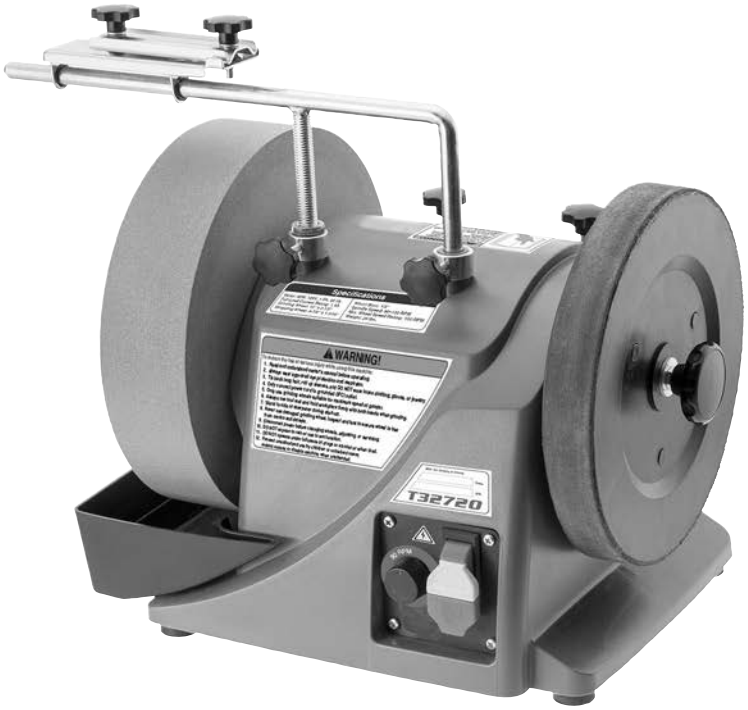
MODEL T32720
10" VARIABLE-SPEED WET SHARPENER
OWNER'S MANUAL
(For models manufactured since 06/21)



#CS21901 PRINTED IN CHINA V1.02.23

⚠ 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

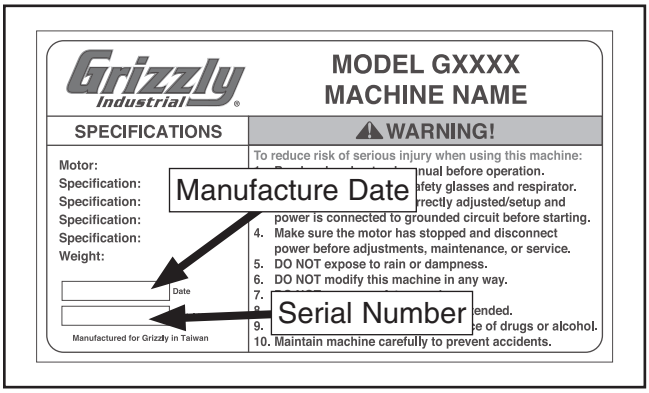
Manual Accuracy

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**.

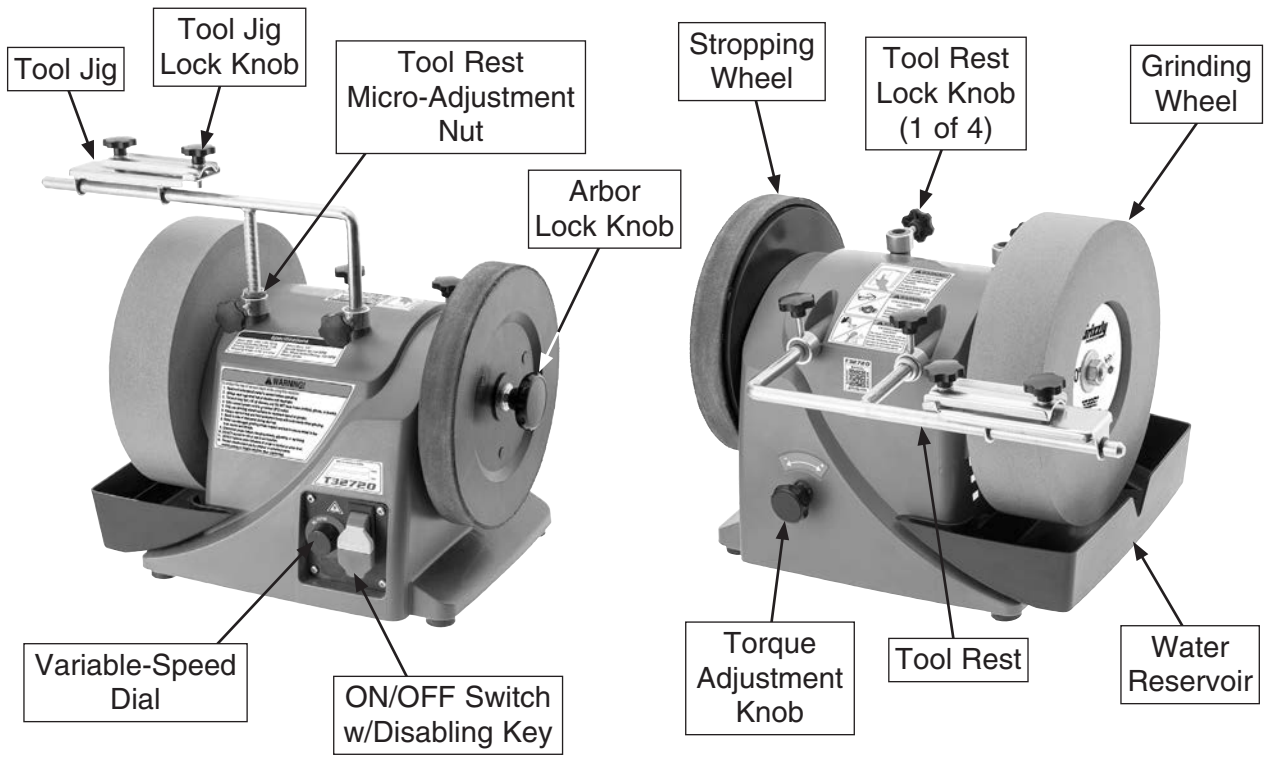
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

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.



⚠WARNING

For Your Own Safety Read Instruction Manual Before Operating Grinder

a) Wear eye protection.
b) Use grinding wheel suitable for speed of grinder.

⚠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.

Controls & Components

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.

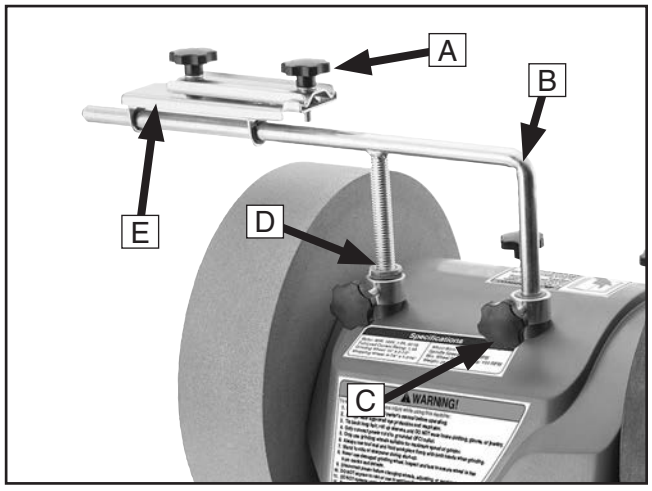


Figure 1. Tool rest components.

A. Tool Jig Lock Knob (1 of 2): Loosens to adjust tool jig position or angle and tightens to secure.

B. Tool Rest: Mounts in three different positions to support tool or tool jig as required for operation.

C. Tool Rest Lock Knob (1 of 4): Secures tool rest at desired mounting position.

D. Tool Rest Micro-Adjustment Nut: Adjusts position of tool rest, in relation to grinding or stropping wheel.

E. Tool Jig: Securely clamps workpiece at desired angle and position.

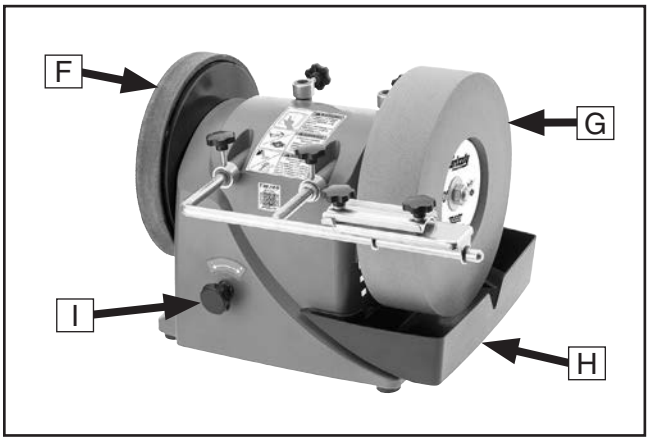


Figure 2. Grinding and stropping components.

F. Stropping Wheel: Spins to sharpen or "strop" workpiece.

G. Grinding Wheel: Spins to grind workpiece.

H. Water Reservoir: Holds water to cool grinding wheel during operation, preventing excessive heat and sparks.

I. Torque Adjustment Knob: Adjusts drive wheel tension to adjust torque.

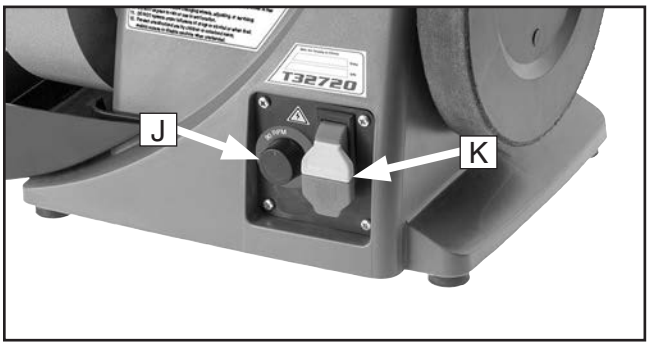
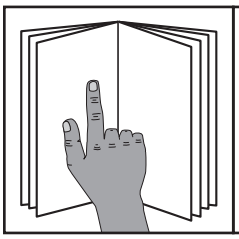


Figure 3. Control panel components.

J. Variable-Speed Dial: Rotates to adjust grinding/stropping wheel speed.

K. ON/OFF Switch w/Disabling Key: Turns motor ***ON*** when moved up; turns motor ***OFF*** when moved down. When key is removed, switch is disabled and machine cannot start.



⚠WARNING

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

MACHINE DATA SHEET

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

MODEL T32720 10" VARIABLE-SPEED WET SHARPENER

Product Dimensions:

Weight	26 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	18-1/2 x 15-1/2 x 15 in.
Footprint (Length x Width)	11-1/2 x 9 in.

Shipping Dimensions:

Type	Cardboard Box
Content	Machine
Weight	28 lbs.
Length x Width x Height	17 x 13 x 15 in.
Must Ship Upright	No

Electrical:

Power Requirement	120V, Single-Phase, 60 Hz
Full-Load Current Rating	1.4A
Minimum Circuit Size	15A
Connection Type	Plug & Cord
Power Cord Included	Yes
Power Cord Length	78 in.
Power Cord Gauge	18 AWG
Plug Included	Yes
Included Plug Type	1-15
Switch Type	Paddle Safety Switch w/Disabling Key

Motors:

Main

Horsepower	80W
Phase	Single-Phase
Amps	0.65A
Speed	1950 - 3250 RPM
Type	Universal
Power Transfer	Direct
Bearings	Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type	Internal

Main Specifications:

Operation Info

Grinder Type	Benchtop
Right Wheel Material	ABS/Leather (Stropping)
Left Wheel Material	Aluminum Oxide (Grinding)
Right Wheel Diameter	8-7/8 in.
Left Wheel Diameter	10 in.
Right Wheel Thickness	1-3/16 in.
Left Wheel Thickness	2-1/2 in.
Wheel Bore	1/2 in.
Minimum Wheel Speed Rating	150 RPM

Spindle

Spindle Speed	90 - 150 RPM
Spindle Diameter	1/2 in.
Right Spindle Diameter	8mm
Right Spindle Thread Pitch	1.25 TPI
Right Spindle Thread Direction	Right-Hand
Right Spindle Length	1 in.
Left Spindle Diameter	12mm
Left Spindle Thread Pitch	1.75 TPI
Left Spindle Thread Direction	Left-Hand
Left Spindle Length	1-7/8 in.

