

Grizzly **Industrial, Inc.**®

12 SPEED DRILL PRESS MODEL G7947/G7948 INSTRUCTION MANUAL



G7947



G7948

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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

#TR7410 PRINTED IN CHINA

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

Foreword

We are proud to offer the Model G7947/G7948 12" Drill Press. This machine is part of a growing Grizzly family of fine woodworking and metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G7947/G7948. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G7947/G7948 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>





MACHINE DATA SHEET

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

MODEL G7947 12 SPEED 17" FLOOR DRILL PRESS

Product Dimensions:

Weight..... 270 lbs.
 Length/Width/Height..... 30 x 21 x 70 in.
 Foot Print (Length/Width)..... 22-1/2 x 14-1/2 in.

Shipping Dimensions:

Type..... Cardboard
 Content..... Machine
 Weight..... 283 lbs.
 Length/Width/Height..... 61 x 26 x 13 in.

Electrical:

Switch..... Toggle On/Off with Safety Lock Tab
 Switch Voltage..... 110/220V
 Cord Length..... 8-1/2 ft.
 Cord Gauge..... 16 gauge
 Minimum Circuit Size..... 15 amp
 Plug Included..... Yes

Motors:

Main

Type..... TEFC Capacitor Start Induction
 Horsepower..... 1 HP
 Voltage..... 110/220V
 Prewired..... 110V
 Phase..... Single
 Amps..... 10/5A
 Speed..... 1725 RPM
 Cycle..... 60 Hz
 Number Of Speeds..... 1
 Power Transfer V-Belt Drive
 Bearings..... Shielded and Lubricated

Main Specifications:

Construction

Table Construction..... Precision Ground Cast Iron
 Spindle Housing Construction..... Cast Iron
 Column Construction..... Cylindrical Ground Steel
 Head Construction..... Cast Iron
 Base Construction..... Cast Iron
 Paint..... Epoxy

Head Information

Head Swivel..... 360 deg.

Information contained herein is deemed accurate as of 10/21/2009 and represents our most recent product specification. Due to our ongoing improvement efforts, this information may not accurately describe items previously purchased.



Other Related Information

Base Length.....	22-1/2 in.
Base Width.....	14-1/2 in.
Quill Diameter.....	2.85 in.
Depth Stop Type.....	Threaded Rod with Positive Stop
Column Diameter.....	3.605 in.
Mobile Base.....	G7314Z
Illumination.....	110V Socket, Separat

Spindle Information

Spindle Taper.....	MT#3
Spindle Travel.....	4-3/4 in.
Dist From Spindle To Column.....	8-1/2 in.
Dist From Spindle To Table.....	29 in.
Dist From Spindle To Base.....	50-1/4 in.

Table Information

Table Length.....	13-5/8 in.
Table Width.....	13-5/8 in.
Table Thickness.....	1-1/2 in.
Floor To Table Height.....	24 - 45-1/2 in.
Vertical Table Movement.....	Crank Handle Operate
Table Swing.....	360 deg.
Table Tilt.....	Left and Right 90 deg.
Table Swivel Around Center.....	360 deg.
Table Swivel Around Column.....	360 deg.
Maximum Movement Of Work Table.....	21-1/2 in.
No. Of T Slots.....	2
T Slot Width.....	1/2 in.
T Slot Length.....	6 in.

Operation Information

Swing.....	17 in.
Drilling Capacity.....	1 in. in Steel
No Of Spindle Speeds.....	12
Range Of Spindle Speeds.....	210, 310, 400, 440, 630, 670, 1260, 1430, 1650, 2050, 2350, 3300 RPM
Drill Chuck Type.....	JT3 Key Chuck
Drill Chuck Size.....	5/8 in.

Other Specifications:

Country Of Origin	China
Warranty	1 Year
Serial Number Location	Data Label on Head
Assembly Time	45 minutes

Features:

- Table Has Lock Levers and Coolant Trough
- Threaded Depth Stop
- Crank Handle Operated Rack and Pinion Vertical Table Movement
- Two T-Slots Accommodates 1/2" Clamping Kit
- Includes Built-in Light
- Table and Base are Cast Iron
- 1HP Motor
- 12 Speeds
- Huge 4-3/4" Spindle Travel
- 1/8" - 5/8" Chuck
- Cushioned Grip Quill Handles

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MACHINE DATA SHEET

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

MODEL G7948 12 SPEED 20" FLOOR DRILL PRESS

Product Dimensions:

Weight..... 320 lbs.
 Length/Width/Height..... 34-3/4 x 21 x 70-3/4 in.
 Foot Print (Length/Width)..... 23 x 18 in.

Shipping Dimensions:

Type..... Cardboard
 Content..... Machine
 Weight..... 331 lbs.
 Length/Width/Height..... 60 x 26 x 13 in.

Electrical:

Switch..... Paddle On/Off with Safety Lock Tab
 Switch Voltage..... 110V
 Cord Length..... 8-1/2 ft.
 Cord Gauge..... 16 gauge
 Minimum Circuit Size..... 20 amp
 Plug Included..... Yes

Motors:

Main

Type..... TEFC Capacitor Start Induction
 Horsepower..... 1-1/2 HP
 Voltage..... 110/220V
 Prewired..... 110V
 Phase..... Single
 Amps..... 15/7.5A
 Speed..... 1725 RPM
 Cycle..... 60 Hz
 Number Of Speeds..... 1
 Power Transfer V-Belt Drive
 Bearings..... Shielded and Lubricated

Main Specifications:

Construction

Table Construction..... Precision Ground Cast Iron
 Spindle Housing Construction..... Cast Iron
 Column Construction..... Cylindrical Ground Steel
 Head Construction..... Cast Iron
 Base Construction..... Cast Iron
 Paint..... Epoxy

Head Information

Head Swivel..... 360 deg.

Information contained herein is deemed accurate as of 10/21/2009 and represents our most recent product specification. Due to our ongoing improvement efforts, this information may not accurately describe items previously purchased.



Other Related Information

Base Length.....	23 in.
Base Width.....	17-1/2 in.
Quill Diameter.....	2.825 in.
Depth Stop Type.....	Hub
Column Diameter.....	3.642 in.
Mobile Base.....	G7314Z
Illumination.....	110V Socket, Separat

Spindle Information

Spindle Taper.....	MT#4
Spindle Travel.....	4-3/4 in.
Dist From Spindle To Column.....	10 in.
Dist From Spindle To Table.....	28-1/2 in.
Dist From Spindle To Base.....	50-1/4 in.

Table Information

Table Length.....	18-3/4 in.
Table Width.....	16-3/4 in.
Table Thickness.....	1-1/2 in.
Floor To Table Height.....	25 - 47 in.
Vertical Table Movement.....	Crank Handle Operate
Table Swing.....	360 deg.
Table Tilt.....	Left and Right 90 deg.
Table Swivel Around Center.....	270 deg.
Table Swivel Around Column.....	360 deg.
Maximum Movement Of Work Table.....	22 in.
No. Of T Slots.....	3
T Slot Width.....	1/2 in.
T Slot Length.....	14-1/2 in.

Operation Information

Swing.....	20 in.
Drilling Capacity.....	1-1/4 in. in Steel
No Of Spindle Speeds.....	12
Range Of Spindle Speeds.....	210, 310, 400, 440, 630, 670, 1260, 1430, 1650, 2050, 2350, 3300 RPM
Drill Chuck Type.....	JT3 Key Chuck
Drill Chuck Size.....	5/8 in.

Other Specifications:

Country Of Origin	China
Warranty	1 Year
Serial Number Location	Data Label on Head
Awards	Popular Woodworking Editor's Choice Tool Buying Guide
Assembly Time	45 minutes

Features:

- Table Has Lock Levers and Coolant Trough
- Crank Handle Operated Rack and Pinion Vertical Table Movement
- Threaded Depth Stop
- Cushioned Grip Quill Handles
- Three T-Slots Accommodates 1/2" Clamping Kit
- Includes Built-in Light
- Table and Base are Cast Iron
- 1/8" - 5/8" Chuck
- Huge 4-3/4" Spindle Travel
- 12 Speeds
- 1-1/2HP Motor
- MT #4 Spindle Taper

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Identification

Refer to the list below and see **Figures 1 & 2** to become familiar with the drill press controls.

1. **Light Switch:** Turns light *ON/OFF*.
2. **Power Switch:** Turns motor *ON/OFF*.
3. **Belt Tension Lever:** Adjusts motor location to increase/decrease belt tension.
4. **Belt Tension Lock:** Locks motor in place.
5. **Table Height Crank:** Raises/lowers table.
6. **Table Lock Lever:** Locks table rotation.
7. **Column Lock Lever:** Locks table height.
8. **Torsion Spring:** Returns quill into headstock.
9. **Lash Screw:** Removes quill lash.
10. **Depth Stop:** Limits quill travel to a pre-set drilling depth.
11. **Scale:** Displays current table-tilt angle.

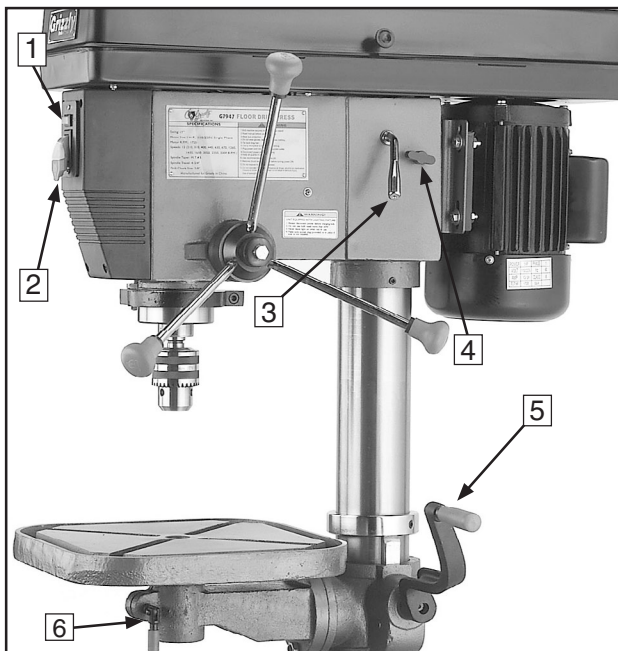


Figure 1. Right-side controls.

Refer to the list below to become familiar with the drill press terms and definitions.

Headstock: The cast iron upper portion of the drill press, which houses the quill and work light, and supports the motor and belt housing.

Drift Key: A wedge-shaped tool used to separate tapers.

T-Slot: A slot in a table used to trap a hex nut or hex bolt to clamp down a workpiece or a vise.

Arbor: A tapered shaft that connects the chuck to the spindle.

Quill: Houses the spindle and bearings.

Spindle: The hollow shaft that accepts the arbor.

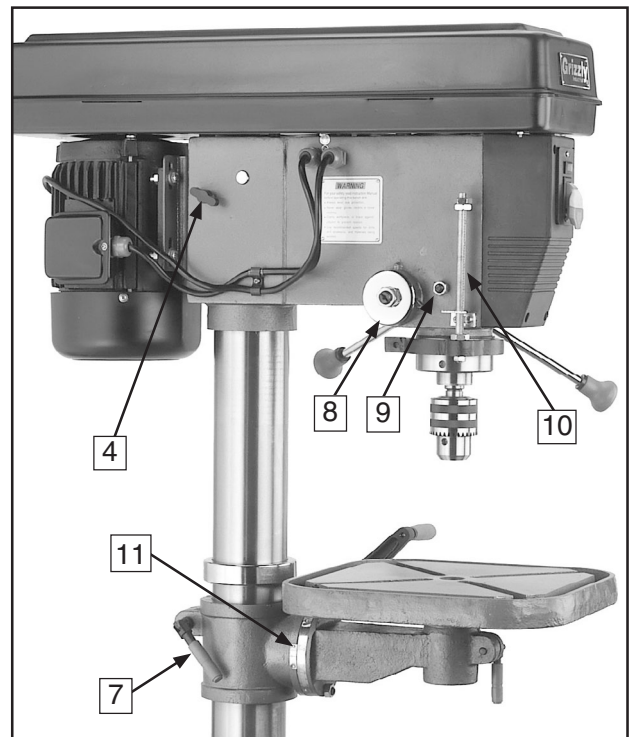


Figure 2. Left-side controls.




SECTION 1: SAFETY


WARNING

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 which are 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.

 **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.

WARNING

Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 3. ALWAYS WEAR AN ANSI APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT WORKPIECE TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **BE AWARE THAT CERTAIN WOODS MAY CAUSE AN ALLERGIC REACTION** in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to and always wear an approved respirator.



WARNING

Safety for Drill Presses

- 1. EYE/FACE/HAND PROTECTION.** A face shield used with safety glasses is recommended. Always keep hands and fingers away from the drill bit. Never hold a workpiece by hand while drilling! **DO NOT** wear gloves when operating the drill.
- 2. SECURING BIT.** Properly tighten and securely lock the drill bit in the chuck.
- 3. CORRECT BIT.** Use only round, hex, or triangular shank drill bits.
- 4. ADJUSTING KEYS AND WRENCHES.** Remove all adjusting keys and wrenches before turning the machine **ON**.
- 5. DRILLING SHEET METAL.** Never drill sheet metal unless it is securely clamped to the table.
- 6. SURFACE/WORKPIECE PREP.** Never turn the drill press **ON** before clearing the table of all objects (tools, scrap wood, etc.) **DO NOT** drill material that does not have a flat surface, unless a suitable support is used.
- 7. DAMAGED TOOLS.** Never use tools in poor condition. Dull or damaged cutting tools are hard to control and may cause serious injury.
- 8. DRILL OPERATION.** Never start the drill press with the drill bit pressed against the workpiece. Feed the drill bit evenly into the workpiece. Back the bit out of deep holes.

Turn the machine **OFF** and clear chips and scrap pieces with a brush. Shut power **OFF**, remove drill bit, and clean table before leaving the machine.
- 9. OPERATING SPEED.** Always operate your drill press at speeds that are appropriate for the drill bit size and the material that you are drilling.
- 10. MAINTENANCE/SPEED CHANGES.** Never do maintenance or change speeds with the machine plugged in.
- 11. MOUNTING WORKPIECES.** Use clamps or vises to secure workpiece before drilling. Position work so you avoid drilling into the table.
- 12. TABLE LOCK.** Make sure the table lock is tightened before starting the drill press.
- 13. EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Service Department at (570) 546-9663.

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: CIRCUIT REQUIREMENTS

110/220V Operation

⚠️ WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The Model G7947/G7948 motor is prewired to 110V, but can be rewired to 220V. The machine draws the following amps under load:

G7947 at 110V	10 Amps
G7947 at 220V	5 Amps
G7948 at 110V	15 Amps
G7948 at 220V	7.5 Amps

Circuit Requirements

Only connect your machine to a circuit that meets the requirements below. Always check to see if the wires and circuit breaker in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician.

G7947 110V Minimum Circuit	15 Amp
G7947 220V Minimum Circuit.....	10 Amp
G7948 110V Minimum Circuit	20 Amp
G7948 220V Minimum Circuit.....	10 Amp

NOTICE

The Model G7947/G7948 is prewired for 110V operation. For 220V operation, you must rewire your motor. A qualified electrician must inspect any rewiring to this machine before putting it into operation.

