The T33905 Instructions and G0969 Owner's Manual have been combined in this publication.

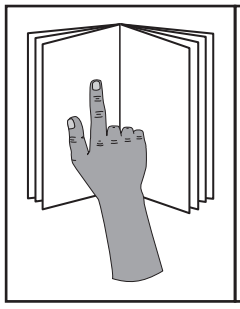
MODEL T33905 SCROLL SAW STAND for MODEL G0969 INSTRUCTIONS

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

Introduction

The Model T33905 Scroll Saw Stand is specifically designed for the G0969 Scroll Saw. The stand is made of steel, and the height can be adjusted from 31"–38".

Figure 1. Model T33905.



⚠WARNING

To reduce risk of serious injury, read these entire instructions, as well as the G0969 Scroll Saw manual, BEFORE using scroll saw stand.

Inventory

	Description (Figure 2)	Qty
A.	Top Braces (Long)	2
B.	Top Braces (Short)	2
C.	Legs	4
D.	Bottom Braces (Short)	2
E.	Adjustable Leg Extensions	4
F.	Bottom Braces (Long)	2
G.	Hex Bolts 5/16"-18 x 1"	4
H.	Carriage Bolts 5/16"-18 x 1/2"	24
I.	Flat Washers 5/16"	32
J.	Hex Nuts 5/16"-18	28

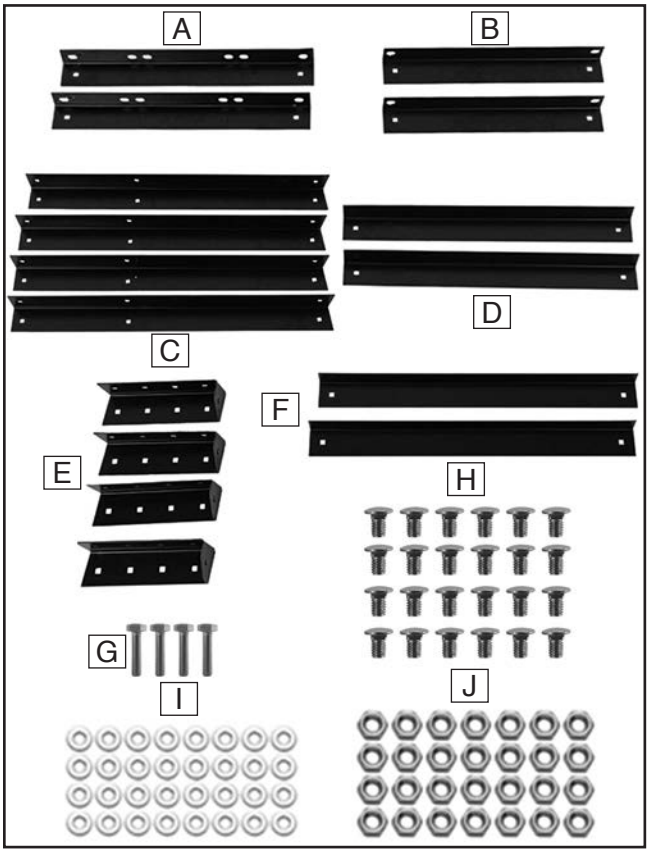


Figure 2. Inventory.

(FOR MODELS MFD. SINCE 07/23) #JM22794 PRINTED IN TAIWAN V1.10.23

******Keep for Future Reference******

⚠WARNING

- **This stand was specifically designed for the G0969 Scroll Saw. DO NOT mount any machine but the G0969 Scroll Saw on this stand. Doing so could cause stand to tip or collapse, resulting in serious personal injury or property damage.**
- **Periodically check all fasteners and tighten, if necessary, prior to use.**

⚠WARNING

Wear safety glasses during the entire setup process!

Assembly

Items Needed	Qty
Wrench or Socket 12mm	1
Open-End Wrenches 9/16"	2
Additional Person	1

To assemble scroll saw stand:

1. Remove (4) leveling feet and (8) 3/8"-16 hex nuts from G0969 Scroll Saw base and install on (4) adjustable leg extensions, as shown in **Figure 3**.

2. Attach (4) adjustable leg extensions to bottom of legs with (8) 5/16"-18 x 1/2" carriage bolts, 5/16" flat washers, and 5/16"-18 hex nuts (see **Figure 3**).

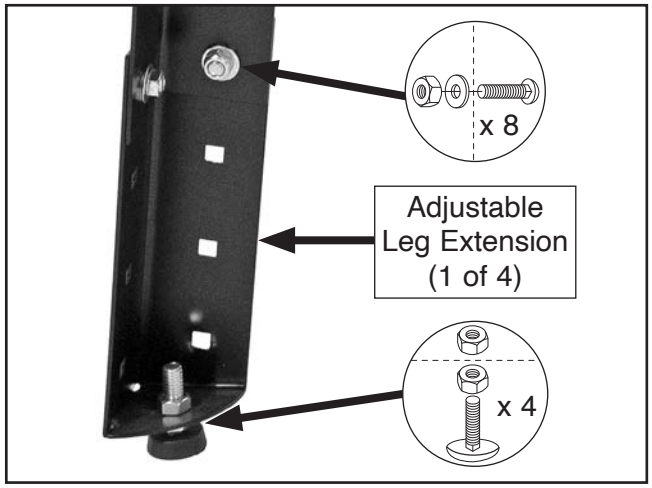


Figure 3. Adjustable leg extensions attached to legs.

3. Attach (1) long bottom brace to (2) legs with (2) 5/16"-18 x 1/2" carriage bolts, 5/16" flat washers, and 5/16"-18 hex nuts, as shown in **Figure 4**.

Note: *Only hand tighten all fasteners for now. You will be told when to tighten fasteners later in these instructions.*

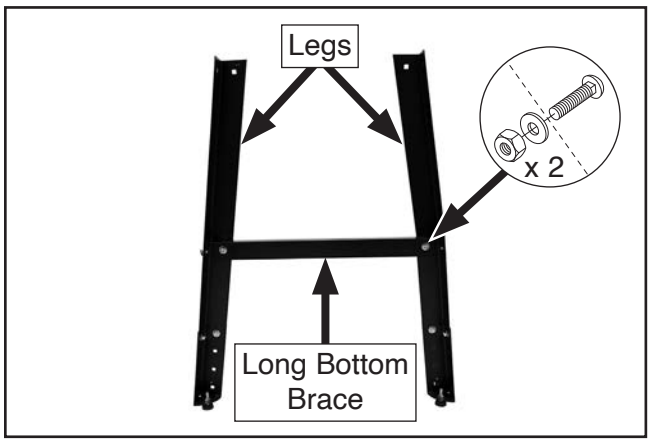


Figure 4. Long bottom brace attached to legs.

4. Repeat **Step 3** with remaining (1) long bottom brace and (2) legs.

5. Attach (2) leg assemblies with (2) short bottom braces, (4) 5/16"-18 x 1/2" carriage bolts, 5/16" flat washers, and 5/16"-18 hex nuts, as shown in **Figure 5**.

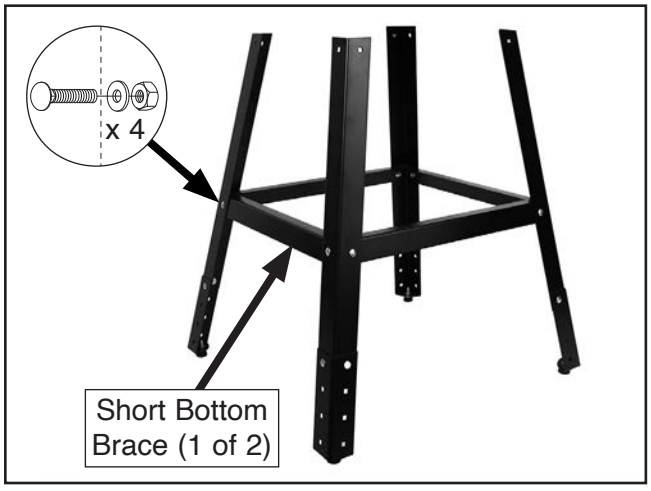


Figure 5. Leg assemblies attached with short bottom braces.

6. Attach (2) long top braces to legs with (4) 5/16"-18 x 1/2" carriage bolts, 5/16" flat washers, and 5/16"-18 hex nuts, as shown in **Figure 6**.

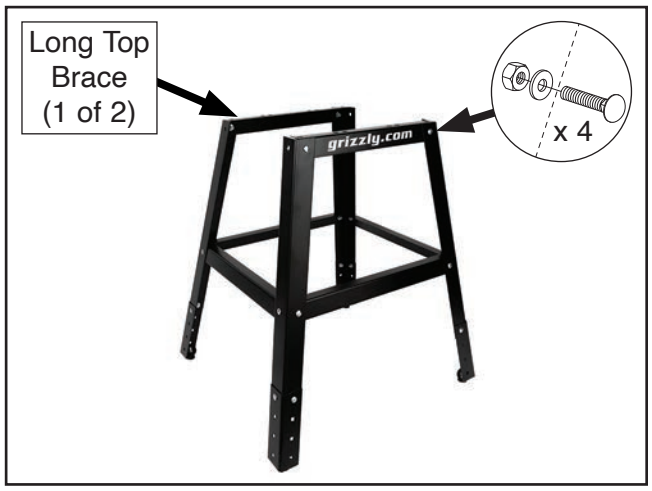


Figure 6. Long top braces attached to legs.

7. Attach (2) short top braces to legs with (4) 5/16"-18 x 1/2" carriage bolts, 5/16" flat washers, and 5/16"-18 hex nuts, as shown in **Figure 7**.

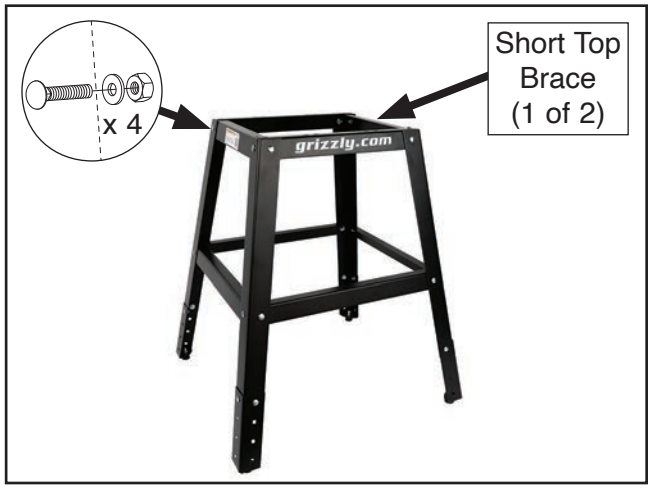


Figure 7. Short top brace attached to stand legs.

8. Ensure stand is level, side to side and front to back, then tighten all fasteners installed in **Steps 3–7.**

Mounting Model G0969 Scroll Saw on Stand

Tools Needed	Qty
Safety Glasses (for each person)	1 Pr.
Wrenches 12mm	2

To mount G0969 Scroll Saw on stand:

1. Place stand on flat, level surface.

2. With help from an assistant, position scroll saw on stand.

3. Secure scroll saw to stand using (4) 5/16"-18 x 1" hex bolts, (8) 5/16" flat washers, and (4) 5/16"-18 hex nuts (see **Figure 8**).

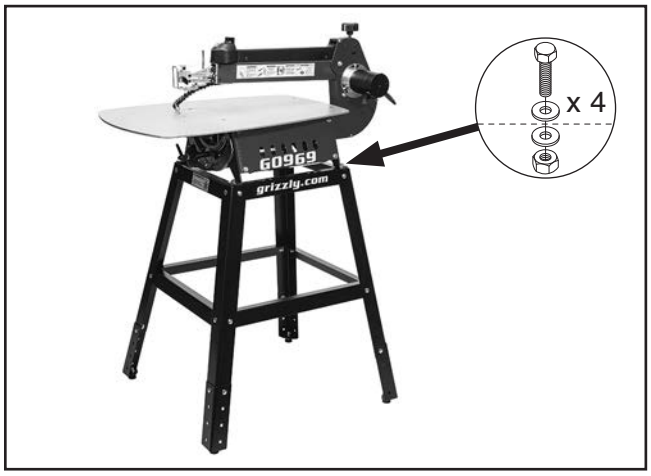
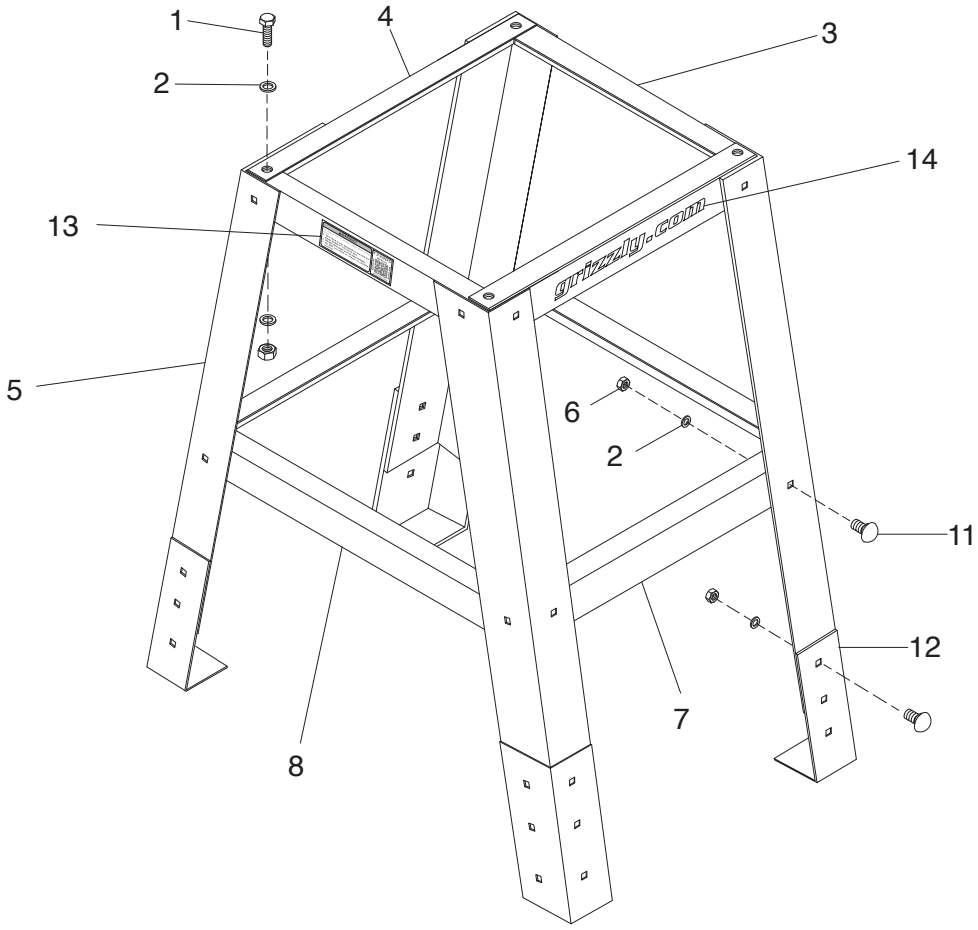


Figure 8. G0969 Scroll Saw mounted on stand.

T33905 Parts Breakdown & List



REF	PART #	DESCRIPTION
1	PT33905001	HEX BOLT 5/16-18 X 1
2	PT33905002	FLAT WASHER 5/16
3	PT33905003	TOP BRACE (SHORT)
4	PT33905004	TOP BRACE (LONG)
5	PT33905005	LEG
6	PT33905006	HEX NUT 5/16-18

REF	PART #	DESCRIPTION
7	PT33905007	BOTTOM BRACE (SHORT)
8	PT33905008	BOTTOM BRACE (LONG)
11	PT33905011	CARRIAGE BOLT 5/16-18 X 1/2
12	PT33905012	ADJUSTABLE LEG EXTENSION
13	PT33905013	COMBO WARNING LABEL
14	PT33905014	GRIZZLY.COM LABEL

⚠WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine MUST replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.

MODEL G0969
21" VS SCROLL SAW w/FOOT PEDAL
OWNER'S MANUAL
(For models manufactured since 07/23)

#JM22761 PRINTED IN TAIWAN V1.09.23

******Keep for Future Reference******

⚠ 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.