Table Info

Work Rest Width	1-5/8 in.
Work Rest Length	5-1/4 in.
Work Rest Thickness	1/16 in.
Work Rest Tilt	360 deg.

Construction

Base	Plastic
Work Rest	Steel
Coolant Trough	Plastic

Other Specifications:

Country of Origin	China
Warranty	1 Year
Serial Number Location	Machine ID Label

Features:

Work Rest Micro-Adjustment
Includes Tool Jig & Angle Guide
Variable-Speed Dial
Leather Stropping Wheel
220-Grit Aluminum-Oxide Grinding Wheel

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 clothing, apparel 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 Wet Sharpeners

⚠WARNING

Serious injury or death can occur from impact injuries if grinding wheel breaks apart during use. Entanglement/amputation injuries can occur from being caught in moving parts or in-running pinch points. Flying sparks can ignite explosive or flammable materials. Rotating grinding wheels can easily remove skin. To minimize risk of getting hurt or killed, anyone operating machine MUST completely heed hazards and warnings below.

AVOIDING ENTANGLEMENT. Becoming entangled in moving parts can cause severe injury or death. Keep all guards and covers in place; DO NOT wear loose clothing, gloves, or jewelry; and tie back long hair.

STARTING SHARPENER. If grinding wheel is damaged, it will usually fly apart shortly after startup. To protect yourself, always stand to side of sharpener when turning it ***ON*** and allow it to run for at least one minute before standing in front of it. Never grind with wheel that vibrates.

WHEEL SPEED RATING. Wheels operated at a faster speed than rated for may break apart during operation. Before mounting a new wheel, be sure wheel RPM rating is equal to or higher than speed of sharpener. Never use unmarked wheels or wheel rated for a lower speed than sharpener.

NEWLY GROUND TOOLS WILL BE HOT. Cutting tools can be sharp and get hot during grinding operations. Use leather gloves or shop rags to protect your hands when installing or removing cutting tools from tool jig or clamp. Remove gloves before operating sharpener.

EYE, FACE, & LUNG PROTECTION. Grinding ejects small particles at a high rate of speed. These particles can cause blindness, skin injuries or respiratory damage. ALWAYS wear approved clothing, safety goggles, face shield, and respirator for type of grinding.

HAND & WHEEL CONTACT. Keep firm grip on workpiece and position hands safe distance away when grinding. Anticipate when workpiece will heat up, and cool it before it becomes too hot to hold, or use appropriate clamp. Avoid wearing gloves as they may get caught in grinding wheel and cause more serious entanglement injuries.

TOOL REST POSITION. The space between the tool rest and grinding wheel forms an "in-running nip point" gap which may cause workpiece to be pulled down, leading to loss of control and pulling your hand into grinding wheel. Keep this in mind when operating to avoid pinching, crushing, and abrasion injuries.

SIDE GRINDING. Grinding on side of grinding wheel can cause it to crack and burst—unless wheel is rated for side grinding.

WHEEL INSPECTION. Verify that grinding wheel is free of cracks, chips, or dents in wheel surface before installing. Do not use wheel if it has any of these problems or it could break apart during operation. Replace wheel or shaft bearings immediately. Perform a "ring test" on grinding wheel before installation to ensure it is safe to use. A wheel that does NOT pass ring test may break or fly apart during operation.

WHEEL ATTACHMENT. Do not use warped or damaged washers to mount grinding or stropping wheel. Only tighten grinding wheel spindle nut enough to drive wheel and prevent slippage to reduce risk of cracking grinding wheel when tightening.

TRANSPORT. Carry sharpener by holding base. DO NOT use universal support as handle, as it can slide out. Dropping sharpener could result in crushing injuries and property damage.

WATER LEVEL. Do not dry grind on this machine. Dry grinding or insufficient water can overheat and damage wheel, damage workpiece, and increase airborne dust. A damaged wheel could break apart during operation and cause impact injuries. Always maintain proper water level in water reservoir while operating grinding wheel.

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 120V .... 1.4 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.

120V Circuit Requirements

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

Nominal Voltage 110V, 115V, 120V
Cycle ..... 60 Hz
Phase ..... Single-Phase
Power Supply Circuit ..... 15 Amps

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.*

Polarized Plug

To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

When servicing use only identical replacement parts.

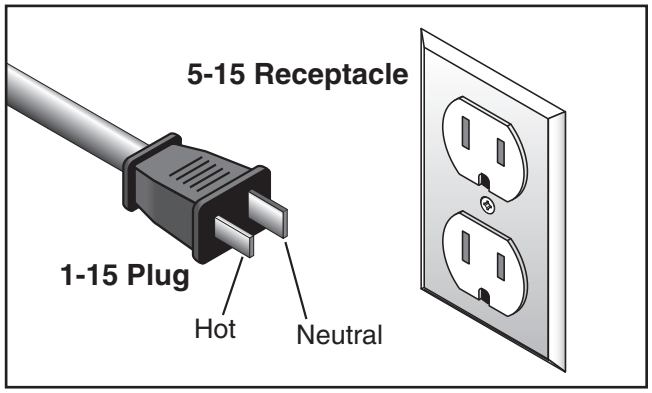


Figure 4. Typical 1-15 plug and 5-15 receptacle.

Extension Cords

When using extension cords, make sure the cords are rated for outdoor use. Outdoor use cords are marked with a "W-A" or a "W" to signify their rating. Always check to make sure that the extension cords are in good working order and free of any type of damage, such as exposed wires, cuts, creased bends, or missing prongs.

Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes. When using extension cords, always choose the shortest cord possible, with the greatest-sized gauge.

Below is a list of minimum gauge sizes needed for running this tool at different lengths:

25 Feet.....18AWG
50 Feet.....16AWG
100 Feet.....16AWG
Over 100 Feet..... Not Recommended

SECTION 3: SETUP

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.*

Needed for Setup

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

Description	Qty
• String or Cord 24"	1
• Screwdriver w/Plastic Handle	1
• Open-End Wrench or Socket ¾"	1

⚠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.

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.

Inventory (Figure 5)	Qty
A. Grinding Wheel 220-Grit	1
B. Tool Jig	1
C. Lock Knobs ¾"-24 x ⅞"	2
D. Angle Guide	1
E. Tool Rest	1
F. Abrasive Stropping Paste	2.5 Oz.

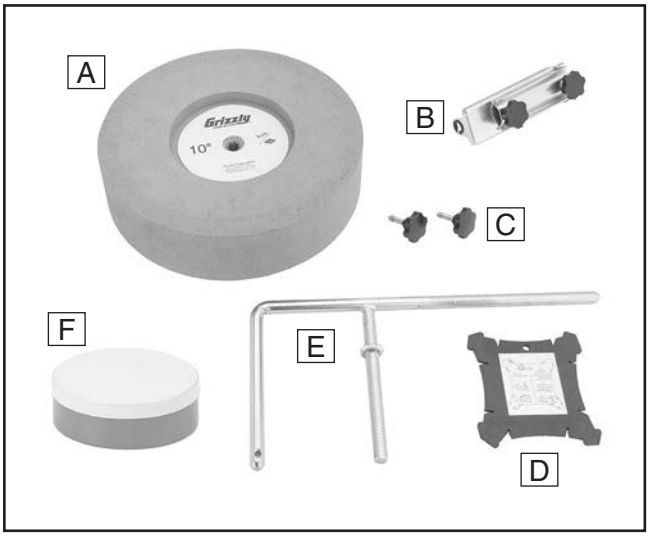


Figure 5. Inventory.

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.

Site Considerations

Workbench Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

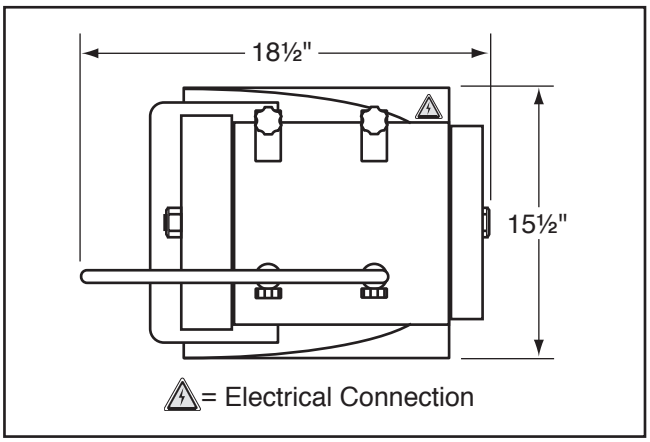
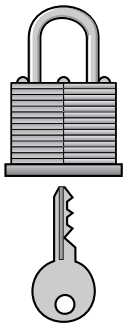


Figure 6. Minimum working clearances.



⚠CAUTION

Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.

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 assemble machine:

1. Loosen torque adjustment knob all the way (see **Figure 7**).

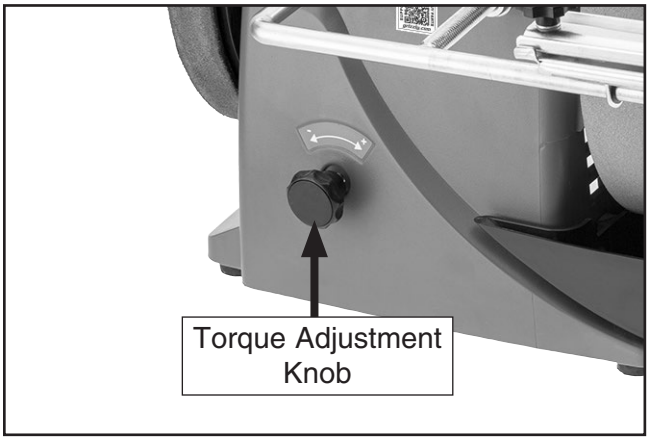


Figure 7. Location of torque adjustment knob.

2. Turn machine on its side to access inside of base and remove foam packaging.

3. Push motor down as far as it will go (see **Figure 8**).

4. Tighten torque adjustment knob until cap on shaft contacts motor (see **Figure 8**).

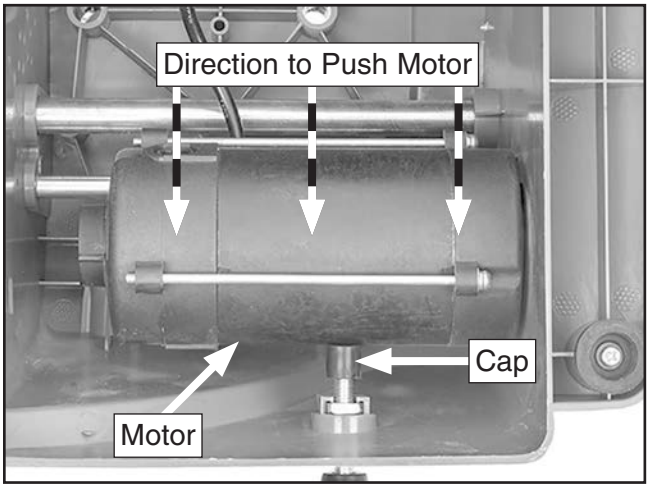


Figure 8. Torque adjustment knob tightened so cap contacts motor.

5. Turn machine right-side up.

6. Inspect grinding wheel for flaws before installing (refer to **Inspecting Grinding Wheel** on **Page 19**).

— If wheel is *damaged*, replace wheel before proceeding with **Assembly**.

— If wheel is *undamaged*, proceed to **Step 7**.

