

Grizzly ***Industrial, Inc.*** ®

KNIFE BELT SANDER/BUFFER **MODEL G1015** **INSTRUCTION MANUAL**



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SECTION 1: SAFETY

WARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible dangers. This manual uses a series of symbols which are intended to convey the level of criticality of the safety message. 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** Failure to obey a DANGER symbol and notation WILL result in serious personal injury including loss of life or body parts.

 **WARNING** Failure to obey a WARNING symbol and notation can result in serious injury to yourself and others.

 **CAUTION** Failure to obey a CAUTION symbol and notation may result in minor or moderate property damage or personal injury.

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

WARNING

Safety Instructions For Power Tools

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
5. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
6. **MAKE WORK SHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

WARNING

Safety Instructions For Power Tools

- 9. USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

AMP RATING	LENGTH		
	25ft	50ft	100ft
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

- 10. WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- 13. DON'T OVERREACH.** Keep proper footing and balance at all times.
- 14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.
- 16. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
- 17. USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- 18. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 19. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

WARNING

Additional Safety Instructions For Sanders

1. **BE AWARE OF BELT** or drum rotation when sanding.
2. **KEEP FINGERTIPS AWAY** from the moving belt or drum. Serious injury could result if skin contacts abrasives or moving parts.
3. **NEVER USE EXCESSIVE FORCE** when sanding. Doing this greatly increases the chances of personal injury and motor overload.
4. **ALWAYS FEED THE WORK** against the direction of rotation.
5. **EVEN IF YOU HAVE A** reliable method of dust collection, use a dust mask or respirator when sanding, as well as eye and ear protection.
6. **IF THERE IS ANY** doubt as to the stability or integrity of the material to be sanded, **don't sand it.**
7. **DO NOT OPERATE SANDER** with a damaged or badly worn drum or belt.
8. **WHEN DRUM SANDING**, feed material into the portion of the drum spinning *down* toward the table.
9. **TIE BACK LONG HAIR** and remove any loose-fitting clothing or jewelry that could be caught up in the sander's drum, belt, or other moving machine parts.
10. **HABITS — GOOD OR BAD** — are hard to break. Develop good habits and safety will become second nature to you.

WARNING

Like all power tools, there is danger associated with the Model G1015 Knife Belt Sander/Buffer. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool 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 follow guidelines could result in serious personal injury, damage to equipment or poor work results.

WARNING

Operating this equipment has the potential to launch flying debris which could cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

The Model G1015 is wired for 110/120V, single phase operation only. The 1-HP motor will safely draw 10 amps at 110V. If you operate this sander on any circuit that is already close to its capacity, it might blow a fuse or trip a circuit breaker. However, if an unusual load does not exist and a power failure still occurs, contact a qualified electrician or our service department.



Fusing

A 15-amp fuse or circuit breaker should be used when fusing this sander/buffer. Circuits rated any higher are not adequate to protect the motor from excessive loads.

Equipment returned to us for service that shows evidence of being over-fused will be repaired or replaced totally at the customer's expense, regardless of the present warranty status.



Extension Cords

If you find it necessary to use an extension cord with the Model G1015, make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in Section 1: Safety Instructions to determine the minimum gauge for the extension cord at the distance you require. The extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.



Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current. This tool is equipped with a power cord having an equipment-grounding conductor. **See Figure 1.** The outlet must be properly installed and grounded in accordance with all local codes and ordinances.

⚠️ WARNING

This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. If it is not, it will be necessary to run a separate 12 A.W.G. copper grounding wire from the outlet to a known ground. Under no circumstances should the grounding pin from any three-pronged plug be removed. Serious injury may occur.

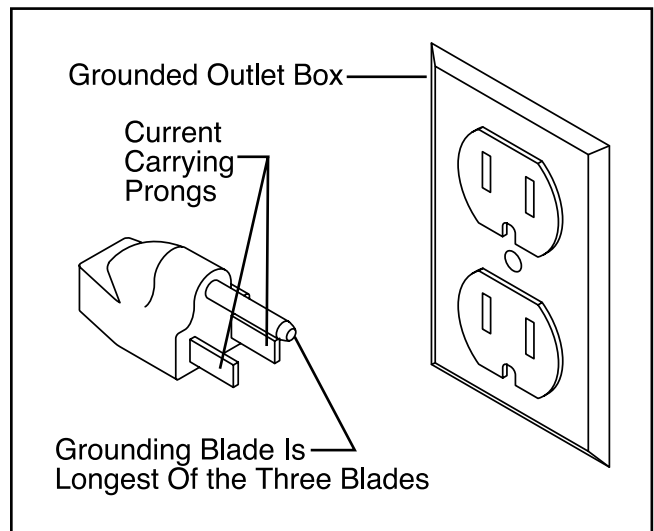


Figure 1. Grounded plug configuration.



SECTION 3: INTRODUCTION

Commentary

We are proud to offer the Grizzly Model G1015 Knife Belt Sander/Buffer. The Model G1015 is part of a growing Grizzly family of fine wood-working 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.

The Model G1015 combines a 2" x 72" belt with a universal $\frac{5}{8}$ " arbor which can accommodate a number of accessories including buffing wheels, drum sanders, or flap sanders (not included). The 2" wide belt enables you to sand small or finely-detailed pieces, or sharpen knives and tool blades as described later in this manual. The G1015 comes complete with motor and electrical package.

A number of sanding drums and belts for the Model G1015 are available through the Grizzly catalog.

We are also pleased to provide this manual with the Model G1015. 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. If you have any comments regarding this manual, please write to us at the address below:

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

Most importantly, 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.
2406 Reach Road
Williamsport, PA 17701
Phone: (570) 326-3806
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>

The specifications, drawings, and photographs illustrated in this manual represent the Model G1015 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. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, we urge you to insert the new information with the old and keep it for reference.

CAUTION

To operate this, or any power tool, safely and efficiently, it is essential to become as familiar with its characteristics as possible. The time you invest before you begin to use your Model G1015 will be time well spent. DO NOT operate this machine until you are completely familiar with the contents of this manual. Make sure you read and understand all of the safety procedures. If you do not understand something, DO NOT operate the machine.