Table of Contents

INTRODUCTION

Contact Info

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

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
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

⚠WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk 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.

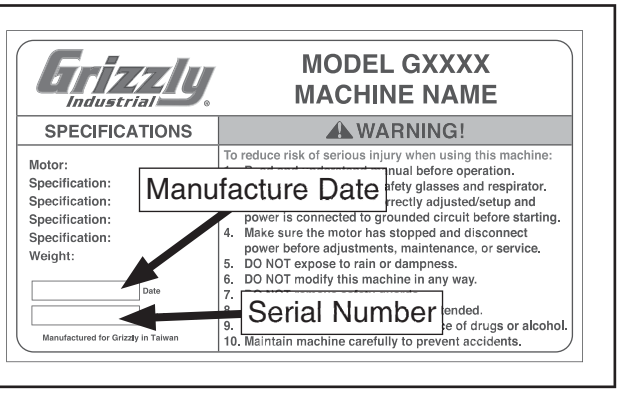
Manual Accuracy

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 in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual**.

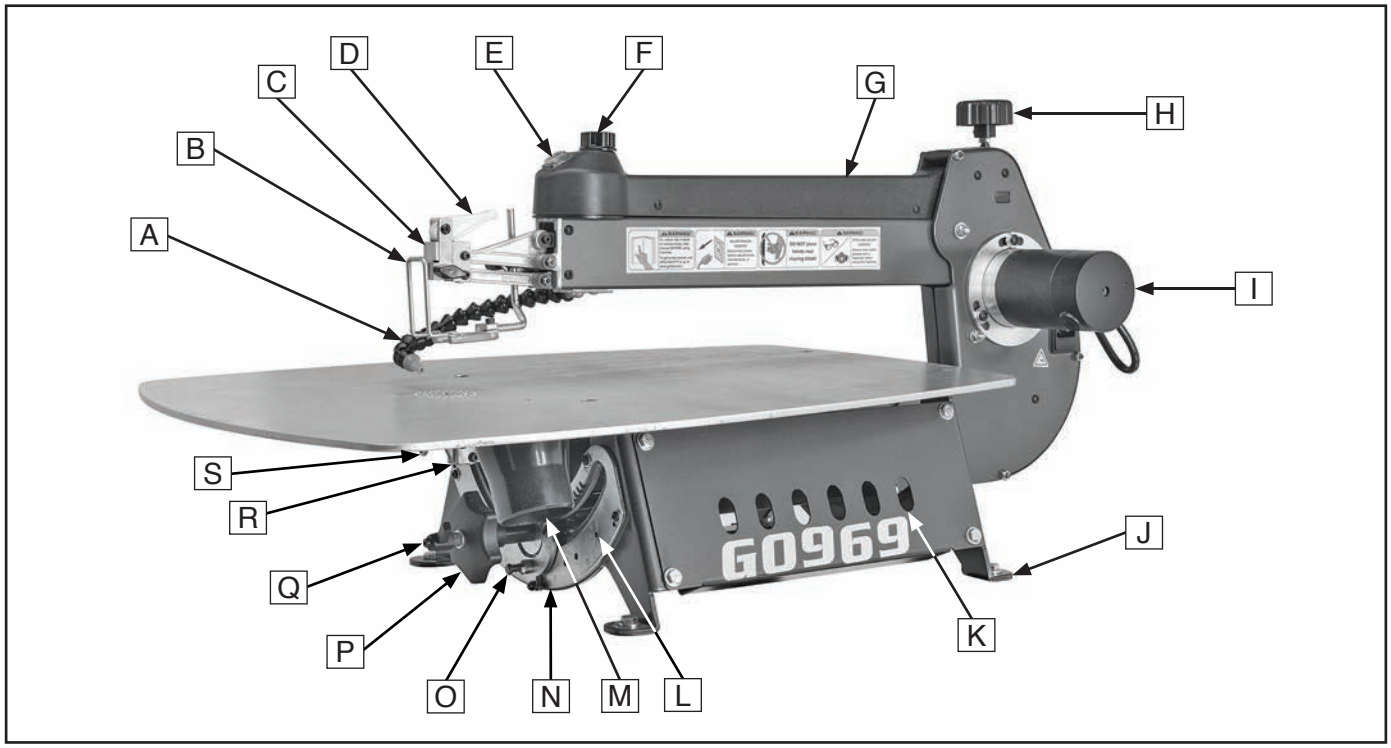
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

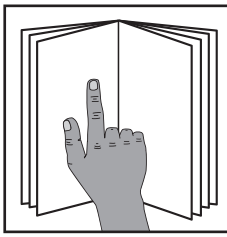


Identification

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



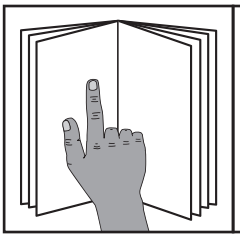
A. Air Nozzle
B. Hold-Down Shoe
C. Upper Blade Mount
D. Blade Tension Lever
E. ON/OFF Switch
F. Variable-Speed Knob
G. Upper Arm
H. Arm Adjustment Knob
I. Motor
J. Adjustable Feet
K. Blade Holders
L. Preset Stops
M. Dust Port
N. Tilt Scale
O. Angle Index Pin
P. Frame Tilt Knob
Q. Frame Lock Lever
R. Lower Blade Mount
S. Lower Blade Guard



⚠WARNING

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

Controls & Components



⚠WARNING

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

Refer to the following figures and descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when operating this machine.

Controls & Components

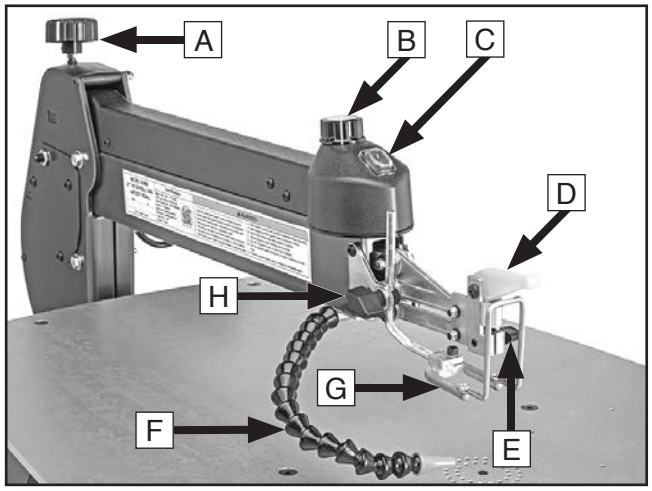


Figure 1. Machine controls.

A. Arm Adjustment Knob: Raises and lowers upper arm.

B. Variable-Speed Knob: Adjusts blade speed from 400 to 1550 SPM.

C. ON/OFF Switch: Starts and stops motor.

D. Blade Tension Lever: Engages/disengages blade tension.

E. Blade Mount Lock Knob: Locks blade in place, or unlocks blade for removal.

F. Air Nozzle: Adjustable nozzle blows debris away from line of cut during operations.

G. Hold-Down Shoe: Holds down workpiece as blade moves during operation. Adjust hold-down shoe to thickness of workpiece.

H. Hold-Down Shoe Lock Knob: Locks hold-down shoe in position.

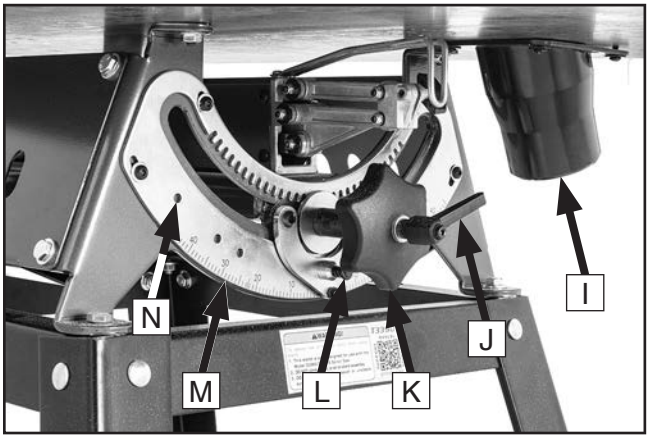


Figure 2. Tilt controls.

I. Dust Port: Connects vacuum hose or dust collection system.

J. Frame Lock Lever: Locks frame and blade at desired angle.

K. Frame Tilt Knob: Adjusts frame and blade to desired angle for bevel cutting.

L. Angle Index Pin: Locks frame at chosen preset angle for bevel cutting.

M. Tilt Scale: Indicates, left or right, angle from 0° to 45° when the frame is tilted for bevel cutting.

N. Preset Stops: Set at 0° (90°), 22.5°, 30°, and 45°, left and right.

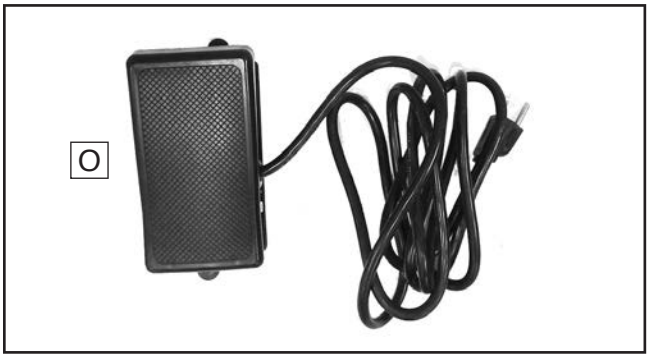


Figure 3. Foot pedal.

O. Foot Pedal Control: When connected controls movement of blade.

MACHINE DATA SHEET

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

MODEL G0969
21" VS SCROLL SAW WITH FOOT PEDAL

Product Dimensions:

Weight	79 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	20-1/2 x 37 x 17-1/2 in.
Footprint (Length x Width)	17 x 15 in.

Shipping Dimensions:

Type	Cardboard Box
Content	Machine
Weight	100 lbs.
Length x Width x Height	41 x 24 x 20 in.
Must Ship Upright	Yes

Electrical:

Power Requirement	110V, Single-Phase, 60 Hz
Full-Load Current Rating	1.3A
Minimum Circuit Size	15A
Connection Type	Cord & Plug
Power Cord Included	Yes
Power Cord Length	72 in.
Power Cord Gauge	18 AWG
Plug Included	Yes
Included Plug Type	5-15
Switch Type	Rocker ON/OFF w/Variable-Speed Dial

Motor:

Main

Horsepower	50W
Phase	Single-Phase
Amps	1.3A
Speed	1550 RPM
Type	Universal (DC)
Power Transfer	Direct
Bearings	Sealed & Permanently Lubricated

Main Specifications:

Capacities

Depth of Throat	21 in.
Maximum Cutting Height	2 in.
Maximum Cutting Height at 22-1/2 Degrees	1-1/2 in.
Maximum Cutting Height at 30 Degrees	1-5/16 in.
Maximum Cutting Height at 45 Degrees	7/8 in.
Maximum Cutting Depth	21 in.

Blade & Movement

Blade Type	Plain-End
Blade Length	5 in.
Blade Width Range	3/32 in.
Blade Stroke	3/4 in.
Blade Strokes Per Minute (SPM)	400 - 1550 SPM
Blade & Arm Tilt	0 - 45 deg. L/R (w/Dust Port Removed)
Blade & Arm Tilt Adjustment Type	Manual

Table Information

Table Length	28-7/16 in.
Table Width	20-1/8 in.
Table Thickness	1/4 in.

Construction

Table	Steel
Body	Steel
Blade Guard	Stainless Steel
Paint Type/Finish	Enamel

Other Information

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

Other Specifications:

Country of Origin	Taiwan
Warranty	1 Year
Approximate Assembly & Setup Time	30 Minutes
Serial Number Location	ID Label
ISO 9001 Factory	Yes

Features:

Foot Pedal Switch
Tool-Less Blade Holder Accepts Plain-End Blades
Variable Blade Speed
Arm Assembly Raises for Easy Blade Access
Stationary Steel Table 20-1/8" x 28-7/16"
Blade & Arm Tilt 45º Side to Side (w/Dust Port Removed)
Positive Indexing Pin Holes at 0º, 45º, 30º and 22-1/2º in Both Directions
Flexible Sawdust Blower
Hold-Down Shoe
Dust Port 2-1/2"

Accessories:

Plain-End Blade 5"
Hex Wrench 3mm
Optional Stand Available (T33905)

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 judgment.

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

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 your 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 loose clothing, gloves, neckties, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. 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!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to 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 BEFORE operating machine.

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.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

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 Scroll Saws

⚠WARNING

Serious cuts or amputation can occur from contact with the moving saw blade during operation or if blade breakage occurs. To reduce this risk, anyone operating this machine MUST completely heed the hazards and warnings below.

HAND PLACEMENT. Never position fingers or hands in line with the blade. If the workpiece or your hands slip, serious personal injury could occur.

INTENDED USE. This machine is intended for cutting natural and man-made wood products, and laminate covered wood products. This machine is NOT designed to cut metal, glass, stone, tile, etc.

SMALL WORKPIECE HANDLING. If your hands slip while holding small workpieces with your fingers during a cut, amputation or laceration injuries could occur. Always support/feed the workpiece with push sticks, jig, vise, or some type of clamping fixture.

BLADE CONDITION. Do not operate with dull, cracked, or badly worn blade. Dull blades require more effort to perform the cut and increase the risk of kickback. Inspect blades for cracks and missing teeth before each use.

BLADE TENSION. To avoid mishaps that could result in operator injury, make sure the blade teeth face down toward the table and the blade is properly tensioned before operating.

BLADE SPEED. Always allow the blade to come to full speed before starting the cut. Moving the workpiece against a blade that is not at full speed could cause the blade to break or grab the workpiece and draw the operator's hands into the blade.

BLADE CONTROL. To avoid serious personal injury, DO NOT attempt to stop or slow the blade with your hand or the workpiece. Allow the blade to stop on its own.

FEED RATE. To avoid the risk of the workpiece slipping and causing operator injury, always feed stock evenly and smoothly. DO NOT force or twist the blade while cutting, especially when sawing small curves.

CUTTING TECHNIQUES. Plan your operation so the blade always cuts to the outside of the workpiece. DO NOT back the workpiece away from the blade while the saw is running, which could cause kickback and personal injuries. If you need to back the workpiece out, turn the scroll saw ***OFF*** and wait for the blade to come to a complete stop. DO NOT twist or put excessive stress on the blade that could damage it. Instead, use relief cuts for curve cuts that may twist the blade.

LEAVING WORK AREA. Never leave a machine running unattended. Allow the scroll saw to come to a complete stop before you leave it unattended.

CUT-OFF PIECES. Never use your hands to move cut-offs away from the blade while the saw is running. If a cut-off becomes trapped between the blade and table insert, turn the saw ***OFF*** and allow the blade to completely stop before removing it.

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 electrician or qualified service personnel in accordance with all applicable codes and standards.

⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to 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 110V..... 1.3 Amps

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 specified circuit requirements.

⚠WARNING

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

110V Circuit Requirements

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

Nominal Voltage 110V, 115V, 120V
Cycle ..... 60 Hz
Phase ..... Single-Phase
Power Supply Circuit ..... 15 Amps
Plug/Receptacle ..... NEMA 5-15

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

Grounding & Plug Requirements

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

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. DO NOT modify the provided plug!

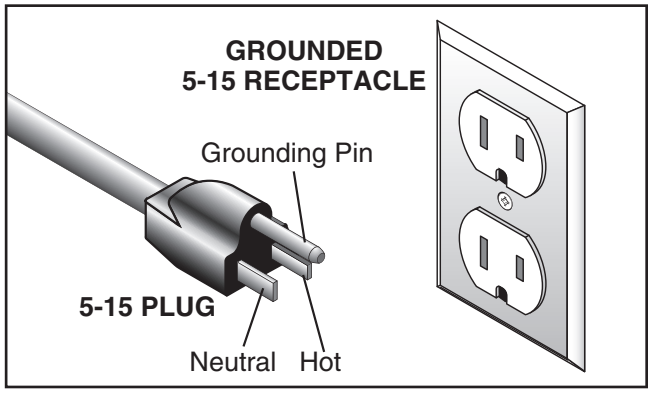
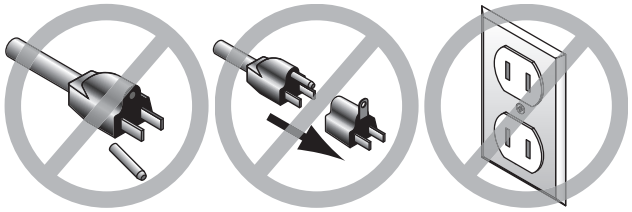


Figure 4. Typical 5-15 plug and receptacle.