7. Remove grinding wheel arbor hex nut and outer washer (see **Figure 9**).

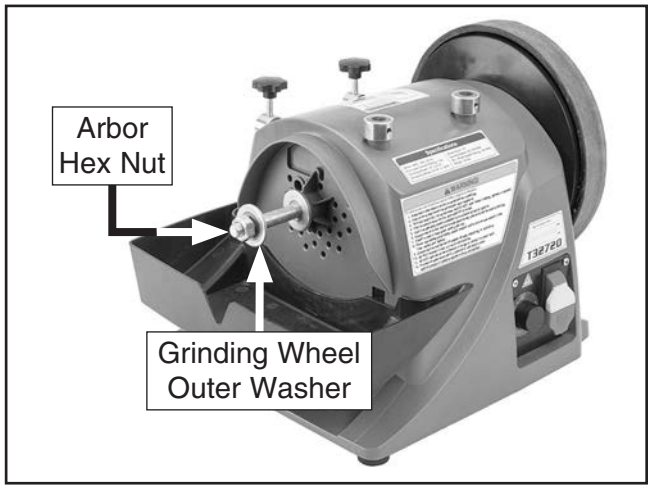


Figure 9. Location of grinding wheel arbor hex nut and outer washer.

8. Mount grinding wheel components in order shown in **Figure 10**. Tighten arbor hex nut snugly but do not over-tighten. Over-tightening can stress and crack wheel.

— Paper discs or "blotters" should always be used to absorb any pressure from mounting hardware to prevent wheel from cracking. Grinding wheel that ships with this sharpener already comes with a blotter present on each side. Part number PT32720105 on **Page 36** can be used to replace missing or damaged blotter before proceeding and performing **Test Run**. If replacing with a different grinding wheel, refer to wheel manufacturer to obtain correct blotters.

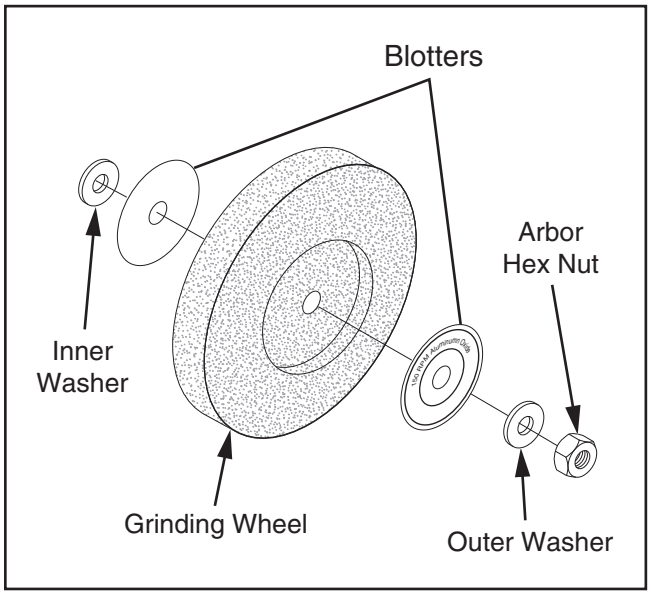


Figure 10. Assembly order for wheel installation.

9. Install (2) lock knobs at locations shown in **Figure 11**.

Figure 11. Lock knobs installed on machine.

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, and 2) the switch disabling key disables the switch properly.

⚠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. Turn variable-speed dial all the way counterclockwise and make sure ON/OFF switch is in OFF position (see **Figure 12**).

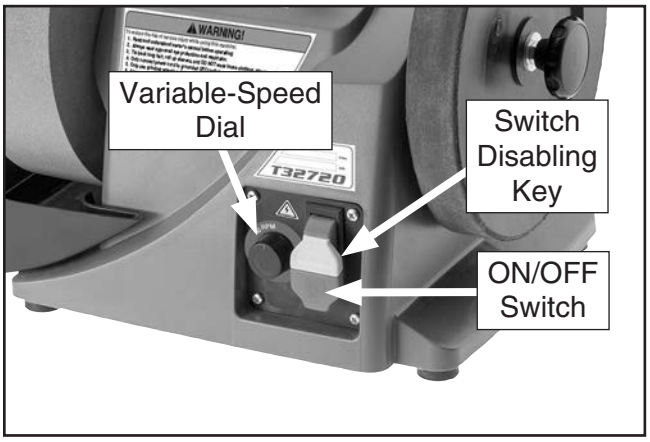


Figure 12. Control panel components.

3. Connect machine to power supply.

4. Move ON/OFF switch up to turn machine ***ON*** (see **Figure 12**).

5. Verify motor operation by slowly turning variable-speed dial clockwise. Rotate dial back and forth to test variable-speed function.

   Motor should run smoothly and without unusual vibrations or noises.

6. Turn variable-speed dial all the way counterclockwise, then move ON/OFF switch down to turn motor ***OFF***.

7. Remove switch disabling key (see **Figure 12**).

8. Try to start machine with ON/OFF switch. The machine should not start.

   — If machine *does not* start, switch disabling feature is working correctly. Congratulations! Test Run is complete.

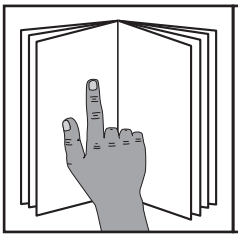
   — If machine *does start*, immediately stop machine. Switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

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.

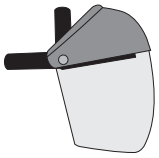


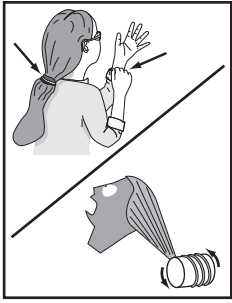
⚠WARNING

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

⚠WARNING

Eye and face injuries and respiratory problems can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.





⚠WARNING

Keep hair, clothing, and jewelry away from moving parts at all times. Entanglement can result in death, amputation, or severe crushing injuries!

Typical Grinding Operation

The grinding function of the Model T32720 will sharpen dull cutting edges on tools to keep them cutting or carving their best.

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

1. Examines workpiece to make sure it is suitable for grinding.
2. Selects correct wheel for type of workpiece, inspects wheel to ensure there are no cracks or damage, performs a "ring test," and installs wheel.
3. Adjusts tool rest and tool jig as needed for operation.
4. Secures workpiece in tool jig and adjusts workpiece angle if necessary.
5. Ensures ON/OFF switch is in OFF position and connects machine to power supply.
6. Puts on personal protective equipment (PPE).
7. Fills water reservoir.
8. Stands aside, turns machine ***ON***, allows wheels to reach full speed, and runs machine for at least one minute to ensure grinding wheel does not fly apart from centrifugal force of rotation.
9. Grinds workpiece.
10. During and after grinding operation, quenches workpiece as required to prevent surface hardening or temper loss.
11. Stops machine.

Typical Stropping Operation

The stropping function of the Model T32720 will polish cutting edges and remove fine burrs left after grinding.

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

1. Examines workpiece to make sure it is suitable for sharpening.
2. Installs tool rest in horizontal position over stropping wheel to sharpen with wheel rotation.
3. Secures workpiece in tool jig (if necessary).
4. Applies light machine oil and abrasive honing paste to stropping wheel.
5. Ensures ON/OFF switch is in OFF position and connects machine to power supply.
6. Puts on personal protective equipment (PPE).
7. Stands aside, turns machine ***ON***, and distributes honing paste on leather face of wheel until it is evenly applied.
8. Rests workpiece (or jig, if used) against tool rest and sharpens workpiece.
9. Stops 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.

Workpiece Inspection

Some workpieces are not suitable for grinding on this sharpener. **Before grinding, inspect all workpieces for the following:**

- ***Hard Workpiece:*** Workpieces that are made of stone, carbide, stainless steel, ceramics, glass, or have hardened welds will wear out most general-grade grinding wheels quickly. If hard materials are to be ground, you must install the correct type of grinding wheel.
- ***Soft Workpiece:*** Workpieces that are made of aluminum, brass, lead, and other nonferrous metals will load up in the grinding wheel and render the abrasive useless. Grinding wood, plastics, rubber, fiberglass, or other soft materials can also cause the same problem and lead to the wheel overheating and possibly bursting during use if ignored. To restore a loaded grinding wheel surface, redress with a dressing tool.
- ***Flexible/Unstable Workpiece:*** Grinding on the side or the ends of cable, chain, or round workpieces creates the hazard of workpiece twist or grab, leading to entanglement with the wheel or shaft. This hazard must be avoided.
- ***Loose Parts:*** Make sure that the workpiece is free of any parts like springs, pins, balls, or other components that may loosen or dislodge during grinding, and hit the operator.
- ***Strength:*** Make sure that the workpiece is strong enough to be ground. Should it break, the broken piece may dig into the wheel and cause kickback or severe injury.

Selecting Grinding Wheel

The Model T32720 sharpener only accepts Type 5 grinding wheels with a ½" bore.

Aluminum-oxide and silicon-carbide wheels are marked in a somewhat uniform manner by all the major manufacturers. Understanding these markings will help you understand the capabilities of various wheels. Always refer to the manufacturer's grinding recommendations when selecting a wheel for your project.

The basic format for wheel numbering is:

Prefix	Abrasive Type	Grit Size	Grade	Bond Type
1	A	60	L	V

The **Prefix** is the manufacturer's designation for a particular wheel type (eg. Type 1 wheels).

The most common **Abrasive Types** used are A for Aluminum Oxide, C for Silicon Carbide, and occasionally SG for Seeded Gel.

The **Grit Size** is a number that refers to the size of the abrasive grain in the wheel. The lower the number, the coarser the wheel. Ten is a very coarse wheel for roughing and 220 is usually the upper range for fine finish work.

Grade is an indication of the hardness of the wheel—"A" being softest and "Z" being hardest.

Bond Type refers to the type of bonding material used to hold the abrasive material. Most general purpose wheels will have a "V" indicating Vitrified Clay is used. Vitrified Clay provides high strength and good porosity. The other common bond type is "B" for resin where synthetic resins are used. These are used to grind cemented carbide and ceramic materials.

Note: *There may be other numbers inserted that have meaning for a particular type of wheel. Refer to the manufacturer's technical data for a complete explanation.*

Caring for Grinding Wheel

When grinding, your safety depends to a large degree on the condition of the wheel. A wheel in poor condition presents the possibility of breaking apart during rotation and injuring the operator and bystanders in the area.

Tips to help you avoid breaking the wheel:

- Always transport, store and handle wheels with care. Wheels may be damaged if they are dropped or if heavy objects are stacked on them.
- Select the right grinding wheel for the job. DO NOT grind material inappropriate for the wheel type.
- Only use wheels that are rated for the RPM of the sharpener.
- Mount the wheel properly (see **Installing/ Removing Grinding Wheel** on **Page 22**).
- DO NOT push the workpiece into the grinding wheel with such force that it causes the sharpener to bog down. DO NOT apply pressure to stop wheel after turning sharpener ***OFF***.
- Dress the wheel when necessary (see **Maintaining Grinding Wheel** on **Page 28**). Do not allow it to become glazed. Dress wheel so the surface is parallel with the universal support.
- DO NOT store wheels in damp or wet locations.
- DO NOT overtighten the nut when mounting the wheel.
- DO NOT leave the wheel mounted when machine is not in use.
- Use older grinding wheels first and refer to manufacturer's information to prevent wheels from outlasting their shelf life.

Inspecting Grinding Wheel

Before mounting a new grinding wheel, it must be inspected. Do not assume that a wheel is in sound condition just because it is new—often damage can occur in shipping, with age, or with exposure to moisture.

First, do a **Visual Inspection**. Look for any cracks, chips, nicks or dents in the surface of the wheel. If you see any of these, DO NOT use the wheel.

Second, do a **Ring Test**. This test will give you an indication of any internal damage that may not be obvious during a visual inspection.

To perform ring test:

1. Make sure grinding wheel tested is clean and dry; otherwise, you may get false results.

2. If size permits, balance grinding wheel with your finger in mounting hole. If this is not possible, hang wheel in air with a piece of cord or string looped through mounting hole.

3. At spots shown in **Figure 13**, gently tap grinding wheel with a light non-metallic device such as handle of a screwdriver or a wooden mallet.