Plug Type

The Model G7947/G7948 comes prewired with a NEMA 5-15 plug. If you wish to rewire the motor to 220V we recommend using the following plug (see **Figure 3** for an example):

220V Plug & Receptacle 6-15 or L6-15

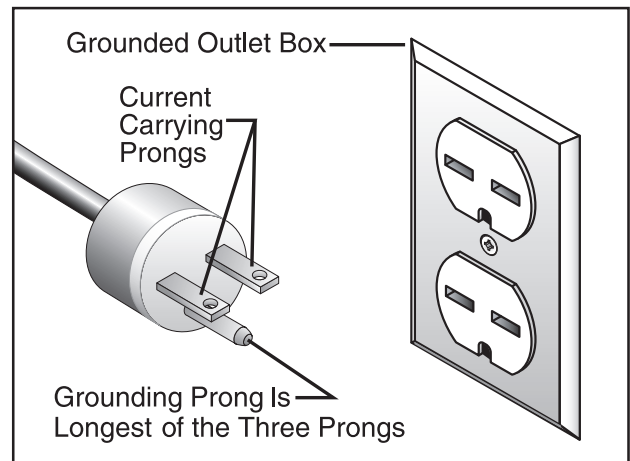



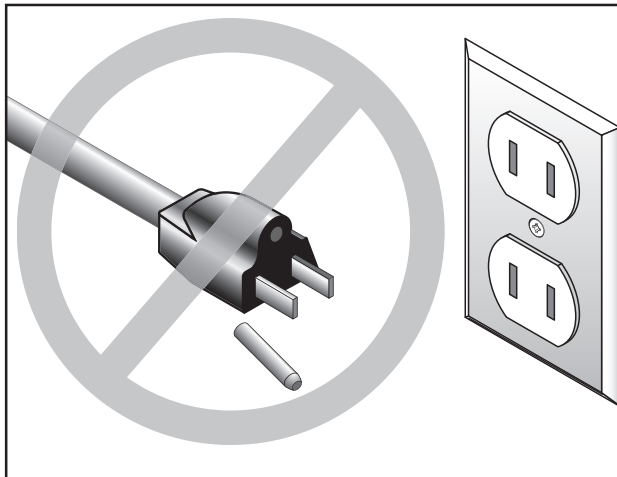
Figure 3. 6-15 plug and outlet.



Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.

	<p>⚠ WARNING</p> <p>Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!</p>
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<p>⚠ CAUTION</p> <p>This machine must have a ground prong in the plug to help ensure that it is grounded. DO NOT remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.</p>

Extension Cords

110V Operation

We do not recommend the use of extension cords. Instead, arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords.

If you find it absolutely necessary to use an extension cord at 110V with your machine:

- Use at least a 10 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

220V Operation

We do not recommend the use of extension cords. Instead, arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords.

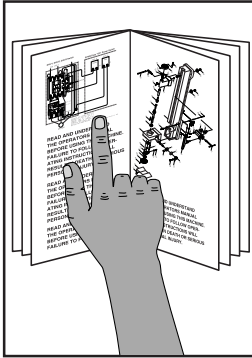
If you find it absolutely necessary to use an extension cord at 220V with your machine:

- Use at least a 12 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician MUST size cords over 50 feet long to prevent motor damage.



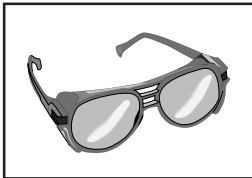
SECTION 3: SET UP

Set Up Safety



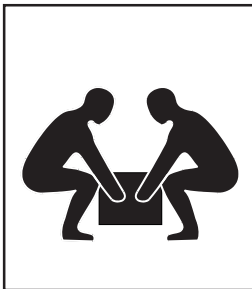
!WARNING

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



!WARNING

Wear safety glasses during the entire set up process!



!WARNING

The Model G7947/G7948 is a heavy machine. DO NOT over-exert yourself while unpacking or moving your machine—get assistance.

Items Needed for Set Up

The following items are needed to complete the set up process, but are not included with your machine:

Description	Qty
• Wrench 18 mm.....	1
• Plumb Bob.....	1
• People for Lifting Help.....	2
• Rubber Mallet.....	1
• 60W Light Bulb (110V operation only).....	1
• Permanent Marker.....	1

Unpacking

The Model G7947/G7948 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service 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, you should inventory the contents.



Inventory

If any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, but for the sake of expediency, you can get replacements at a hardware store.

Use **Figure 4** and the inventory list below to inventory your drill press parts:

Description	Qty
1. Base	1
2. Column	1
3. Table Support Assembly	1
4. Large Lock Lever	1
5. Small Lock Lever.....	1
6. Crank Lever.....	1
7. Handle	1
8. Table	1
9. Headstock Assembly.....	1
10. Arbor.....	1
11. Drift Key.....	1
12. Chuck	1
13. Chuck Key	1
14. Downfeed Handles	3
15. Lock Wrench	1
16. Pinion	1
17. Hardware Bag	1
—Belt Cover Knob	1
—Hex Wrench 3mm.....	1
—Hex Wrench 4mm.....	1
—Hex Wrench 5mm.....	1
—Hex Bolt M12-1.75 x 45mm.....	4

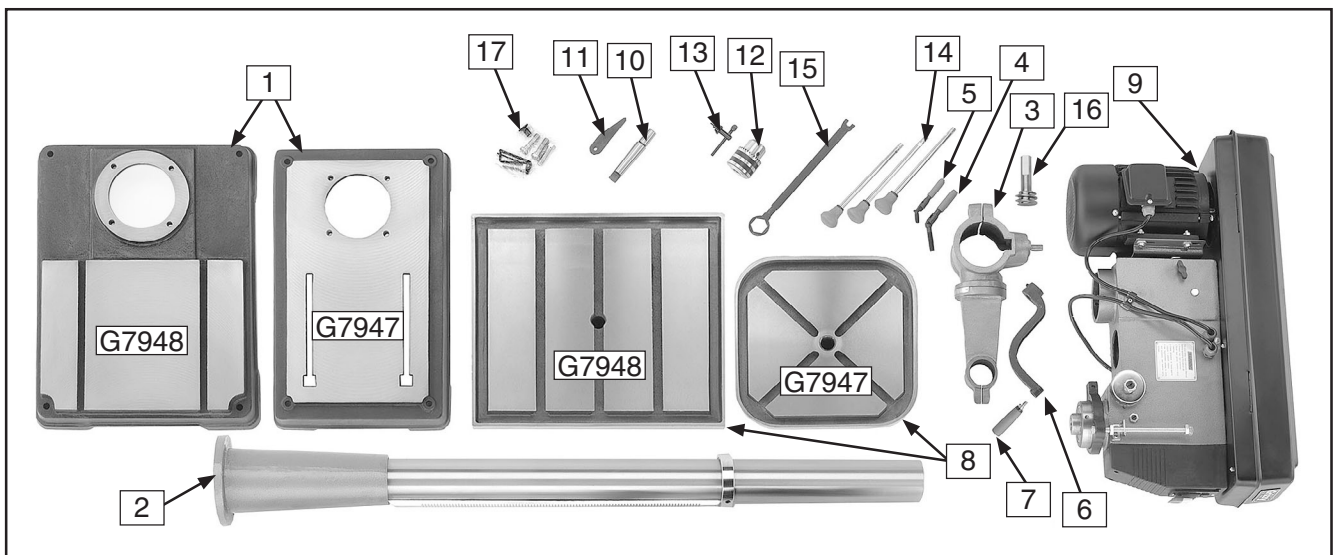


Figure 4. G7947/G7948 box inventory.

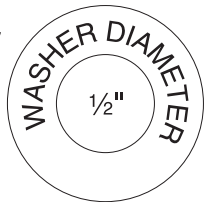
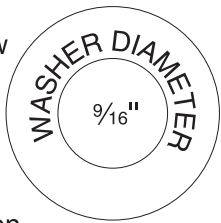
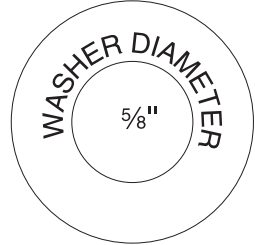
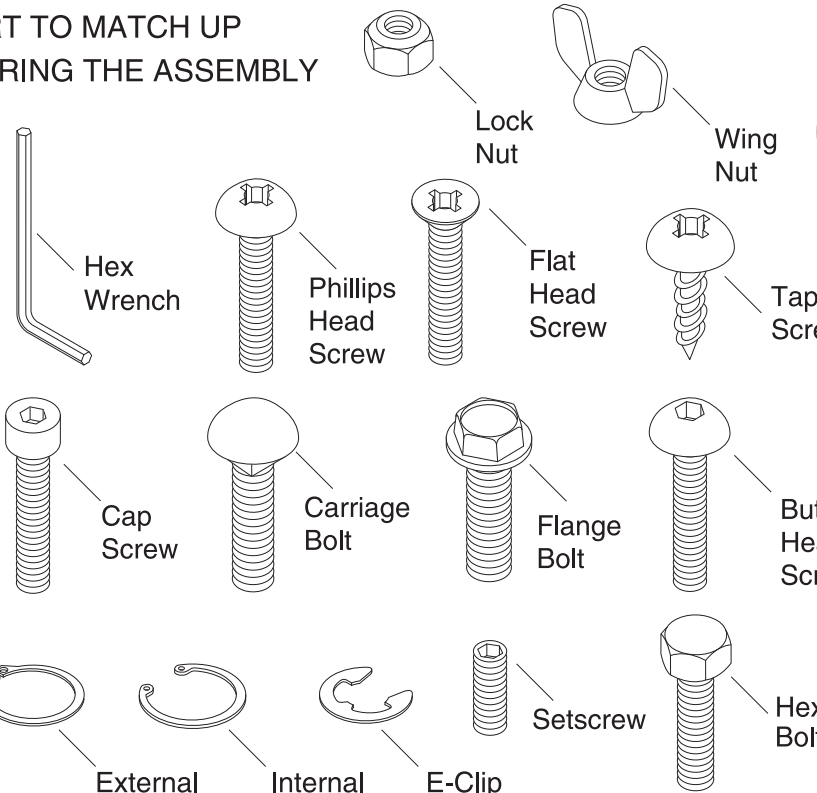


Hardware Recognition Chart

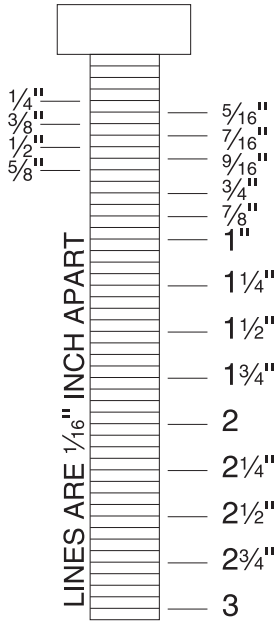
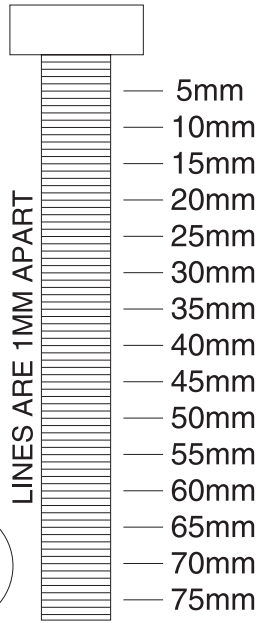
USE THIS CHART TO MATCH UP HARDWARE DURING THE ASSEMBLY PROCESS.

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

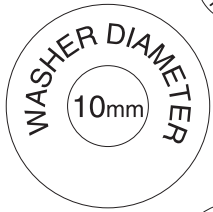
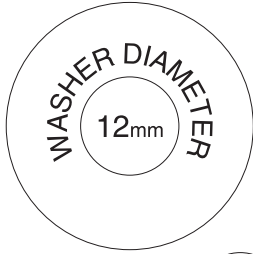
- #10
- 1/4"
- 5/16"
- 3/8"
- 7/16"
- 1/2"



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




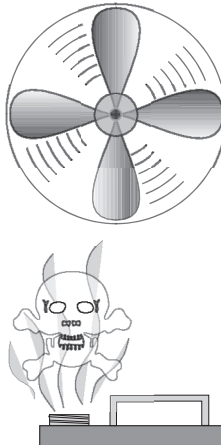
WASHERS ARE MEASURED BY THE INSIDE DIAMETER



Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner, as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>⚠️ WARNING Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.</p>
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	<p>⚠️ CAUTION Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
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Site Considerations

Floor Load

Refer to the **Machine Data Sheet** for weight and footprint specifications for your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your machine. See **Figure 5** for the minimum working clearances of the Model G7947/G7948.

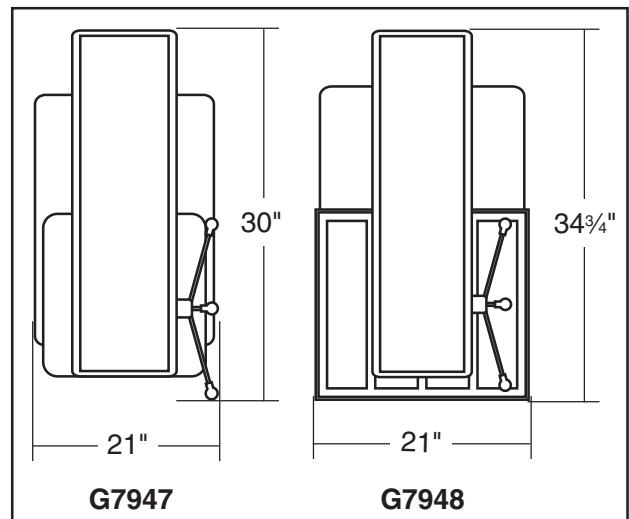


Figure 5. Working clearances.

	<p>⚠️ CAUTION Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and DO NOT allow unsupervised children or visitors in your shop at any time!</p>
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Column and Base

Components and Hardware Needed:	Qty
Base	1
Column	1
Hex Bolts M12-1.75 x 45.....	4

The column must be secured on the base to properly assemble your drill press.

To secure the column to the base:

1. Place the column on the base and align the mounting holes.
2. Secure the column to the base with the four hex bolts, as shown in **Figure 6**.



Figure 6. Column secured to base.

Table Support

Components and Hardware Needed:	Qty
Table Support Assembly	1
Pinion.....	1
Crank Handle	1
Handle	1
Large Lock Lever.....	1
Small Lock Lever.....	1

The table support must be installed as described to properly assemble your drill press.

To install the table support:

1. Place the pinion in the table support, as shown in **Figure 7**, so the pinion and gear teeth mesh together.

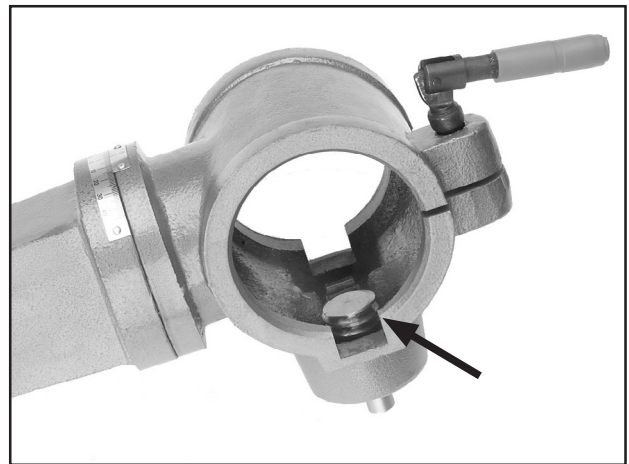


Figure 7. Pinion correctly installed in table support.



