker switch to the left or right.

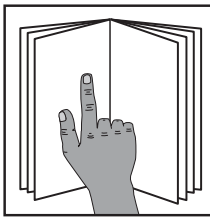
8. Pull the speed dial out until it stops and the power feeder will slowly turn. The power feed should run slowly and smoothly with little or no vibration.

9. Slowly turn the speed dial clockwise. The speed of the wheels should increase respectively.

10. Turn the speed dial back to zero, push the rocker switch to the other direction, and turn the speed dial clockwise again until the wheels turn. The wheels should turn the opposite direction from before.

11. Turn the power feeder ***OFF*** and move the rocker switch to the central position. The test run is complete.

SECTION 4: OPERATIONS

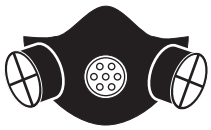


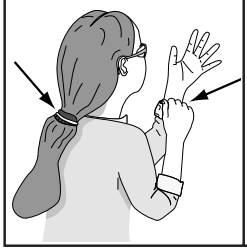
⚠WARNING

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

⚠WARNING

To reduce risk of eye injury from flying chips or lung damage from breathing dust, always wear safety glasses and a respirator when operating this machine.





⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Basic Use and Care

⚠WARNING

You MUST assemble all guards, fences, and hold-downs before starting your machine or power feeder. Failure to heed this warning could result in amputation or death!

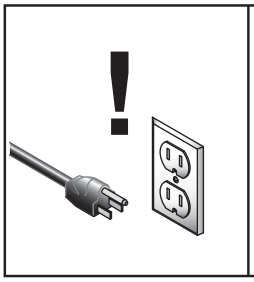
Power feeders reduce kickback hazards and improve cutting results by feeding in a consistent and stable manner. Remember, do not to stand in the path of potential kickback. When not in use, support the power feeder with a wooden block so the rubber wheels are raised above the table and do not compress from the weight of the power feeder.

The universal joints on this power feeder allow you to adjust the power feeder tracking and height to accommodate many workpiece sizes. Before loosening any lock lever, always support the power feeder with a block of wood, so the power feeder does not drop and cause damage.

Adjust the power feeder so it is toed-in approximately 1° to 1.5° degrees towards the machine fence. This adjustment ensures the power feeder wheels slightly push the workpiece against the fence during cutting operations (see **Figure 15** on **Page 18**). A featherboard may be used on the infeed side to assist with feeding long or large stock.

Next, adjust the power feeder so the rubber wheels are parallel with the table surface, and are approximately ⅛" lower than the thickness of your workpiece. This adjustment ensures the workpiece will not slip or hang in the middle of a cut. Double check that the power feeder wheels are slightly lower than the workpiece before beginnging feeding operations. Otherwise, the workpiece may slip and kickback. For machine operations that generate a lot of dust, this power feeder is equipped with a dust port. Remove the plastic knock-out plug (bottom of port) and connect a 1⅜" inside diameter shop vacuum hose.

SECTION 5: MAINTENANCE



⚠WARNING
Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

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

Daily Check:
- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged wheel rubber.
- Any other condition that could hamper the safe operation of this machine.

Cleaning

Frequently blow-off sawdust with compressed air. This is especially important for the internal working parts and motor. Dust build-up around the motor is a sure way to decrease its life span. If the wheels become loaded up with pitch, oil, or other residues, wipe them clean using a clean rag and a mild solvent. Avoid touching the plastic or paint with mineral spirits or you may damage the surfaces.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them. However, periodically oil the lock lever and T-handle threads to ensure free operation. Wipe down the adjustment arm with a thin film of oil as required to prevent surface rust but not enough to attract dirt.

SECTION 6: ACCESSORIES

⚠WARNING

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

H3308—SHOP FOX® Push Stick
Measuring 13½" overall, this push stick allows the operator to keep their hands at a safe distance away from the blade or cutter.

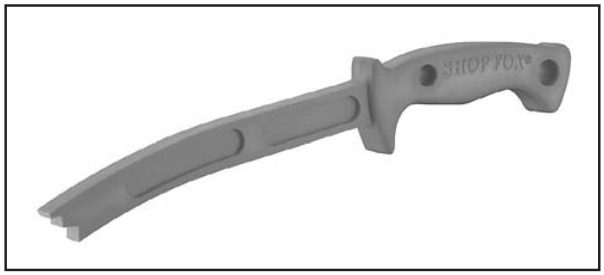


Figure 20. H3308 SHOP FOX® Push Stick.