Unpacking

This *Knife Belt Sander/Buffer* is shipped from the manufacturer in two carefully packed cartons. If you discover the machine is damaged after you've signed for delivery, and the truck and driver are gone, you will need to file a freight claim with the carrier. Save the containers and all packing materials for possible inspection by the carrier or its agent. Without the packing materials, filing a freight claim can be difficult. *If you need assistance determining whether you need to file a freight claim, or with the procedure to file one, please contact our Customer Service.*



Figure 2. Overview of parts.

When you are completely satisfied with the condition of your shipment, you should inventory its parts.



Parts Inventory

Figure 2 displays all of the parts you should have after you unpack the boxes. You should have the following items:

- Motor Unit
- Hex Nut, Right Hand Thread
- Shoulder Nut, Left Hand Thread
- Wheel Flanges (2) - $\frac{3}{4}$ " ID
- Wheel Flanges (2) - $\frac{5}{8}$ " ID
- Round Spacer
- Mounting Bracket, Sanding Arm
- Pivot Arm Bracket, w/ Large Bushing
- Lower Pivot Arm
- Upper Sanding Arm Assembly
- Drive Wheel
- Sanding Belt Shoe
- Shoe Mounting Bracket
- Tool Rest Mounting Bracket Assembly
- Tool Rest
- Sanding Belt 100 Grit

The hardware needed to assemble this machine has generally been fastened to the component part. A complete listing of hardware and all detail parts is included in the parts lists and diagrams located at the back of this manual.



Clean Up

Unpainted machine surfaces may be coated with a waxy oil to protect it from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose for clean up.

CAUTION

Many of the solvents commonly used to clean machinery can be highly flammable, and toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards. Keep children and animals safely away when cleaning and assembling this machine.

WARNING

Do not use gasoline or other petroleum-based solvents to remove this protective coating. These products generally have low flash points which makes them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur.



Site Consideration

BENCH LOAD

Your G1015 Knife Belt Sander/Buffer represents a relatively large weight load in a small footprint. Be sure that your workbench is adequately reinforced to support the weight of the machine.

WORKING CLEARANCES

Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Ensure that your working area offers plenty of room for free movement and a substantial amount of distance between you and others that may be working in your shop area.

LIGHTING AND OUTLETS

Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle combined motor amp loads. Outlets should be located near each machine so power or extension cords are not obstructing high-traffic areas. Be sure to observe local electrical codes for proper installation of new lighting, outlets, or circuits.

CAUTION

Make your shop "child safe". Ensure that your workplace is inaccessible to youngsters by closing and locking all entrances when you are away. Never allow visitors in your shop when assembling, adjusting or operating equipment.



SECTION 4: ASSEMBLY

Mounting Base

Before assembly can be completed, the Model G1015 motor base and belt sander base must both be mounted to a bench, or a wooden base, to provide the stability necessary for safe operation. If you choose to create a wooden base for more portable operation, we recommend laminating two 20" x 12" x $\frac{3}{4}$ " pieces of plywood together, or use 1" thick MDF (medium density fiberboard). For a wooden base, you may also want to countersink the underside to accommodate the hex nut and washers so the base will sit flat.

The layout in **Figure 3** provides the recommended pattern for both motor base and sander base mounting. Because of variation in the castings, you may want to drill only the holes for the motor base, then drill the sander base holes later after you have mounted the pivot arm assembly.

Holes should be drilled for $\frac{5}{16}$ " lag bolts ($\frac{1}{4}$ " pilot hole) or $\frac{5}{16}$ " machine bolts ($\frac{1}{2}$ " diameter will allow some minor adjustment). Mounting hardware is not included. If using machine bolts, use a lock washer secured between a flat washer and the nut to ensure the bolt will not loosen during operation. Continue with the mounting procedure as described in the following pages.

CAUTION

All die-cut metal parts have a sharp edge (called "flashing") on them after they are formed. This is generally removed at the factory. Sometimes a bit of flashing might escape inspection, and the sharp edge may cause cuts or lacerations when handled. Please examine the edges of all die-cut metal parts and file or sand the edge to remove the flashing before handling them. Failure to do so could result in injury.