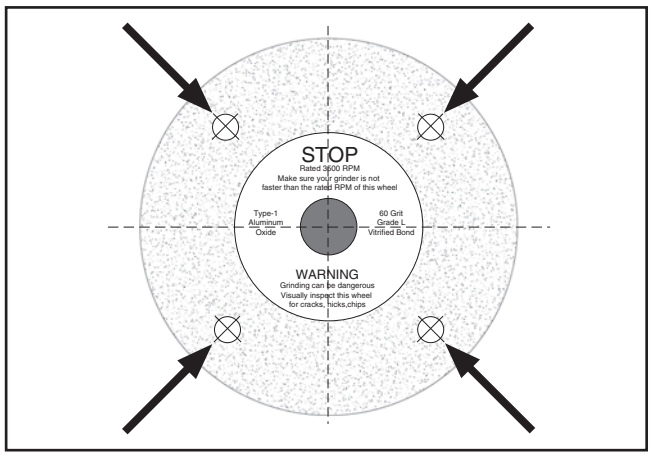


Figure 13. Tapping locations when performing a ring test.

Note: *Finding exact spot to tap may take several attempts.*

— An undamaged grinding wheel will emit a clear metallic ring or “ping” sound in each of these spots. A damaged grinding wheel will respond with a dull thud that has no clear tone.

— If you determine from ring test that grinding wheel is damaged, DO NOT use it!

Adjusting Torque

The torque adjustment knob adjusts the pressure of the motor shaft against the drive wheel. If you notice either of the wheels "slipping" or not rotating at a constant rate during operations, the torque needs to be adjusted.

To adjust torque:

1. Turn machine ***ON*** and begin operation.

— If wheel rotates at constant rate while applying workpiece pressure, torque is adjusted correctly.

— If wheel *does not* rotate at constant rate while applying workpiece pressure, torque is not adjusted correctly. Turn torque adjustment knob clockwise until wheel does not slip while desired workpiece pressure is applied (see **Figure 14**).

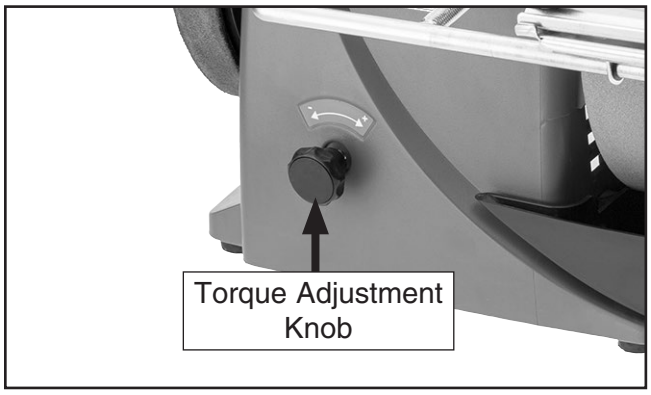


Figure 14. Location of torque adjustment knob.

2. Turn machine ***OFF***.

Note: *Turn torque adjustment knob counterclockwise to release motor pressure when sharpener is not in use to preserve torque components.*

Installing Tool Rest

The Model T32720 is equipped with a tool rest that can be mounted vertically or horizontally. It serves as an attachment point for jigs and other accessories and provides a solid place to rest workpieces. A micro-adjustment nut fine-tunes the height of the tool rest, and the lock knobs at each attachment point quickly secure the position.

To install tool rest:

1. DISCONNECT MACHINE FROM POWER!

2. Insert tool rest into desired mounting holes (see **Figure 15**). Refer to **Grinding Wheel Rotation** on **Page 23** to determine what position is needed for grinding operation.

3. Turn micro-adjustment nut shown in **Figure 15** to adjust tool rest height.

4. Tighten (2) lock knobs shown in **Figure 15** to secure tool rest position.

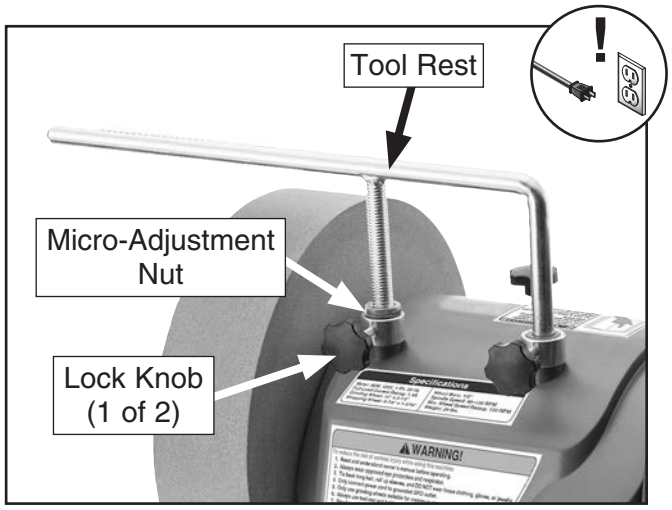


Figure 15. Tool rest inserted in vertical mounting holes.

NOTICE

Tool rest should never be placed in vertical mounts for use with stropping wheel. Working against wheel rotation will cause severe damage to stropping wheel.

Using Tool Jig

The tool jig is designed to secure a variety of tools during operations to hold them steady for a good flat edge.

To use tool jig:

1. DISCONNECT MACHINE FROM POWER!

2. Slide tool jig onto tool rest (see **Figure 16**).

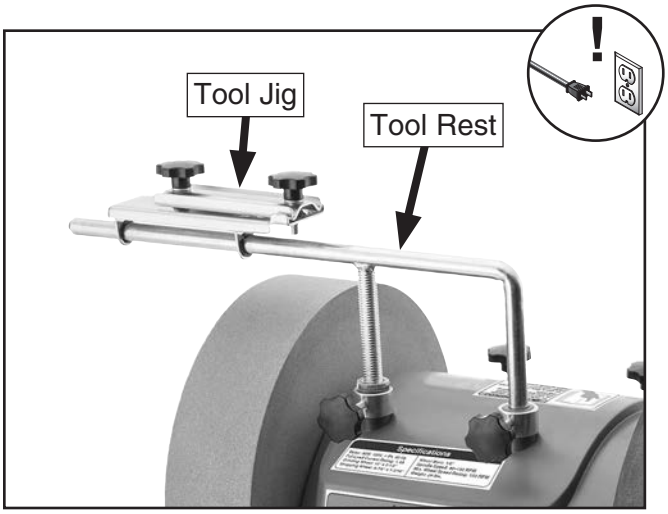


Figure 16. Tool jig mounted on tool rest.

3. Insert tool between faces of jig clamp, as shown in **Figure 17**, and tighten (2) tool jig lock knobs.

   Note: *Set grinding tool angle before tightening lock knobs (refer to **Setting Tool Angle** on **Page 21**).*

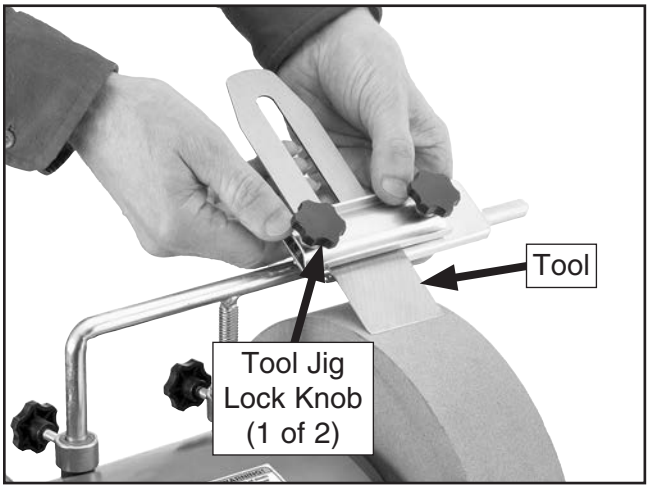


Figure 17. Tool secured in tool jig.

Setting Tool Angle

The Model T32720 comes with an angle guide to help identify and maintain the cutting angle on a workpiece for grinding operations.

Note: *Grinding wheels wear smaller through use, so the angle guide will be most accurate with a new, 10" diameter wheel.*

To set tool angle:

1. Determine angle notch (see **Figure 18**) that best fits the tool you wish to grind by placing beveled edge of tool into notches.

2. Place desired angle notch against grinding wheel so angle guide edge creates guide for positioning tool (see **Figure 18**).

3. Place tool tip between guide edge and wheel, and adjust positioning of tool jig and tool rest so sharpened edge of tool is flat against both grinding wheel and guide edge (see **Figure 18**).

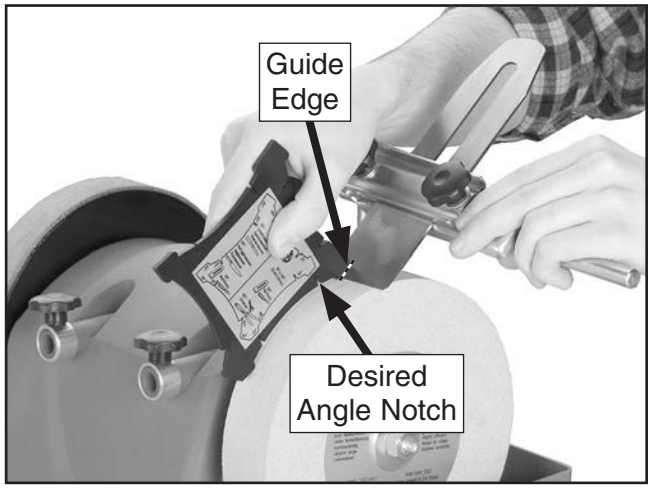


Figure 18. Example of using angle guide to adjust tool angle.

Filling Reservoir

This machine is designed for wet grinding, and the grinding wheel should never be used without water filled to the top of the reservoir. Dry grinding with this machine can damage not only the wheel, but also the tool or the blade you are grinding. A dry wheel will soak up a lot of water in the first 15 minutes of saturation, so be sure to add water as needed before performing any grinding operation.

Clean and refill the reservoir whenever you notice sediment in the water to keep from clogging the wheel and decreasing the effectiveness of the sharpener.

Tip: *Place a magnet in the reservoir to catch and collect metal filings. This will help prevent excessive metal accumulation on the grinding wheel.*

The mounting tabs on the reservoir attach to the reservoir mounting slots (see **Figure 19**). Begin by mounting the reservoir in the lowest mounting slots, then move the reservoir to the higher slots to keep the wheel running through the water as the grinding wheel wears down.

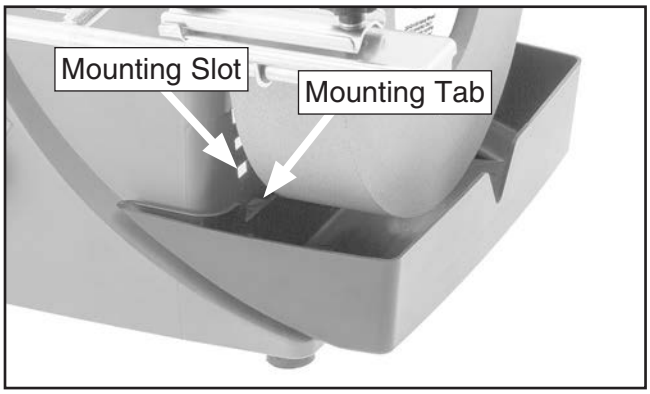


Figure 19. Reservoir mounting components.

⚠CAUTION

DO NOT allow grinding wheel to stay immersed in water for long periods of time while unused. Water can saturate wheel, causing it to become unbalanced and potentially cause sections of wheel to break off when sharpener is started. Always empty or remove reservoir when grinding wheel will not be used.

Installing/Removing Grinding Wheel

Wheels with varying grit are useful for different operations and workpiece materials. DO NOT leave a wheel mounted when the machine is not in use.

⚠CAUTION

ALWAYS visually inspect and perform a "ring test" on a wheel before installing. DO NOT use damaged wheels!