⚠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

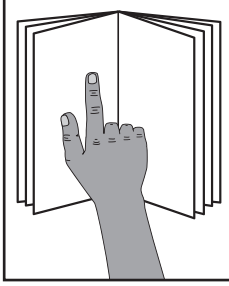
We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which can 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 be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

Minimum Gauge Size .....16 AWG
Maximum Length (Shorter is Better).....50 ft.

SECTION 3: SETUP



⚠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 setup process!

⚠WARNING

This machine and its components are very heavy. Get lifting help if needed.

Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Additional Person (for lifting)	1
• Safety Glasses (for each person)	1 Pair
• Level	1
• Dust Collection System	1
• Dust Hose 2½"	1
• Hose Clamps 2½"	2
• Disposable Shop Rags	As Needed
• Phillips Head Screwdriver #2	1
• Flat Head Screwdriver ¼"	1
• Open-End Wrenches ½", 9/16"	1 Ea.
• Shop Vacuum (Optional)	1

Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.*

NOTICE

DO NOT lift or move Model G0969 using upper arm, or internal drivetrain components could be damaged. Always use lifting points called out below in Figure 5.

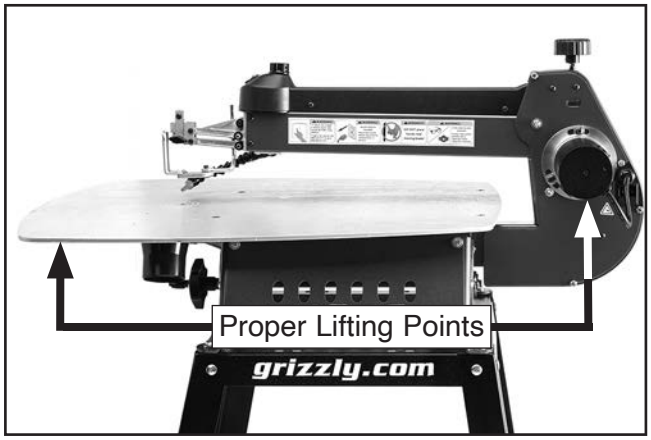


Figure 5. Lifting points on Model G0969.

Inventory

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

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

Cardboard Box (Figure 6) **Qty**
A. G0969 21" VS Scroll Saw.....1

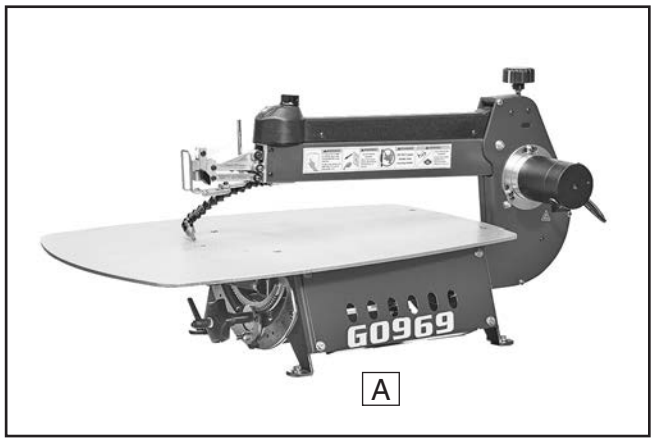


Figure 6. G0969 21" VS Scroll Saw.

Loose Components (Figure 7) **Qty**
B. Foot Pedal.....1
C. Plain-End Blade 5".....1
D. Power Cord.....1
E. Hex Wrench 4mm.....1

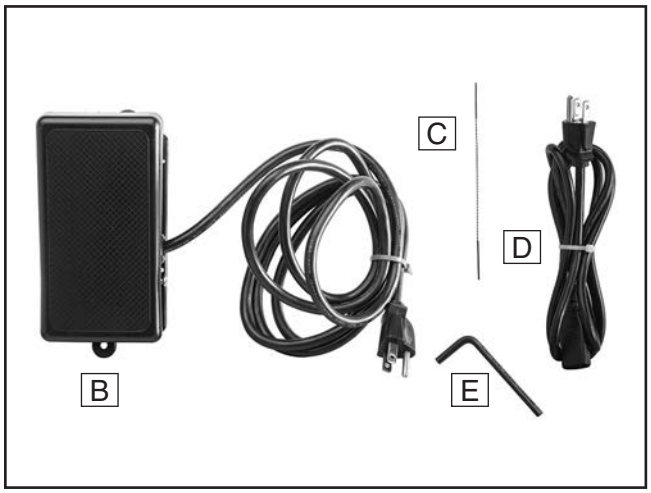


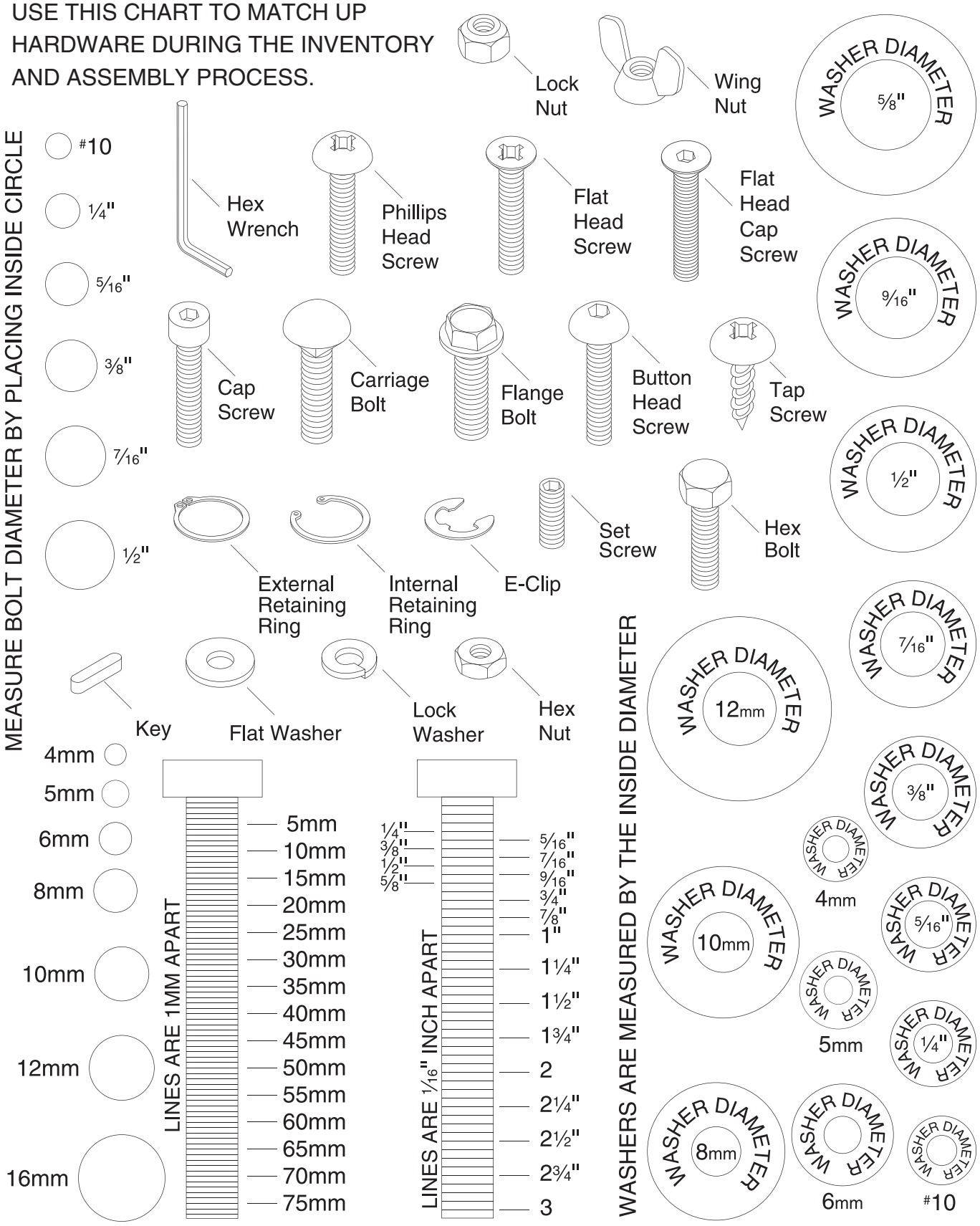
Figure 7. Loose components.

NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Hardware Recognition Chart

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



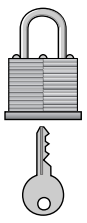
Site Considerations

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



⚠CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

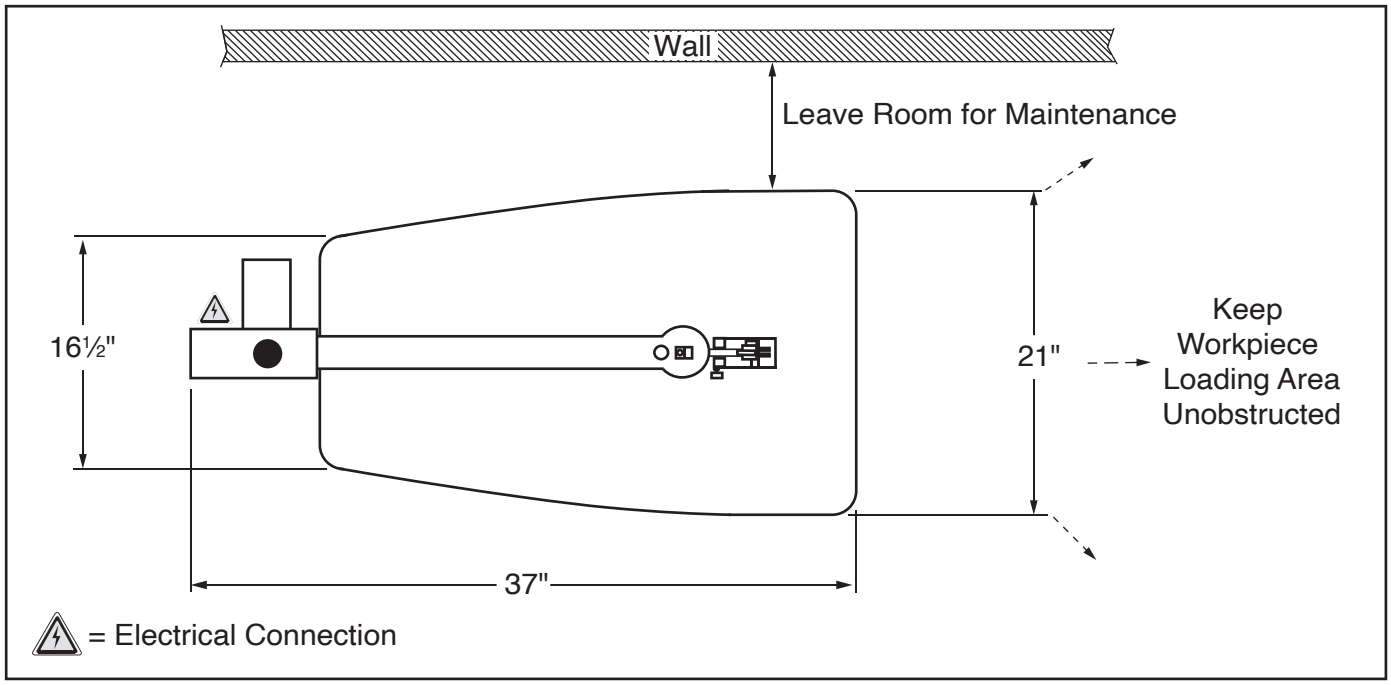


Figure 8. Minimum working clearances.

Bench Mounting

Number of Mounting Holes 4
Diameter of Mounting Hardware Needed .. ½"

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

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

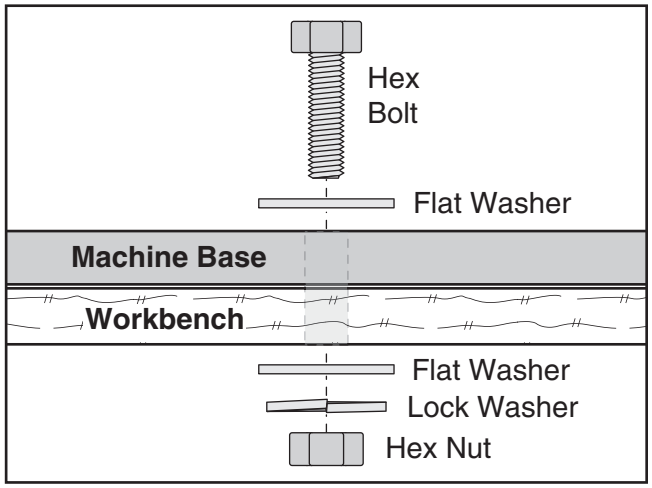


Figure 9. "Through Mount" setup.

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

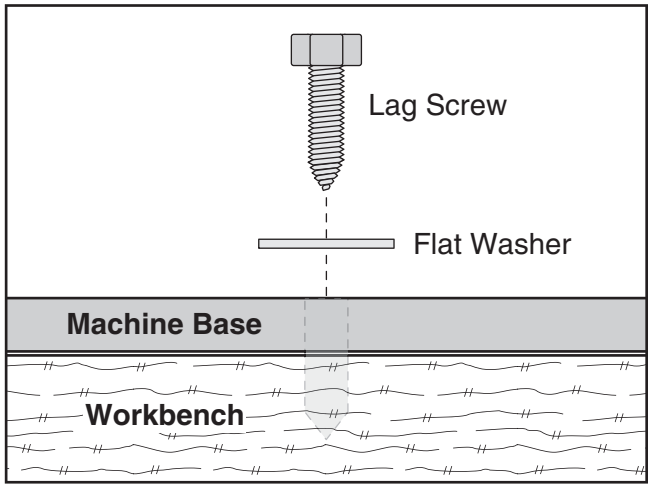


Figure 10. "Direct Mount" setup.

Assembly

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).

Assembly of the Model G0969 requires plugging the power cord in the power outlet on the rear of the machine (see **Figure 11**).

Figure 11. Power outlet with cord installed.

Dust Collection

⚠CAUTION

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

Minimum CFM at Dust Port: 150 CFM
Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect dust collection system:

1. Fit 2½" dust hose over dust port and secure in place with hose clamp (see **Figure 12**).

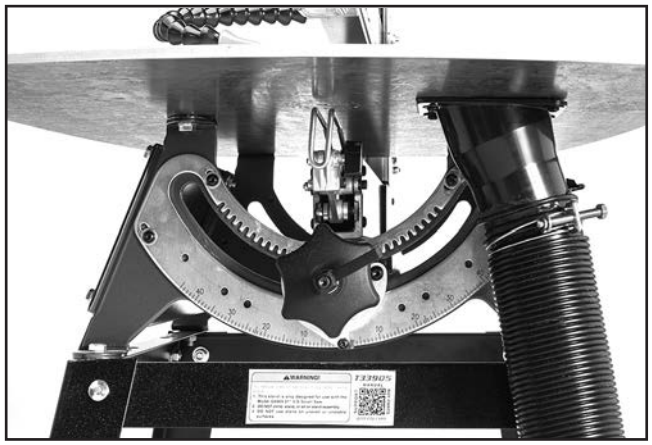


Figure 12. Dust port and dust hose attached to dust port.

2. Tug hose to make sure it does not come off.

   Note: *A tight fit is necessary for proper performance.*

Test Run

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

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

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly.

⚠WARNING

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

⚠WARNING

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

To test run machine:

1. Clear all setup tools away from machine.

2. Rotate variable-speed knob all the way counterclockwise.

3. Connect machine to power source.

4. Turn machine ***ON***, verify motor operation, and then turn machine ***OFF***.

   Motor should run smoothly and without unusual problems or noises.

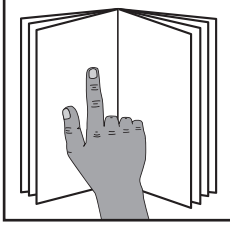
Congratulations! The Test Run is complete.