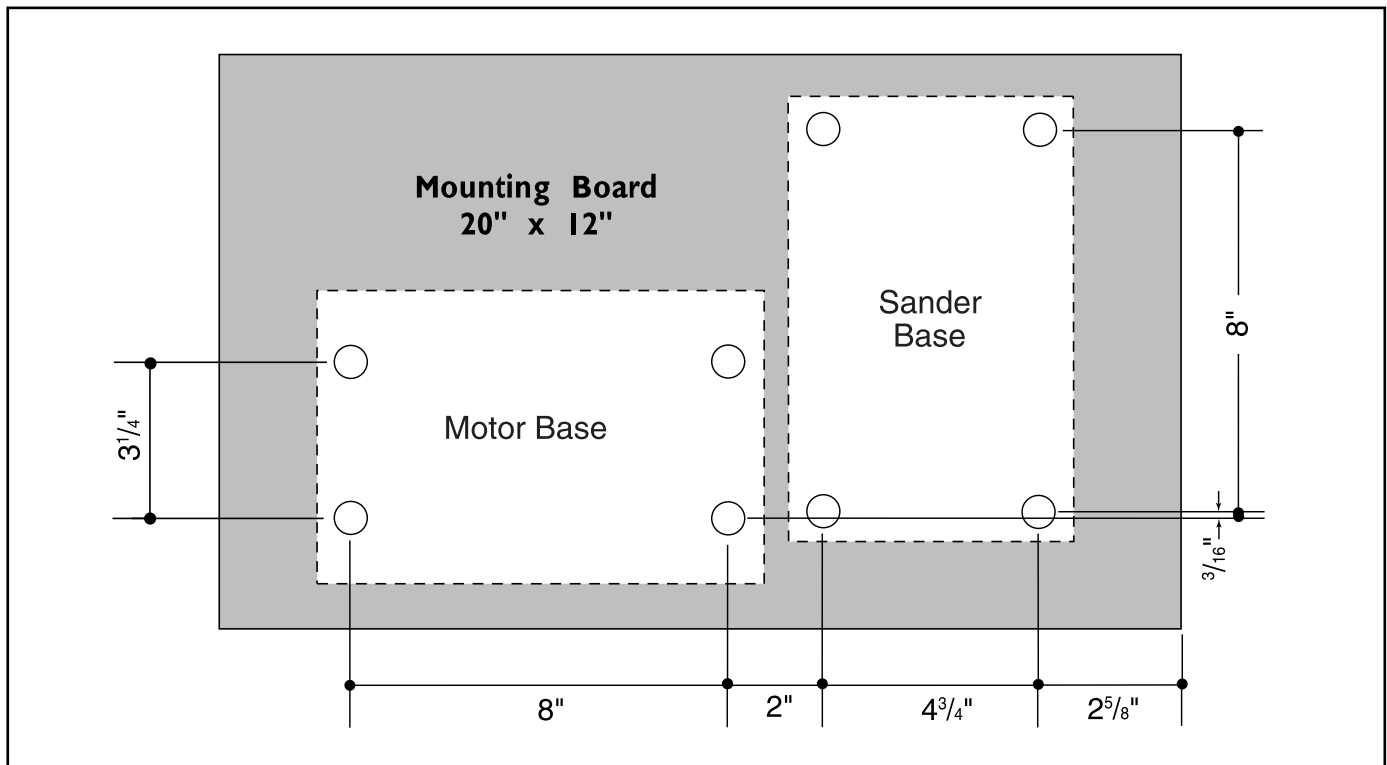


Figure 3. Bolt pattern for base. All dimensions are measured at hole centers.

Motor

Place the motor over its mounting holes as shown in **Figure 4** and secure with $\frac{5}{16}$ " machine bolts or $\frac{5}{16}$ " lag bolts.



Figure 4. Motor secured to base.



Pivot Arm

1. Secure the round mounting spacer to the end bell of the motor using three (3) $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ " cap screws. **See Figure 5.** Make sure the cap screws go into the countersunk side of the spacer plate. The flat edge of the spacer should be positioned at the 10 o'clock position if you are looking directly at the end of the motor.

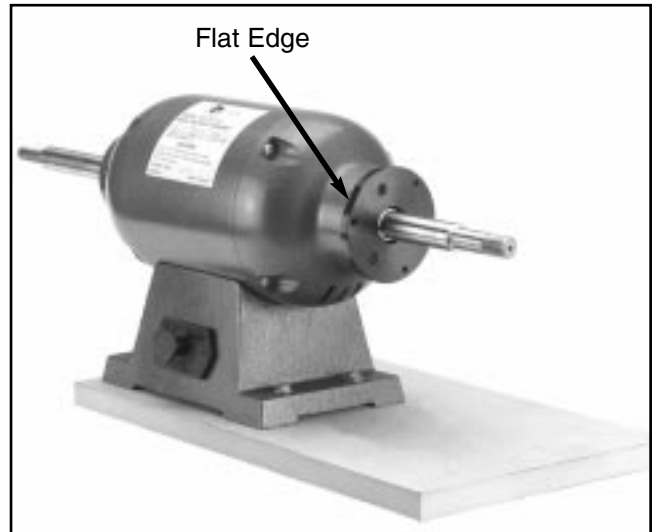


Figure 5. Mounting spacer to end bell.

2. Back off the two setscrews at the bottom of the pivot arm and remove it from the pivot arm bracket. This is a tight fit and it may require moving the arm back and forth to get it to come off of the bushing. Assemble the pivot arm bracket to the mounting bracket as shown in **Figure 6.** Align the open ended slots with the three (3) $\frac{5}{16}$ " - 18 x 1" cap screws which are already threaded into place on the two brackets. Leave these cap screws loose for now. If there are setscrews installed on the two brackets, these may be removed, they are no longer used for the current method of assembly.

Slide this assembly over the shaft on the right hand side of the motor. Use three (3) $\frac{1}{4}$ " - 20 x $\frac{1}{2}$ " cap screws to attach the pivot arm bracket to the spacer.

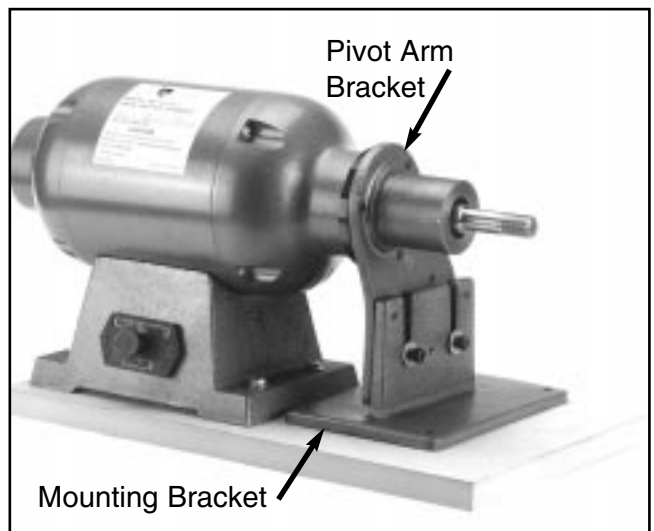


Figure 6. Bracket assembly attachment.
G1015 Knife Belt Sander/Buffer

3. Tighten the three (3) $\frac{5}{16}$ " - 18 x 1" cap screws which hold the pivot arm bracket to the mounting bracket. Make sure this assembly is pushed far enough back that the bottom of the pivot arm bracket is approximately parallel to the base.
4. The mounting bracket can now be attached to the base or benchtop. Drill holes for the bracket using the four holes in the bracket as a guide (if you did not already pre-drill these holes). Secure with $\frac{5}{16}$ " machine bolts or $\frac{5}{16}$ " lag bolts.
5. Reattach the pivot arm by sliding it onto the bushing. The two welded bosses should be pointed outward as shown in **Figure 7**. Tighten the two setscrews on the pivot arm. After assembly, the belt sander can be tilted at any angle from vertical to horizontal by loosening and tightening those two setscrews.