Tool Needed **Qty**
Open-End Wrench or Socket ¾" 1

To install/remove grinding wheel:

1. DISCONNECT MACHINE FROM POWER!

2. Remove arbor hex nut and outer flat washer (see **Figure 20**).

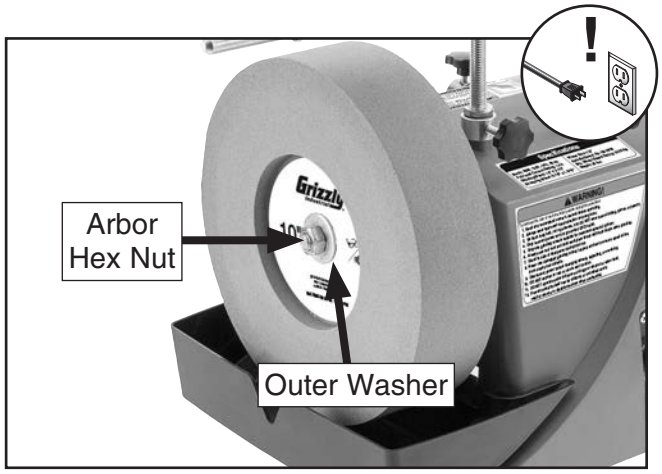


Figure 20. Grinding wheel removal components.

Tip: *Hold grinding wheel with free hand to stop it from turning while loosening arbor nut.*

Note: *Spindle on left side of sharpener has left-hand threads. Turn it clockwise to loosen.*

3. Remove grinding wheel from spindle.

4. Verify flatness of inner and outer washers by placing them on a level surface. Replace warped or damaged washers and blotters.

⚠CAUTION

Warped washers can contribute to grinding wheel breaking and flying apart. Never use warped washers. Always check washers before installing grinding wheel.

5. Mount new grinding wheel in order shown in **Figure 21**. Tighten arbor hex nut snugly but do not over-tighten. Over-tightening can stress and crack wheel.

   — Paper discs or "blotters" should always be used to absorb any pressure from mounting hardware to prevent wheel from cracking. Grinding wheel that ships with this sharpener (PT32720003) already comes with a blotter present on each side. Part number PT32720105 on **Page 36** can be used to replace missing or damaged blotter. If replacing with a different grinding wheel, refer to wheel manufacturer to obtain correct blotters.

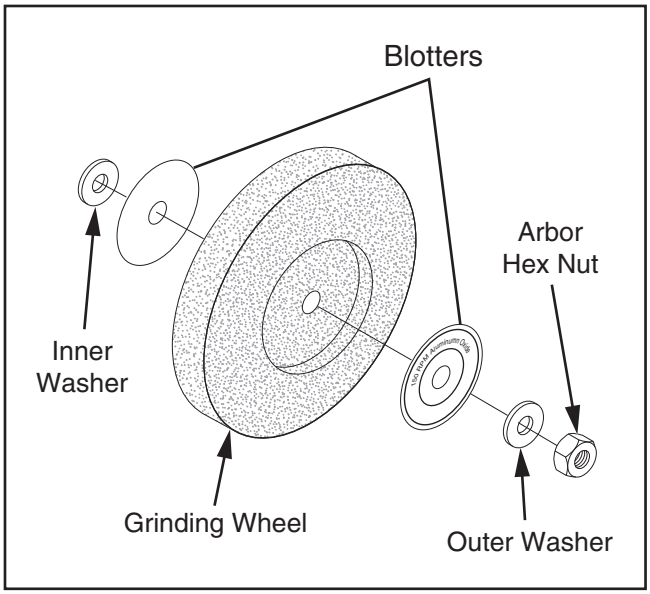


Figure 21. Assembly order for wheel installation.

6. While standing away from line of rotation, turn sharpener ***ON*** and run new grinding wheel for at least 1–2 minutes before standing in front of it. This helps protect you if wheel has internal damage that will cause it to fly apart from centrifugal force of rotation.

   — If sharpener runs smoothly, grinding wheel may now be used.

— If wheel appears to wobble excessively, sharpener vibrates excessively, or any other unsafe condition appears with new wheel, stop sharpener and refer to **Troubleshooting** on **Page 29**.

Grinding Wheel Rotation

The tool rest can be attached in two positions, allowing for grinding with or against the rotation direction of the grinding wheel.

Working with the grinding wheel rotation yields more precise results and removes less material. Use this method for finer tools, such as knives or carving tools.

Working against the grinding wheel rotation removes large amounts of material quickly but does not yield precise results. Use this method for coarse tools such as axes.

Grinding Against Wheel Rotation

1. DISCONNECT MACHINE FROM POWER!
2. Position machine so ON/OFF switch faces towards you.
3. Install tool rest in vertical mounts shown in **Figure 22**. Be sure rest is secure and will not move while grinding.

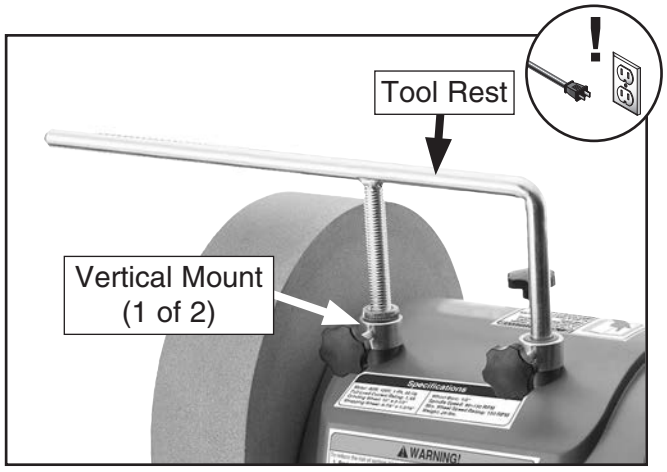


Figure 22. Tool rest installed in vertical mounts.

4. Connect machine to power.
5. Rest workpiece against tool rest with sharpened edge pointing away from you (see **Figure 23**).
6. Perform grinding operation on grinding area indicated in **Figure 23**.

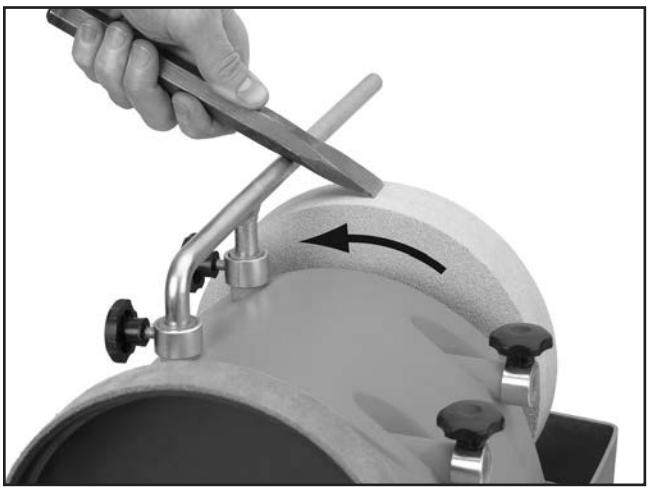


Figure 23. Example of properly grinding against wheel rotation.

Grinding With Wheel Rotation

1. DISCONNECT MACHINE FROM POWER!
2. Position machine so ON/OFF switch faces away from you.
3. Install tool rest in horizontal mounts shown in **Figure 24**. Be sure rest is secure and will not move while grinding.

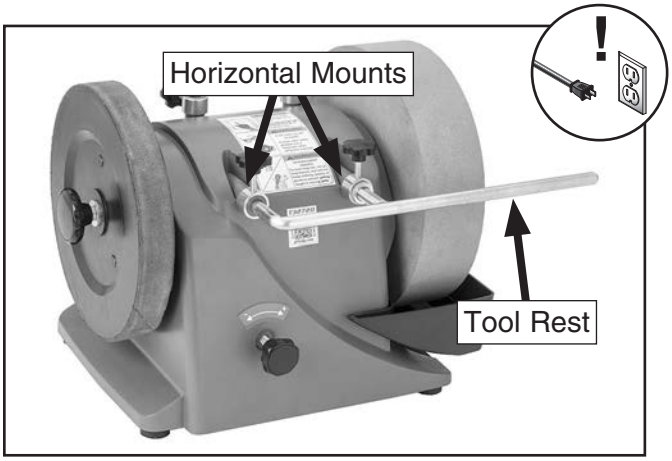


Figure 24. Tool rest installed in horizontal mounts.

4. Connect machine to power.

5. Rest workpiece against tool rest with sharpened edge pointing away from you (see **Figure 25**).

6. Perform grinding operation on grinding area indicated in **Figure 25**.

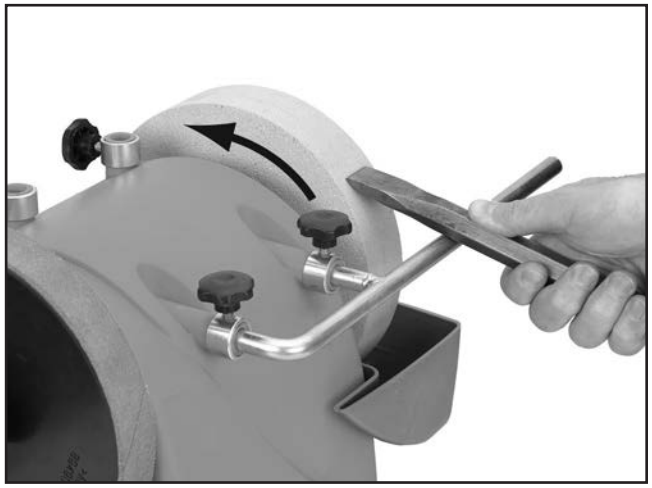


Figure 25. Example of properly grinding with wheel rotation.

Preparing Stropping Wheel

The leather stropping wheel on the Model T32720 can be used to obtain a razor sharp edge on many tools. Before use, the stropping wheel must be properly prepared to obtain the best results and prevent the wheel from wearing prematurely.

Items Needed	Qty
Light Machine Oil	As Needed
Abrasive Stropping Paste	As Needed

To prepare stropping wheel:

1. DISCONNECT MACHINE FROM POWER!

2. Install tool rest in horizontal mounts as shown in **Figure 26**.

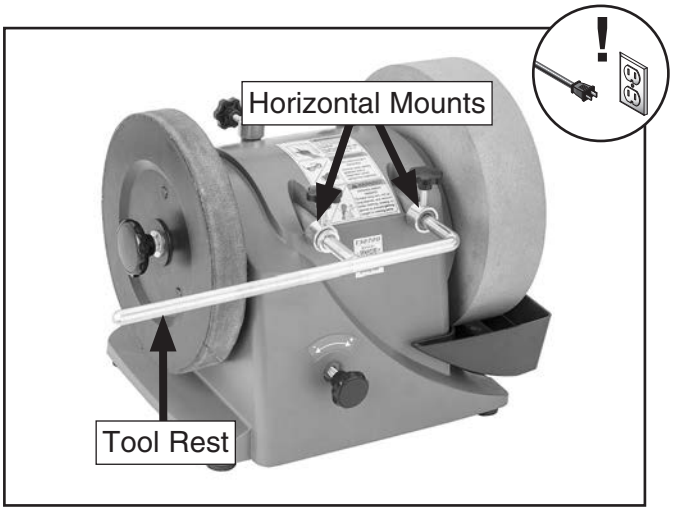


Figure 26. Tool rest installed in horizontal mounts.

3. Evenly apply light machine oil to leather wheel. Wheel should be coated but not dripping.

4. Apply thin coat of abrasive honing paste to leather wheel. Turn wheel by hand while applying to distribute.

5. Connect machine to power.

6. Turn machine ***ON*** and distribute paste until even.

7. Perform stropping operation.

   Note: *Repeat this procedure whenever you notice a drop in sharpening performance of the stropping wheel.*

Replacing Stropping Wheel

A damaged stropping wheel does not pose the same dangers as a grinding wheel, but replace it if it is torn or you notice a marked change in your sharpening results.