H3309—SHOP FOX® Featherboard
Designed to lock into a standard ⅜" x ¾" miter slot, this featherboard is fully adjustable to accommodate a wide range of workpieces. Reduce the likelihood of kickback with this convenient accessory.

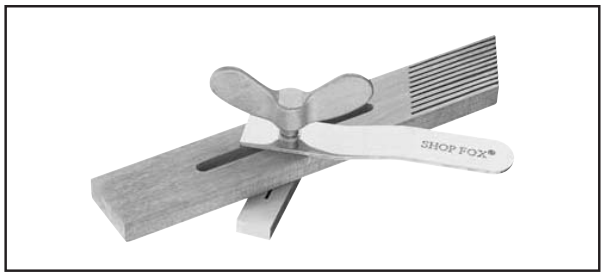


Figure 21. H3309 SHOP FOX® Featherboard.

G4174—Synthetic Rubber Roller for G4173
1⅛" wide x 3" diameter rubber rollers are made from synthetic rubber.

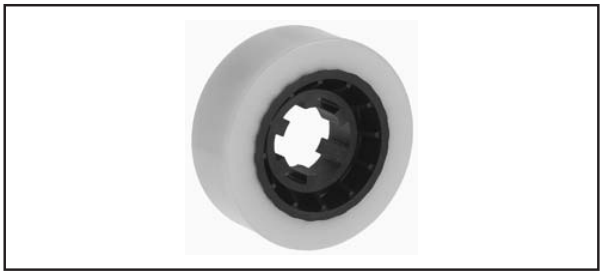


Figure 22. G4174 Synthetic Rubber Roller.

G4175—Quick Holder
This universal Quick Holder allows you to mount just about any power feeder to your machine table without drilling holes. Sturdy clamping system securely attaches to any machine table. Fits Model G4173, G4176 and H0796.

Figure 23. G4175 Quick Holder.

Continued on next page ⟶

G9766—29 Pc. HSS Drill & Tap Set – Metric
Have you ever needed a metric tap and then learn you don't have the right drill bit for it? We offer a set of taps with all the drill bits necessary to produce perfectly tapped holes. Each size has 3 taps which include a starting taper tap, a secondary intermediate tap and a finishing bottom tap. These are great taps for those hard to tap materials. Sizes: M3-0.5, M4-0.7, M5-0.8, M6-1.0, M8-1.25, M10-1.5, M12-1.75.

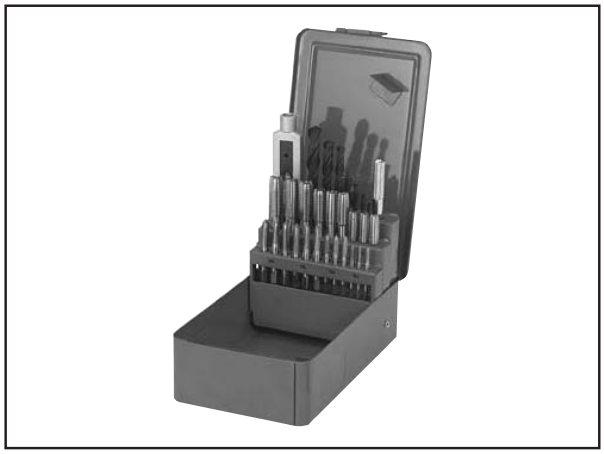


Figure 24. G9766 Metric HSS Drill & Tap Set.

H1412—4 oz. Cutting & Tapping Fluid
This cutting and tapping fluid is non-ozone depleting and is safe on aluminum and exotic alloys such as stainless steel, hastelloy, inconel and titanium. The engineered formula lubrication during cutting and tapping.

Figure 25. H1412 Cutting & Tapping Fluid.

T20501—Face Shield Crown Protector 4"
T20502—Face Shield Crown Protector 7"
T20503—Face Shield Window
T20452—"Kirova" Anti-Reflective S. Glasses
T20451—"Kirova" Clear Safety Glasses
H0736—Shop Fox® Safety Glasses
H7194—Bifocal Safety Glasses 1.5
H7195—Bifocal Safety Glasses 2.0
H7196—Bifocal Safety Glasses 2.5

Figure 26. Eye protection assortment.