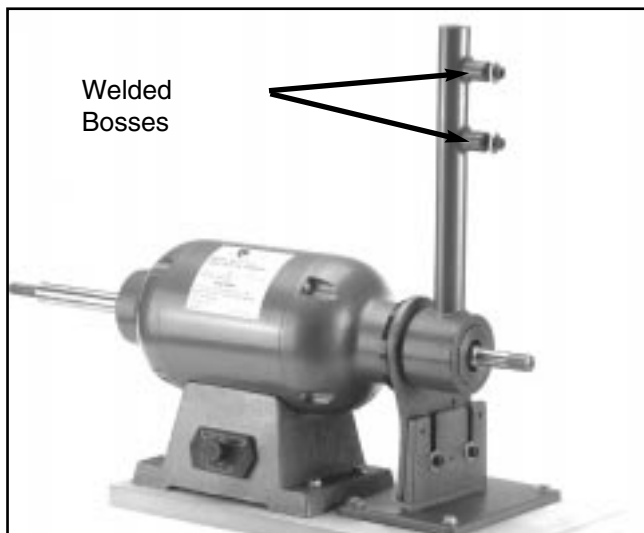


Figure 7. Pivot arm adjustment.



Drive Wheel

The drive wheel propels the sanding belt. To secure the drive wheel to the motor shaft:

1. Slide a wheel flange, cupped side out, over the motor shaft.
2. Slide the drive wheel over the motor shaft
3. Secure with the motor shaft hex nut. **See Figure 8.**

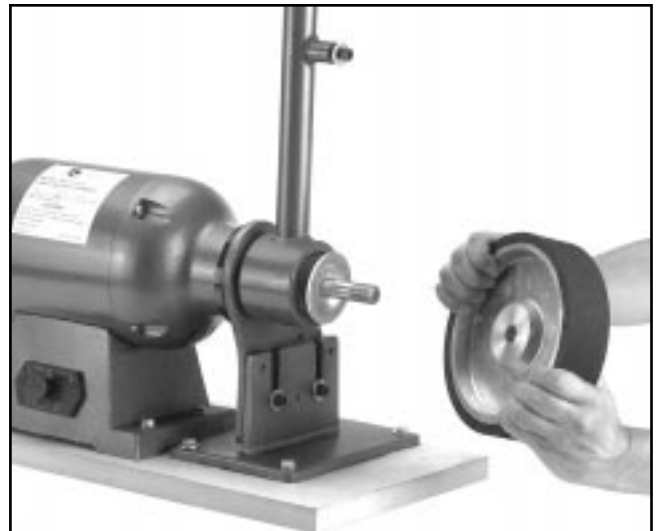


Figure 8. Attaching drive wheel.



Upper Arm Assembly

To attach the upper sanding arm assembly:

1. Make certain the two (2) setscrews on the bottom of the pivot arm are firmly tightened. When the additional weight of the upper arm assembly is added, you do not want the pivot arm to flop over.
2. Remove the two (2) hand knobs from the pivot arm and slide the upper sanding arm assembly into the lower pivot arm. The sanding arm should seat on the collar.
3. Align the holes and replace the hand knobs and tighten. **See Figure 9.**



Figure 9. Tightening sanding arm knobs.



Sanding Belt Shoe

Attach the sanding shoe mounting bracket assembly to the pivot arm and secure the two (2) cap screws with a 6 mm Allen® wrench.

Now attach the shoe with the graphite surface to the mounting bracket as shown in **Figure 10.** Secure these two (2) cap screws with a 6 mm Allen® wrench. Both of these sets of mounting bolts are slotted and allow adjustment of the shoe in and out, and side to side. After the belt is installed you will want to do a final adjustment to the shoe so it just makes light contact with the back of the belt, and make certain it is centered on the belt.

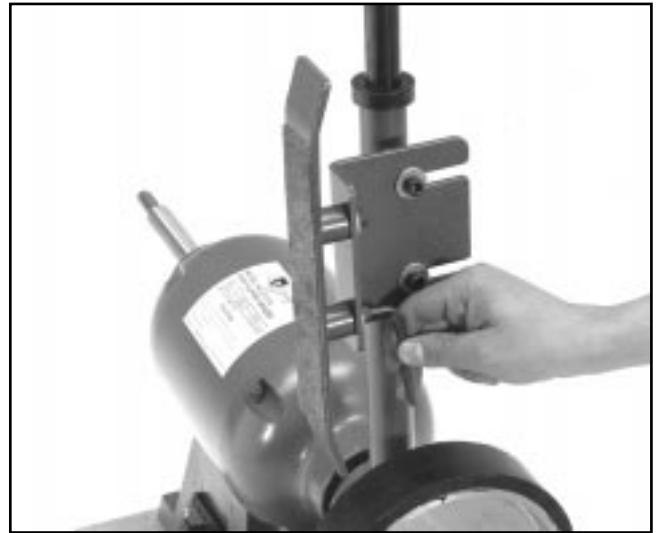


Figure 10. Attaching sanding belt shoe.



CAUTION

Do not attempt to turn on the machine until assembly and adjustments are completed. Turn off the power switch and ensure that the machine is unplugged. Failure to do so could result in serious operator injury.

Belt Installation

To install or replace the sanding belt:

1. If you are using a different length belt than the one supplied (72") you will need to adjust the distance between the two wheels. See Section 5: Adjustments, Belt Tension for more detail.
2. Locate a position where the belt fits snugly over both the upper and lower drive wheels.
3. Remove the belt and raise the upper assembly approximately $\frac{1}{4}$ ". Tighten the two (2) knobs.
4. Depress the belt tensioning knob. **See Figure 11.**
5. After making sure that the direction arrows on the belt match the direction of movement, slip the belt over the upper and lower drive wheels and center it on the wheels.