SECTION 4: OPERATIONS

Operation Overview

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.

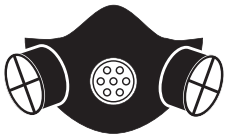


⚠WARNING

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.



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.

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

1. Examines workpiece to make sure it is suitable for cutting.
2. Rotates variable-speed knob all the way counterclockwise.
3. Adjusts frame tilt, if necessary, to angle of desired cut.
4. Adjusts hold-down shoe to just clear workpiece.
5. Checks to make sure workpiece can safely pass all the way through blade without interference from other objects.
6. Puts on safety glasses and respirator.
7. Starts dust collector and turns machine ***ON***.
8. Rotates variable-speed knob to appropriate speed needed for workpiece.
9. Holds workpiece firmly and flat against table and then pushes workpiece into blade at a steady and controlled rate until cut is complete.
10. Rotates variable-speed knob all the way counterclockwise.
11. Turns machine ***OFF***, then turns dust collector ***OFF***.

Basic Cutting Tips

A properly adjusted scroll saw performs many types of cuts with ease and accuracy. It is capable of performing these types of cuts:

Straight Cuts

- Miters, angles and compound angles, ripping, and crosscutting.

Irregular Cuts

- Simple and complex curves, duplicate parts, circles, and beveled curves.

Basic Cutting Tips

Basic tips to follow when operating a scroll saw:

- Typically, a scroll saw blade stays sharp from ½ hour to 2 hours of use, depending on how blade is used and type of material being cut.
- Best cutting results will be achieved when cutting workpieces less than 1" thick. When cutting workpieces thicker than 1", move workpiece through blade very slowly.
- Blades dull much faster when cutting plywood, hardwoods, and laminates.
- Exerting excessive side pressure on blade greatly increases chance of blade breakage.
- Plan cut before starting curves. Make relief cuts in waste areas near tight inside curves, or leave tight inside curves for a second pass to minimize backing out. Cut sharp outside curves by cutting past curve and looping around to cut from different angle.
- When approaching a tight radius, slow down feed rate, but don't stop. Give teeth time to make cut. Forcing workpiece through curve will cause blade to twist or break.
- If cut produces waste in interior of curve, turn power ***OFF*** and wait until all motion stops before removing waste.
- Scroll saw blades can drift. This is compensated for by adjusting feed direction.

Workpiece Inspection

Some workpieces are not safe to cut or may require modification before they are safe to cut. **Before cutting, inspect all workpieces for the following:**

- ***Material Type:*** This machine is intended for cutting natural and man-made wood products, laminate covered wood products, and some plastics. Cutting drywall or cementitious backer board creates extremely fine dust and may reduce life of bearings. This machine is NOT designed to cut metal, glass, stone, tile, etc.; cutting these materials with a table saw may lead to injury.
- ***Foreign Objects:*** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While cutting, these objects can become dislodged and hit operator, cause kickback, or break blade, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, DO NOT cut workpiece.
- ***Large/Loose Knots:*** Loose knots can become dislodged during cutting operation. Large knots can cause kickback and machine damage. Choose workpieces that do not have large/loose knots or plan ahead to avoid cutting through them.
- ***Wet or "Green" Stock:*** Cutting wood with a moisture content over 20% causes increased risk of pinching blade, affecting blade life.
- ***Excessive Warping:*** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and often unpredictable when being cut. DO NOT use workpieces with these characteristics!
- ***Minor Warping:*** Workpieces with slight cupping can be safely supported if cupped side is facing table or fence. On contrary, a workpiece supported on bowed side will rock during a cut and could cause kickback or severe injury.

Adjusting Hold-Down Shoe

The hold-down shoe keeps the workpiece from raising up from the force of the moving blade.

To adjust hold-down shoe:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen hold-down shoe lock knob (see **Figure 13**).

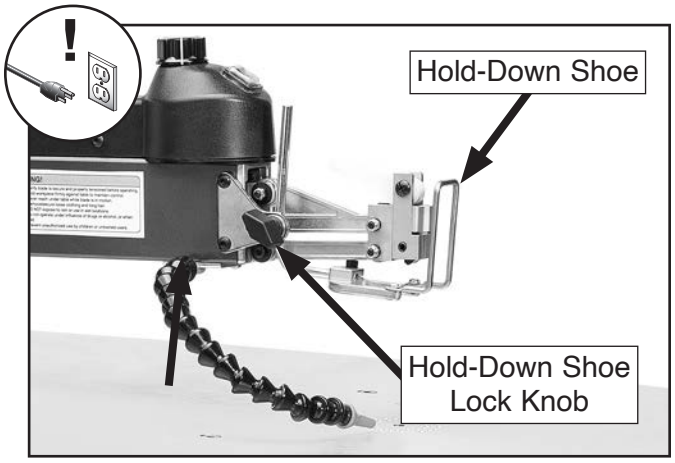


Figure 13. Hold-down shoe adjustment.

3. Adjust shoe so it is parallel with table and lightly touching workpiece.

4. Tighten hold-down shoe lock knob, then verify workpiece moves smoothly under shoe.

Tensioning Blade

When the upper arm is parallel to the table, the tension created by the blade tension lever is optimal on this machine.

To tension blade:

1. DISCONNECT MACHINE FROM POWER!

2. Move blade tension lever forward to release tension (see **Figure 14**).

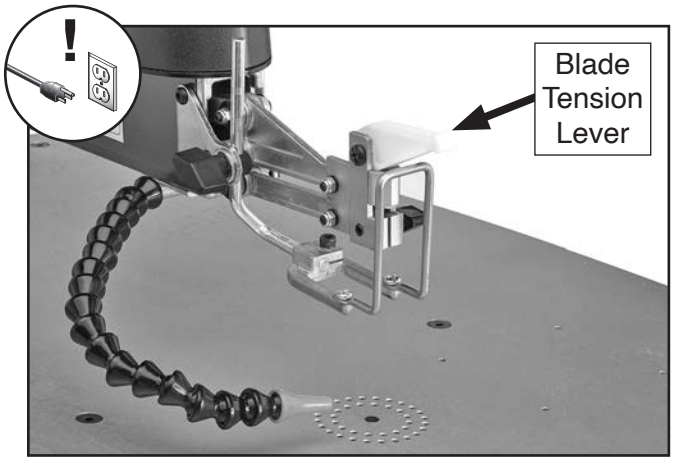


Figure 14. Blade tension lever released.

3. Install blade in both upper and lower blade mounts (see **Installing/Removing Blade Page 22**).

4. Move blade tension lever back to tension.

   Note: *Upper arm should be parallel to table for proper tensioning. Check upper arm for this regularly. When not in use, release tension on blade lever.*

Tilting Frame

The Model G0969 features a tilting frame, which allows the workpiece to always be in a parallel position. The tilt controls for the frame are located at the front of the saw, beneath the table.

For convenience, there are preset stops at 0°, 45°, 30°, and 22.5°, left and right.

Note: *Left tilt is limited to 37 degrees with dust port installed. To achieve full 45° tilt, dust port must be removed.*

Note: *Tilt scale serves as reference only. For more accurate results, use a bevel gauge or protractor to set desired frame tilt relative to blade.*

Tilting Frame

1. DISCONNECT MACHINE FROM POWER!

2. Loosen frame lock lever (see **Figure 15**).

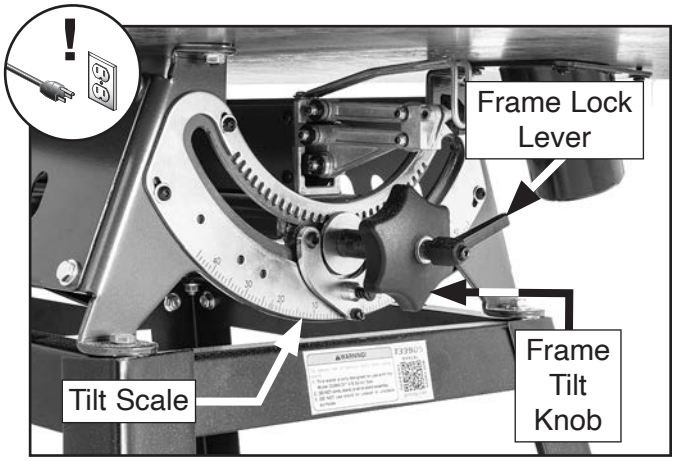


Figure 15. Frame tilt controls.

3. Use frame tilt knob to position table to desired angle.

4. Tighten frame lock lever to secure frame position.

Using Preset Stops

The preset positive stops allow the frame to quickly be set to any of seven frequently used angles.

To use preset stops:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen frame lock lever (see **Figure 16**).

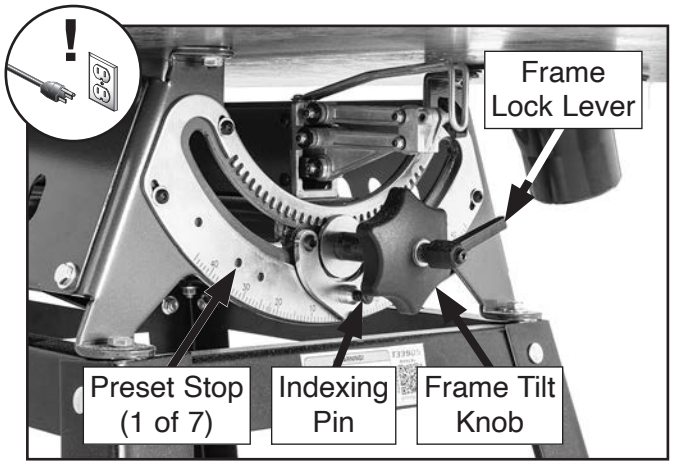


Figure 16. Location of preset stop controls.

3. Use frame tilt knob to position arm to desired preset angle.

4. Push spring loaded indexing pin into preset stop.

   Note: *Press pin gently while turning knob. You will feel pin drop into stop.*

5. Tighten frame lock lever.

Blade Selection

Scroll saw blades are classified as either "pin-end" (mounting pins in the ends of the blade) or "plain-end" (no pins), as shown in **Figure 17**. The Model G0969 comes with one plain-end blade, and the scroll saw is designed to accept only plain-end blades.

The typical format for blade identification is:

Teeth Per Inch	Width	Thickness	SPM	Workpiece Material
10 TPI	0.110"	0.020"	1200–1500	General purpose cutting. Hard and soft woods between 3/16"–2". Also good for plastics, paper, felt, and bone.
15 TPI	0.110"	0.020"	700–1200	Thin wood and plastic between 3/32"–1/2".
18 TPI	0.095"	0.010"	500–700	Tight radius cutting in thin hard and soft woods between 3/32"–1/8". Also good for thin pieces of bone, ivory, plastics and veneer.

Note: *There may be other numbers or letters that have meaning for a particular type of blade. Always refer to the manufacturer's technical data for a complete explanation when choosing a scroll saw blade.*

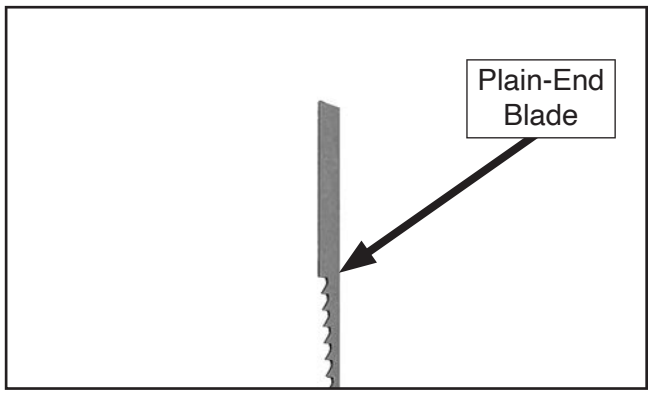


Figure 17. Plain-end blade.

Installing/Removing Blade

The Model G0969 only accepts plain-end blades. Plain-end blades excel at fine, accurate, or intricate work on 3/4" (19mm) or thinner workpieces, Thinner kerfs are also possible with finer blades.

Installing Blade

1. DISCONNECT MACHINE FROM POWER!
2. Tilt frame to 0° and tighten frame lock lever.
3. Move blade tension lever forward to release blade tension (see **Figure 18**).

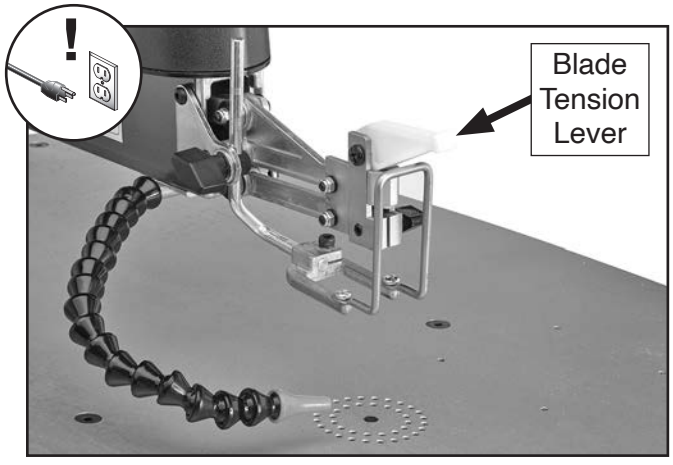


Figure 18. Blade tension lever released.

4. Insert blade through hole in table.

5. Place blade in upper blade mount (see **Figure 19**).

   Note: *Top of blade should be higher than mounting screw, but no higher than top of blade mount.*

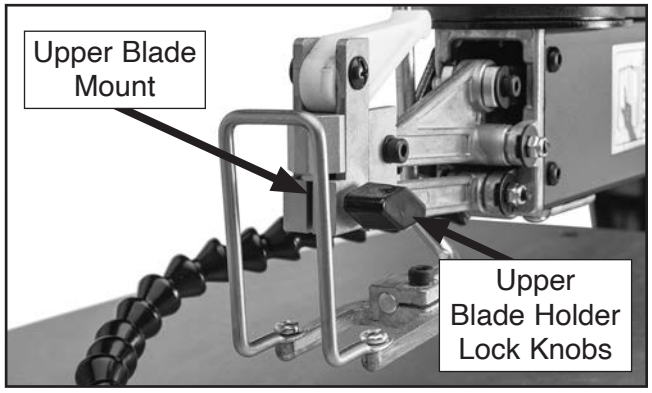


Figure 19. Upper blade mounts.

6. Tighten blade holder lock knob to secure.

7. Place lower portion of blade in lower blade mount (see **Figure 20**).

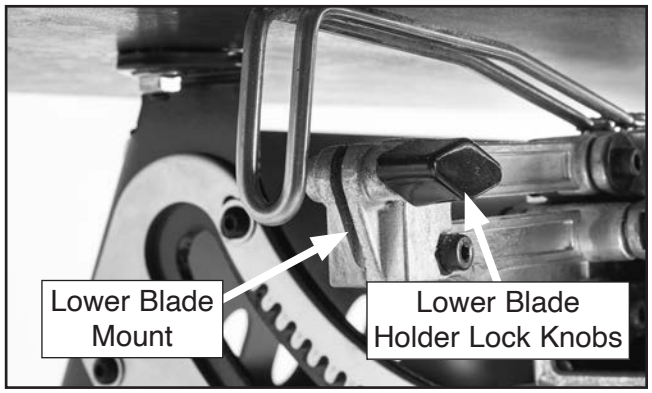


Figure 20. Lower blade mounts.

8. Tighten blade holder lock knob to secure.

   Note: *Do not overtighten blade holder lock knob. This can cause premature wear and lead to blade slippage. A portion of blade may go past lower blade mount. This is not unusual and will not effect machine performance.*

9. Move blade tension lever backward to tension blade.

Removing Blade

1. DISCONNECT MACHINE FROM POWER!

2. Tilt frame to 0° and tighten frame lock lever.

3. Move blade tension lever forward to release tension on blade.

4. Loosen blade holder lock knobs on upper and lower blade mounts.

5. Remove blade by lifting or lowering it through table.

Adjusting Blade Speed

Use the variable-speed knob shown in **Figure 21** to adjust blade speed between 400–1550 SPM (strokes per minute).

To reduce the risk of injury from unexpectedly fast speed at startup, always rotate the variable-speed knob all the way counterclockwise before starting and after stopping the scroll saw.