2. Mark the top of the rack, as shown in **Figure 8**, to keep track of which end is up.

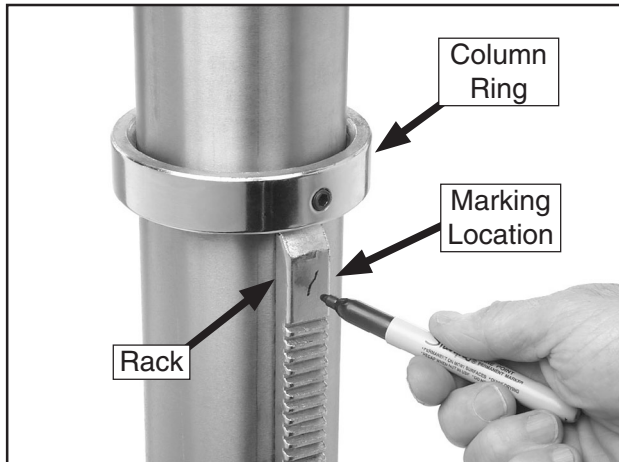


Figure 8. Marking top of rack to show which end is up.

3. Remove the column ring by loosening the setscrew, and remove the rack.
4. Place the rack inside of the table support assembly, mesh it together with the pinion, and slide the table support/rack assembly over the column, as shown in **Figure 9**.



Figure 9. Sliding table support and rack over the column.

5. Slide the column ring over the column with the beveled edge facing down (**Figure 10**), fit the beveled edge of the column ring over the rack, and tighten the setscrew. **Note:** Do not over-tighten the setscrew or you may split the column ring. Also make sure the rack is seated firmly in the lower ring.



Figure 10. Correct column ring orientation.

6. Install the crank lever over the pinion shaft, and tighten the setscrew in the crank handle against the flat part of the pinion shaft.
7. Thread the handle into the crank lever.
8. Thread the large lock lever into the back of the table support assembly approximately three turns, for now.
9. Thread the small lock lever into the front part of the table support assembly approximately three turns, for now. The assembly should now be assembled as shown in **Figure 11**.

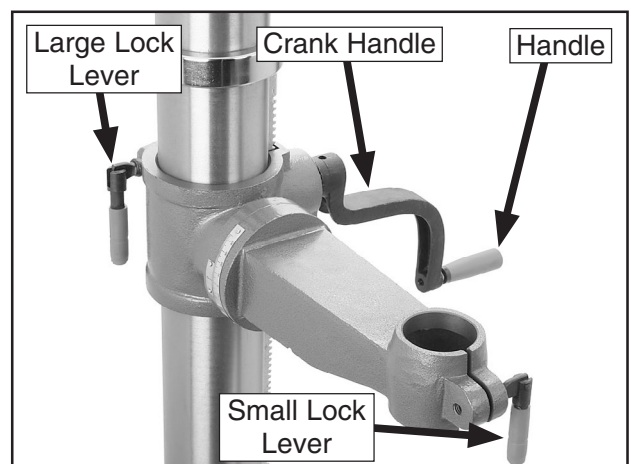


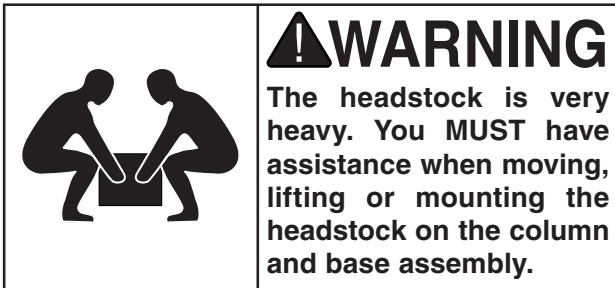
Figure 11. Handles and lock levers installed.



Headstock

Components and Hardware Needed:	Qty
Headstock.....	1

The headstock must be mounted on the column/base assembly before the drill press can be operated. Moving and installing the headstock is a two-person job, at the very least. Although the headstock can be lifted directly onto the column while upright, doing so is difficult and potentially dangerous because of the heavy weight involved. We recommend sliding the column into the headstock, then tilting the entire assembly fully upright, as described and shown in this section.



To mount the headstock onto the column:

1. Set the top piece of the headstock styrofoam packing approximately six feet away from the column/base assembly.
2. Remove the headstock from the box and place it on the styrofoam packing piece you laid out in **Step 1**.

Note: To avoid damaging the machine, be careful not to hold the headstock by the switch or the top part of the belt cover when lifting.

3. Carefully lay the column/base on its side.
4. Slide the column all the way into the bottom of the headstock (approximately 4"-6").

5. Tilt the entire assembly up (see **Figure 12**) and carefully position the drill press on its base in the fully upright position.

!CAUTION

If the base starts to slide when tilting, you **MUST** have a third person hold the base from sliding to avoid personal injury or machine damage.

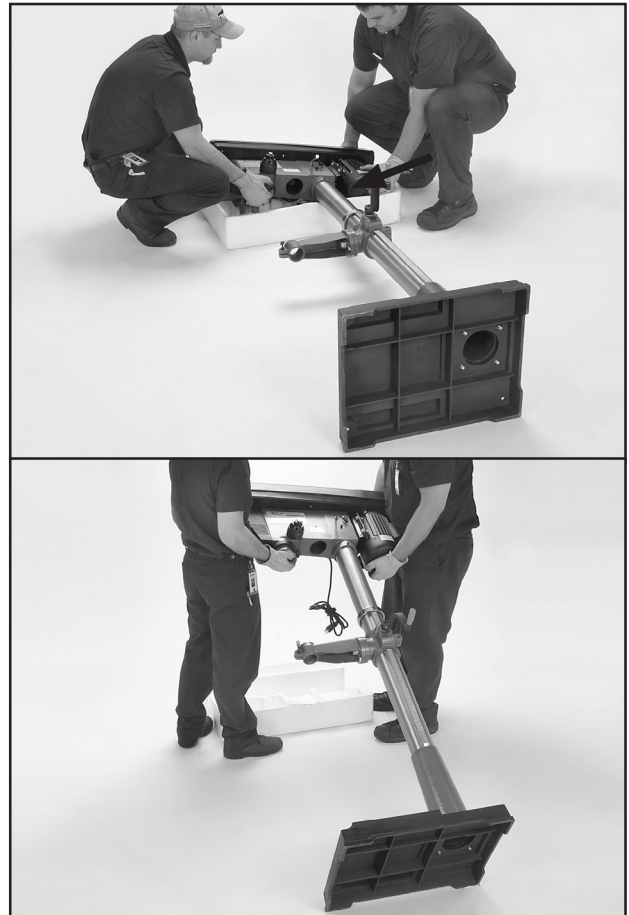


Figure 12. Tilting drill press upright.

Continued on next page 



- Suspend a plum bob from the center of the headstock spindle so it is over the tape/ruler as shown in **Figure 13**.
- Center the headstock directly over the base as indicated by the plum bob and ruler.

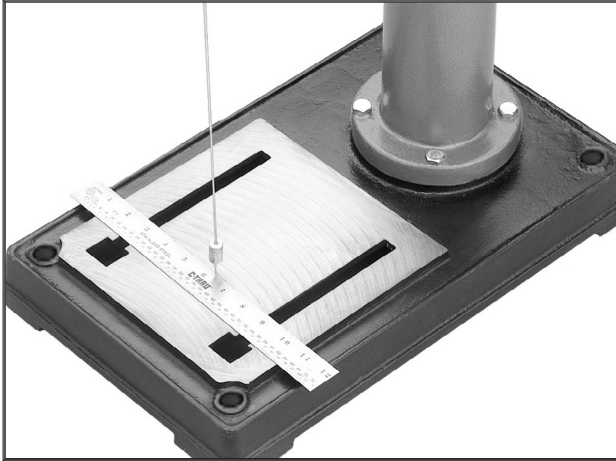


Figure 13. Aligning headstock with base.

- Tighten the two headstock setscrews to the column, as shown in **Figure 14**.



Figure 14. Securing headstock to column.

Drill Chuck & Arbor

The drill chuck attaches to the spindle by means of the arbor, shown in **Figure 15**. Matched tapers on the arbor and the inside of the chuck create a semi-permanent assembly when properly joined.

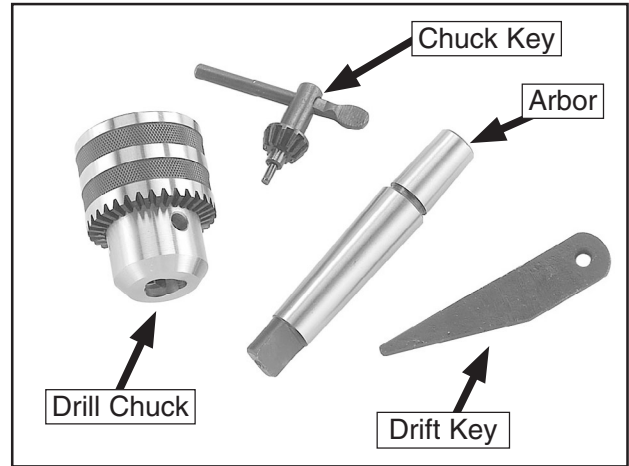


Figure 15. Chuck components.

To assemble the drill chuck and mount it to the spindle:

- Use mineral spirits to thoroughly clean the drill chuck, arbor, and spindle sockets and dry all surfaces before assembly. Follow all safety warnings on the container of the mineral spirits. **Failure to clean the mating surfaces may cause the tapered fit to loosen during operation, resulting in separation and an unsafe condition.**
- Use the chuck key to adjust the jaws of the drill chuck until they are inside the drill chuck body.
- Place the drill chuck face down on a workbench. The arbor has a short taper and a long taper. Place the short taper into the socket in the back of the drill chuck and tap it with a rubber or wooden mallet, as shown in **Figure 16**. If the chuck fails to remain secure on the arbor, repeat **Steps 1 & 2**.



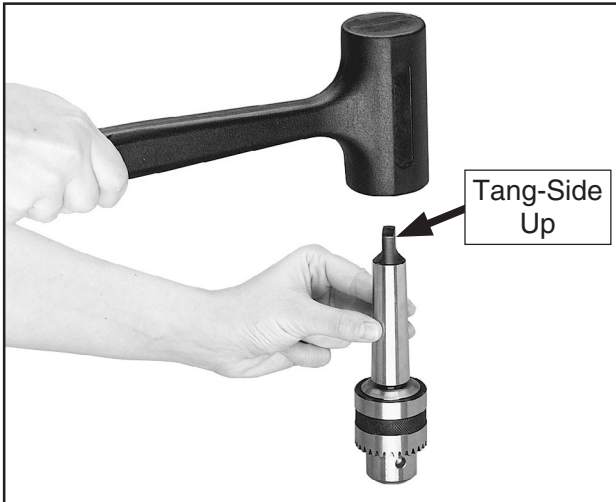


Figure 16. Seating arbor into chuck.

4. Slide the arbor into the spindle socket while slowly rotating the drill chuck. The socket has a rectangular pocket where the tang (or flat portion of the arbor shown in **Figure 16**) fits into.
5. Seat the chuck with a rubber mallet, as shown in **Figure 17**.

CAUTION

DO NOT use a steel hammer on the drill chuck to seat the arbor into the spindle. You will damage the chuck and/or spindle, which may make them unusable or unsafe.

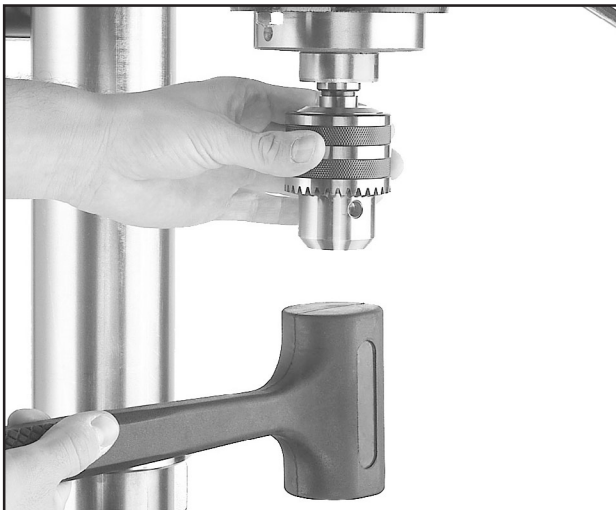


Figure 17. Seating arbor and chuck into spindle.

Downfeed Handles & Belt Cover Knob

Components and Hardware Needed:	Qty
Downfeed Handles	3

The downfeed handles must be installed to properly operate the drill press.

To install the downfeed handles:

1. Thread the handles into the spindle hub, as shown in **Figure 18**, and tighten.
2. Remove the screw that fastens the belt cover in place and install the belt cover knob in its place (see **Figure 18** for location).

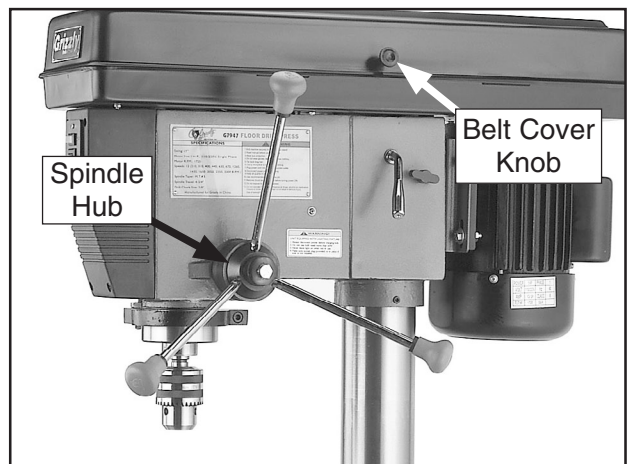


Figure 18. Downfeed handles and belt cover knob installed.



Table

Components and Hardware Needed:	Qty
Table.....	1

The table must be installed to properly support the workpiece during operation.

To install the table:

1. Insert the table shaft into the table support assembly.
2. Tighten the small locking lever to secure the table in the table support assembly. The table should now be installed as shown in **Figure 19** or **20**, depending on your model.

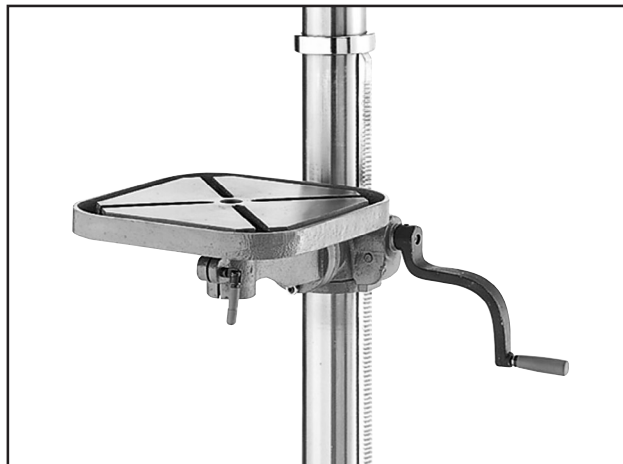


Figure 19. G7947 table installed.

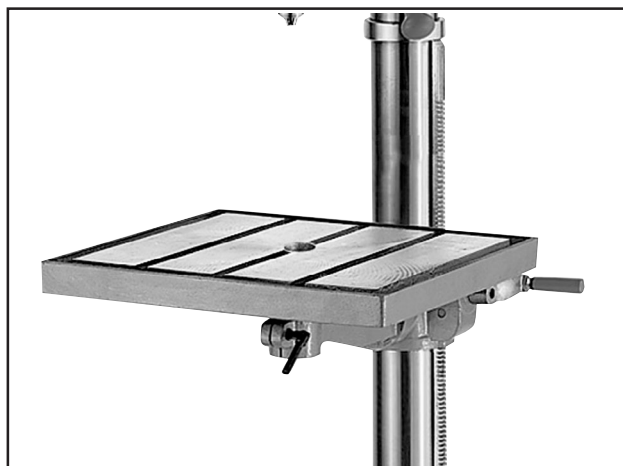


Figure 20. G7948 table installed.