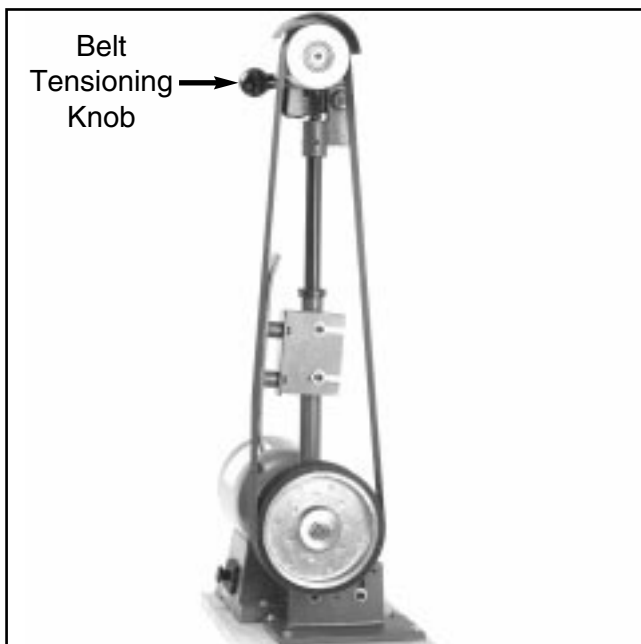


Figure 11. Attaching sanding belt.



Tool Rest

The tool rest provides secure, angle-adjustable support for your workpiece while sanding. To install the tool rest:

1. Attach the tool rest bracket to the pivot arm bracket with the $\frac{5}{16}$ " - 18 x 1" cap screw and flat washer included. **See Figure 12.**
2. Attach the tool rest to the tool rest bracket with the $\frac{5}{16}$ " - 18 x $\frac{3}{4}$ " cap screw and flat washer included.



Figure 12. Tool rest attachment

CAUTION

Sanding or polishing operations can be performed against either the sanding shoe of the drive wheel as a backstop. If sanding against the drive wheel, remove the tool rest and its support bracket to make sure the workpiece does not jam against the rest. This can create a pinch point trapping a finger against the belt.



SECTION 5: Adjustments

Belt Tension

The Model G1015 features a self-tensioning mechanism which automatically applies tension to the sanding belt. If you are using a different length belt than the one supplied (72") you will need to adjust the distance between the two wheels. To adjust the tensioning:

1. Pull down the tensioning knob and remove the sanding belt.
2. Loosen the hand knobs on the pivot arm and raise or lower the upper assembly to increase or decrease the distance between the wheels. **See Figure 13.** You may need to loosen the stop collar to allow the necessary movement.

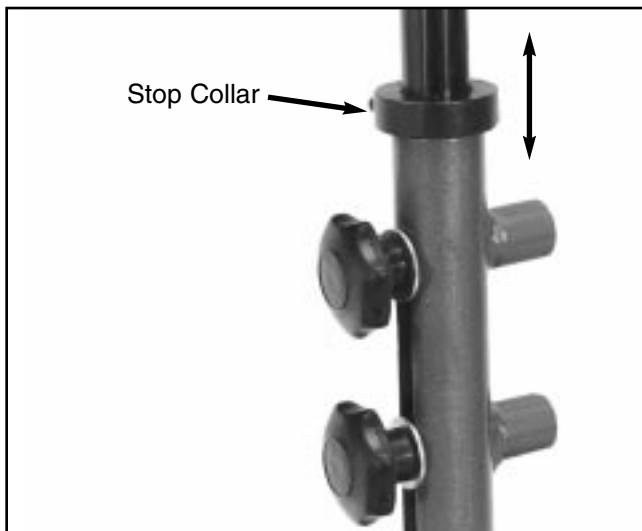


Figure 13. Length adjustment for upper arm.

3. Replace the sanding belt onto the wheels and inspect for tension. Be sure the tracking adjustment is set so the upper wheel shaft is almost perpendicular. The belt should deflect approximately $\frac{1}{2}$ " inch when you press against it. Check it on the back loop of the belt where it comes up from the drive wheel to the upper wheel. This way the deflection will not be affected by the sanding shoe. Repeat step 2 if needed.



Tool Rest

The tool rest should be adjusted so it is positioned in front of the sanding belt shoe's graphite surface. The clearance between the tool rest and the belt should be no more than $\frac{1}{8}$ " to ensure that nothing can become trapped between the belt and the rest. The angle of the rest relative to the belt surface can be adjusted by loosening the cap screw, adjusting the rest angle and re-tightening the cap screw.

The height of the tool rest can also be adjusted by removing the two (2) $\frac{5}{16}$ " - 18 x $1\frac{1}{4}$ " cap screws holding the two halves of the tool rest bracket together. Selection of different hole combinations results in varying lengths. The tool rest should be set high enough so that it is located over the graphite pad portion of the sanding shoe.



Belt Tracking

Proper angulation between the upper and lower drive wheels will result in a sanding belt which remains centered during operation. To adjust for proper tracking:

1. Turn the drive wheel several revolutions by hand. If the belt begins to shift from its center position to the right or left, tracking adjustment will be needed. Be careful when adjusting to make sure the belt does not run off the lower drive wheel and hit the mounting bracket. The edge of the sanding belt can be easily damaged.
2. Continue to hand rotate the belt and with your other hand, turn the large tracking knob at the top of the arm right or left until the belt centers itself on the upper wheel. **See Figure 14.**

If the belt will not track properly, it is possible that realignment of the wheels is required.

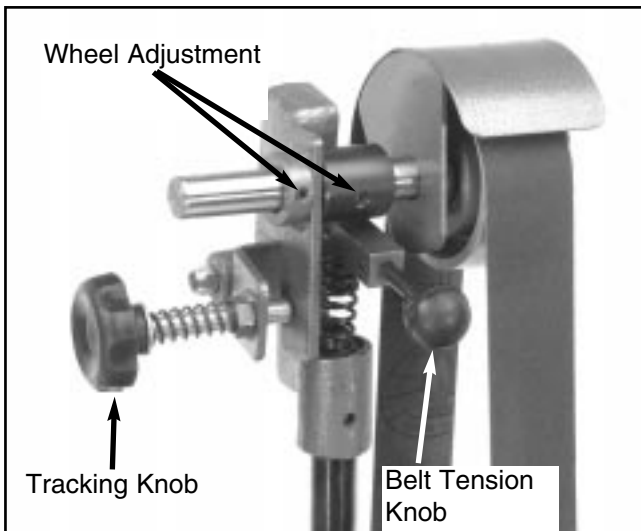


Figure 14. Upper arm tracking adjustments.