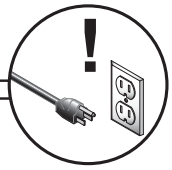
H2499—Small Half-Mask Respirator
H3631—Medium Half-Mask Respirator
H3632—Large Half-Mask Respirator
H3635—Cartridge Filter Pair P100
Wood dust has been linked to nasal cancer and severe respiratory illnesses. If you work around-dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!

Figure 27. Half-mask respirator with disposable cartridge filters.

SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections. 3. Blown fuse. 4. Motor brushes are at fault. 5. Motor switch or motor is at fault.	1. Check power supply for proper voltage. 2. Inspect all lead connections on motor and circuit board for loose or open connections. 3. Replace fuse on circuit board. 4. Replace brushes (see **Page 26**). 5. Replace switch, or motor.
Fuses or circuit breakers trip.	1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Power feeder rollers are jammed.	1. Inspect cord or plug for damaged insulation and shorted wires and replace extension cord. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Disconnect all machinery from power and correct for cause of jamming.
Motor overheats.	1. Motor overloaded. 2. Motor brushes are at fault.	1. Reduce power feeder feed rate. 2. Replace brushes (see **Page 26**).
Workpiece jams when feeding under rollers.	1. Rollers set too low. 2. Feeder at wrong angle.	1. Raise feeder. 2. Adjust angle.
Workpiece slips while passing beneath rollers.	1. Rollers positioned too high, no traction. 2. Feeding too fast. 3. Rollers are dirty or oily. 4. Worn roller(s).	1. Lower feeder. 2. Slow feed speed. 3. Clean roller surface with a mild solvent. 4. Replace roller(s) (see **Page 26**).
Workpiece cut is burnt.	1. Wrong feed speed. 2. Cutter is at fault.	1. Adjust feed speed. 2. Sharpen or replace dull blade or cutter.
Rough finish or chipped grain on workpiece.	1. Feed speed too fast. 2. Dull cutter or blade. 3. Power feeder angle is not toed in to keep workpiece against the fence.	1. Slow speed. 2. Replace with sharp cutter or blade. 3. Adjust power feeder so it is toed-in 1° to 1.5° toward the fence.
Fuzzy grain occurs when planing or moulding.	1. Lumber has high moisture content. 2. Dull knives/cutter.	1. If moisture content is higher than 20%, sticker and allow to dry. 2. Sharpen or replace knives.
Workpiece hangs and does not enter the machine.	1. Power feeder roller height is set incorrectly.	1. Lower the power feeder roller $\frac{1}{8}$" lower than the height of the workpiece.

Wheel Replacement

If you damage one or more wheels, you can easily replace the wheels.

Tools Needed	Qty
Phillips Screwdriver #2	1
Small Pin-Type Retaining Ring Pliers	1
Safety Glasses	1

To replace a wheel:

1. DISCONNECT MACHINE FROM POWER!

2. Remove the three cover screws and the cover (see **Figure 28**).

Figure 28. Wheel replacement.

3. Put on your safety glasses and remove the retaining ring (see **Figure 28**), using external retaining ring pliers.

4. Replace the wheel and reassemble the power feeder.

Brush Replacement

After a long period of time you may notice the motor lose some power or begin to growl during operation. This may indicate that the motor brushes are worn and need replacement. The brushes can be easily replaced.

Tools Needed	Qty
Standard Screwdriver #2	1
Safety Glasses	1

To replace the brush set:

1. DISCONNECT MACHINE FROM POWER!

2. Unscrew the brush caps on either side of the motor (see **Figure 29**).

Figure 29. Replacing brush set.