To replace stropping wheel:

1. DISCONNECT MACHINE FROM POWER!

2. Remove arbor lock knob (see **Figure 27**).

   Tip: *Hold grinding wheel with free hand to stop it from turning while loosening lock knob.*

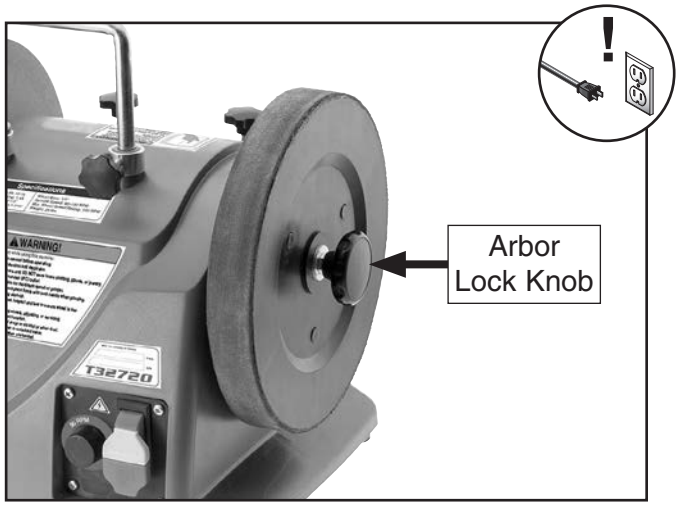


Figure 27. Location of arbor lock knob.

3. Remove stropping wheel arbor hex nut and flat washer (see **Figure 28**).

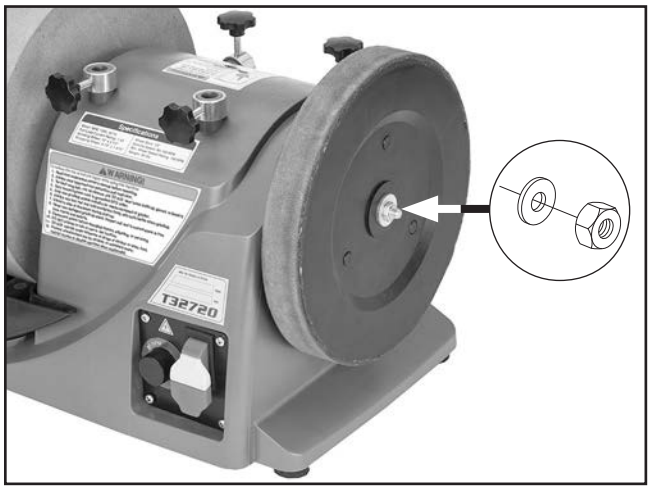


Figure 28. Location of arbor hex nut and flat washer.

4. Remove old stropping wheel.

   Note: *Stropping wheel is composed of two plastic discs that fit together. Remove both of these components together.*

5. Mount new stropping wheel, taking care to keep arbor pin seated in spindle, as shown in **Figure 29**. Stropping wheel will not fully seat if pin is not in place.

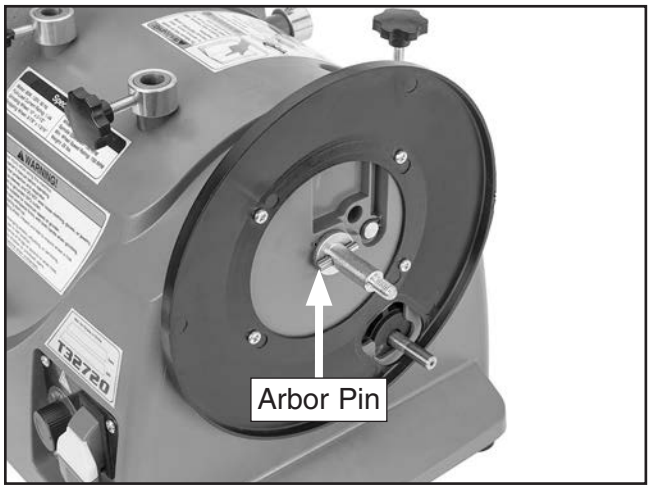


Figure 29. Arbor pin properly seated in spindle.

6. Install arbor flat washer, hex nut, and lock knob.

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.

Basic Eye Protection

T32323—Woodturners Face Shield
T32401—EDGE Brazeau Safety Glasses, Clear
T32402—EDGE Khor G2 Safety Glasses, Tint
T32404—EDGE Mazeno Safety Glasses, Clear

Figure 30. Assortment of basic eye protection.

T32795—Shears Sharpening Jig
Install the tool rest in the vertical position to use this jig to sharpen the beveled edges of scissors.

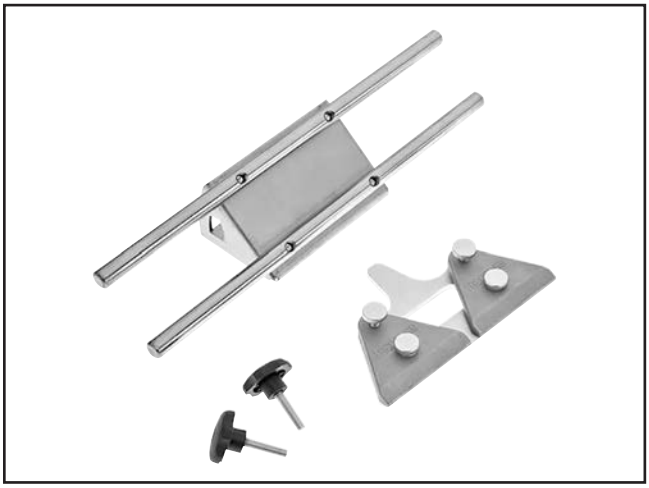


Figure 31. Model T32795 Shears Sharpening Jig.

T32796—Large Knife Sharpening Jig
Mount this jig on the tool rest in the horizontal position to clamp knives 4" or longer for easy grinding.

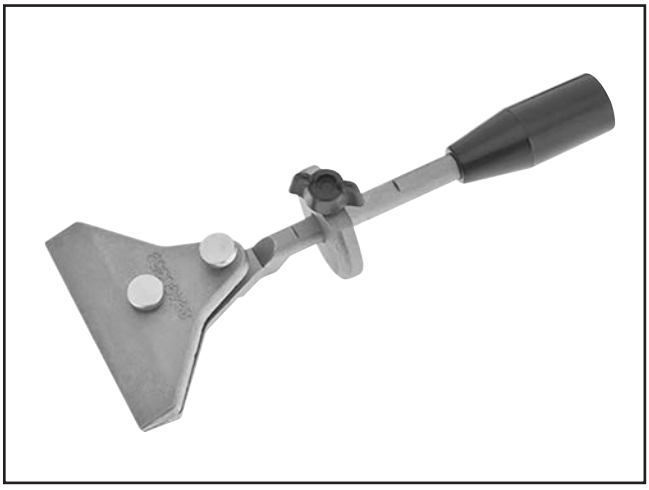


Figure 32. Model T32796 Large Knife Sharpening Jig.

T32797—Small Knife Sharpening Jig
Mount this jig on the tool rest in the horizontal position to clamp knives 4" or less for easy grinding.

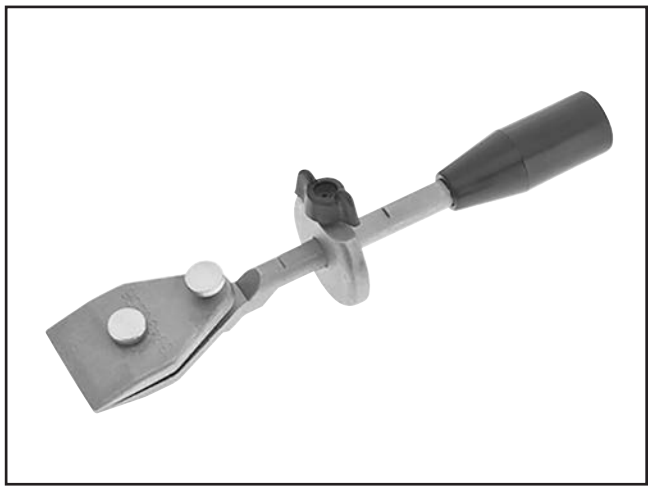


Figure 33. Model T32797 Small Knife Sharpening Jig.

T32798—Axe Sharpening Jig
Grind axes against wheel rotation with this jig.

Figure 34. Model T32798 Axe Sharpening Jig.

T32845—Replacement Stropping Wheel
Overall dimensions are 200mm in diameter by 30mm wide.

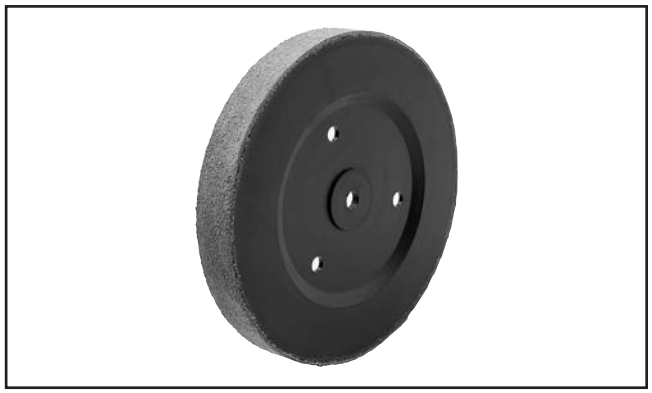


Figure 35. Model T32845 Stropping Wheel.

T32799—Dressing Stone
This stone dresser can be used to clean grinding wheels when loaded with metal fillings. The fine-grained side will adjust the Model T32720 wheel grit to approximately 1000 while the course-grained side will return it to approximately 220.

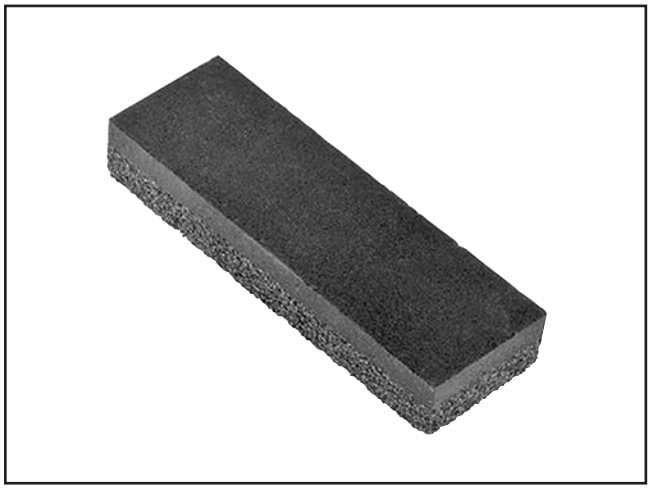


Figure 36. Model T32799 Dressing Stone.

T32844—Replacement Grinding Wheel
Direct replacement for the T32720 10" Variable-Speed Wet Sharpener. The 2½" wide, 220-grit aluminum oxide grinding wheel is specially made for wet sharpening.

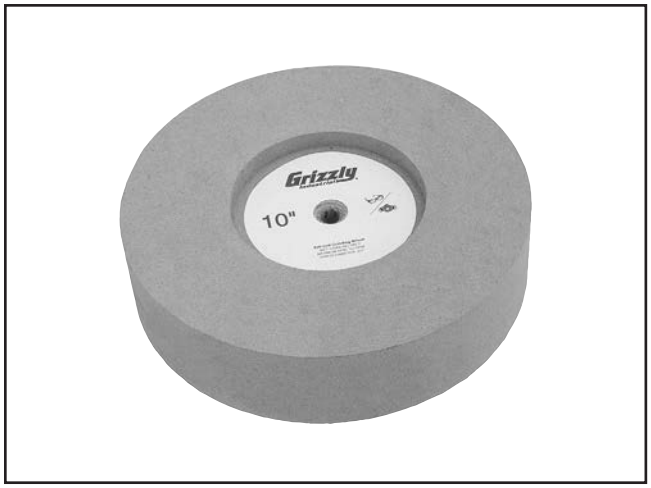
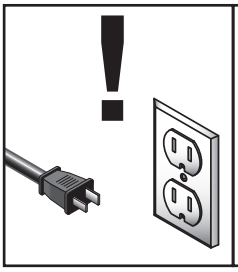


Figure 37. Model T32844 Grinding Wheel.

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:

- Damaged grinding or stropping wheel.
- Worn or damaged wires.
- Any other unsafe condition.