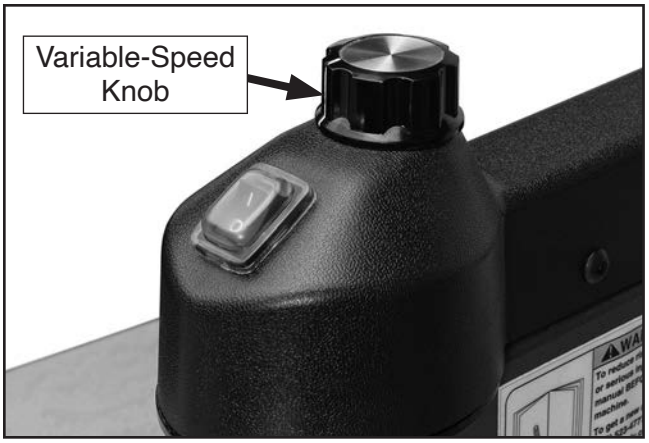


Figure 21. Location of variable-speed knob.

Adjusting Blade Motion

For most cutting operations, the best combination of speed and precision will be achieved when the upper arm is parallel with the table, and the back of the blade is 90 degrees to the table. This will also result in the smallest amount of vibration.

However, using the arm adjustment knob, the arm can be lowered to increase the forward motion of the blade. This will produce a faster, more aggressive cut, but some precision will be sacrificed.

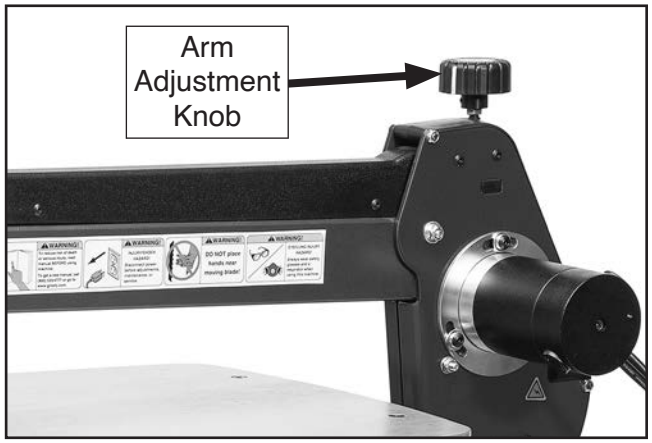


Figure 22. Arm adjustment knob.

Standard Blade Motion

1. DISCONNECT MACHINE FROM POWER!

2. Ensure blade is tensioned.

3. At front and back of upper arm, measure distance from table to bottom of arm.

4. Rotate arm adjustment knob until both measurements are equal, ensure that arm is parallel with table.

5. Place machinist's square flat on table against back of blade, as shown in **Figure 23**.

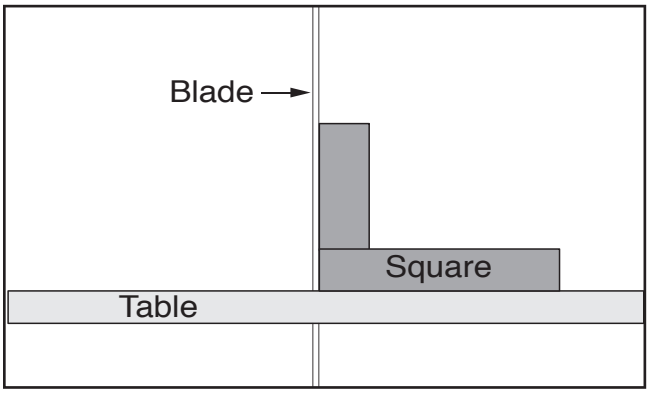


Figure 23. Square aligned with back of blade.

— If blade *is* square to table, then standard blade motion is set correctly.

— If blade *is not* square to table, proceed to **Step 6**.

6. Loosen (3) screws on motor mount and rotate motor (see **Figure 24**) until back of blade is square to table, then tighten screws.

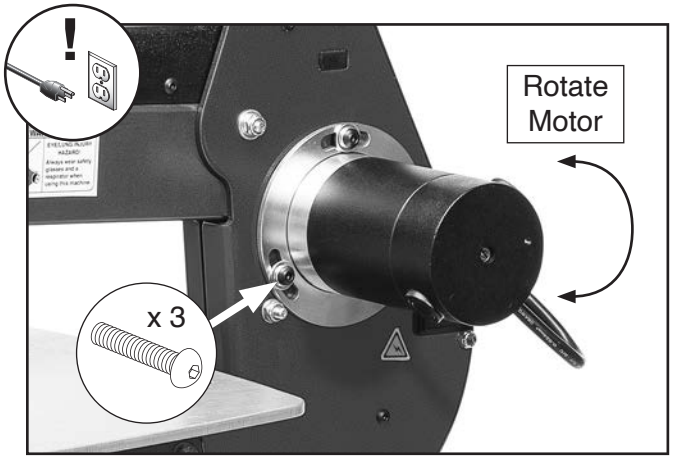


Figure 24. Motor rotation.

Forward Blade Motion

1. Perform steps in **Standard Blade Motion**.

2. Rotate arm adjustment knob clockwise to lower upper arm and increase forward blade motion.

Tip: *Lower arm in small increments, and test aggressiveness of cut on scrap wood.*

3. Once satisfied with forward blade motion, perform cut.

4. When finished, return upper arm to position parallel with table.

Making Standard Scroll Cuts

For standard scroll cutting, follow the pattern line on the workpiece by pushing and turning the workpiece at the same time, which allows the kerf of the cut to make way for the turn.

DO NOT turn the workpiece without pushing it through the blade at same time; otherwise, the blade could twist and break.

See **Figures 25–26** below for examples of scroll cutting.

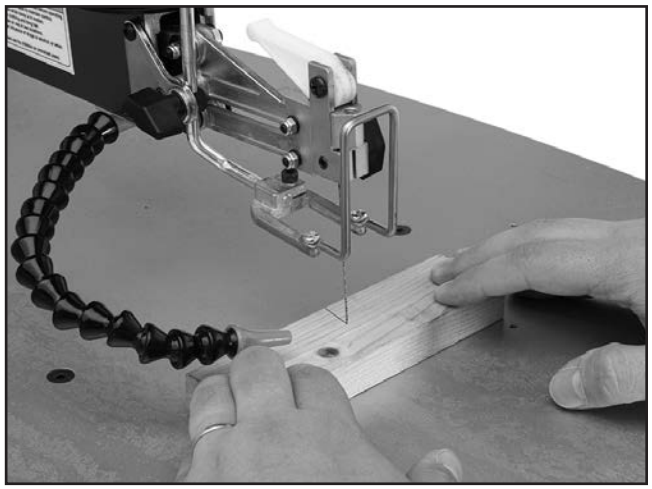


Figure 25. Making a straight cut.

Figure 26. Making a curved cut.

Making Inside Cuts

Inside cuts can easily be made with the scroll saw by threading the blade through a hole drilled in the workpiece.

Making an inside cut:

1. DISCONNECT MACHINE FROM POWER!
2. Drill a ⅛" hole in workpiece inside waste area of internal cut.
3. Release blade tension lever.
4. Loosen lock knob on lower blade mount.
5. Raise upper arm so it lifts blade clear of table.
6. Place workpiece hole over hole in table.
7. Lower upper arm and guide blade through hole in table.
8. Re-attach lower blade (see **Installing/ Removing Blade on Page 22**).
9. Tension blade.

   Note: *Alternatively, you can loosen lock knob on upper blade mount, release top of blade, slide workpiece over table hole, raise blade through workpiece, then tighten upper blade mount.*

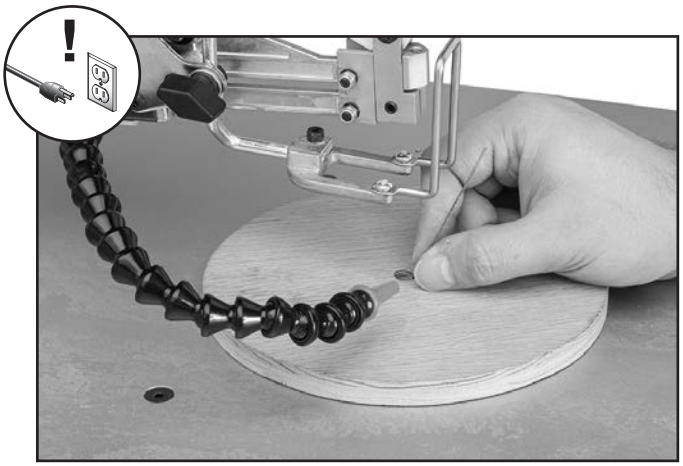


Figure 27. Installing blade for an inside cut.

Making Bevel Cuts

Bevel cuts can be used for miters, cope joints, and making relief or recessed projects.

Making a bevel cut:

1. DISCONNECT MACHINE FROM POWER!

2. Turn frame lock lever counterclockwise to release.

3. Use frame tilt knob to move frame to desired angle of cut.

4. Turn frame lock lever clockwise to lock frame at desired angle.

5. Using principles in **Making Standard Scroll Cuts** on **Page 25**, feed workpiece slowly and evenly into blade, remembering not to force workpiece through cut (see **Figure 28**).

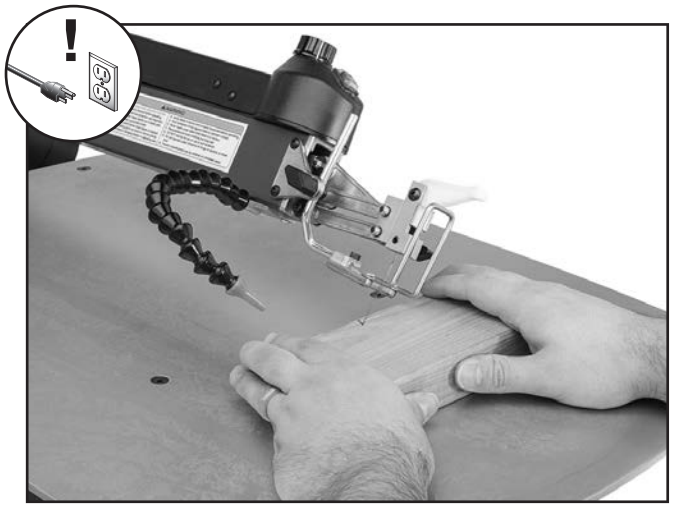


Figure 28. Making a bevel cut.

6. Turn saw ***OFF*** and wait until all motion has stopped before removing waste near blade.

Using Foot Pedal

The Model G0969 comes with a foot pedal that allows you to keep both hands on the workpiece while maintaining control of stopping and starting blade movement.

To use foot pedal:

1. DISCONNECT MACHINE FROM POWER!

2. Connect scroll saw power cord to plug on foot pedal (see **Figure 29**).

   Note: *If desired, foot pedal can be secured to floor using (2) mounting holes.*

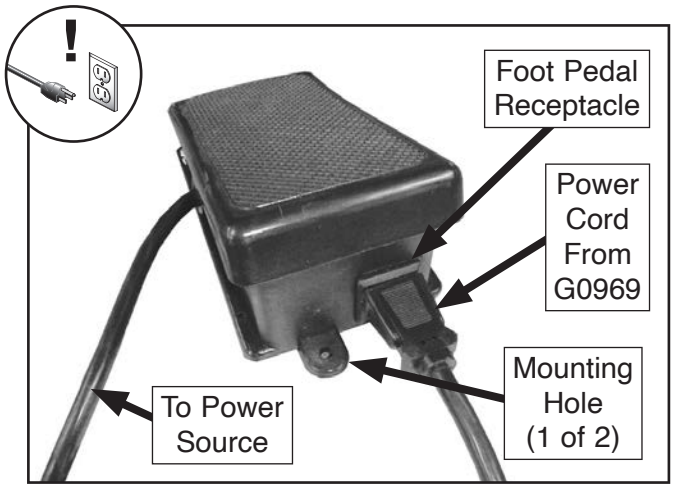


Figure 29. Foot pedal connections.

3. Connect power cord on foot pedal to power source.

4. Set scroll saw to desired speed (see **Adjusting Blade Speed** on **Page 23**).

5. Press foot pedal to start operation.

   Note: *Foot pedal does not control the speed setting. Speed setting can only be set through variable-speed knob. Foot pedal only starts and stops blade.*

SECTION 5: 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.

H9022–5" Plain-End Scroll Saw Blade Assortment, 12-Pk.

Model	Size	Width	Thickness	TPI	QTY
H9016	#1	0.032"	0.015"	24	12
H9017	#2	0.032"	0.016"	22	12
H9018	#3	0.040"	0.018"	20	12
H9019	#4	0.048"	0.020"	20	12
H9020	#5	0.056"	0.023"	16	12
H9021	#6	0.062"	0.025"	14	12

T32387—Big Book of Scroll Saw Woodworking
More than 60 projects and techniques for fretwork, intarsia, and other scroll saw crafts. Includes detailed patterns, expert step-by-step instructions and crisp photographs, guaranteed to spur your creativity.

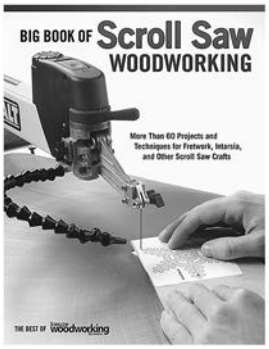


Figure 30. T32387 Big Book of Scroll Saw Woodworking.

T33905—Scroll Saw Stand
Custom stand that fits the G0969 and holds scroll saw securely for easy use and access.

Figure 31. T33905 Scroll Saw Stand.

T32389—Scroll Saw Wooden Bowls
Crafting beautiful bowls with the more accessible scroll saw.

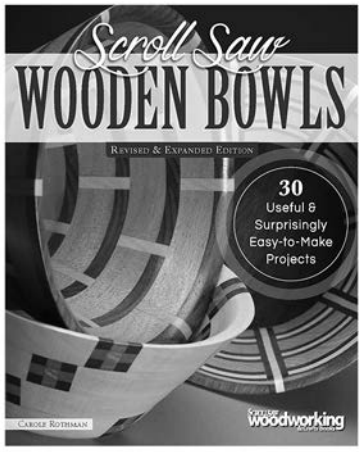
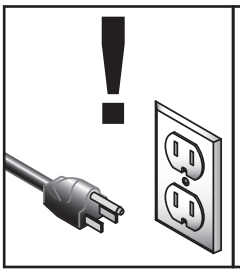


Figure 32. T32389 Scroll Saw Wooden Bowls Book

SECTION 6: MAINTENANCE



⚠WARNING

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Schedule

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

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

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

Weekly Maintenance
- Clean/vacuum dust buildup from table, motor and stand.

Monthly Check
- Frame tilt and lock knob for damage or wear.
- Clean/vacuum dust buildup from body and off motor.

Cleaning & Protecting

Cleaning the Model G0969 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

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

All unpainted and machined surfaces should be wiped down daily to keep them rust free and in top condition. This includes any surface that is vulnerable to rust if left unprotected. Use a quality metal protectant.

Lubrication

Regular application of lithium based grease to the pivot point of the blade tension lever is recommended every 10–15 hours (see **Figure 33**).

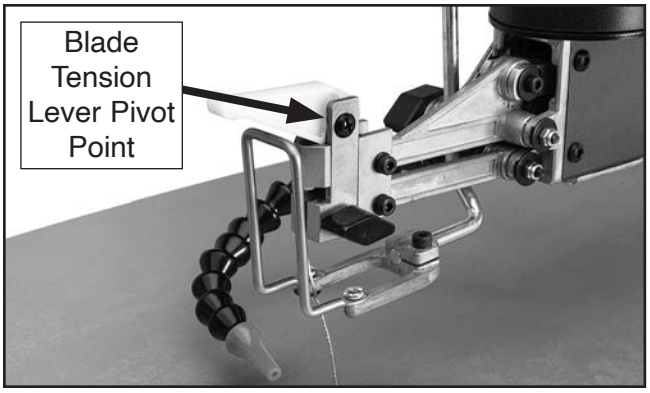


Figure 33. Blade tension lever lubrication point.

Additionally, keeping the front and rear trunnions lubricated with a small amount of lithium-based grease is recommended (see **Figure 34**).