3. Replace the brush set (see **Figure 29**) and reinstall the caps.

SECTION 8: WIRING

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

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.*

⚠WARNING
Wiring Safety Instructions

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

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

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

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

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

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

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

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

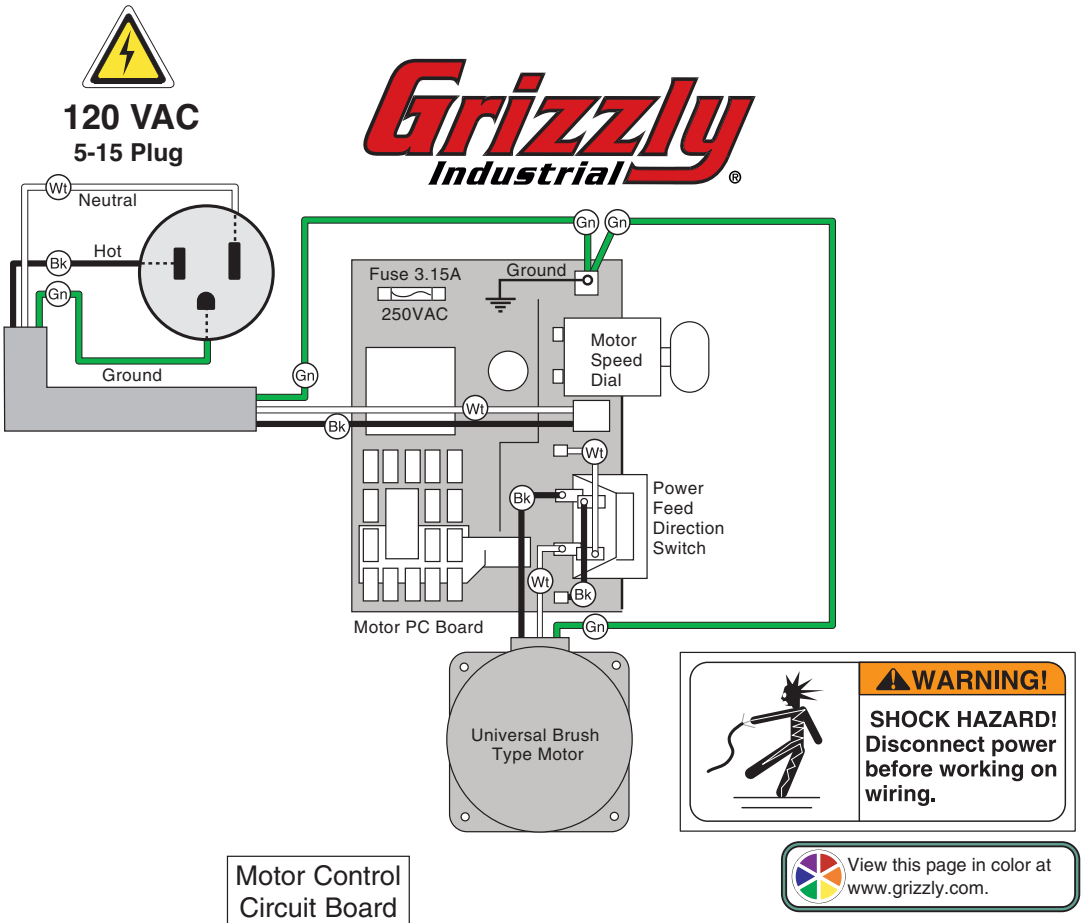
NOTICE

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

COLOR KEY

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

Wiring Diagram



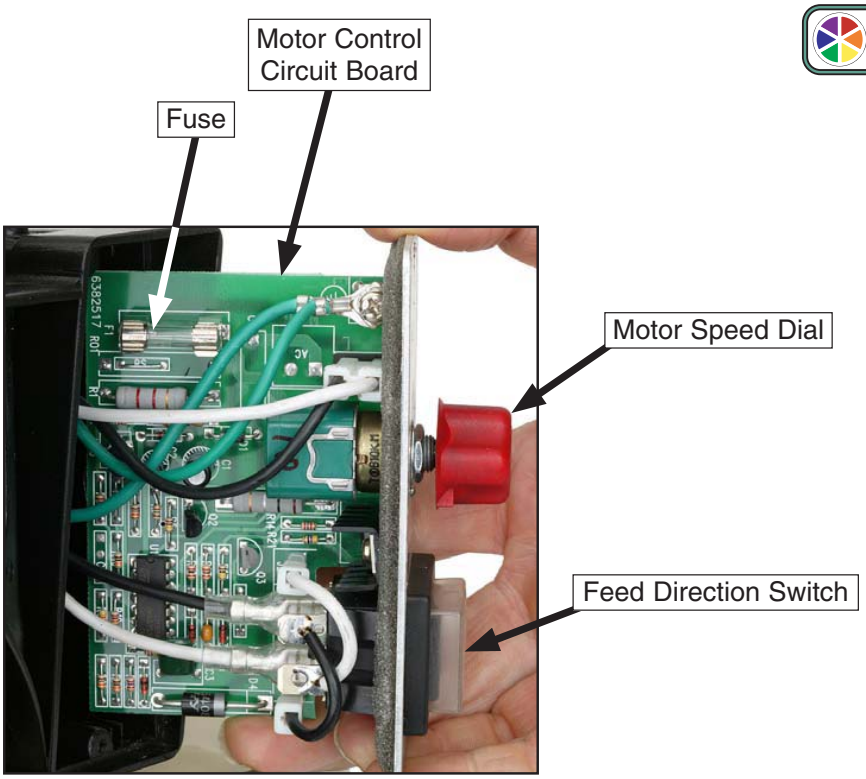
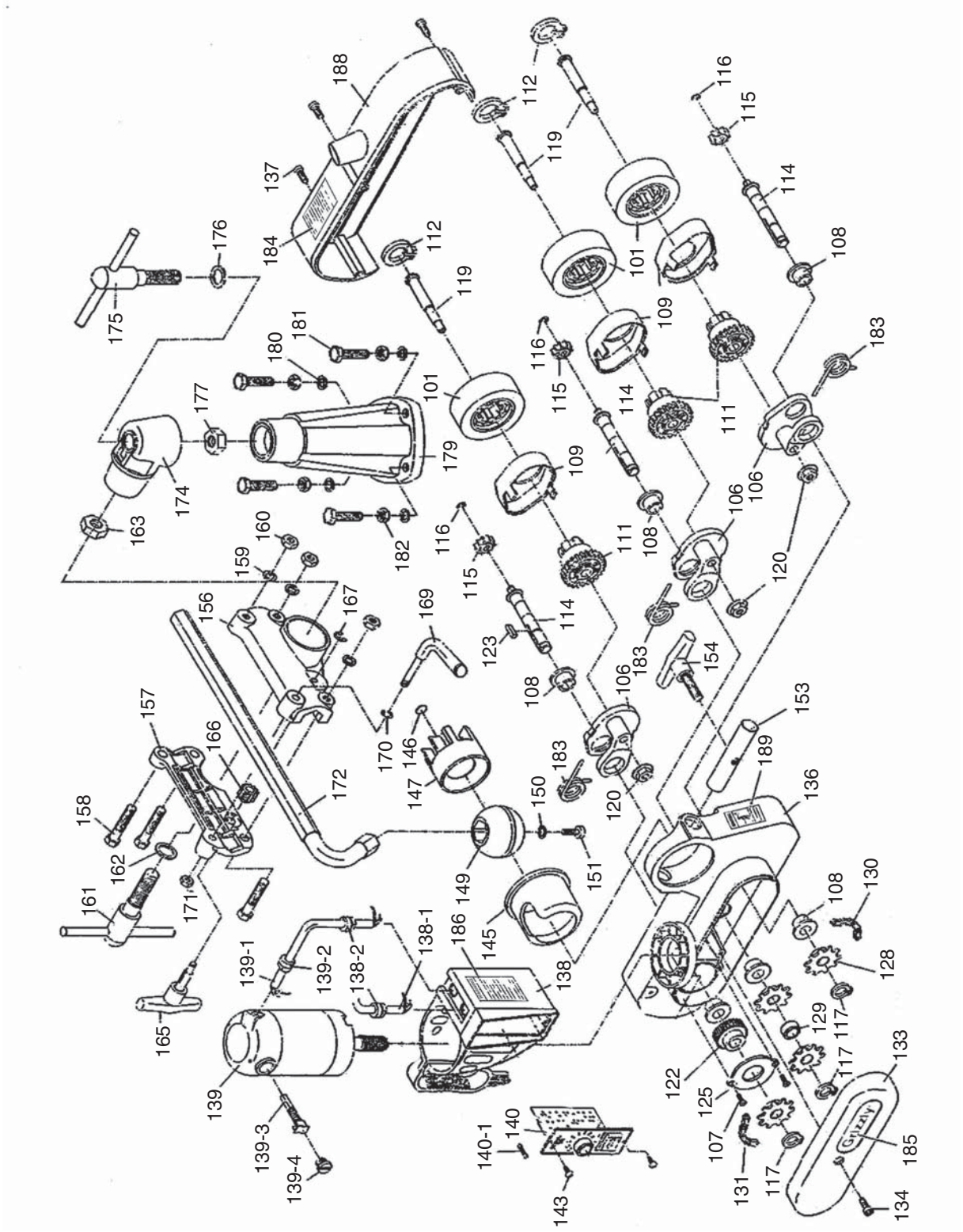


Figure 30. Feeder Control System.