Since the lower drive wheel positioning is fixed, tracking adjustment requires aligning the upper wheel:

1. Loosen the two (2) setscrews and slide the upper wheel shaft in or out until it is approximately the same distance out as the lower wheel. A straightedge can be used to aid in this alignment. Tighten the setscrews.
2. Reinstall the sanding belt and repeat the tracking procedure outlined in Steps 1 and 2.

If the belt is still not staying properly positioned, it could be that the entire upper head assembly is rotated out of position. Loosen the two setscrews at the top of the upper arm post. Sight down on the assembly and visually align the top wheel so it is parallel with the drive wheel. Tighten the setscrews.

The final solution to tracking problems is to lightly bevel the edge of the rubber surface of the drive wheel. Sometimes the edge of the wheel is raised just enough to cause problems. Use a rasp lightly against the running drive wheel to just slightly relieve the edge of the wheel surface. **See Figure 15.**



Figure 15. Relieving edges of drive wheel.



SECTION 6: Operations

Test Run

Before you put your Belt Sander/Buffer into use, give it a quick inspection. Before inspecting, ensure that the machine is switched off and disconnected from its power source.

1. Are all mounting fasteners tight?
2. Is the sanding belt properly tracked and tensioned?
3. Rotate the drive wheel slowly by hand. Look and listen for any scraping noises or anything that impedes smooth movement. Make appropriate adjustments before attempting to run the machine.
4. If the sander appears to be free of problems that might affect its operation, plug it in to its power source and start the machine. Be sure to keep a finger on the OFF button, just in case of a problem with the machine. Run the machine briefly to allow inspection of belt tracking.
5. Turn off the machine, disconnect it from its power source, and re-inspect for loose fasteners. If the tracking is not correct, refer to the tracking adjustment guidelines in the Adjustments section.

WARNING

Never use the Model G1015 for applications other than those for which it was made. DO NOT overload the machine or use excess force when sanding. Severe personal injury, damage to the machine, or damage to your workpiece could occur.



Belt Sanding

The sanding belt can be used to sand wood or metal. We recommend aluminum oxide sanding belts for wood and silicon carbide for metal. Always be sure the belt is properly installed so the direction of rotation arrows follow the direction of rotation of the drive wheel. This keeps the seam in the belt oriented so it will not catch on the workpiece. The 2" belt width, used in conjunction with the graphite-faced sanding shoe provides an excellent surface for angular sanding or polishing.

The tool rest should always be adjusted so it is no more than 1/8" away from the belt surface. This helps to assure that nothing can get trapped between the rest and the belt.

Figure 16 shows a typical wood sanding operation with the tool rest perpendicular to the belt surface. The tool rest can be checked for squareness to the belt by placing a machinist's square or try square on the tool rest and adjusting the angle of the rest.



Figure 16. Belt sanding wood.

The belt can also be used for knife grinding and sharpening. **Figure 17** depicts a typical knife edge grinding operation. Generally this will be done with the tool rest removed.

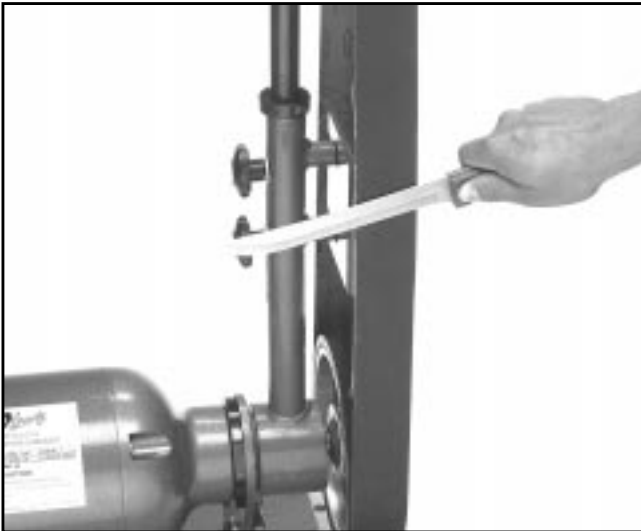


Figure 17. Typical knife sharpening technique.

The belt can also be used for contour sanding. It is best when doing this type of operation to remove the graphite faced sanding shoe so the belt can flex to conform better to the shape you are sanding. **See Figure 18.**



Figure 18. Contour sanding, shoe removed.

The sanding arm can also be tilted to a horizontal position if desired. **See Figure 19.** This can be more convenient for certain types of sanding or polishing operations. Make sure the arm is secured in the horizontal position with the two setscrews on the bottom of the pivot arm. It will also be necessary to adjust the tool rest so it is in the proper orientation for horizontal use. If you are going to sand against the contour of the drive wheel itself, the tool rest should be removed so it will not interfere with access.

Be certain before attempting to tilt the sanding arm that the motor and mounting bracket are firmly attached to a benchtop or base.

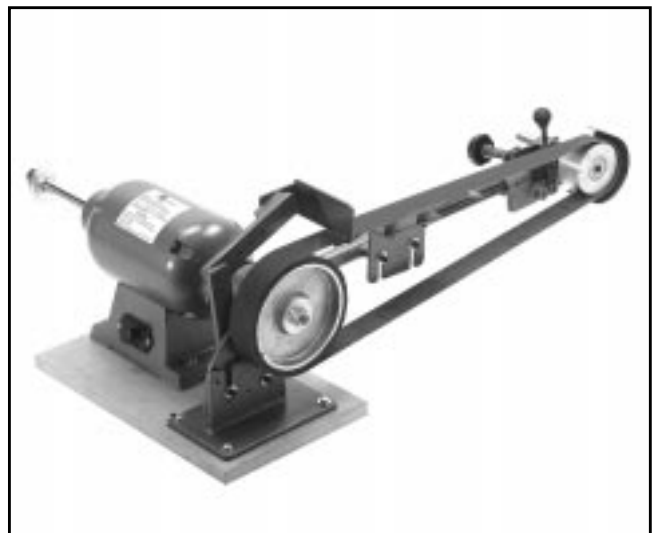


Figure 19. Pivot arm in horizontal position.