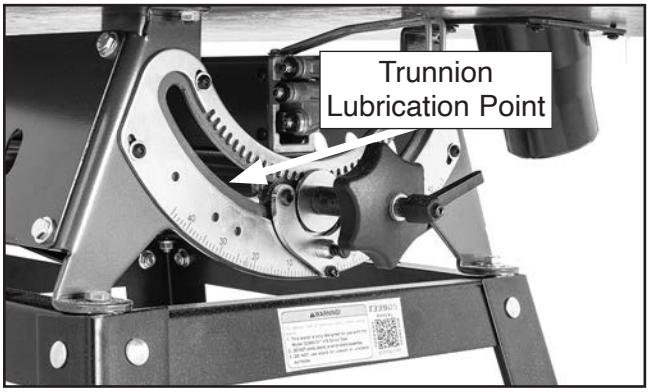
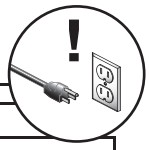


Figure 34. Trunnion lubrication point.

SECTION 7: SERVICE

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support at (570) 546-9663.
Note: *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Symptom	Possible Cause	Possible Solution
Machine does not start, or power supply breaker immediately trips after startup.	1. Blown fuse. 2. Incorrect power supply voltage/circuit size. 3. Motor speed potentiometer at fault. 4. Power supply circuit breaker tripped or fuse blown. 5. Wiring broken, disconnected, or corroded. 6. Motor brushes worn out. 7. ON/OFF switch at fault. 8. Circuit board at fault. 9. Motor or motor bearings at fault.	1. Replace fuse/ensure no shorts (**Page 32**). 2. Ensure correct power supply voltage/circuit size. 3. Test/replace if at fault. 4. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 5. Fix broken wires or disconnected/corroded connections. 6. Remove/replace brushes (**Page 30**). 7. Replace switch. 8. Inspect/replace if at fault. 9. Replace motor.
Machine stalls or is underpowered.	1. Dull blade. 2 Workpiece material unsuitable for machine. 3. Machine undersized for task. 4. Blade slipping in mounts; lock knobs not tightened. 5. Motor circuit board at fault. 6. Motor speed potentiometer at fault. 7. Motor brushes worn out. 8. Motor overheated. 9. Extension cord too long. 10. Motor or motor bearings at fault.	1. Replace blade (**Page 22**). 2. Only cut wood/ensure moisture if below 20% (**Page 20**). 3. Use correct blade/reduce feed rate or depth of cut. 4. Make sure blade installed correctly, tighten lock knobs (**Page 22**). 5. Inspect and replace if at fault. 6. Test and replace if at fault. 7. Replace motor brushes (**Page 30**). 8. Clean motor, let cool, reduce workload. 9. Move machine closer to power supply; use shorter extension cord. 10. Replace motor.
Machine has vibration or noisy operation.	1. Motor or component loose. 2. Blade at fault. 3. Incorrectly mounted to workbench/stand. 4. Motor bearings at fault.	1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Replace warped/bent blade; resharpen dull blade. 3. Adjust feet, shim or tighten mounting hardware. 4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.
Blade will not stay on layout line.	1. Too much pressure applied to workpiece. 2. Blade holders not aligned correctly.	1. Reduce feed rate and pressure on workpiece. 2. Adjust blade holders so they are perpendicular.
Excessive blade breakage.	1. Not using relief cuts when cutting tight curves; twisting blade. 2. Wrong blade for operation. 3. Too much pressure on blade.	1. Use relief cuts for tight turns; reduce feed rate; do not twist blade. 2. Refer to **Blade Selection Chart**, and use correct blade for operation (**Page 23**). 3. Reduce pressure on workpiece.
Excessive front-to-back blade motion.	1. Arm not parallel with table. 2. Blade oscillation set incorrectly.	1. Position arm parallel with table (**Page 24**). 2. Rotate motor until blade perpendicular with table.

Checking/Replacing Motor Brushes

The motor on the Model G0969 is equipped with two long-life carbon brushes—one on each side of the motor. The brush life is affected by motor loads and usage. Worn brushes will result in intermittent operation and difficulty starting the motor. If either brush is worn down to ¼" (6mm) or less, replace both brushes as a set.

Items Needed	Qty
Flat Head Screwdriver ½"	1
Motor Brushes (P0969370)	2

To check/replace motor brushes:

1. DISCONNECT MACHINE FROM POWER!

2. Unscrew plastic brush covers, and remove motor brush assemblies (see **Figure 35**).

   Note: *As you remove brush assembly, make note of carbon tip orientation. If acceptable, re-install in same way.*

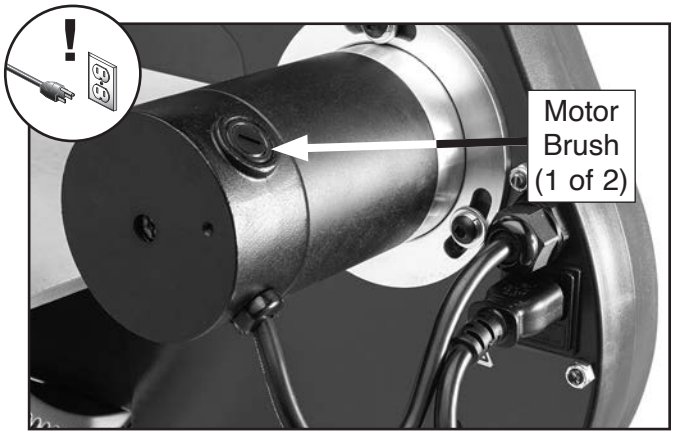


Figure 35. Motor brush location.

3. Measure length of carbon tip. If carbon tip is worn down to ¼" (6mm) or less, replace both brush assemblies with new ones.

4. Insert brush assemblies back into motor, and re-install plastic caps.

Squaring Blade to Table

It is normal for the blade to become slightly out of alignment with regular use. Regularly check the blade to ensure it is aligned correctly.

Note: *The tilt scale is only an approximate scale and should not be used when precise angle measurements are required for the operation.*

Tools Needed	Qty
Hex Wrench 4mm	1
Machinist's Square	1

To square blade to table:

1. DISCONNECT MACHINE FROM POWER!

2. Tilt frame to 0° and tighten frame lock lever.

3. Remove hold-down shoe.

4. Place a machinist's square flat on table against side of blade (see **Figure 36**).

   — If blade is square, no adjustment is necessary.

   — If blade is not square, proceed to **Step 5**.

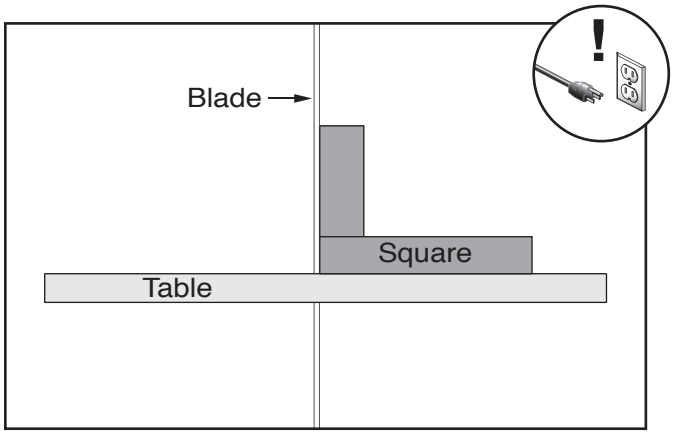


Figure 36. Squaring blade to table.

5. Loosen (8) button head cap screws on front and rear trunnions (see **Figure 37**).

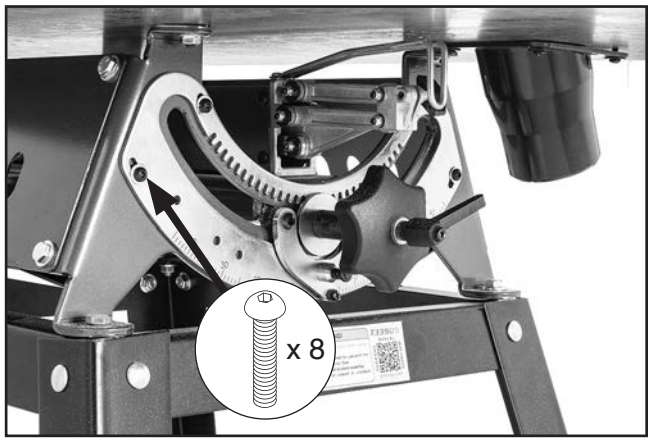


Figure 37. Location of button head cap screws on front trunnion.

6. Carefully move frame to bring blade square with table.

7. Tighten front and rear button head cap screws (see **Figure 37**).

8. Install hold-down shoe.

Adjusting Upper Arm Tension

With regular use the arm may develop play which affects the ability of the arm to maintain the height it is set to. Regularly check the play in the arm and adjust if necessary.

Tools Needed	Qty
Open-End Wrench ½"	1
Flat Head Screwdriver ⅛"	1
Tape Measure	1

To adjust upper arm tension:

1. DISCONNECT MACHINE FROM POWER!

2. Release tension on blade and loosen upper blade mount lock knob.

3. Tilt frame to 0° and tighten frame lock lever.

4. Use arm adjustment knob to adjust arm so that it is parallel with table (refer to **Adjusting Blade Motion** on **Page 24**).

   Note: *Use a tape measure to measure height of arm to table at front and back of arm. When measurements are equal, table and arm are parallel.*

5. Loosen jam nut shown in **Figure 38**.

6. Turn adjustment screw shown in **Figure 38** clockwise approximately ¼ turn. Check arm for play.

   — If arm *does* have play, repeat **Step 6**.

   — If arm *does not* have play, adjustment is complete. Proceed to **Step 7**.

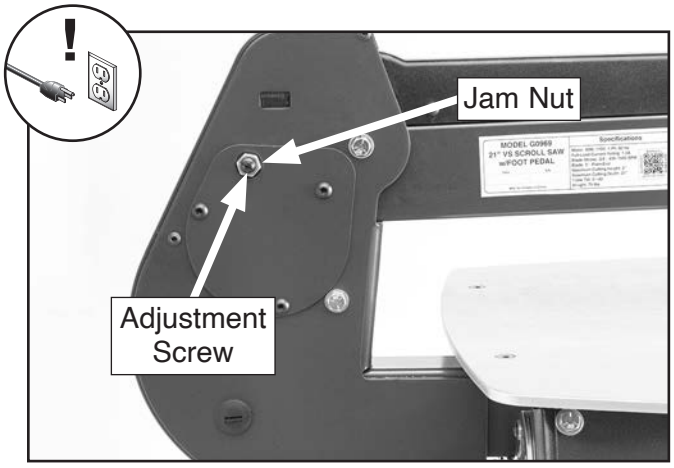


Figure 38. Adjusting upper arm tension.

IMPORTANT: DO NOT *overtighten adjustment screw. Removing all play can apply excessive tension and limit movement of arm during use, which could damage machine.*

7. Tighten jam nut.

Fuse Replacement

The Model G0969 is equipped with a 15A glass fuse. Age, overload, or a short circuit can cause the fuse to fail.

Tools Needed	Qty
Flat Head Screwdriver 1/8"	1
Fuse 15A	1

To replace fuse:

1. DISCONNECT MACHINE FROM POWER!
2. Remove power cord from machine.
3. Use screwdriver to release fuse compartment (see **Figure 39**).

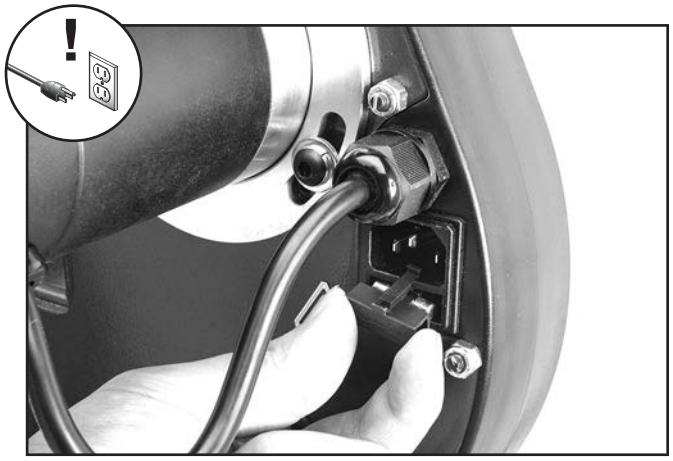


Figure 39. Removing fuse from fuse compartment.

4. Remove and replace fuse.
5. Install fuse compartment.
6. Install power cord.

Adjusting Blade Oscillation

The G0969 has a motor that can be rotated to easily change the oscillation of the blade.

Adjusting the blade oscillation can make cutting specific cuts more efficient. Reducing blade oscillation can make tight cuts smoother while a larger blade oscillation path can make cutting through thicker material with less fine cuts much faster.

Items Needed	Qty
Hex Wrench 4mm	1
Small Machinist's Square	1
Scrap Wood	As Needed

To adjust blade oscillation:

1. DISCONNECT MACHINE FROM POWER!
2. Make sure arm is parallel with table (refer to **Adjusting Blade Motion** on **Page 24**).
3. Install and tension blade (see **Installing/ Removing Blade** on **Page 22**).
4. Place small machinist's square or piece of wood behind blade to help gauge blade movement.
5. Loosen motor mount screws (see **Figure 40**).
6. Rotate motor forward or backward and tighten motor adjustment screws (see **Figure 40**).

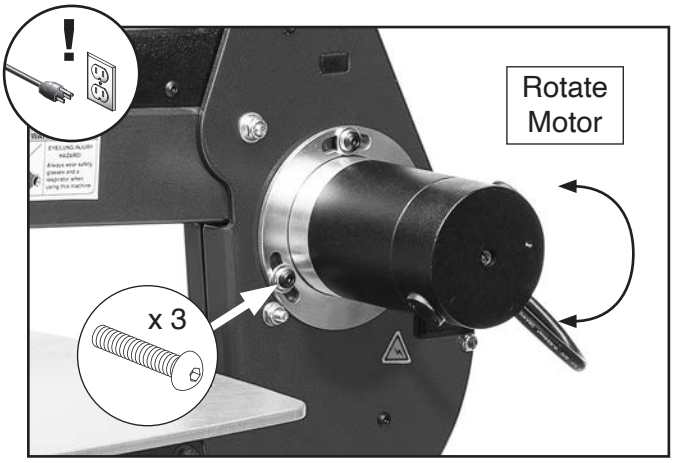


Figure 40. Motor mount screws.

7. Set speed to 400 SPM and start machine.

   Note: *Alternatively, you can use a screwdriver to rotate shaft of motor.*

   — If blade oscillation *is* acceptable, adjustment is complete.

   — If blade oscillation *is not* acceptable repeat **Steps 5–7**.

Aligning Blade Mounts

The blade mounts may become misaligned with use, which results in the blade no longer being aligned with the motion of the machine and being out of square with the table. A symptom of this condition is persistent blade run-out.

Tools Needed	Qty
Hex Wrench 4mm	1
Small Machinist's Square	1

To align blade mounts:

1. DISCONNECT MACHINE FROM POWER!

2. Tilt frame to 0° and tighten frame lock lever.

3. Place machinist's square flat on table with one edge against side of blade (see **Figure 41**).

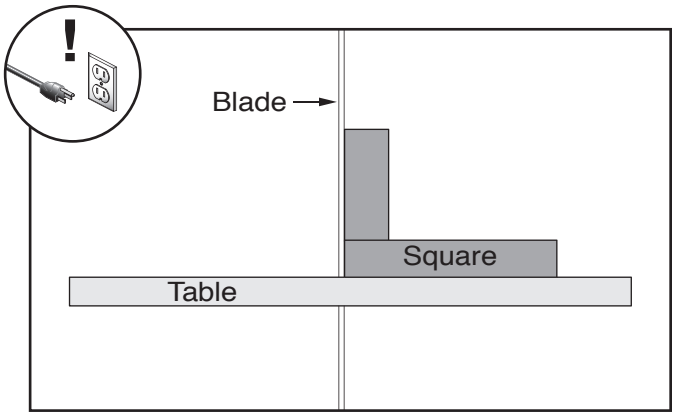


Figure 41. Aligning blade mounts.

   — If blade *is* square to table, no further adjustments need to be made.