Light (110V Only)

Components and Hardware Needed:	Qty
60 W Light Bulb.....	1

The Model G7947/G7948 includes a light socket, intended for 110V usage only. When the drill press is shipped from the factory, a dust plug is installed in the light socket for protection.

To install a light bulb in the drill press:

1. Remove the dust plug from the light socket.
2. Install a 60W or smaller light bulb in the location shown in **Figure 21**.

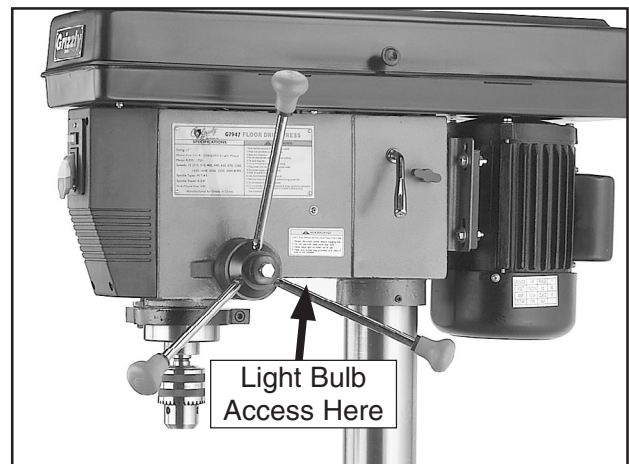


Figure 21. Light bulb access location.

⚠ CAUTION

Using light bulbs at 220V will destroy or explode the light bulbs because the light socket is not wired or intended to be wired for 220V.



Test Run

Once assembly is complete, you are ready to test run the drill press.



To test run the drill press:

1. Turn the power supply **ON** at the main panel.
2. With your finger poised on the paddle switch (in case there is a problem), flip the **START** button **ON**. The drill press should run smoothly, with little or no vibration or rubbing noises.

Investigate and correct for strange or unusual noises before operating the machine further.

If you cannot easily locate the source of a potential problem, refer to **Troubleshooting** on **Page 35**. If you still can't solve the problem, contact our Technical Support at (570) 546-9663.

Floor Mounting

Once you have confirmed that your machine is running properly, we strongly recommend mounting it to the floor to ensure optimum stability.

Lag shield anchors with lag bolts and anchor studs (**Figure 22**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

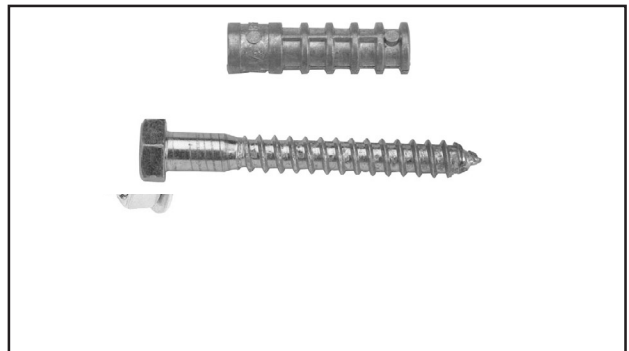


Figure 22. Typical concrete mounting hardware.

Mobile Base Mounting

Because the drill press is top-heavy by nature, we recommend mounting it to the floor, rather than a mobile base.

If you must use a mobile base, **ALWAYS** mount your drill press to a base plate inside of the mobile base, as shown in **Figure 24**.

A good quality base plate increases the standard footprint of the drill press to make it much more stable. The base plate must be at least 1½" thick and made of plywood (do not use OSB, MDF, or particle board) to hold the weight of the drill press. A common way for making the baseplate is described in this sub-section.

Always use extreme care when moving the drill press around with the mobile base!



⚠ CAUTION

Drill presses are top-heavy and must be securely attached to a large-footprint base plate when used with a mobile base. Failure to use a base plate greatly increases possibility of tipping and personal injury.

Needed Materials for Base Plate	Qty
• Plywood $\frac{3}{4}$ " x $23\frac{3}{4}$ " x $23\frac{3}{4}$ "	2
• Wood Glue	As Needed
• Wood Screws #6 x $1\frac{1}{4}$ "	24

To make and use the base plate:

1. Glue the two pieces of plywood together, and align the edges and corners so the two boards make one thick piece.
2. Use the wood screws to fasten the boards together from both sides.
3. Allow 24 hours for the glue to dry before placing the drill press on it.
4. Place the base plate on the mobile base.
5. Drill holes through the base plate and the metal plates at the corners of the mobile base.
6. Secure the base plate to the mobile base with hex bolts, hex nuts, flat washers and lock washers, as shown in **Figure 23**.

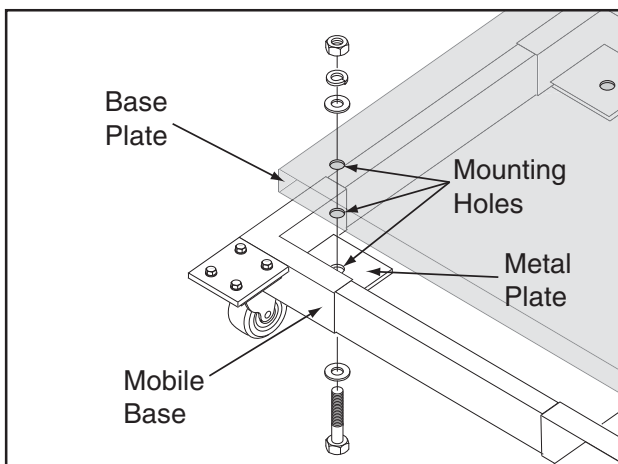


Figure 23. Mounting base plate to mobile base.

Note: Use $2\frac{1}{4}$ " long hex bolts.

7. Place the drill press on the base plate.
8. Position the drill press close to the front of the mobile base, so the mobile base will not be a tripping hazard.
9. Mount the drill press to the base plate with lag bolts and flat washers (**Figure 24**); or with through bolts, flat washers, and hex nuts.

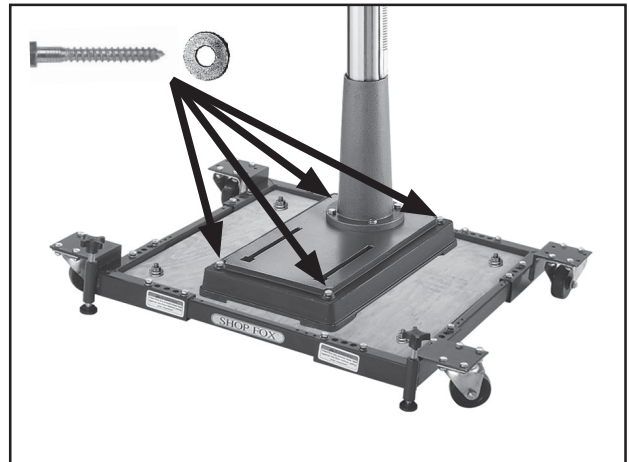


Figure 24. Drill press mounted on mobile base, using a base plate for support.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory; however, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments before operating your machine—this will ensure that you know the operating tolerances of your machine, and you have them adjusted to your expectation.

Step-by-step instructions for these adjustments can be found in **SECTION 7: SERVICE**.

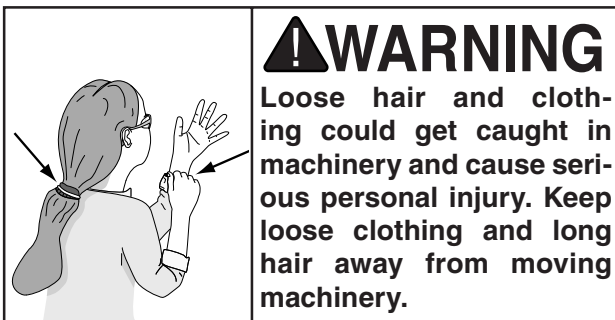
Factory adjustments that should be verified:

1. Depth Stop Calibration (**Page 38**)
2. Feed Shaft Spring Tension (**Page 38**)



SECTION 4: OPERATIONS

Operation Safety



NOTICE

If you have never used this type of machine or equipment before, **WE STRONGLY RECOMMEND** that you read books, trade 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.

Installing/Removing Drill Bits

Any drill bit you install in the chuck must be tight enough that it will not come loose during operation.

To install a drill bit:

1. UNPLUG THE DRILL PRESS!
2. Open the drill chuck wide enough to accept the shank of the drill bit.
3. Insert the drill bit as far as possible into the chuck **WITHOUT** allowing the chuck jaws to touch the fluted portion of the bit, and hand tighten the chuck.

Note: Make sure small bits are not trapped between the edges of two jaws; if they are, reinstall the drill bit or it will not be secure enough to use for drilling.

4. Final tighten the drill bit with the chuck key.

To remove a drill bit:

1. UNPLUG THE DRILL PRESS!
2. Use the chuck key to open the drill chuck, and catch the drill bit with a rag to protect your hands.



Choosing Speeds

Using the Drill Bit Speed Chart

The chart shown in **Figure 25** is intended as a guide only. Always follow the manufacturer's speed recommendations if provided with your drill bits, cutters, or hole saws. Exceeding the recommended speeds may be dangerous to the operator.

The speeds shown here are intended to get you started. The optimum speed will always depend on various factors, including tool diameter, drilling pressure, material hardness, material quality, and desired finish.

Often, when drilling materials other than wood, some type of lubrication is necessary.

Lubrication Suggestions

WoodNone
 Plastics Soapy Water
 Brass Water-Based Lubricant
 Aluminum.....Paraffin-Based Lubricant
 Mild Steel.....Oil-Based Lubricant

CAUTION

Larger bits turning at slower speeds tend to grab the workpiece aggressively. This can result in the operator's hand being pulled into the bit or the workpiece being thrown with great force. Always clamp the workpiece to the table to prevent injuries.

Twist/Brad Point Drill Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/16" – 3/16"	3000	2500	2500	2500	3000	2500
13/64" – 3/8"	2000	1500	2000	1250	2500	1250
25/64" – 5/8"	1500	750	1500	750	1500	600
11/16" – 1"	750	500	1000	400	1000	350

Spade/Forstner Bits	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/4" – 1/2"	2000	1500				
9/16" – 1"	1500	1250				
1-1/8" – 1-7/8"	1000	750				
2–3"	500	350				

Hole Saws	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
1/2" – 7/8"	500	500	600	600	600	500
1" – 1-7/8"	400	400	500	500	500	400
2" – 2-7/8"	300	300	400	400	400	300
3" – 3-7/8"	200	200	300	300	300	200
4" – 5"	100	100	200	200	200	100

Rosette Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
Carbide Insert Type	350	250				
One-Piece Type	1800	500				

Tenon/Plug Cutters	Soft Wood	Hard Wood	Plastic	Brass	Aluminum	Mild Steel
3/8" – 1/2"	1200	1000				
5/8" – 1"	800	600				

Figure 25. Drill bit speed chart.



Changing Speeds

The belts in the head of the drill press must be rearranged to change speeds. A chart under the belt cover shows the belt positions needed to make the drill press run at the desired speed.

To change speeds:

1. UNPLUG THE DRILL PRESS!
2. Loosen the belt tension lock knobs (shown in **Figure 26**) on both sides of the headstock, so the motor is free to move.

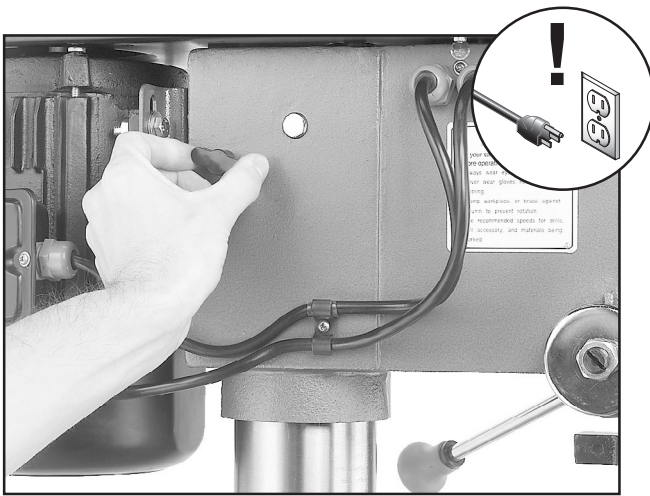


Figure 26. Loosening lock knob (both sides).

3. Rotate the belt tension lever counterclockwise, as shown in **Figure 27**, to take tension off the V-belts.

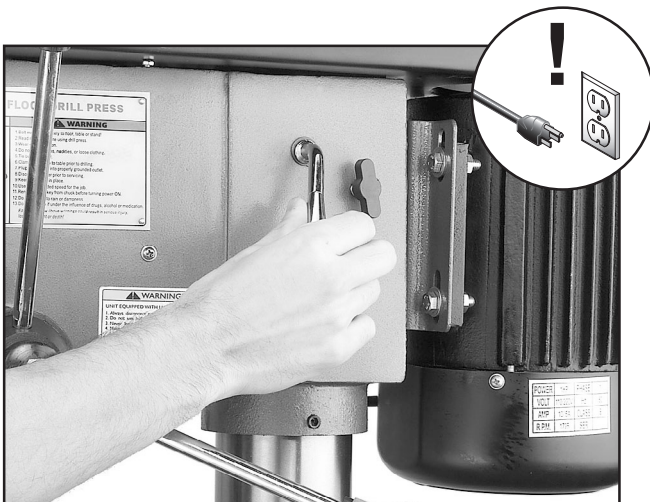


Figure 27. Using the belt tension lever.

4. Locate the desired speed on the speed chart under the belt cover and move the V-belts to the desired V-grooves on the motor, idler, and spindle pulleys.

For Example: As indicated in the speed chart for **670 RPM (Figure 28)**, a belt combination of **A-1.2-2** creates 670 RPM.

- The “**A-1**” refers to the belt position between the spindle pulley and the idler pulley.
- The “**2-2**” refers to the belt position between the motor pulley and the idler pulley.

Note: Both belts may have to be removed before certain speed changes can be made.

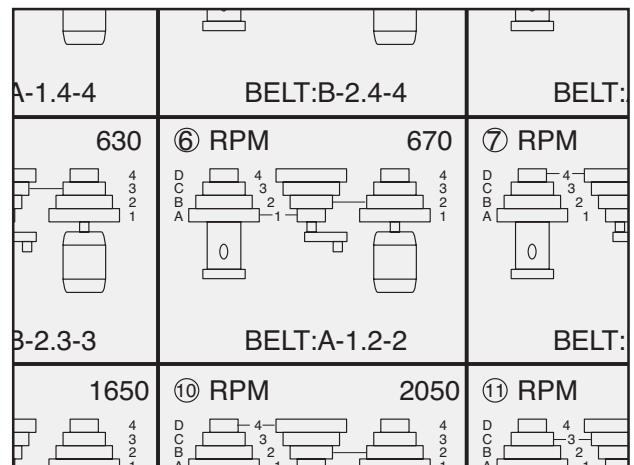


Figure 28. Pulley combination for 670 RPM for example.

5. Rotate the belt tension lever until the belts are tight. Tighten both lock knobs.
6. Close the cover before plugging in the machine.