Buffing & Polishing

For buffing and polishing, Grizzly offers a broad selection of buffing wheels and polishing compounds that are very well suited for use with the Model G1015. Please refer to our current catalog. The auxiliary motor shaft arbor accepts buffing wheels with a $\frac{5}{8}$ " bore. **See Figure 20.**

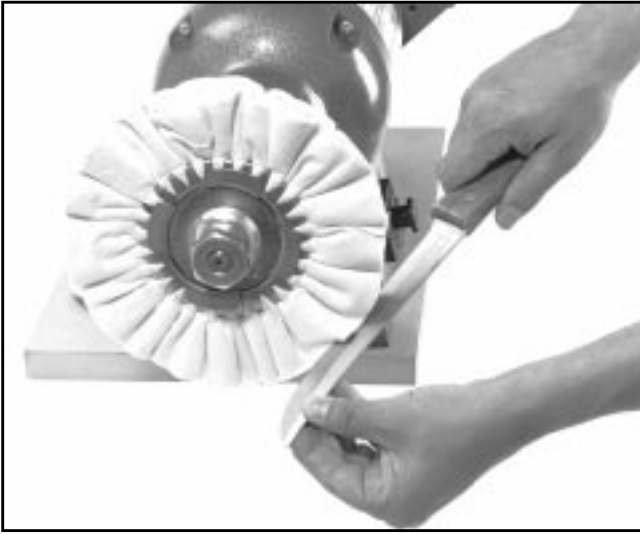


Figure 20. Optional buffing wheel attached.

To buff and polish:

1. Make sure the machine is off and the power cord is unplugged. Remove the left-handed nut at the end of the shaft.
2. Sandwich an optional buffing wheel between two wheel flanges and slide onto the shaft.
3. Tighten the nut with one hand while holding the shaft with the other. The left-handed rotation will ensure that the nut stays tight during operation.
4. With a brand new buffing wheel it is necessary to charge the wheel with compound before the first use. Follow the directions which come with the buffing wheel and compound.

5. If facing the front of the machine, buffing and polishing should be done on the bottom of the wheel. **See Figure 21.**

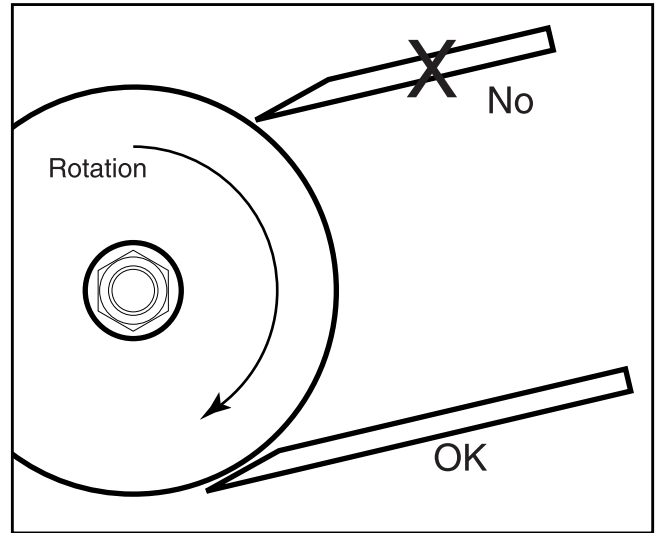


Figure 21. Buffing on the bottom of the wheel.

!WARNING

Never introduce a sharp edge of a workpiece into the direction of rotation. Always work with the rotation direction. Workpieces can be pulled from your grasp if forced into the wheel, or if too much pressure is used while buffing. Serious personal injury could result.

6. Firmly grasp the item to be polished with both hands. Lightly and evenly move the item across the face of the wheel until the surface is polished. Use extra care when polishing plated materials. Over-buffing can completely remove plating when exposed to the abrasive wheel for too long.

!WARNING

Pieces of the buffing wheel or buffing compound can be expelled from the machine at extremely high speeds. Always wear ANSI-approved safety glasses to avoid injury to your eyes.



Drum Sanding

To sand using the optional pneumatic sanding drum:

1. Slide the optional sanding drum onto the shaft so the valve end is near the end of the shaft. Secure with the shaft nut provided. It is not necessary to use wheel flanges with the drum. **See Figure 22.**



Figure 22 Sanding drum attached.

2. Ensure that the nut seats into the sanding drum. Tighten the nut while holding the sanding drum or the belt drive wheel. Use care not to pinch your fingers against the pivot arm bracket.
3. Slide sanding sleeve onto the drum. Ensure that the arrows on the inside of the sleeve correspond to the direction of the drum movement. If the sleeve has no arrows, slide the sleeve on the drum so the overlap is at the trailing edge of the drum movement. **See Figure 23.**

NOTICE

Do not use a compressor to inflate the pneumatic sanding drum, it is too easy to over-inflate. Use a hand-operated pump only, and check the inflation pressure with a suitable gauge.

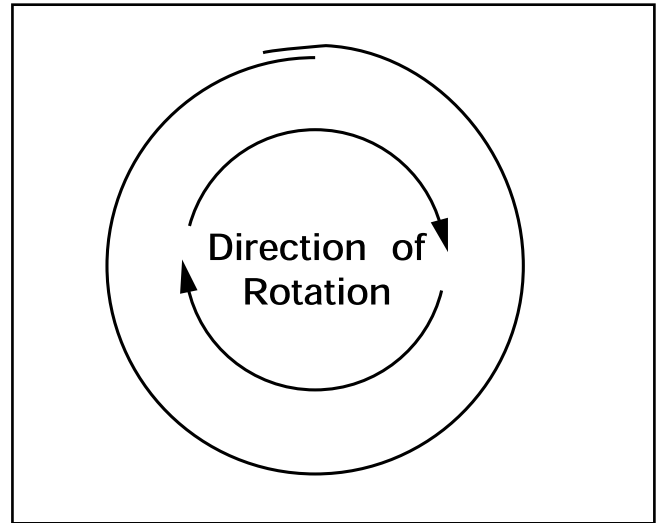


Figure 23. Recommended sleeve overlap.