   — If blade *is not* square to table, proceed to Step 4.

4. Hold blade mount knob steady and use hex wrench to loosen blade mount set screws (see **Figure 42**).

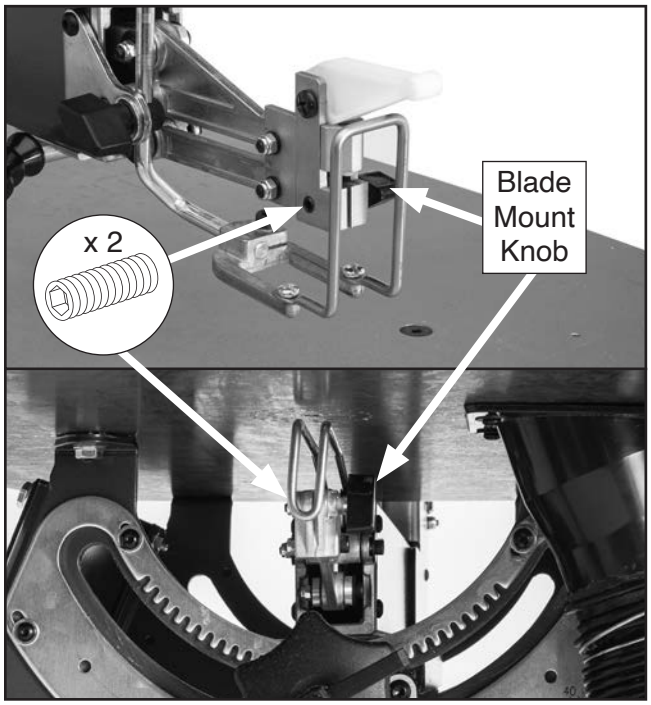


Figure 42. Location of blade mount hardware.

5. Adjust blade mounts until blade is flat against edge of square along its entire length.

6. Tighten blade mount set screws loosened in **Step 4**.

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.

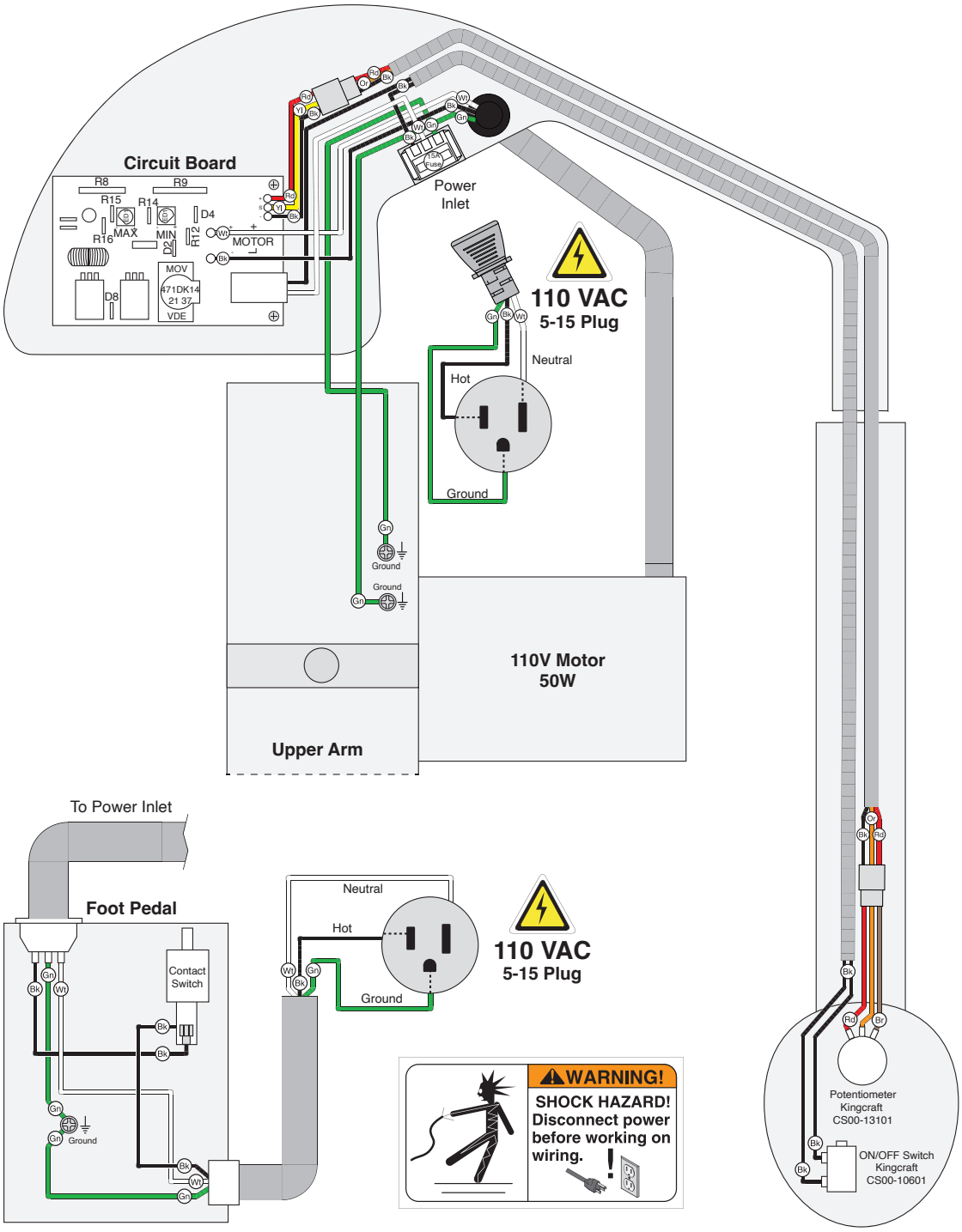
NOTICE

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



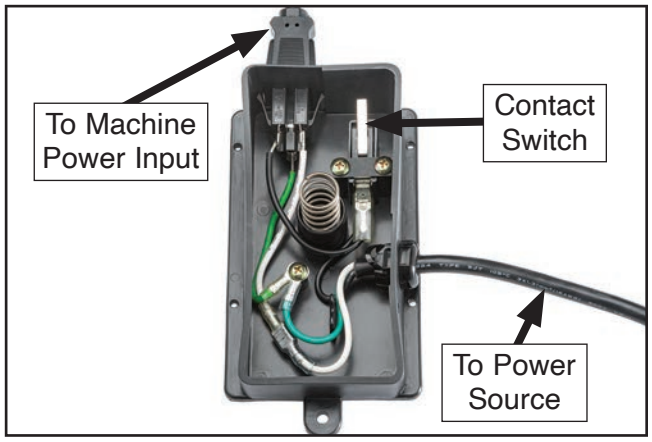


Figure 43. Foot pedal wiring connections.

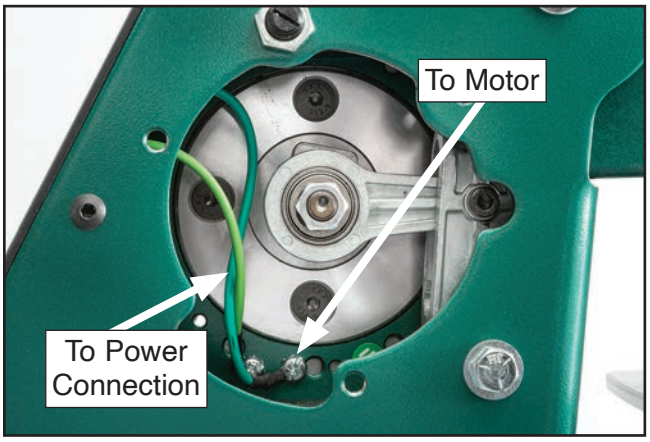


Figure 45. System ground connections.

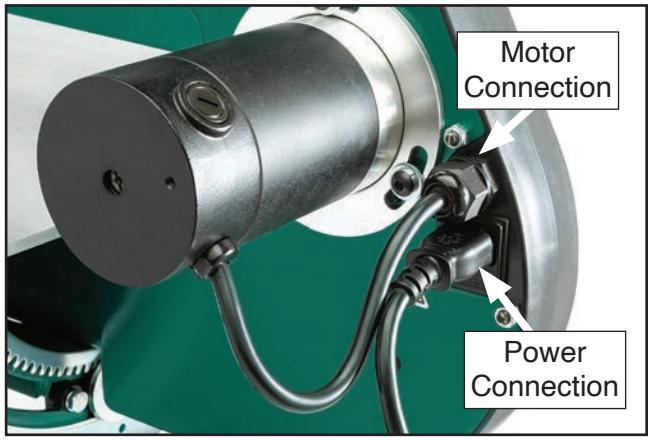


Figure 44. Motor power connection.

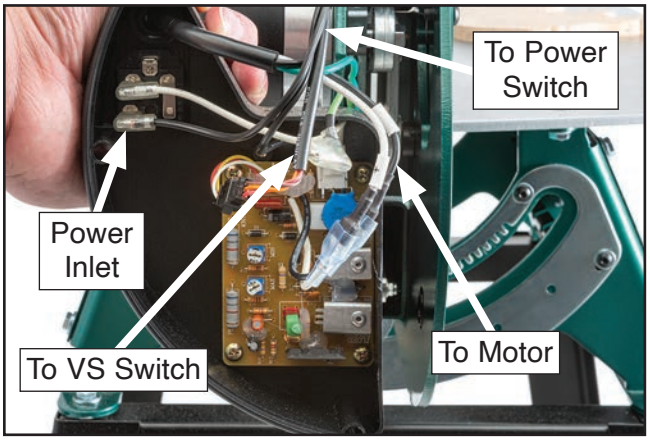


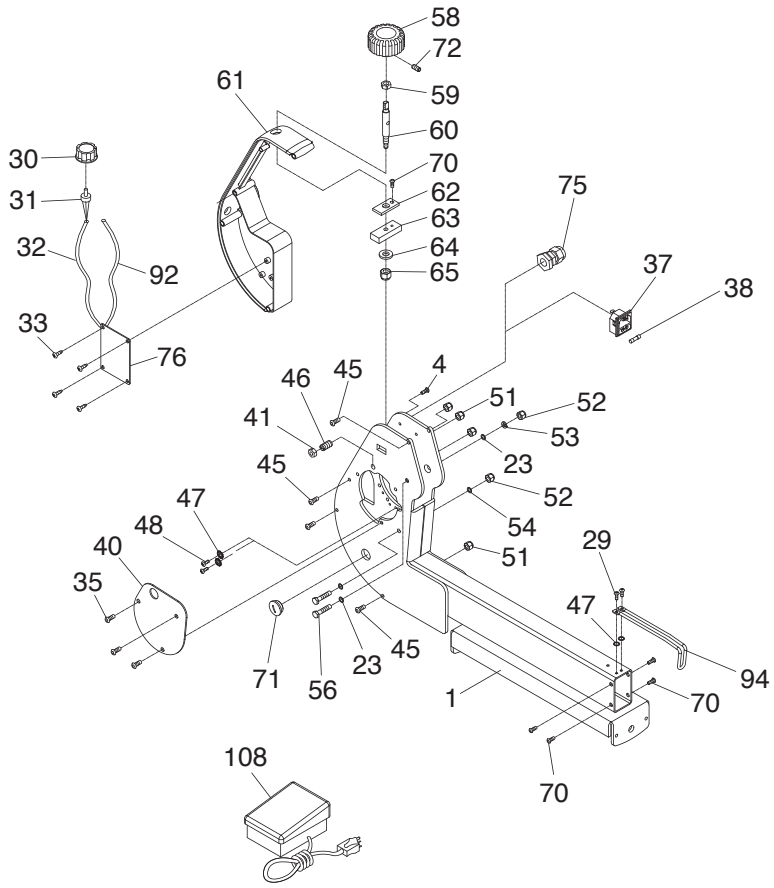
Figure 46. Circuit board.

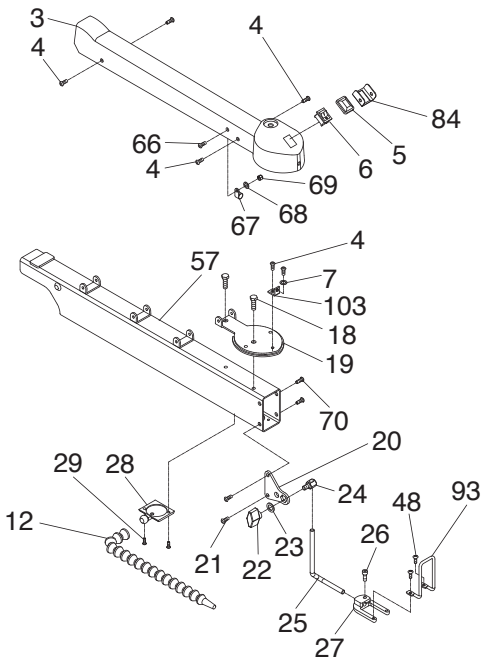
READ ELECTRICAL SAFETY ON PAGE 34!

SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **www.grizzly.com/parts** to check for availability.

Controls



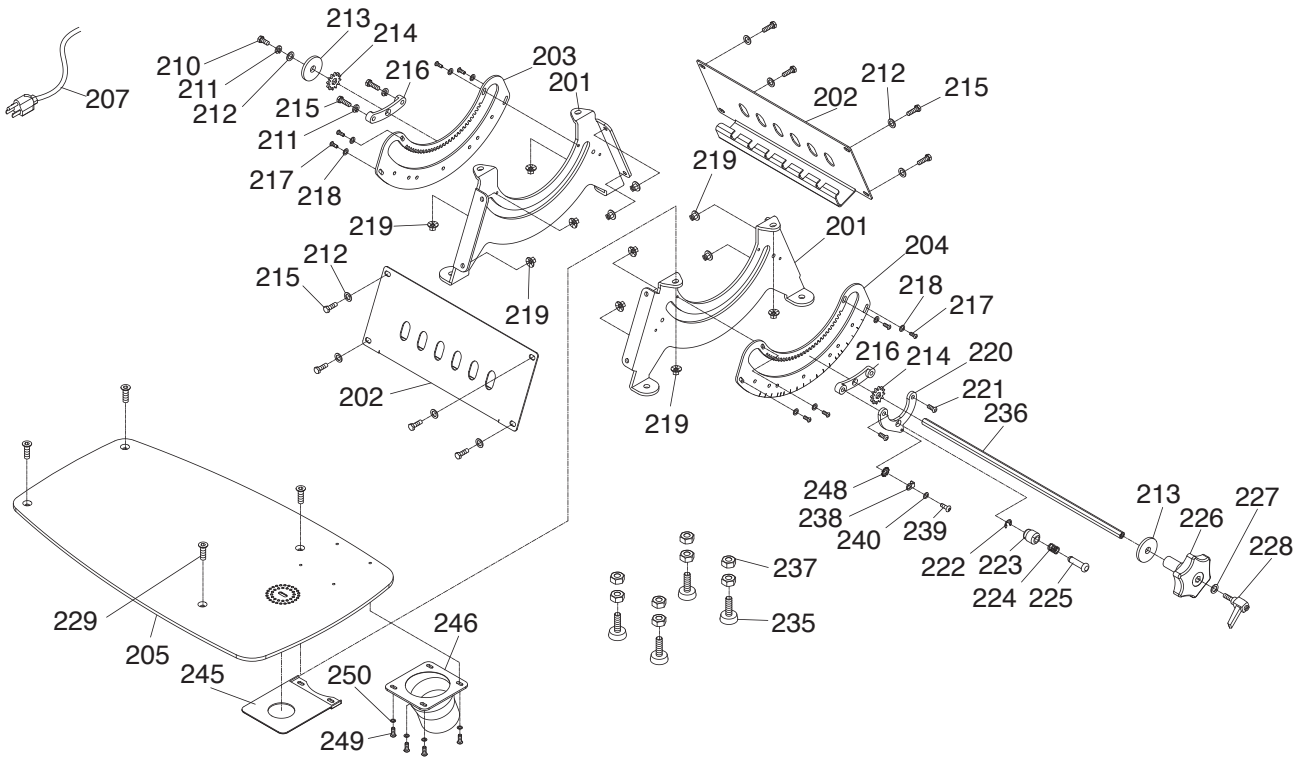


Controls Parts List

REF	PART #	DESCRIPTION
1	P0969001	BODY
3	P0969003	COVER
4	P0969004	BUTTON HD CAP SCR 10-32 x 1/4
5	P0969005	SWITCH COVER
6	P0969006	ON/OFF SWITCH KINGCRAFT CS00-10601
7	P0969007	FLAT WASHER 5MM
12	P0969012	AIR NOZZLE
18	P0969018	HEX BOLT 1/4-20 X 1/2
19	P0969019	TENSION PLATE
20	P0969020	HOLD-DOWN MOUNT PLATE
21	P0969021	BUTTON HD CAP SCR 10-32 X 3/8
22	P0969022	KNOB 1/4-20, D25, WING
23	P0969023	FLAT WASHER 1/4
24	P0969024	HOLD-DOWN CLAMP BOLT 1/4-20
25	P0969025	HOLD-DOWN BAR
26	P0969026	CAP SCREW 10-32 X 1/2
27	P0969027	HOLD-DOWN SHOE
28	P0969028	AIR NOZZLE MOUNT
29	P0969029	TAP SCREW #8 X 3/8
30	P0969030	VARIABLE SPEED KNOB
31	P0969031	POTENTIOMETER KINGCRAFT CS00-13101
32	P0969032	CORD 24G 3W 32"
33	P0969033	TAP SCREW M3-.5 X 8
35	P0969035	BUTTON HD CAP SCR 1/4-20 X 1/2
37	P0969037	SOCKET 5-15
38	P0969038	FUSE 15A 250V 0.25 FAST-ACTING, GLASS
40	P0969040	GEAR COVER
41	P0969041	HEX NUT 3/8-16
45	P0969045	BUTTON HD CAP SCR 10-32 X 2-1/4
46	P0969046	SET SCR 3/8-16 X 5/8 SLOTTED
47	P0969047	EXT TOOTH WASHER #8