Drilling

The Model G7947/G7948 is designed for drilling holes in wood or metal. The basic operation of a drill press is lining up your drill bit with the intended hole location, turning the drill press **ON**, and using the down feed levers to move the spinning drill bit into the workpiece.

For safe operation and optimum results, it is very important to follow these guidelines when drilling:

CLEARING CHIPS: Raise the drill bit often to clear chips and cool the drill bit. This will ease the work of the drill press motor and extend the life of your drill bits.

SECURING WORKPIECE TO TABLE: Secure the workpiece to the table or in a vise that is secured to the table before drilling.

PROTECTING TABLE: Protect the table by placing the workpiece on scrap wood, or center the location of the hole to be drilled over the pocket in the table when through drilling. Also, make use of the depth stop so that the drill bit goes no deeper than necessary.

USING CORRECT SPEEDS: Use the correct speed for the diameter of the drill bit being used and the type of material being drilled. Refer to the **Drill Bit Speed Chart** on **Page 27** to help you choose the correct speed for your application.

LARGE DIAMETER BITS: Large diameter drill bits require slower spindle speeds.

SMALL DIAMETER BITS: Smaller diameter drill bits require faster spindle speeds.

HARD MATERIAL: The harder the material, (steel vs. wood) the slower the spindle speed.

SOFT MATERIAL: The softer the material, the faster the spindle may turn. (Plastics can melt at too high of a spindle speed!)

LUBRICANT: Use some form of lubricant on all materials except wood. Refer to **Lubrication Suggestions** on **Page 27** to find the correct lubrication for your application.

DRILLING ACCURACY: To prevent drill bit wandering and ensure accurate placement of holes, mark the hole location with a center punch before drilling. Also consider using a center-point drill to start the hole.

PLUG/ROSETTE CUTTERS: Plug cutters and rosette cutters are for wood only. However, carbide-tipped bits and cutters cut at a higher speed and can cut materials other than wood, depending on the cutter type.

5-FLUTE/2-FLUTE CUTTERS: Use a 5-flute cutter when cutting into plastics, brass, aluminum, and mild steel. A 2-flute cutter can aggressively grab the workpiece and damage the tool if used with materials other than wood.

SPADE BITS AND PLASTIC: When drilling plastic with a spade bit, use a spade bit with spurs.

HOLE SAWS: When using hole saws, apply firm and even pressure, so the saw teeth contact the surface all at the same time—not at an angle. You can also flip the workpiece and finish drilling from the other side.

CAUTION

Larger bits turning at slower speeds tend to grab the workpiece aggressively. This can result in the operator's hand being pulled into the bit or the workpiece being thrown with great force. Always clamp the workpiece to the table to prevent injuries.



Depth Stop

The Model G7947/G7948 has a depth stop that allows you to drill repeated non-through holes to the same depth every time.

The depth stop consists of a stud attached to the quill with two hex nuts that can be lowered or raised on the stud so the lower nut (depth nut) hits a stop bracket when the drill bit is lowered. The upper hex nut (jam nut) is then used to tighten against the depth nut to secure it in place so it doesn't move with repeated operations. **Figure 29** shows the various components of the depth stop.

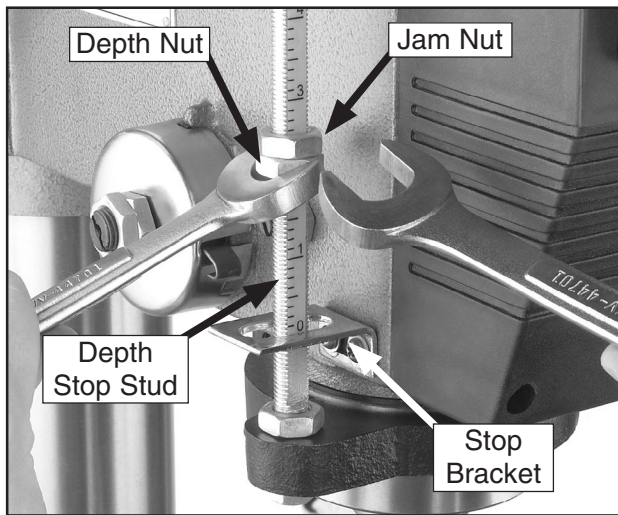


Figure 29. Depth stop components.

To set the depth stop:

1. Lower the drill bit to the required height.
2. Thread the depth nut down against the stop bracket.
3. Lower the jam nut against the depth nut.
4. Using wrenches, hold the depth nut in place and tighten the jam nut against the depth nut.

Note: The scale on the depth stop can be recalibrated if it gets moved or has changed since the factory setting. Refer to **Calibrating Depth Stop** on **Page 38** for instructions on how this is done.

Adjusting Table

The table can be raised/lowered, rotated, and tilted 90° left or right. Table adjustment controls are shown in **Figure 30**.

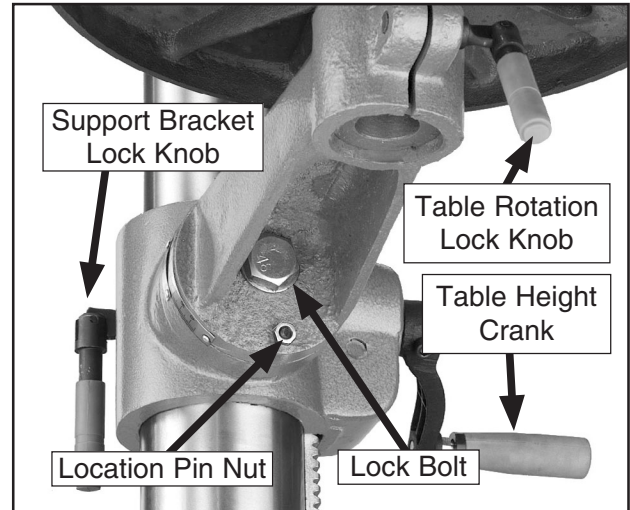


Figure 30. Table adjustment controls.

Table Height

1. Loosen the support bracket lock knob.
2. Adjust the height.
3. Lock the support bracket lock knob.

Table Rotation

1. Loosen the table rotation lock knob.
2. Rotate the table as necessary.
3. Lock the table rotation lock knob.

Table Tilt

1. Tighten the location pin nut to draw the location pin out of the hole. **Note:** The location pin is friction fit in the hole to lock the table at 0°. When reinstalling, set the table to 0°, back the nut off, and tap the pin back in the hole.
2. Loosen the lock bolt and tilt the table to the desired angle (make sure table rotation lock knob is locked, so the table won't fall out).
3. Tighten the lock nut bolt.



Arbor Removal

The arbor can be removed to install other Morse Taper tooling in the spindle. A drift key is included to help remove the arbor or other tooling from the spindle. Usually, once the chuck and arbor have been properly mounted together, they are considered semi-permanent connections. (If you would like to install a different chuck, we recommend getting a new arbor for that chuck.)

To remove the drill chuck and arbor:

1. UNPLUG THE DRILL PRESS!
2. Rotate the spindle handles until the drift-key slot is exposed in the side of the quill.
3. Rotate the depth stop hub clockwise until it stops.
4. Tighten the lock knob. The quill should not return up into the head casting when the depth stop is adjusted this way.
5. Rotate the spindle until the inner drift-key slot is aligned with the outer slot, as shown in **Figure 31**. You will see through the spindle when the slot is properly aligned.
6. Insert the drift key into the drift-key slot, and allow the quill to rise, trapping the drift key.
7. Hold the drill chuck with one hand, and tap on the drift key with a rubber or wooden mallet, as shown in **Figure 32**, until the chuck releases.
8. Hold a downfeed handle with one hand, and loosen the depth stop lock with the other hand.
9. Carefully retract the quill into the head stock.

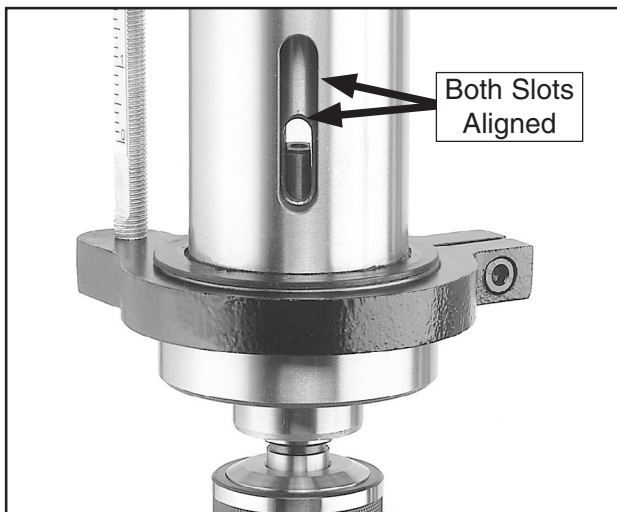


Figure 31. Inner and outer drift-key slots aligned.



Figure 32. Using drift key to remove arbor.



SECTION 5: ACCESSORIES

G2500—20-PC Regular Sanding Drum Set

Use on your drill press, lathe, or hand drill. This kit consists of 5 drums in popular 1/2" x 1/2", 3/4" x 1", 1" x 1", 1 1/2" x 1 1/2", and 2" x 1 1/2" sizes. Comes with 50, 80 and 120 grit sizes for each drum.



Figure 33. Model G2500 20-PC Sanding Drum Set.

G5753—Drill Press Vise 6"

If you use a drill press and value your fingers, you need one of these. Made from high-grade cast iron, these hefty horizontal vises offer support and stability, allowing you to keep your hands well away from fast moving bits and cutters.

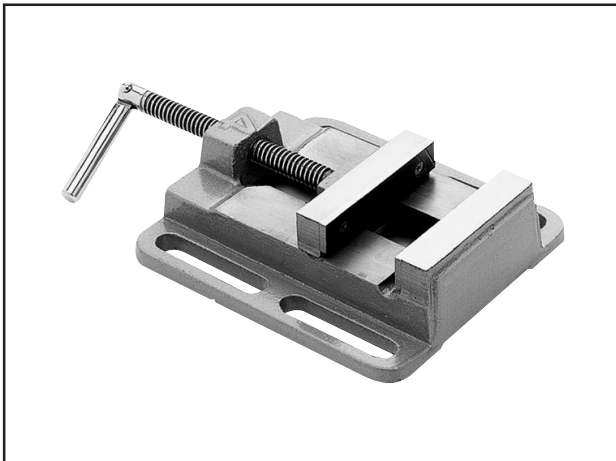


Figure 34. Model G5753 Drill Press Vise 6".

G8583—5/8" Keyless Drill Chuck JT #3

Industrial grade keyless chucks are excellent for quick bit changes. Knurled grips and exceptional accuracy make these chucks an indispensable part of any shop. Use on drill presses, lathe tailstocks and milling machines. 0 - 5/8" capacity with a Jacobs Taper #3 in back.



Figure 35. Model G8583 5/8" Keyless Drill Chuck JT #3.

G5562—SLIPIT® 1 Qt. Gel

G5563—SLIPIT® 12 oz Spray

G2871—Boeshield® T-9 12 oz Spray

G2870—Boeshield® T-9 4 oz Spray

H3788—G96® Gun Treatment 12 oz Spray

H3789—G96® Gun Treatment 4.5 oz Spray



Figure 36. Recommended products for protecting unpainted cast iron/steel areas.

Call 1-800-523-4777 To Order



- 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 78. 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 51. Half-mask respirator with disposable cartridge filters.

Call 1-800-523-4777 To Order

- G8865—Cobalt Alloy Drill Bits 13-PC. Set
- G8866—Steelex® Cobalt Alloy Drill Bits 21-PC Set
- G8867—Steelex® Cobalt Alloy Drill Bits 29-PC Set

Cobalt Alloy bits will retain their edge sharpness longer than normal HSS bits, resulting in a significant saving of time and money in the workshop. Includes a heavy-gauge steel index case for storing. G8865: 1/16" -1/4"; G8866: 1/16"- 3/8"; G8867: 1/16"-1/2".



Figure 39. Model G8865 13-PC Alloy Drill Bits.

- G3640—Power Twist® V-Belt 1/2" x 48"

Smooth running with less vibration and noise than solid belts. The Power Twist® V-belts can be customized in minutes to any size—just add or remove sections to fit your needs. Size: 1/2" x 48"; replaces all "A" sized V-belts. Requires two Power Twist® V-belts to replace the stock V-belts on your Model G7947/G7948. Well worth it!

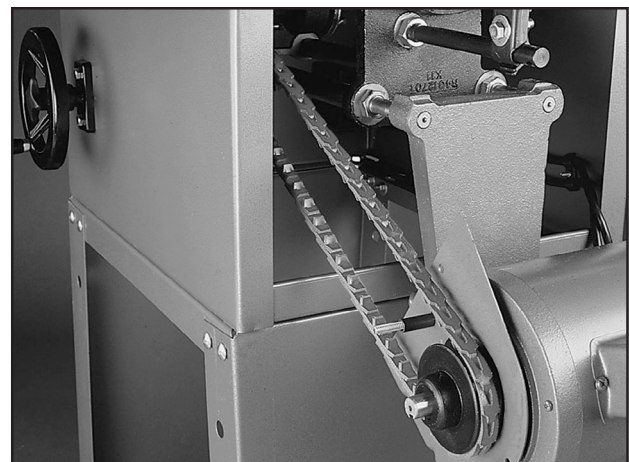


Figure 40. G3640 Power Twist® V-Belt installed.



SECTION 6: MAINTENANCE



General

Regular periodic maintenance on your drill press will ensure optimum performance. Make a habit of inspecting your machine each time you use it. Check for the following conditions and repair or replace when necessary:

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged V-belt.
- Any other condition that could hamper the safe operation of this machine.

Cleaning

Cleaning the Model G7947/G7948 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep these surfaces rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **SECTION 5: ACCESSORIES** on **Page 32** for more details).

Lubrication

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

Keep quill, spindle, column, and table top well lubricated to prevent rust.

V-Belts

Inspect regularly for tension and wear. Check pulleys to ensure that they are properly aligned. See **Changing Speeds** on **Page 27** for more information about removing/installing belts if you need help replacing the belts.

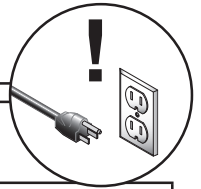


SECTION 7: SERVICE

About Service

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If you need help troubleshooting, you need replacement parts, or you are unsure of how to perform the procedures in this section, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting

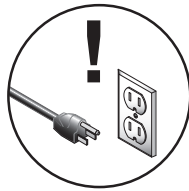


Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Plug or receptacle is at fault or wired incorrectly. 2. Start capacitor is faulty. 3. Motor connection is wired incorrectly. 4. Power supply is faulty, or is switched OFF. 5. Safety switch key is at fault. 6. ON/OFF switch is faulty. 7. Cable or wiring is open or has high resistance. 8. Motor is at fault. 	<ol style="list-style-type: none"> 1. Test power plug and receptacle for good contact and correct wiring. 2. Replace capacitor. 3. Correct motor wiring (see Page 41). 4. Make sure all hot lines and grounds are operational and have correct voltage on all legs. 5. Install or replace safety key, or replace switch assembly. 6. Replace faulty switch. 7. Troubleshoot wires for internal or external breaks, check for disconnected or corroded connections and repair or replace wiring. 8. Test, repair or replace motor.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Incorrect spindle speed for task. 2. Machine is undersized for the task. 3. Bit or cutter is dull. 4. Low power supply voltage. 5. Belt(s) is slipping. 6. Plug or receptacle is at fault. 7. Motor connection is wired incorrectly. 8. Pulley is slipping on shaft. 9. Motor bearings are at fault. 10. Motor has overheated. 11. Motor is at fault. 	<ol style="list-style-type: none"> 1. Decrease spindle speed. 2. Use smaller drill bits/cutters and reduce the feed rate and spindle speed. 3. Sharpen/replace bit or cutter. 4. Make sure hot lines and grounds are operational w/correct voltage. 5. Replace bad belts, align pulleys, and re-tension. 6. Test power plug and receptacle for good contact and correct wiring. 7. Correct motor wiring (see Page 41). 8. Replace loose pulley and shaft. 9. Rotate motor shaft for noisy or burnt bearings, repair/replace as required. 10. Clean inside/outside of motor, let cool, and reduce workload on machine. 11. Test, repair or replace motor.