Cleaning

Clean water reservoir and area under machine after every use to prevent sediment build up and rust. Use a rag and wear gloves to protect your hands from any sharp metal pieces.

Maintaining Grinding Wheel

Grinding wheels can be easily damaged, so it is important to store them properly. Follow all wheel manufacturer storage instructions. Always store grinding wheels in a location that is dry and protected from potential damage due to them being dropped or having other items dropped on them. Also, avoid storing grinding wheels where there is high humidity, extreme heat or cold, or solvents.

Depending on the type of grinding you do, the grinding wheel may require periodic dressing. New wheels are often out-of-round and require truing. A wheel can become grooved or glazed if it is not trued before use.

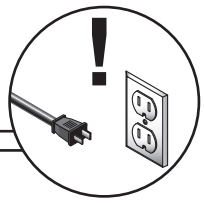
There are several different types of wheel dressing devices available on the market (see **Page 27** for an example). Dressing restores the abrasive quality of the wheel surface and brings the wheel edge back to a square form.

Refer to the instructions that accompany your dressing accessory for complete details on how to properly dress the wheel.

SECTION 7: SERVICE

Review the troubleshooting 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. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start, or power supply breaker immediately trips after startup.	1. Switch disabling key removed. 2. Incorrect power supply voltage or circuit size. 3. Power supply circuit breaker tripped or fuse blown. 4. Wiring broken, disconnected, or corroded. 5. Motor brushes worn out. 6. ON/OFF switch at fault. 7. Variable-speed dial/potentiometer at fault. 8. Blown fuse on circuit board or circuit board at fault. 9. Motor or motor bearings at fault.	1. Install switch disabling key. 2. Ensure correct power supply voltage and circuit size (**Page 10**). 3. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 4. Fix broken wires or disconnected/corroded connections. 5. Replace brushes (**Page 31**). 6. Replace switch. 7. Replace. 8. Inspect/replace circuit board if at fault. 9. Replace motor.
Machine stalls or is underpowered.	1. Operator using too much pressure. 2. Wrong workpiece material. 3. Blown fuse on circuit board or circuit board at fault. 4. Variable-speed dial/potentiometer at fault. 5. Motor brushes worn out. 6. Machine undersized for task. 7. Motor overheated. 8. Extension cord too long. 9. Motor or motor bearings at fault.	1. Use less pressure when grinding or stropping. 2. Use correct type/size of material (**Page 17**). 3. Inspect/replace circuit board if at fault. 4. Test/replace dial/potentiometer. 5. Replace brushes (**Page 31**). 6. Use new grinding wheel; reduce workpiece pressure. 7. Clean motor, let cool, and reduce workload. 8. Move machine closer to power supply; use shorter extension cord. 9. Replace motor.
Machine has vibration or noisy operation.	1. Machine not placed on flat surface. 2. Grinding wheel dressed incorrectly. 3. Grinding wheel is water-logged. 4. Motor or component loose. 5. Grinding wheel at fault/arbor hole not round. 6. Motor mount loose/broken. 7. Workpiece loose. 8. Motor shaft bent. 9. Motor bearings at fault.	1. Make sure machine is placed on a solid, flat surface. 2. Re-dress wheel (**Page 28**). 3. Allow wheel to dry, then inspect wheel (**Page 19**) Do not leave wheel immersed in water when not in use. Replace wheel if needed (**Page 22**). 4. Replace damaged or missing bolts/nuts or tighten if loose. 5. Dress (**Page 28**)/replace (**Page 22**) grinding wheel. 6. Tighten/replace. 7. Use the correct holding fixture and reclamp the workpiece. 8. Test with dial indicator and replace motor. 9. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

Operation

Symptom	Possible Cause	Possible Solution
Machine slows when operating.	1. Operator using too much pressure. 2. RPM too low.	1. Use less pressure when grinding or stropping. 2. Increase RPM.
Grinding wheel slips during rotation.	1. Torque is too low.	1. Increase torque (**Page 19**).
Wavy condition on surface of workpiece.	1. Machine vibrating. 2. Workpiece not being held firmly. 3. Grinding wheel face uneven. 4. Grinding wheel is too hard.	1. Make sure machine is placed on a solid, flat surface. 2. Brace workpiece against tool rest or use a holding device to firmly retain workpiece. 3. Dress grinding wheel (**Page 28**). 4. Use softer wheel (**Page 18**)/reduce feed rate.
Lines on surface of workpiece.	1. Impurity on grinding wheel surface. 2. Workpiece not being held tightly. 3. Grinding wheel dressed incorrectly.	1. Dress grinding wheel (**Page 28**). 2. Brace workpiece against tool rest or use a holding device to firmly retain workpiece. 3. Re-dress wheel (**Page 28**).
Grinding wheel dulls quickly, grit falls off.	1. Operator using too much pressure. 2. Wheel is too soft for material being ground. 3. Wheel diameter too small. 4. Wheel dressed incorrectly. 5. Wheel has been stored incorrectly. 6. Wheel is too old. 7. Defective wheel bonding.	1. Use less pressure when grinding. 2. Use harder bond (**Page 18**). 3. Replace wheel (**Page 22**). 4. Re-dress wheel (**Page 28**). 5. Replace wheel (**Page 22**). Only store grinding wheel in a dry place that is not subject to extreme temperatures (**Page 28**). 6. Replace wheel (**Page 22**). Consult manufacturer to determine wheel shelf life. 7. Consult manufacturer of grinding wheel/replace wheel (**Page 22**).
Grinding wheel clogs.	1. Wheel dressed incorrectly. 2. Wrong workpiece material. 3. Dirty water in reservoir.	1. Re-dress wheel (**Page 28**). 2. Use correct type/size of material (**Page 17**). 3. Empty, clean, and refill reservoir.
Stropping wheel loses performance.	1. Insufficient wheel preparation. 2. Wheel is damaged, worn.	1. Prepare wheel correctly (**Page 24**). 2. Replace wheel (**Page 22**).

Replacing Motor Brushes

This sharpener is equipped with a universal motor that uses two carbon brushes to transmit electrical current inside the motor. These brushes are considered to be regular "wear items" or "consumables" that will need to be replaced during the life of the motor. The frequency of required replacement is often related to how much the motor is used and how hard it is pushed.

Replace the carbon brushes at the same time when the motor no longer reaches full power, or when the brushes measure less than ⅛" long (new brushes are ½" long).

If your machine is used frequently, we recommend keeping an extra set of these replacement brushes on-hand to avoid any downtime.

Items Needed	**Qty**
Dime or Penny	1
Pair of Motor Brushes (PT32720044)	1

To replace motor brushes:

1. DISCONNECT MACHINE FROM POWER!

2. Remove grinding wheel so it will not be damaged in following steps (refer to **Installing/ Removing Grinding Wheel** on **Page 22**).

3. Turn machine on its side to access inside of base.

4. Remove brush caps and worn brushes from motor (see **Figure 38**).

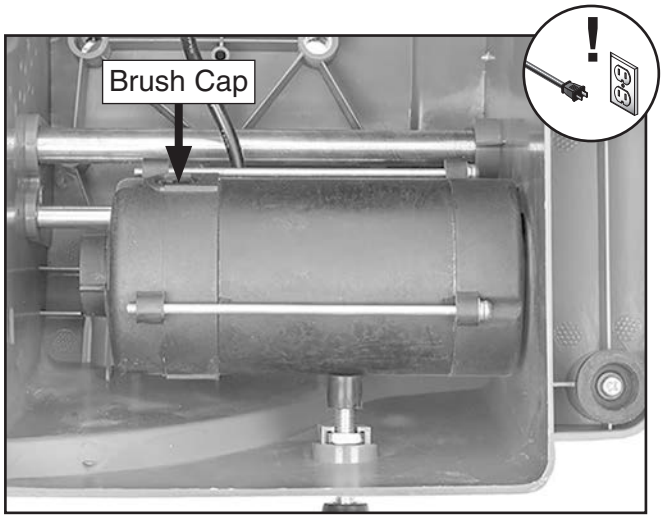


Figure 38. Location of brush caps and brushes on motor.

5. Replace both motor brushes and install brush caps.

6. Turn machine right-side up.

7. Install grinding wheel if needed for next operation (refer to **Installing/Removing Grinding Wheel** on **Page 22**).

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.

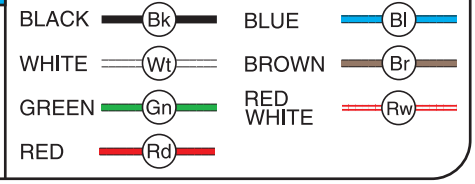
MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

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.

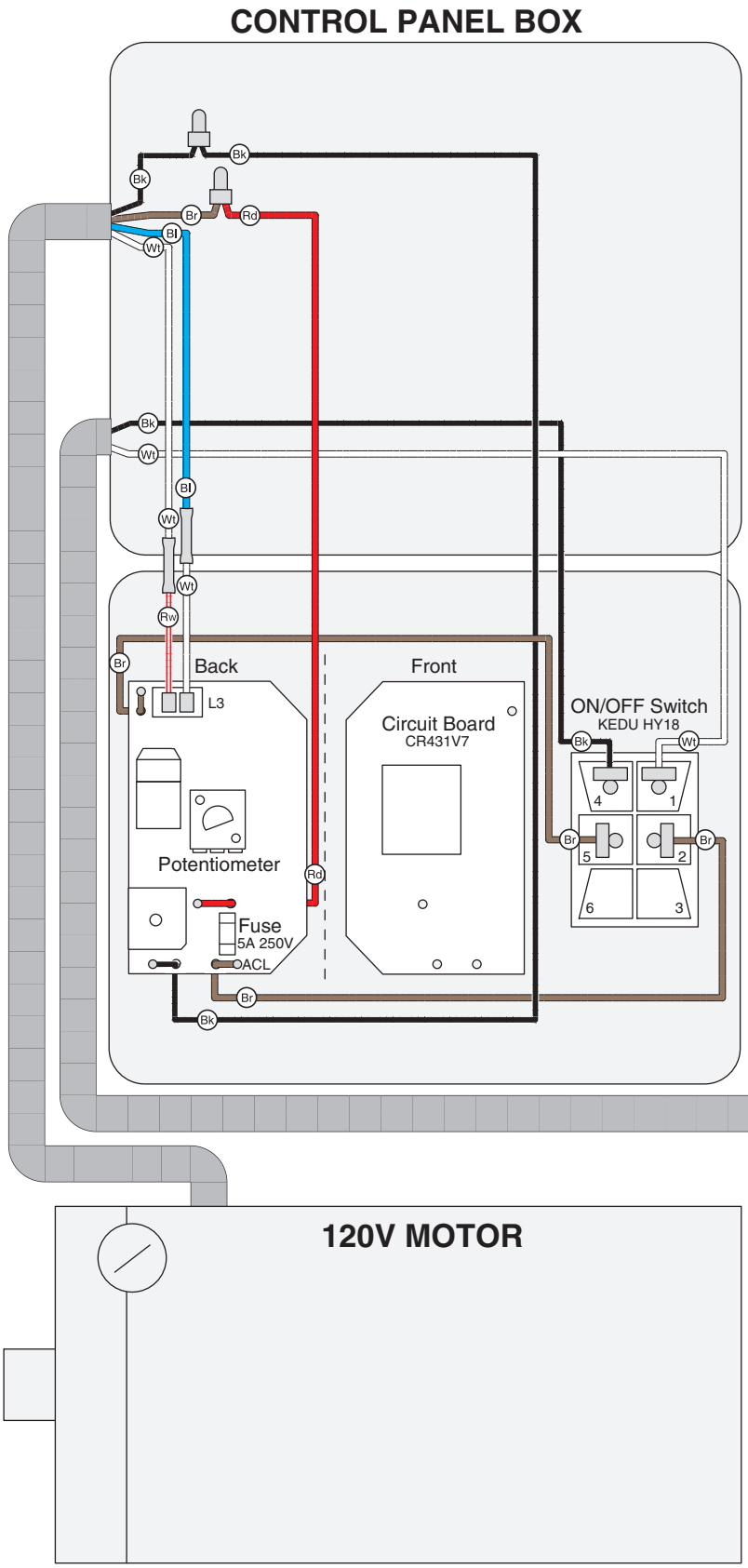
EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

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.