SECTION 9: PARTS

Main Breakdown



Main Parts List

REF	PART #	DESCRIPTION
101	G4174	ROLLER
106	P4173106	SPROCKET CASE
107	PFH31M	FLAT HD SCR M4-.7 X 8
108	P4173108	BUSHING
109	P4173109	CASE CAP
111	P4173111	GEAR ASSEMBLY 25T
112	PR10M	EXT RETAINING RING 22MM
114	P4173114	DRIVE SHAFT
115	P4173115	GEAR 10T
116	P4173116	E-CLIP 6.4MM
117	PR03M	EXT RETAINING RING 12MM
119	P4173119	SHAFT
120	PN03M	HEX NUT M8-1.25
122	P4173122	BEVEL GEAR
123	PK34M	KEY 5 X 5 X 20
125	P4173125	BEVEL GEAR CAP
128	P4173128	SPROCKET 10T
129	P4173129	BUSHING 14 X 21 X 10.5
130	P4173130	CHAIN 18S
131	P4173131	CHAIN 24S
133	P4173133	CHAIN COVER
134	PS40M	PHLP HD SCR M5-.8 X 16
136	P4173136	MAIN CASE
137	PS40M	PHLP HD SCR M5-.8 X 16
138	P4173138	CONTROL BOX
138-1	P4173138-1	CONTROL BOX POWER CORD
138-2	P4173138-2	CONTROL BOX GROMMETS
139	P4173139	UNIVERSAL DC MOTOR 1/8HP
139-1	P4173139-1	MOTOR POWER CORD
139-2	P4173139-2	STRAIN RELIEF
139-3	P4173139-3	BRUSH ASSEMBLY
139-4	P4173139-4	BRUSH CAP
140	P4173140	COMPLETE MOTOR CONTROL SYSTEM
140-1	P4173140-1	FUSE 3.15A 250VAC
143	PHTEK11M	TAP SCREW M3-.5 X 8
145	P4173145	LOWER BALL HOUSING

REF	PART #	DESCRIPTION
146	P4173146	STOPPER 10 X 3MM
147	P4173147	UPPER BALL HOUSING
149	P4173149	BALL
150	PLW06M	LOCK WASHER 10MM
151	PCAP64M	CAP SCREW M10-1.5 X 25
153	P4173153	FRAME SHAFT
154	P4173154	T-HANDLE
156	P4173156	OVER ARM BODY
157	P4173157	OVER ARM CLAMP
158	PB73M	HEX BOLT M10-1.5 X 50
159	PLW06M	LOCK WASHER 10MM
160	PN02M	HEX NUT M10-1.5
161	P4173161	T-HANDLE M16-2.0P
162	PW18M	FLAT WASHER 18MM
163	PN13M	HEX NUT M16-2
165	P4173165	T-HANDLE
166	P4173166	PINION
167	PEC13M	E-CLIP 5MM
169	P4173169	CLAMP LEVER M8
170	PW07	FLAT WASHER 5/16
171	PN03M	HEX NUT M8-1.25
172	P4173172	ARM
174	P4173174	SWIVEL CONE
175	P4173175	T-HANDLE M16-2.0P
176	PW18M	FLAT WASHER 18MM
177	PN13M	HEX NUT M16-2
179	P4173179	BASE
180	PLW06M	LOCK WASHER 10MM
181	PB14M	HEX BOLT M10-1.5 X 35
182	PN02M	HEX NUT M10-1.5
183	P4173183	TORSION SPRING 30 X 6
184	P4173184	DATA LABEL
185	P4173185	GRIZZLY LOGO LABEL
186	P4173186	GENERAL WARNING LABEL
188	P4173188	WHEEL COVER
189	P4173189	ENTANGLEMENT LABEL

Please Note: *We do our best to stock replacement parts whenever possible, but we cannot guarantee that all parts shown here are available for purchase. Call* ***(800) 523-4777*** *or visit our online parts store at* ***www.grizzly.com*** *to check for availability.*

Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____

Model # _____ Order # _____ Serial # _____

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 ____ Catalog
____ Card Deck ____ Website ____ Other:

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

____ Cabinetmaker & FDM
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. 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+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

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

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____Yes _____No

8. Would you recommend Grizzly Industrial to a friend? _____Yes _____No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____Yes _____No

10. Comments: _____

_____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly'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 or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly 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.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number,'' which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.