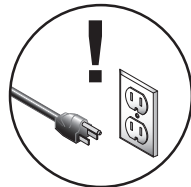


Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component is loose. 2. Belts are slapping belt cover. 3. V-belt(s) is worn or is loose. 4. Motor fan is rubbing on fan cover. 5. Pulley is loose. 6. Machine is incorrectly mounted to the floor, or the floor is uneven. 7. Chuck or cutter is at fault. 8. Motor bearings are at fault. 9. Spindle bearings at fault. 	<ol style="list-style-type: none"> 1. Inspect, replace for stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Replace/realign belts with a new matched set, and retension belts (refer to Page 28). 3. Replace belts. 4. Replace/repair dented fan cover, and replace loose or damaged fan. 5. Remove pulley, replace with key as required, and re-install securely. 6. Make sure floor mounting hardware is tight; place shims under machine. 7. Replace out-of-round chuck, replace or resharpen cutter, use appropriate feed rate and cutting RPM. 8. Check bearings, replace motor or bearings as required. 9. Replace bearing.



Drill Press Operations

Symptom	Possible Cause	Possible Solution
Drilling stops, but the motor still operates.	<ol style="list-style-type: none"> 1. The belt is loose or worn. 2. The pulley for the spindle shaft or the motor is slipping on the shaft. 3. Bit slips in chuck. 	<ol style="list-style-type: none"> 1. Replace and/or adjust the belt. 2. To resecure the pulley, do these steps: <ol style="list-style-type: none"> a. UNPLUG THE DRILL PRESS. b. Remove the setscrew on the slipping pulley. c. Align the flats on the pulley shaft with the setscrew hole. d. Reinstall and tighten the setscrew. 3. Tighten bit; inspect bit for burrs or other obstructions that might interfere with clamping surface.
The chuck wobbles or is loose on the spindle shaft.	<ol style="list-style-type: none"> 1. Foreign material is stuck between the chuck-to-spindle mating surface. 2. Damaged chuck. 	<ol style="list-style-type: none"> 1. Remove the chuck and clean and deburr the tapered chuck and spindle mating surfaces, then reassemble. 2. Replace.
The spindle does not retract completely in the uppermost position or it binds.	<ol style="list-style-type: none"> 1. The quill shaft is gummy with sawdust and oil. 2. The feed shaft return spring is weak. 3. The quill deflection screw is binding the quill. 	<ol style="list-style-type: none"> 1. Clean the gummy substance with penetrating oil and lubricate with a light coat of oil. 2. Increase the feed shaft return spring tension as described on Page 38. 3. Loosen the jam nut, and slightly turn out the screw where the quill binds. Retighten the jam nut and recheck for binding and looseness at all spindle locations.
The quill has excessive deflection.	<ol style="list-style-type: none"> 1. The quill shaft is at fault. 2. The quill and/or bearings are worn. 	<ol style="list-style-type: none"> 1. Adjust the quill screw. 2. Replace the quill and/or bearings.
Holes drilled at an angle.	<ol style="list-style-type: none"> 1. Table is not at 90 degrees. 	<ol style="list-style-type: none"> 1. Adjust table angle (see Page 30).
Drill bit wobbles, holes are oversized.	<ol style="list-style-type: none"> 1. Drill bit installed incorrectly. 	<ol style="list-style-type: none"> 2. Remove drill bit and reinstall.



Depth Stop Calibration

The drill press comes fitted with a depth stop to use when drilling multiple holes at the same depth. The scale on this depth stop can be calibrated if it ever becomes incorrect.

To calibrate the depth stop:

1. Loosen the jam nut and calibration nut shown in **Figure 41**.

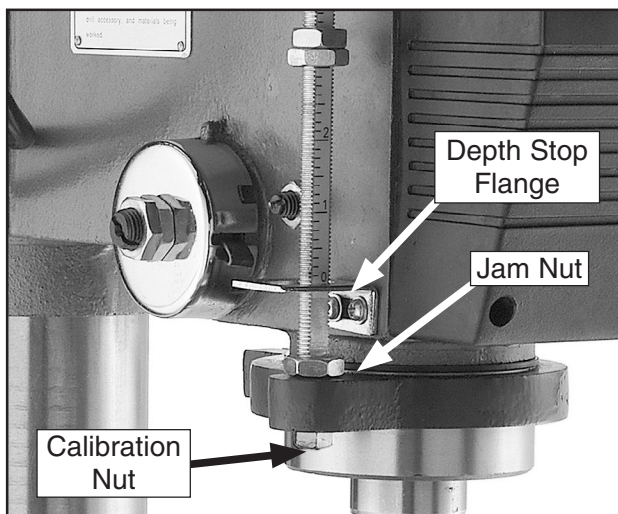


Figure 41. Depth stop assembly.

2. Use the calibration nut to zero the depth stop scale with the depth stop flange.
3. Hold the depth stop at zero, and tighten the jam nut to hold the depth stop in position.
4. Test the depth stop by measuring how far the spindle actually moves with respect to where you set the depth stop.

Feed Shaft Spring Tension

The feed shaft return spring is adjusted at the factory; however, during the life of the drill press you may want to adjust the feed shaft return spring so the feed shaft return pressure suits your operating needs.



To adjust the feed shaft spring tension:

1. UNPLUG THE DRILL PRESS!
2. Wipe off any oil on the spring lock cover so it does not slip in your fingers when you hold the cover from spinning (see **Figure 42**).

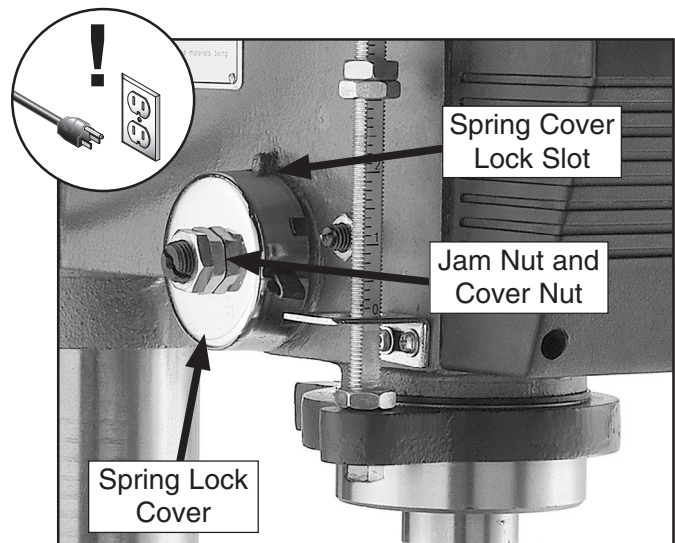


Figure 42. Feed shaft return spring assembly.



3. While holding the spring lock cover against the side of the head stock so the cover stays splined with the locking lug; loosen the jam nut and loosen the cover nut approximately $\frac{1}{4}$ " (see **Figure 43**).



Figure 43. Loosening cover and jam nut

CAUTION

A high tension coiled spring is underneath the cover. Put on heavy leather gloves to protect yours hands from possible lacerations when removing the cover.

4. Put on heavy leather gloves to protect your hands from possible lacerations if the spring uncoils during the next step.
5. Pull the cover outward just enough to disengage the spring-cover lock slot from the locking lug. **Note:** *It is important to keep a good grip during this step. Letting go of the cover will cause the spring to rapidly uncoil.*
6. Rotate the cover counterclockwise to increase spring tension, or let the cover slowly unwind in the clockwise direction to reduce spring tension.
7. Engage the next available spring-cover lock slot with the locking lug and hold the spring lock cover tightly against the side of the head stock.
8. Snug the cover nut against the spring cover just until the nut stops, and then back off the nut approximately $\frac{1}{3}$ turn, or just enough so there is no binding at complete spindle travel.
9. Hold the cover nut and tighten the jam nut against the cover nut.



Electrical Components

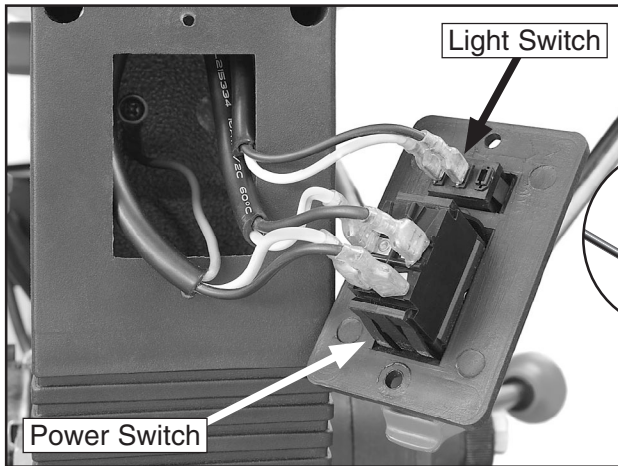


Figure 44. Power and light switch assembly.

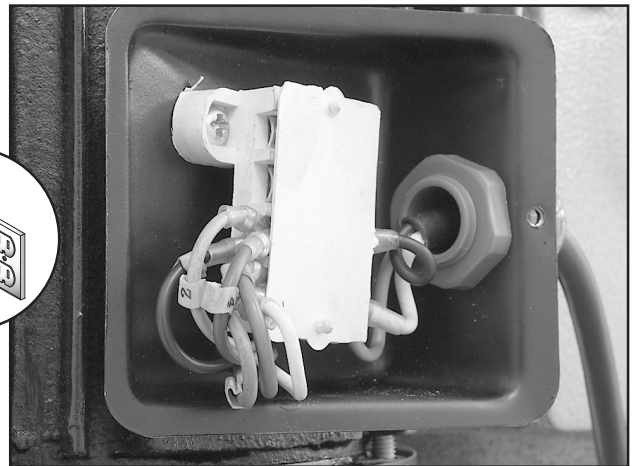


Figure 46. Motor wiring inside junction box.

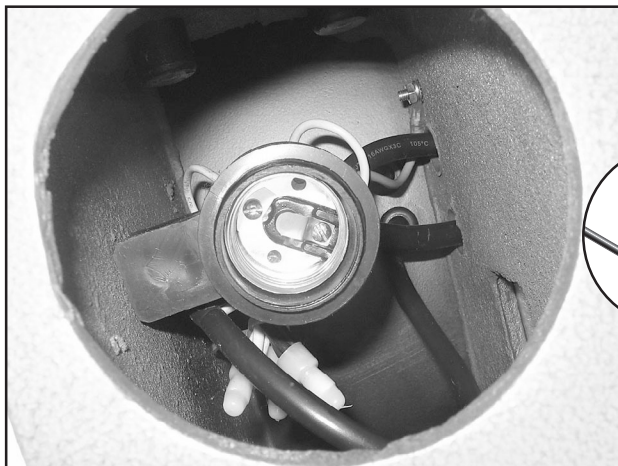


Figure 45. Light socket with dust plug removed (for 110V operation only).

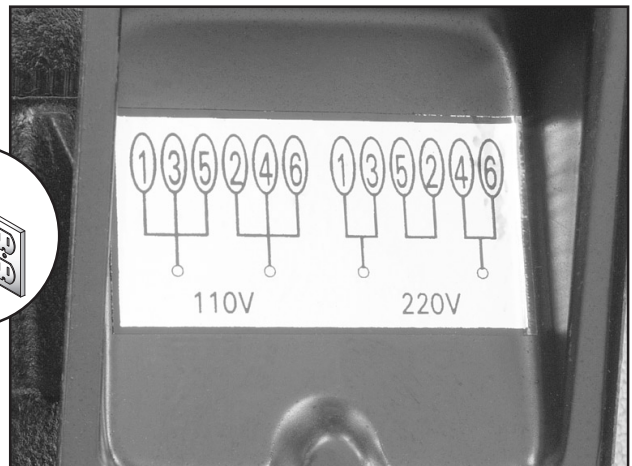
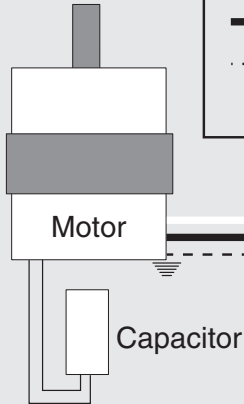
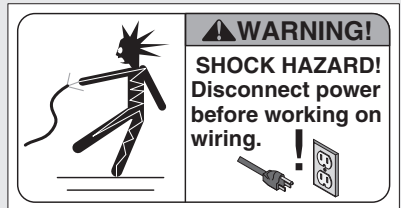
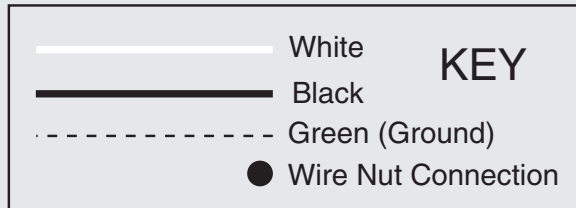
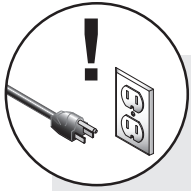


Figure 47. Motor wiring diagram for 110/220V, located on inside cover of motor junction box.