REF	PART #	DESCRIPTION
48	P0969048	PHLP HD SCR 8-32 X 1/4
51	P0969051	LOCK NUT 10-24
52	P0969052	LOCK NUT 1/4-20
53	P0969053	LOCK WASHER 1/4
54	P0969054	FLAT WASHER 1/4
56	P0969056	HEX BOLT 1/4-20 X 2-1/2
57	P0969057	UPPER ARM
58	P0969058	KNOB M8-1.25, D50, ROUND KD
59	P0969059	HEX NUT M8-1.25
60	P0969060	SHAFT M8-1.25
61	P0969061	CONTROL BOX
62	P0969062	CROSS BLOCK RETAINER
63	P0969063	HOUSING CROSS BLOCK
64	P0969064	FLAT WASHER 6 X 16 X 2MM
65	P0969065	LOCK NUT M6-1
66	P0969066	BUTTON HD CAP SCR 10-32 X 1/2
67	P0969067	CORD CLAMP
68	P0969068	FLAT WASHER #10
69	P0969069	LOCK NUT 10-32
70	P0969070	BUTTON HD CAP SCR 10-32 X 5/16
71	P0969071	PLUG
72	P0969072	SET SCREW M4-.7 X 5
75	P0969075	STRAIN RELIEF TYPE-3 PG11
76	P0969076	CIRCUIT BOARD KNT2 94U-0 LORD ELEC
84	P0969084	SWITCH BOX
92	P0969092	CORD 18G 2W 32"
93	P0969093	BLADE GUARD UPPER
94	P0969094	BLADE GUARD LOWER
103	P0969103	PROTECTION BRACKET
108	P0969108	FOOT PEDAL ASSEMBLY

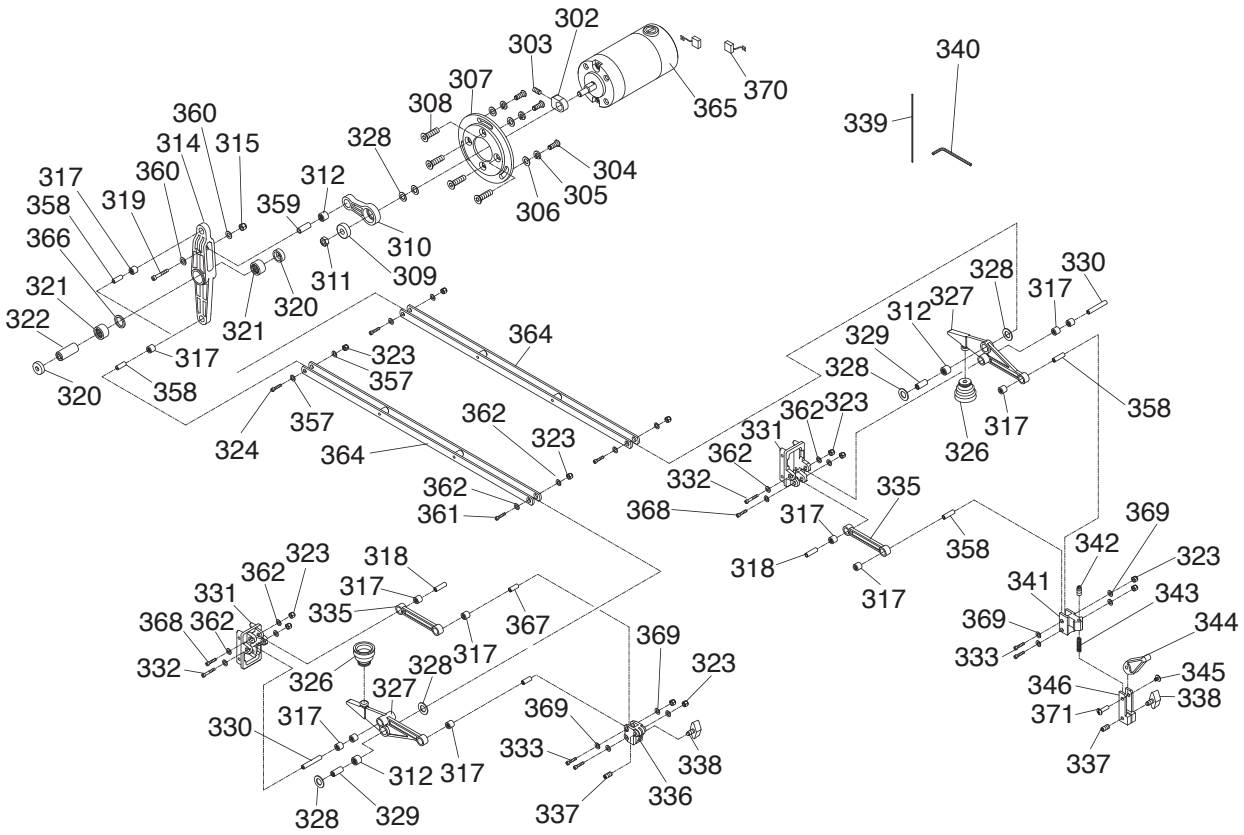
Table & Base



REF	PART #	DESCRIPTION
201	P0969201	TRUNNION
202	P0969202	SIDE PANEL
203	P0969203	TRUNNION PLATE REAR
204	P0969204	TRUNNION PLATE FRONT
205	P0969205	TABLE
207	P0969207	POWER CORD 18G 3W 72" 5-15P
210	P0969210	HEX BOLT 1/4-20 X 1/2
211	P0969211	LOCK WASHER 1/4
212	P0969212	FLAT WASHER 1/4
213	P0969213	FLAT WASHER 12 X 41 X 4.5
214	P0969214	GEAR 12T
215	P0969215	HEX BOLT 1/4-20 X 3/4
216	P0969216	TILT ROD BRACKET
217	P0969217	BUTTON HD CAP SCR 10-32 X 5/16
218	P0969218	FLAT WASHER #10
219	P0969219	FLANGE NUT 1/4-20
220	P0969220	INDEXING BRACKET
221	P0969221	BUTTON HD CAP SCR 1/4-20 X 1
222	P0969222	E-CLIP 3MM

REF	PART #	DESCRIPTION
223	P0969223	BARREL SLEEVE
224	P0969224	COMPRESSION SPRING 8 X 1 X 10.5
225	P0969225	PLUNGER PIN
226	P0969226	TILT KNOB
227	P0969227	FENDER WASHER 1/4
228	P0969228	ADJUSTABLE HANDLE 1/4-20 X 3/4, 1-1/2L
229	P0969229	FLAT HD CAP SCR 1/4-20 X 3/4
235	P0969235	LEVELING FOOT 3/8-16 X 1-1/4
236	P0969236	TILT ROD
237	P0969237	HEX NUT 3/8-16
238	P0969238	INDICATOR
239	P0969239	PHLP HD SCR M4-.7 X 6
240	P0969240	FLAT WASHER 4MM
245	P0969245	SHROUD
246	P0969246	DUST PORT 2-1/2"
248	P0969248	EXT TOOTH WASHER 4MM
249	P0969249	PHLP HD SCR 8-32 X 3/8
250	P0969250	FLAT WASHER #8

Motor & Drivetrain

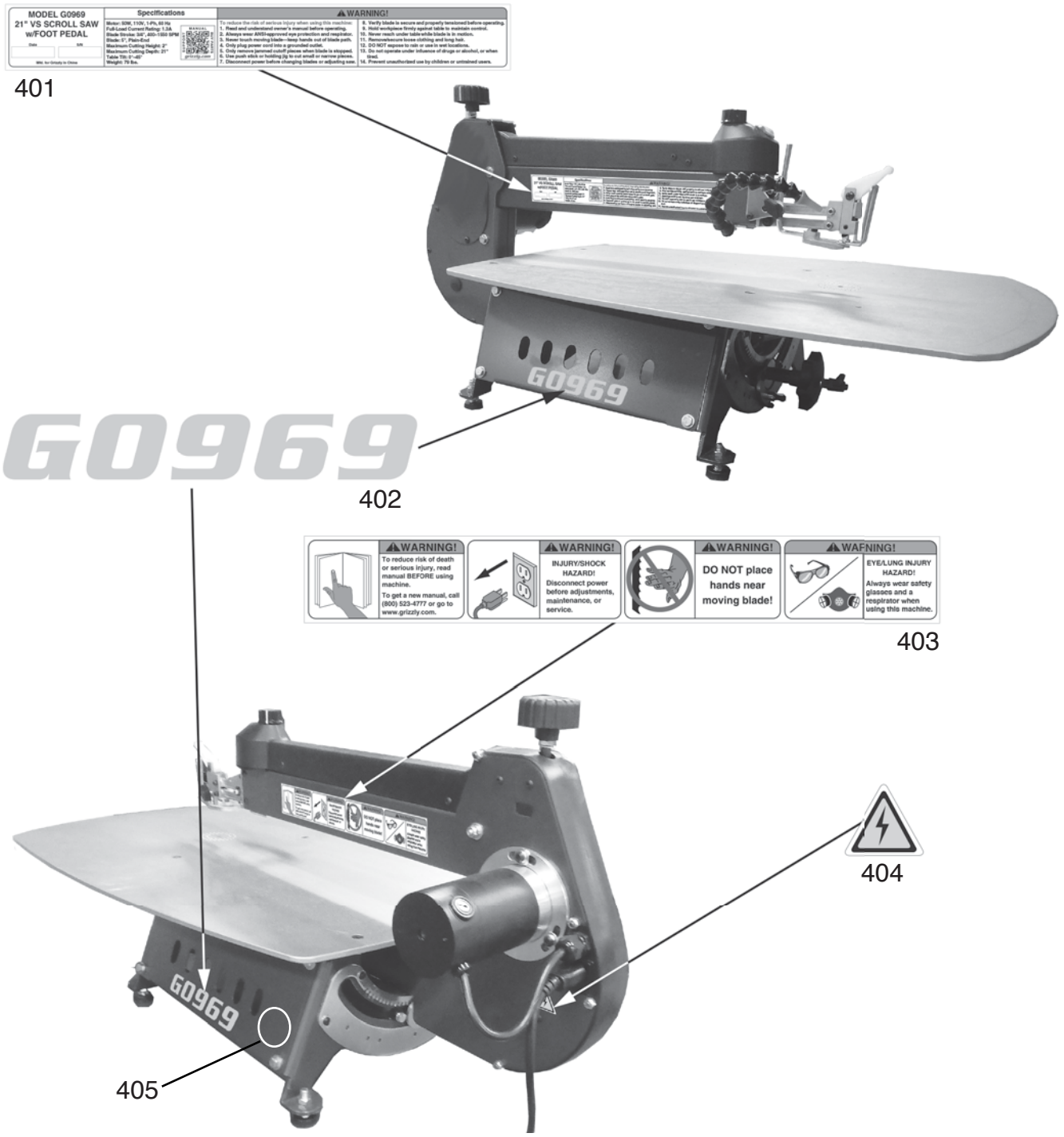


Motor & Drivetrain Parts List

REF	PART #	DESCRIPTION
302	P0969302	BALANCE BLOCK
303	P0969303	SET SCREW M6-1 X 6
304	P0969304	BUTTON HD CAP SCR 1/4-20 X 1/2
305	P0969305	LOCK WASHER 1/4
306	P0969306	FLAT WASHER 1/4
307	P0969307	MOTOR COVER PLATE
308	P0969308	FLAT HD CAP SCR M6-1 X 16
309	P0969309	BALL BEARING 6008ZZ
310	P0969310	MOTOR CAM
311	P0969311	HEX NUT M8-1.25 LH
312	P0969312	BALL BEARING HK0810
314	P0969314	ROCKER CAM
315	P0969315	LOCK NUT M5-.8
317	P0969317	BALL BEARING HK0609
318	P0969318	INNER BEARING SLEEVE 6.03 X 21
319	P0969319	CAP SCREW M5-.8 X 28
320	P0969320	BEARING COVER
321	P0969321	BALL BEARING HK1412
322	P0969322	PIVOT SHAFT
323	P0969323	HEX NUT M4-.7
324	P0969324	CAP SCREW M4-.7 X 25
326	P0969326	BELLOWS
327	P0969327	ROCKER ARM
328	P0969328	FLAT WASHER 8 X 15 X 0.6MM
329	P0969329	INNER BEARING SLEEVE 8 X 18
330	P0969330	INNER BEARING SLEEVE 6 X 37
331	P0969331	ROCKER MOUNT
332	P0969332	CAP SCREW M4-.7 X 45

REF	PART #	DESCRIPTION
333	P0969333	CAP SCREW M4-.7 X 24
335	P0969335	STRUT
336	P0969336	BLADE MOUNT LOWER
337	P0969337	SET SCREW M6-1 X 8
338	P0969338	KNOB BOLT M1/4-20 X 3/4, D1, WIN
339	P0969339	BLADE 5" PLAIN-END
340	P0969340	HEX WRENCH 3MM
341	P0969341	CLAMP BRACKET
342	P0969342	SET SCREW 1/4-20 X 1/2
343	P0969343	COMPRESSION SPRING 8 X 1 X 10.5
344	P0969344	TENSION LEVER
345	P0969345	PHLP HD SCR M4-.7 X 6
346	P0969346	BLADE MOUNT UPPER
357	P0969357	FLAT WASHER 4MM
358	P0969358	INNER BEARING SLEEVE 6 X 16.5
359	P0969359	INNER BEARING SLEEVE 8 X 21.5
360	P0969360	FLAT WASHER 5MM
361	P0969361	CAP SCREW M4-.7 X 27
362	P0969362	FLAT WASHER 4 X 14 X 1.2MM
364	P0969364	DRIVE LINK
365	P0969365	MOTOR 50W 110V 1-PH
366	P0969366	SPACER
367	P0969367	INNER BEARING SLEEVE 6 X 16
368	P0969368	CAP SCREW M4-.7 X 30
369	P0969369	FLAT WASHER 4MM
370	P0969370	MOTOR BRUSH (2-PC)
371	P0969371	BINDING BARREL M4-.7 X 6

Labels & Cosmetics



REF	PART #	DESCRIPTION
401	P0969401	MACHINE ID LABEL
402	P0969402	MODEL NUMBER LABEL
403	P0969403	COMBO WARNING LABEL

REF	PART #	DESCRIPTION
404	P0969404	ELECTRICITY LABEL
405	P0969405	TOUCH-UP PAINT, GRIZZLY GREEN

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.

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.

In the event you need to use 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.

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.

To take advantage of this warranty, you must register it at **https://www.grizzly.com/forms/warranty**, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.