4. Inflate the drum using a bicycle pump or hand pump. **DO NOT** over-inflate. The recommended air pressure for the drum is 10 psi.
5. Turn on the machine and apply light, even pressure between the workpiece and the sanding drum.

NOTICE

Machine sanding has the capability of removing large amounts of material very rapidly. Be sure to check on the progress of your sanding frequently to avoid removing more material than is desired.



Accessory Removal

To remove buffing or sanding attachments, ensure that the switch is in the OFF position and the power cord is disconnected. Hold onto the shaft or drum sander with one hand and loosen the nut with a wrench. If the shaft slips inside of the drum, loosen the nut while holding the belt sander drive wheel. Remember: the auxiliary wheel has left-hand (reverse) threads.



SECTION 7: MAINTENANCE

General

Make a habit of inspecting your sander each time you use it. Check for the following conditions and repair or replace when necessary.

1. Loose mounting bolts.
2. Worn switch.
3. Worn or damaged cords and plugs.
4. Poor belt tensioning / tracking.



Lubrication

The motor and sanding arm bearings are shielded and pre-lubricated and require no lubrication.

The inside bore of the pivot arm is already coated with grease which allows smooth movement of the arm around the bushing. In the event you need to disassemble the pivot arm at a later date, it is always a good idea to replace this grease (use a multi-purpose grease).



Belts and Drums

The sanding belt supplied with your G1015 is a 100 grit aluminum oxide belt suitable for general purpose wood sanding. Other applications, such as metal sanding and polishing will require different types of belts, both in composition and in grit. Please consult the latest Grizzly catalog for a complete selection of sanding media for all your project needs.

To replace the belt, see Section 4: Assembly Belt Installation.

If the replacement belt is a different length than the original belt, it may be necessary to re-adjust the upper assembly as described in the Section 5: Adjustments, Belt Tension.



WARNING

Operating this equipment has the potential to launch flying debris which could cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams/lists, troubleshooting guide and Warranty/Return information for your Model G1015 Knife Belt Sander/Buffer.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in Section 3: Introduction. The specifications, drawings, and photographs illustrated in this manual represent the Model G1015 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered as they apply to your specific situation.

WARNING

Operating this equipment has the potential to launch flying debris which could cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department listed in *Section 3: Introduction*.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines, and your local library are good places to start.

WARNING

The Model G1015 was specifically designed for sanding operations only. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE. Modifications or improper use of this tool will void the warranty.** If you are confused about any aspect of this machine, **DO NOT** use it until you have answered all your questions. **Serious personal injury may occur.**

WARNING

Like all power tools, there is danger associated with the Model G1015 Knife Belt Sander Buffer. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.



TROUBLESHOOTING - MOTOR

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	<ol style="list-style-type: none"> 1. Low voltage. 2. Open circuit in motor or loose connections. 	<ol style="list-style-type: none"> 1. Check power line for proper voltage. 2. Inspect all lead connections on motor for loose or open connections.
Motor will not start; fuses or circuit breakers blow.	<ol style="list-style-type: none"> 1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> 1. Inspect cord or plug for damaged insulation and shorted wires. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Install correct fuses or circuit breakers.
Motor fails to develop full power (power output of motor decreases rapidly with decrease in voltage at motor terminals).	<ol style="list-style-type: none"> 1. Power line overloaded with lights, appliances, and other motors. 2. Undersized wires or circuits too long. 3. General overloading of power company facilities. 	<ol style="list-style-type: none"> 1. Reduce load on power line. 2. Increase wire sizes or reduce length of wire. 3. Request a power check from the power company.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Air circulation through the motor restricted. 	<ol style="list-style-type: none"> 1. Reduce load on motor. 2. Clean out motor vents underneath housing to provide normal air circulation.
Motor stalls (resulting in blown fuses or tripped circuit).	<ol style="list-style-type: none"> 1. Short circuit in motor or loose connections. 2. Low voltage. 3. Incorrect fuses or circuit breakers in power line. 4. Motor overloaded. 	<ol style="list-style-type: none"> 1. Inspect connections on motor for loose or shorted terminals or worn insulation. 2. Correct the low voltage conditions. 3. Install correct fuses or circuit breakers. 4. Reduce load on motor.
Machine slows down when operating.	Applying too much pressure to workpiece.	Feed workpiece slower.

TROUBLESHOOTING - OTHER

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Abrasive belt runs off top wheel.	Not tracking properly.	<ol style="list-style-type: none"> 1. Adjust upper wheel with tracking knob. 2. Make sure upper wheel is aligned with drive wheel. 3. Sanding shoe may be interfering. Adjust so it is square to the belt. 4. Bevel the outer edges of the drive wheel slightly.
Belt breaking or tearing prematurely.	<ol style="list-style-type: none"> 1. Belt tension too tight. 2. Belt rotation incorrect. 3. Inferior quality belt. 	<ol style="list-style-type: none"> 1. Adjust tension by changing height of upper arm assembly. 2. Make sure belt direction arrows are going in the right direction. 3. Purchase different type or quality belt.
Belt makes grinding noise when started.	<ol style="list-style-type: none"> 1. Belt rubbing against upper or lower housings. 2. Tool rest interfering with belt. 3. Graphite surface of sanding shoe worn out. 4. Upper wheel bearings worn or damaged. 	<ol style="list-style-type: none"> 1. Adjust belt tracking. 2. Adjust tool rest clear of belt surface. 3. Replace graphite pad. 4. Replace bearings.
Pivot arm will not rotate to horizontal.	<ol style="list-style-type: none"> 1. Arm held by locking setscrews. 2. Arm needs lubrication. 	<ol style="list-style-type: none"> 1. Loosen both setscrews. 2. Remove pivot arm and grease bushing.

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.

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