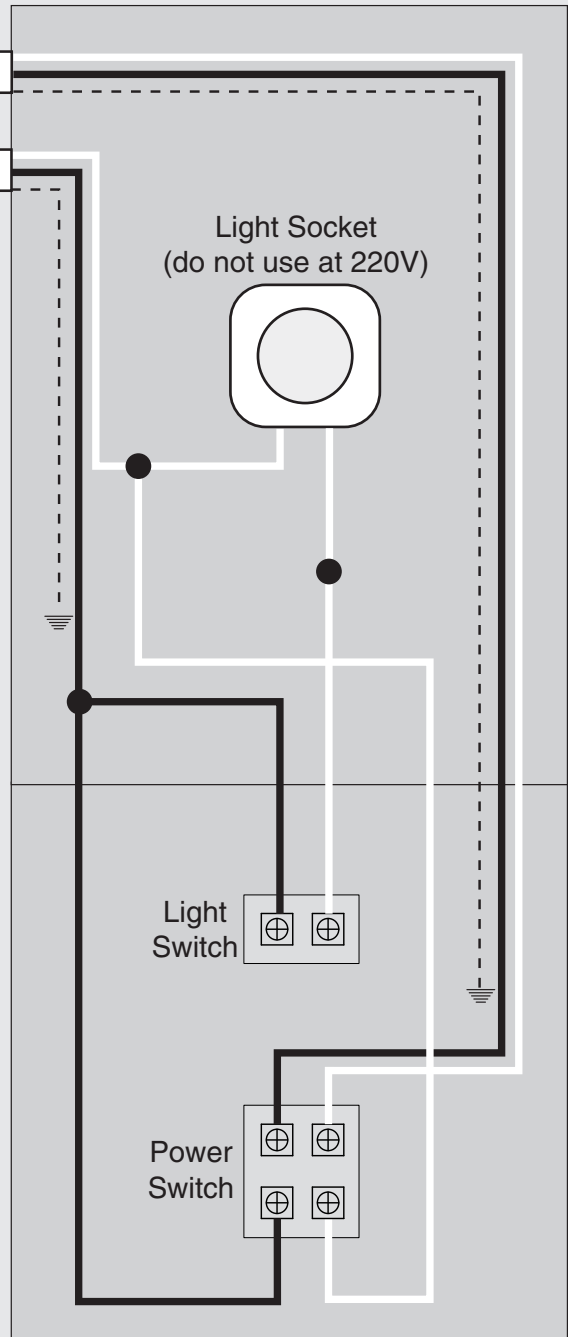
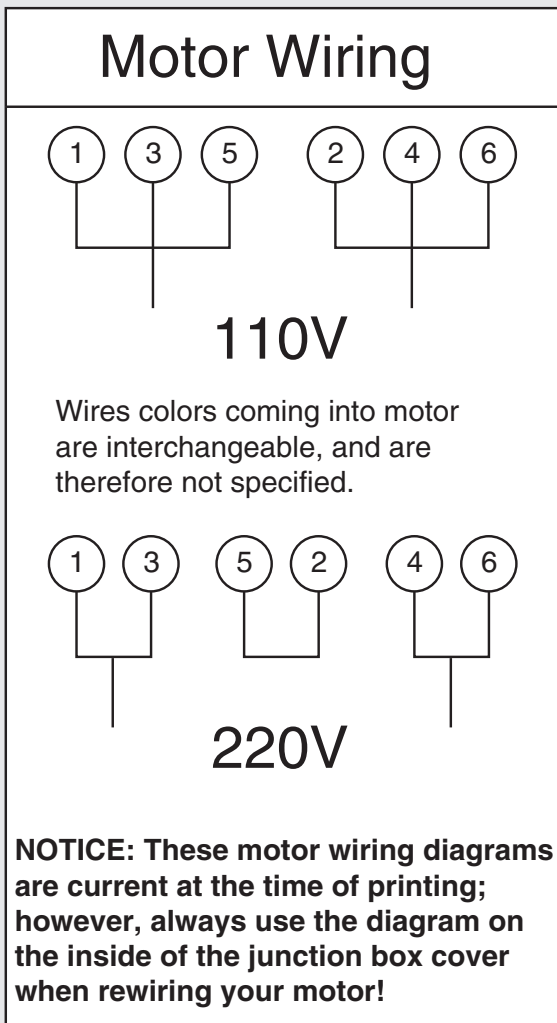
G7947/G7948 Wiring Diagram



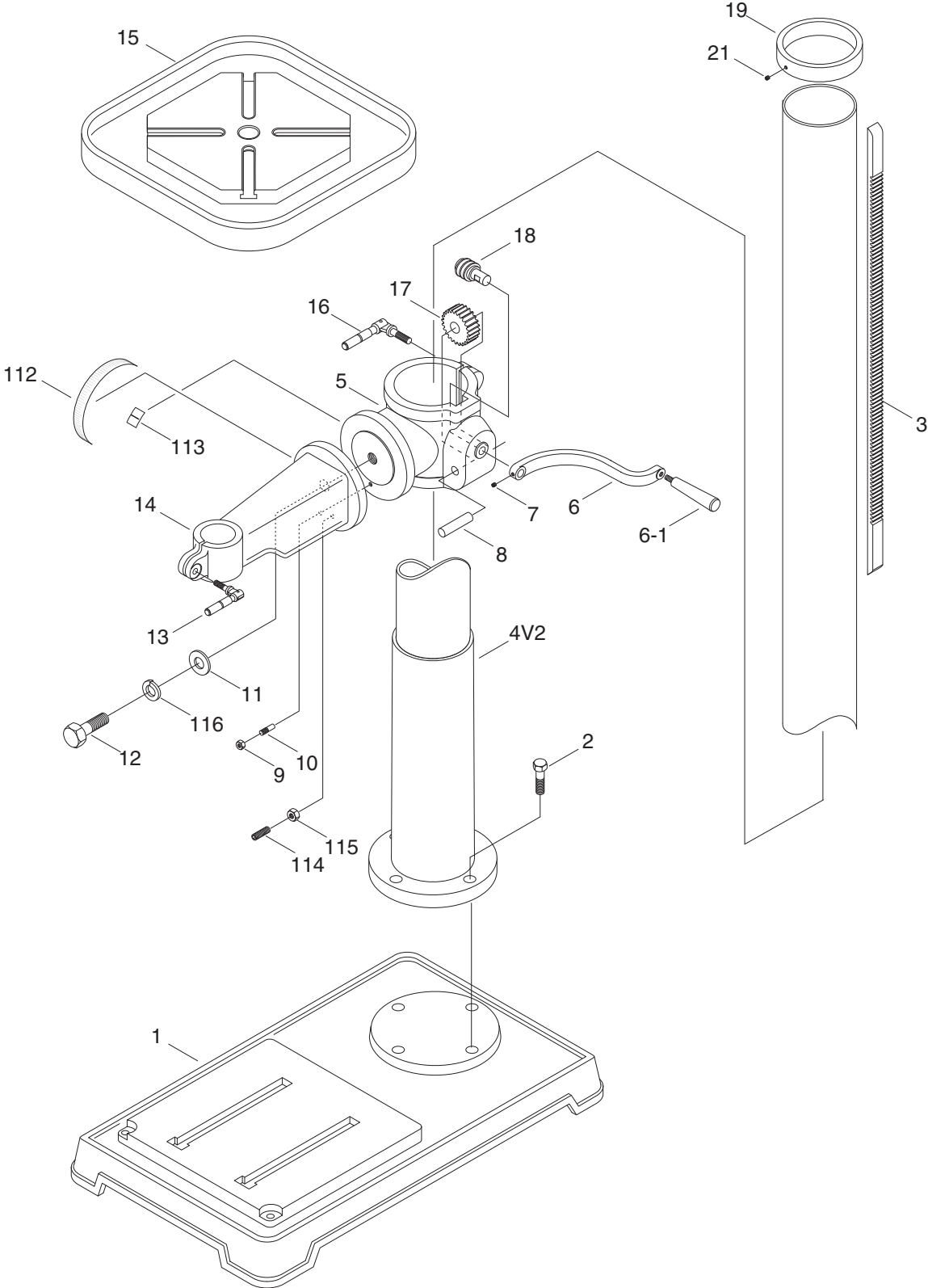
To Motor

To Power

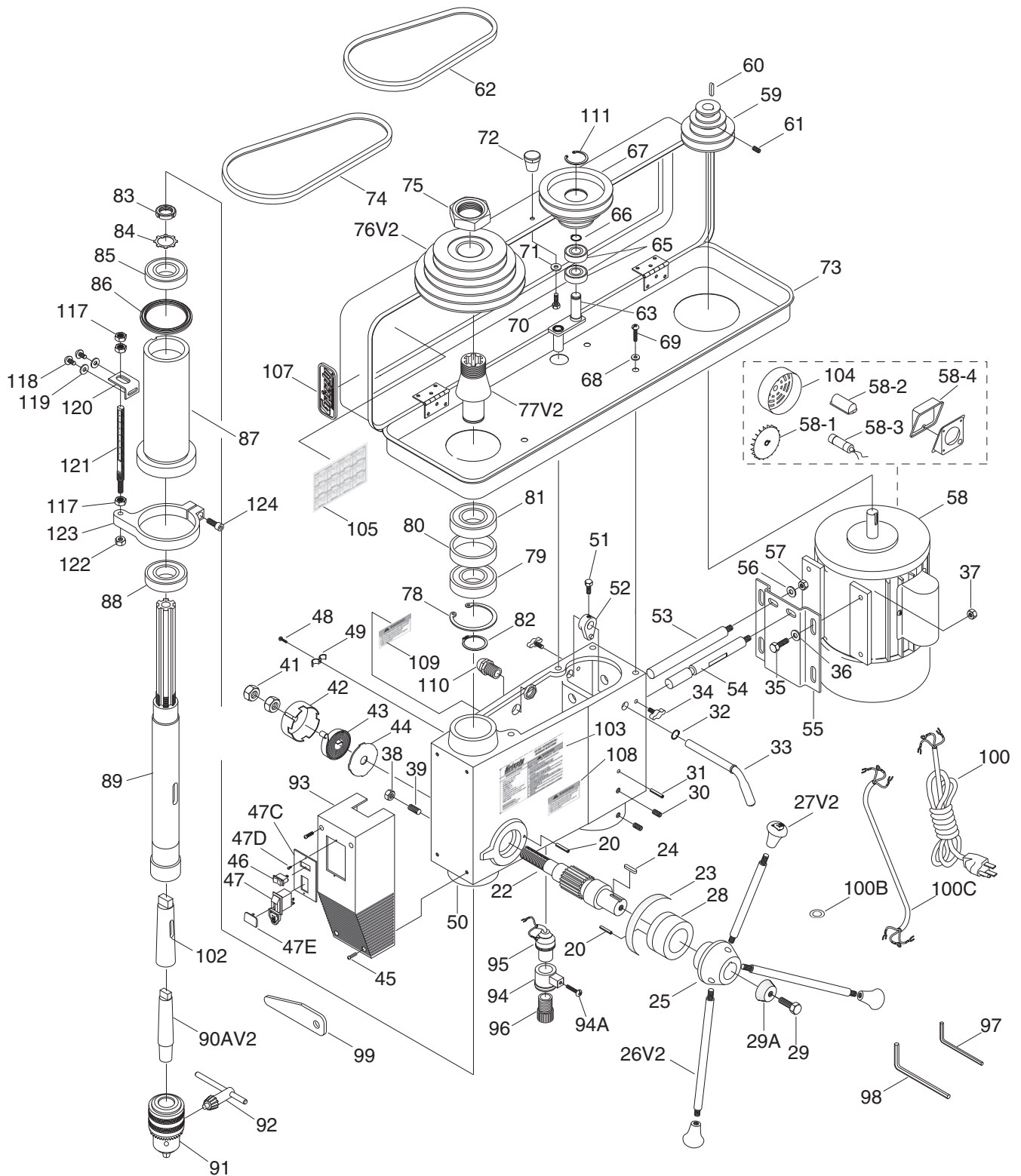
Light Socket
(do not use at 220V)



G7947 Stand/Table Breakdown



G7947 Headstock Breakdown



G7947 Parts List

REF	PART #	DESCRIPTION
1	P7947001	BASE
2	PB27M	HEX BOLT M12-1.75 X 30
3	P7947003	RACK
4V2	P7947004	COLUMN 7-1/4 IN V2.09.05
5	P7947005	TABLE BRACKET
6	P7948006	HANDLE ARM
6-1	P7943006	HANDLE
7	PSS01M	SET SCREW M6-1 X 10
8	P7947008	SHAFT
9	PN01M	HEX NUT M6-1
10	P7947010	TABLE PIN
11	PW13	FLAT WASHER 3/4
12	P7947012	HEX BOLT M20-2.5 x 45
13	P7943013	TABLE BOLT M10-1.5 X 30
14	P7947014	TABLE ARM BRACKET
15	P7947015	TABLE
16	P7943016	CLAMP BOLT
17	P7947017	GEAR 14T
18	P7947018	WORM GEAR
19	P7947019	RACK RING
20	PRP04M	ROLL PIN 4 X 24
21	PSS01M	SET SCREW M6-1.0 X 10
22	P7947022	FEED SHAFT
23	P7947023	SCALE RING
24	PK07M	KEY 6 X 6 X 20
25	P7947025	HANDLE BODY
26V2	P7947026	HANDLE V2.02.99
27V2	P7947027	KNOB M12-1.75 V2.02.99
28	P7947028	FEED SHAFT CONNECTOR
29	PB01M	HEX BOLT M10-1.5 X 30
29A	P7947029A	PLASTIC LOCK CAP
30	PSS09M	SET SCREW M8-1.25 X 20
31	P7947031	ROLL PIN 8 X 105
32	PR05M	EXT RETAINING RING 15MM
33	P7947033	SHIFTER BAR
34	P7943034	SLIDE BAR BOLT M10-1.5 X 25
35	PB07M	HEX BOLT M8-1.25 X 25
36	PW01M	FLAT WASHER 8MM
37	PN03M	HEX NUT M8-1.25
38	PN02M	HEX NUT M10-1.5
39	PSS13M	SET SCREW M10-1.5 X 12
41	PN31M	HEX NUT M12 X 1.5
42	P7947042	SPRING CAP
43	P7947043	TORSION SPRING
44	P7947044	SPRING COVER
45	PS08M	PHLP HD SCR M5-.8 X 12
46	P7943097	LIGHT SWITCH
47	G8988	GRIZZLY SAFETY PADDLE SWITCH
47C	P7947047C	SWITCH PLATE

REF	PART #	DESCRIPTION
47D	PHTEK6M	TAP SCREW M4 X 16
47E	P7942020A	YELLOW SWITCH KEY
48	PS14M	PHLP HD SCR M6-1 X 12
49	P7943049	CORD CLAMP
50	P7947050	HEAD CASTING
51	PB03M	HEX BOLT M8-1.25 X 16
52	P7947052	SHIFTER
53	P7947053	LEFT SLIDE BAR
54	P7947054	RIGHT SLIDE BAR
55	P7947055	MOTOR BASE
56	PW04M	FLAT WASHER 10MM
57	PN02M	HEX NUT M10-1.5
58	P7947058	MOTOR 1HP 1PH 110/220V
58-1	P7947058-1	MOTOR FAN
58-2	P7947058-2	CAPACITOR COVER
58-3	P7947058-3	S CAPACITOR 400M 250V
58-4	P7947058-4	WIRING BOX COVER
59	P7947059	MOTOR PULLEY
60	PK23M	KEY 5 X 5 X 25
61	PSS01M	SET SCREW M6-1 X 10
62	PVA29	V-BELT A29
63	P7947063	CENTER SHAFT
65	P6202ZZ	BALL BEARING 6202 ZZ
66	PR02M	EXT RETAINING RING 14MM
67	P7947067	CENTER PULLEY
68	PW03M	FLAT WASHER 6MM
69	PS14M	PHLP HD SCR M6-1 X 12
70	PS09M	PHLP HD SCR M5-.8 X 10
71	PW02M	FLAT WASHER 5MM
72	P7943072	PULLEY COVER KNOB
73	P7947073	PULLEY HOUSING 8-1/4 X 28-1/2 IN
74	PVA31	V-BELT A31
75	P7947075	PULLEY NUT
76V2	P7947076	SPINDLE PULLEY V2.02.99
77V2	P7947077	INSERT PULLEY V2.02.99
78	PR26M	INT RETAINING RING 52MM
79	P6207ZZ	BALL BEARING 6207 ZZ
80	P7947080	SPACER
81	P6207ZZ	BALL BEARING 6207 ZZ
82	PR37M	EXT RETAINING RING 32MM
83	P7947083	SPANNER NUT
84	P7947084	TAB WASHER 8107
85	P6206ZZ	BALL BEARING 6206 ZZ
86	P7947086	RUBBER WASHER
87	P7947087	QUILL
88	P6206ZZ	BALL BEARING 6205 ZZ
89	P7947089	SPINDLE
90V2	P7947090A	ARBOR MT3-JT3 V2.03.02
91	P7948091	CHUCK JT3 X 1-16MM



REF	PART #	DESCRIPTION
92	P7947092	CHUCK KEY
93	P7947093	SWITCH BOX
94	P7943094	LIGHT BASE
94A	PS06M	PHLP HD SCR M5-.8 X 20
95	P7943093	LIGHT SOCKET
96	P7943095	LIGHT DUST PLUG
97	PAW03M	HEX WRENCH 3MM
98	PAW04M	HEX WRENCH 4MM
99	P7943103	DRIFT KEY
100	PWRCRD110L	POWER CORD 110V, LONG
100B	P7947100B	WIRE GASKET
100C	P7947100C	MOTOR CORD
102	G5714	SLEEVE MT#2/3
103	P7947103	MACHINE ID LABEL
104	P7947104	MOTOR FAN COVER
105	P7947105	SPEED CHART
107	P7943107	GRIZZLY BLACK/AL LABEL

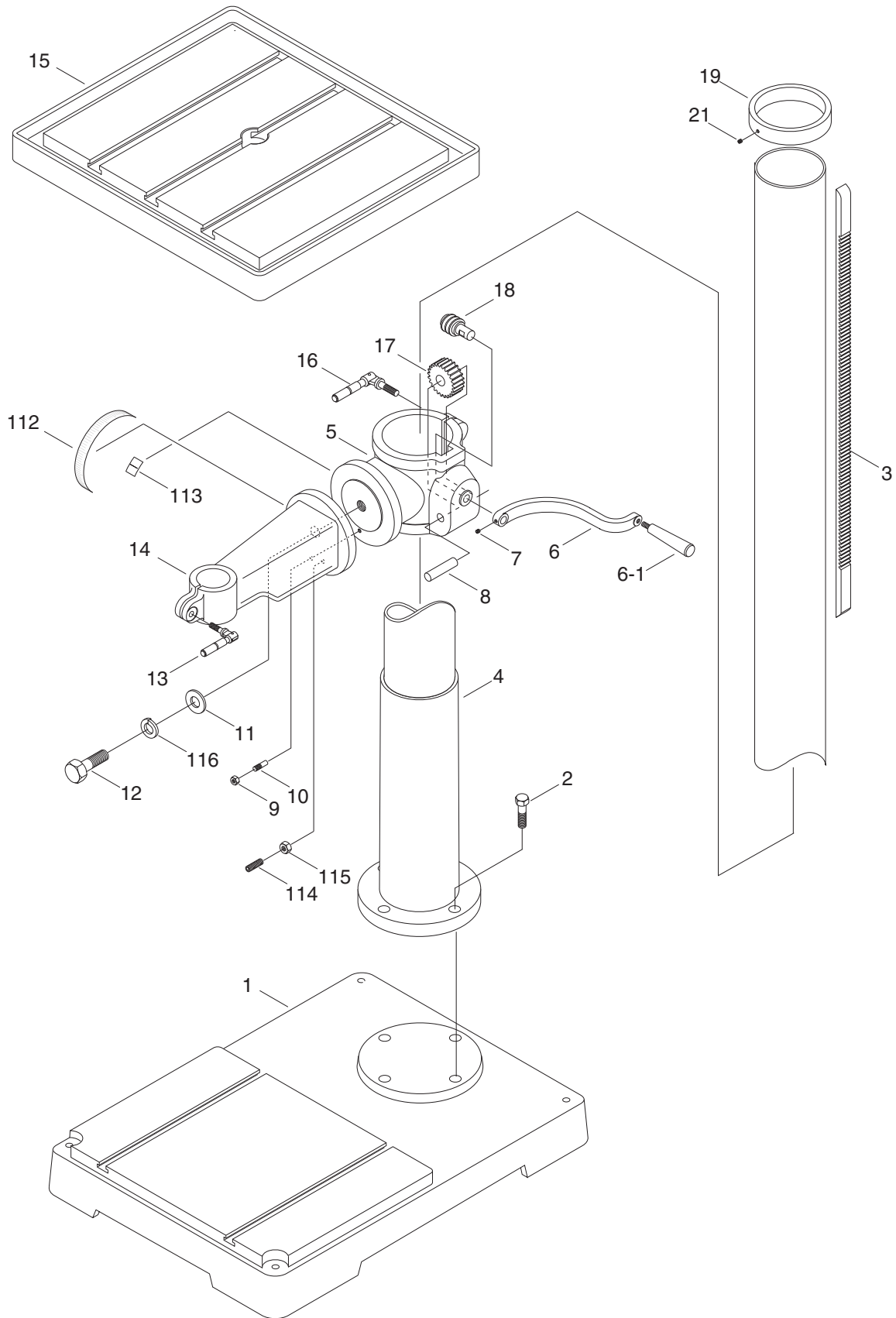
REF	PART #	DESCRIPTION
108	P7947108	DP LIGHTS LABEL
109	P7947109	DRILL PRESS LABEL
110	P7947110	STRAIN RELIEF
111	PR21M	INT RETAINING RING 35MM
112	P7947112	DEGREE SCALE
113	P7947113	INDICATOR
114	PSS21M	SET SCREW M8-1.25 X 25
115	PN03M	HEX NUT M8-1.25
116	PLW07M	LOCK WASHER 20MM
117	PN31M	HEX NUT M12-1.5
118	PS05M	PHLP HD SCR M5-.8 X 8
119	PW02M	FLAT WASHER 5MM
120	P7947120	DEPTH STOP BRACKET
121	P7947121	DEPTH STOP SCALE STUD
122	PN03M	HEX NUT M8-1.25
123	P7947123	QUILL CLAMP
124	PCAP14M	CAP SCREW M8-1.25 X 20

WARNING

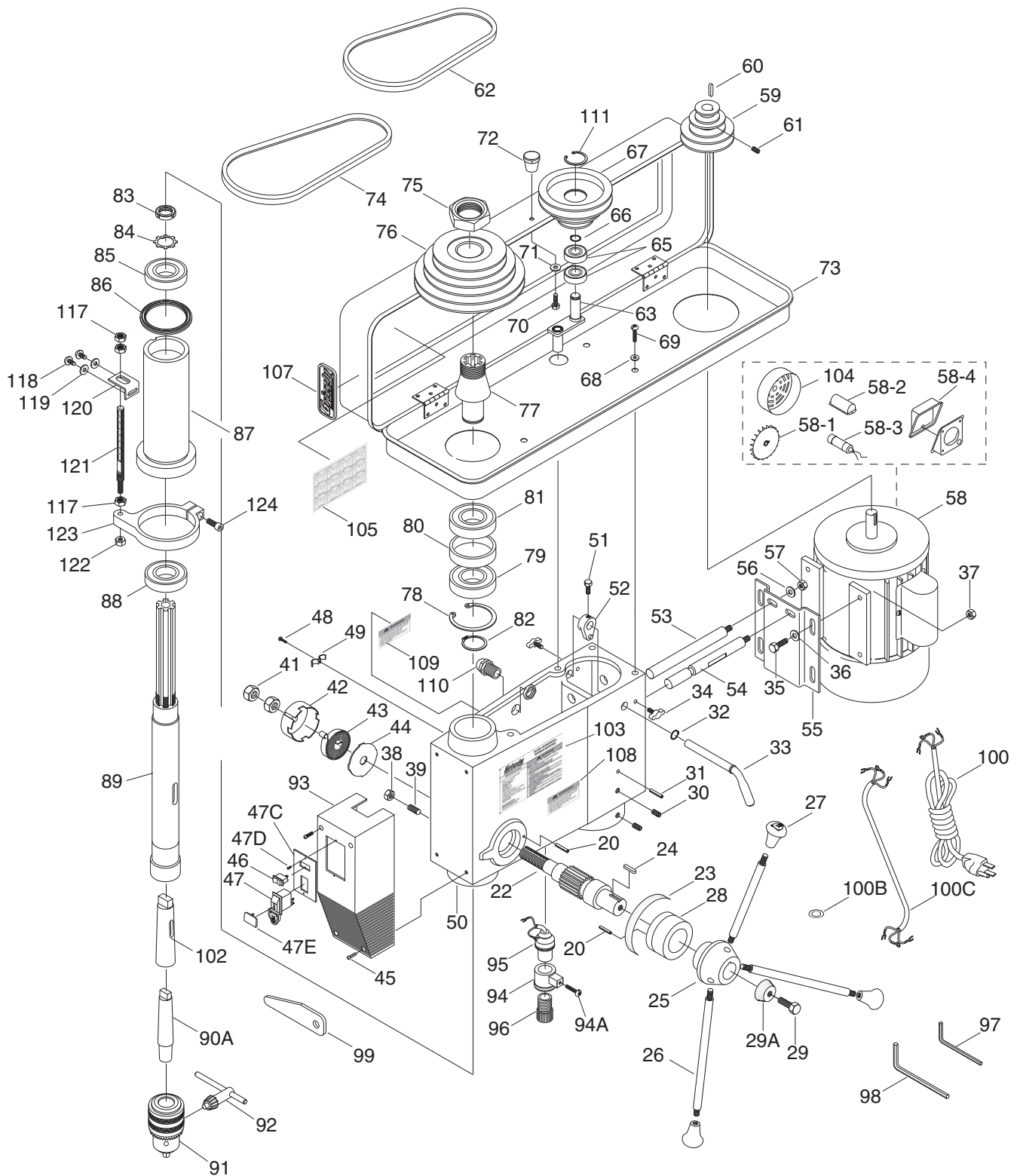
Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.



G7948 Stand/Table Breakdown



G7948 Headstock Breakdown



G7948 Parts List

REF	PART #	DESCRIPTION
1	P7948001	BASE
2	PB27M	HEX BOLT M12-1.75 X 30
3	P7947003	RACK
4	P7947004	COLUMN
5	P7947005	TABLE BRACKET
6	P7948006	HANDLE ARM
6-1	P7943006	HANDLE
7	PSS01M	SET SCREW M6-1 X 10
8	P7947008	SHAFT
9	PN01M	HEX NUT M6-1 X 30
10	P7947010	TABLE PIN
11	PW13	FLAT WASHER 3/4
12	P7947012	HEX BOLT M20-2.5 X 45
13	P7943013	TABLE BOLT M10-1.5 X 30
14	P7948014	TABLE ARM BRACKET
15	P7948015	TABLE
16	P7943016	CLAMP BOLT
17	P7947017	GEAR 14T
18	P7947018	WORM GEAR
19	P7947019	RACK RING
20	PRP04M	ROLL PIN 4 X 24
21	PSS01M	SET SCREW M6-1.0 X 10
22	P7947022	FEED SHAFT
23	P7947023	SCALE RING
24	PK07M	KEY 6 X 6 X 20
25	P7947025	HANDLE BODY
26	P7947026	HANDLE
27	P7947027	KNOB M12-1.75
28	P7947028	FEED SHAFT CONNECTOR
29	PB01M	HEX BOLT M10-1.5 X 30
29A	P7947029A	PLASTIC LOCK CAP
30	PSS73M	SET SCREW M10-1.5 X 30
31	P7947031	ROLL PIN 8MM
32	PR05M	EXT RETAINING RING 15MM
33	P7947033	SHIFTER BAR
34	P7947034	SLIDE BAR BOLT M10-1.5 X 35
35	PB07M	HEX BOLT M8-1.25 X 25
36	PW01M	FLAT WASHER M8
37	PN03M	HEX NUT M8-1.25
38	PN02M	HEX NUT M10-1.5
39	PSS13M	SET SCREW M10-1.5 X 12
41	PN31M	HEX NUT M12 X 1.5
42	P7947042	SPRING CAP
43	P7947043	TORSION SPRING
44	P7947044	SPRING COVER
45	PS08M	PHLP HD SCR M5-.8 X 12
46	P7943097	LIGHT SWITCH
47	G8988	GRIZZLY SAFETY PADDLE SWITCH
47C	P7947047C	SWITCH PLATE

REF	PART #	DESCRIPTION
47D	PHTEK6M	TAP SCREW M4 X 16
47E	P7942020A	YELLOW SWITCH KEY
48	PS14M	PHLP HD SCR M6-1 X 12
49	P7943049	CORD CLAMP
50	P7947050	HEAD CASTING
51	PB03M	HEX BOLT M8-1.25 X 16
52	P7947052	SHIFTER
53	P7947053	LEFT SLIDE BAR
54	P7947054	RIGHT SLIDE BAR
55	P7947055	MOTOR BASE
56	PW04M	FLAT WASHER 10MM
57	PN02M	NUT M10-1.5
58	P7948058	MOTOR 1-1/2HP 1PH 110/220V
58-1	P7948058-1	MOTOR FAN
58-2	P7947058-2	CAPACITOR COVER
58-3	P7948058-3	S CAPACITOR 400M 250V
58-4	P7948058-4	WIRING BOX COVER
59	P7947059	MOTOR PULLEY
60	PK23M	KEY 5 X 5 X 25
61	PSS01M	SET SCREW M6-1 X 10
62	PVA29	V-BELT A-29 4L290
63	P7947063	CENTER SHAFT
65	P6202ZZ	BALL BEARING 6202 ZZ
66	PR02M	EXT RETAINING RING 14MM
67	P7947067	CENTER PULLEY
68	PW03M	FLAT WASHER 6MM
69	PS14M	PHLP HD SCR M6-1 X 12
70	PS09M	PHLP HD SCR M5-.8 X 10
71	PW02M	FLAT WASHER 5MM
72	P7943072	PULLEY COVER KNOB
73	P7948073	PULLEY HOUSING 8-3/4 X 30-1/4 IN
74	PVA35	V-BELT A-35
75	P7947075	PULLEY NUT
76	P7947076	SPINDLE PULLEY
77	P7947077	PULLEY INSERT
78	PR26M	INT RETAINING RING 52MM
79	P6207ZZ	BALL BEARING 6207 ZZ
80	P7947080	SPACER
81	P6207ZZ	BALL BEARING 6207 ZZ
82	PR37M	EXT RETAINING RING 32MM
83	P7947083	SPANNER NUT
84	P7947084	TAB WASHER
85	P6206ZZ	BALL BEARING 6206 ZZ
86	P7947086	RUBBER WASHER
87	P7947087	QUILL
88	P6206ZZ	BALL BEARING 6205 ZZ
89	P7948089	SPINDLE
90A	P7948090A	ARBOR MT4/JT3
91	P7948091	CHUCK JT3 X 1-16MM



REF	PART #	DESCRIPTION
92	P7943092	CHUCK KEY
93	P7947093	SWITCH BOX
94	P7943094	LIGHT BASE
94A	PS06M	PHLP HD SCR M5-.8 X 20
95	P7943093A	LIGHT SOCKET
96	P7943095	LIGHT DUST PLUG
97	PAW03M	HEX WRENCH 3MM
98	PAW04M	HEX WRENCH 4MM
99	P7943103	DRIFT KEY
100	PWRCRD110L	POWER CORD 110V, LONG
100B	P7947100B	WIRE GASKET
100C	P7946100C	MOTOR CORD
102	G5715	SLEEVE MT#4/#3
103	P7947103	MACHINE ID LABEL
104	P7947104	MOTOR FAN COVER
105	P7947105	SPEED CHART
107	P7943107	GRIZZLY BLACK/AL LABEL

REF	PART #	DESCRIPTION
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WARRANTY AND 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.



Grizzly Industrial, Inc. **WARRANTY CARD**

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____ Invoice # _____
 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?

<input type="checkbox"/> Cabinet Maker	<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Today's Homeowner
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wood
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Handy	<input type="checkbox"/> Practical Homeowner	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Live Steam	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Modeltec	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Shotgun News	

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: _____

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