Wiring Diagram



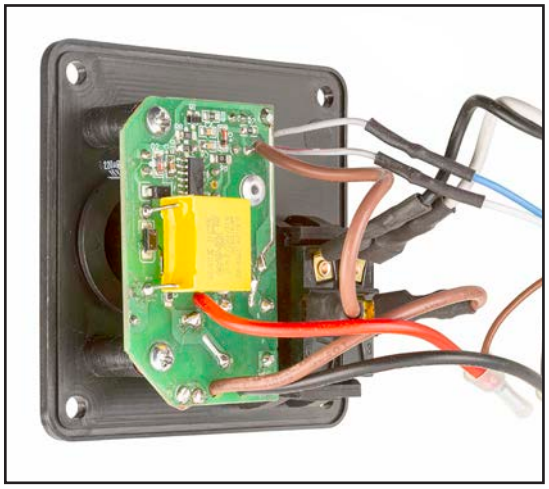


Figure 39. Control panel wiring.

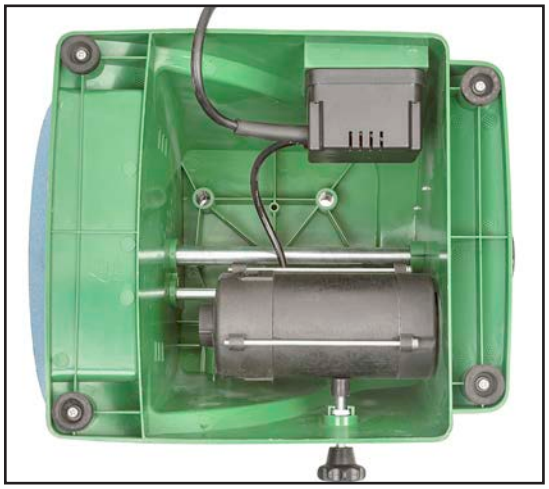
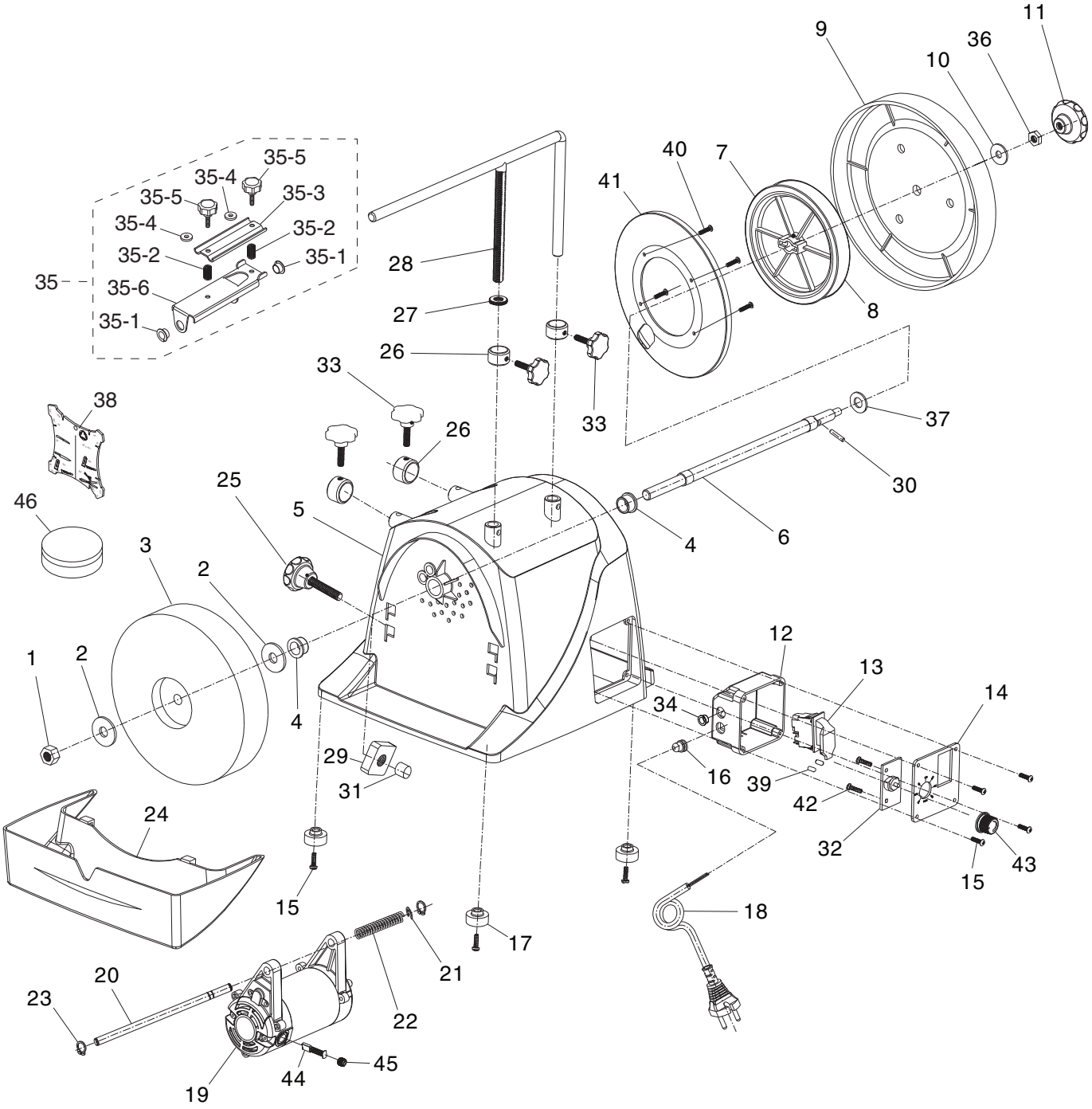


Figure 40. Motor and overall wiring.

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.

Main

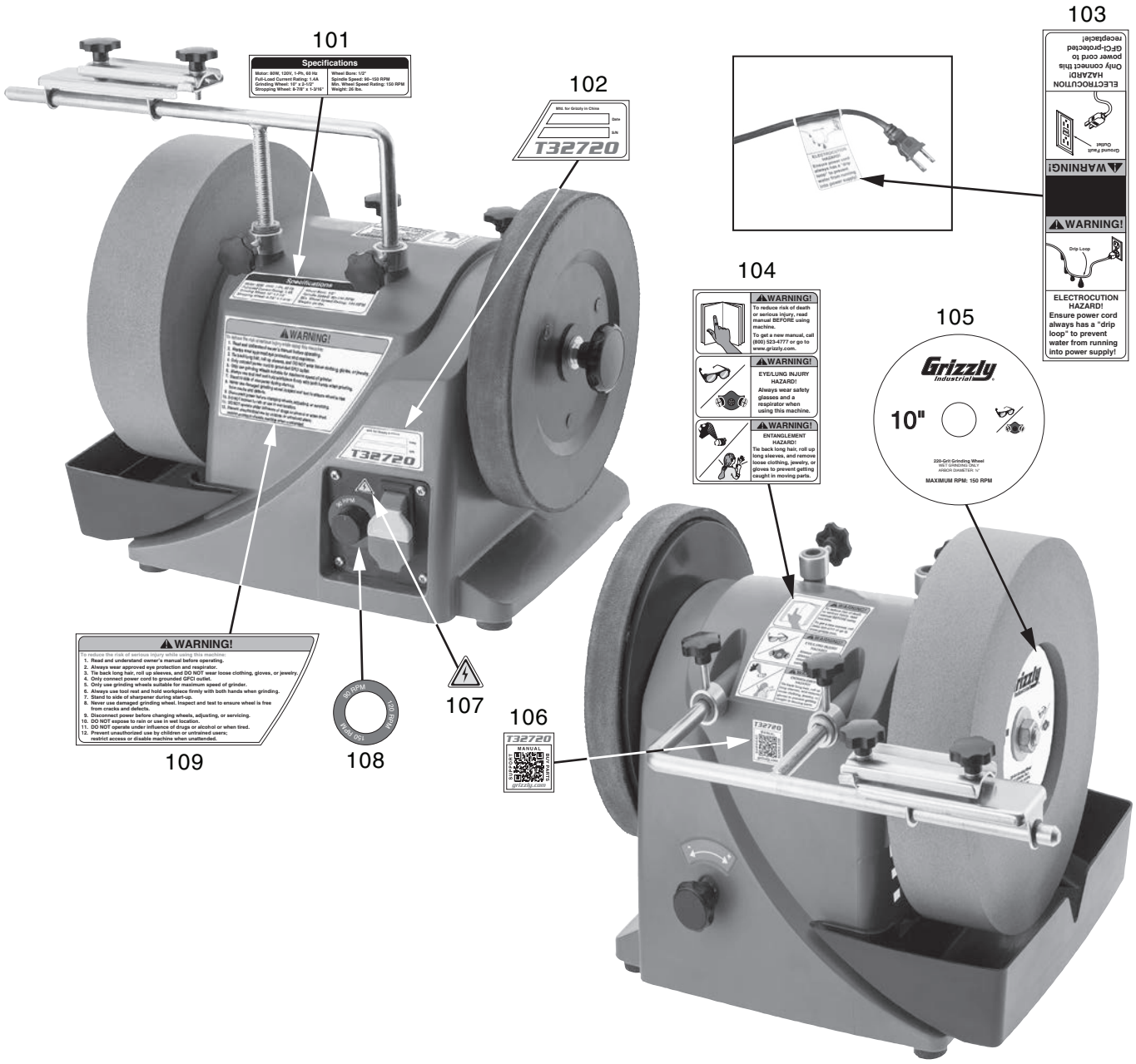


Main Parts List

REF	PART #	DESCRIPTION
1	PT32720001	HEX NUT M12-1.75
2	PT32720002	FLAT WASHER 12MM
3	PT32720003	GRINDING WHEEL TYPE-5 10 X 2-1/2 X 1/2
4	PT32720004	ARBOR BUSHING
5	PT32720005	MACHINE HOUSING
6	PT32720006	GRINDING WHEEL SPINDLE
7	PT32720007	DRIVE WHEEL
8	PT32720008	DRIVE WHEEL TIRE
9	PT32720009	STROPPING WHEEL
10	PT32720010	FLAT WASHER 8MM
11	PT32720011	KNOB M8-1.25, 9-LOBE, D50
12	PT32720012	SWITCH BOX
13	PT32720013	ON/OFF SWITCH KEDU HY18
14	PT32720014	CONTROL PANEL
15	PT32720015	TAP SCREW M4.2 X 16
16	PT32720016	STRAIN RELIEF TYPE-3 PG9
17	PT32720017	RUBBER FOOT
18	PT32720018	POWER CORD 18G 2W 78" 1-15P
19	PT32720019	MOTOR 80W 120V 1-PH
20	PT32720020	MOTOR PIVOT SHAFT
21	PT32720021	E-CLIP 10MM
22	PT32720022	COMPRESSION SPRING 1.2 X 13.4 X 75
23	PT32720023	EXT RETAINING RING 10MM
24	PT32720024	WATER RESERVOIR
25	PT32720025	KNOB BOLT M8-1.25 X 45, 9-LOBE, D35
26	PT32720026	LOCK COLLAR

REF	PART #	DESCRIPTION
27	PT32720027	ADJUSTMENT NUT M12-1.75 KN
28	PT32720028	TOOL REST
29	PT32720029	MOTOR TENSION NUT M8-1.25
30	PT32720030	ROLL PIN 5 X 25
31	PT32720031	MOTOR TENSION CAP
32	PT32720032	CIRCUIT BOARD CR431V7
33	PT32720033	KNOB BOLT M6-1 X 22, 6-LOBE, D30
34	PT32720034	STRAIN RELIEF TYPE-1 1/2"
35	PT32720035	STRAIGHT EDGE SHARPENING JIG
35-1	PT32720035-1	PLASTIC BUSHING
35-2	PT32720035-2	CONICAL COMP SPRING 0.8 X 8 X 13, 13OD
35-3	PT32720035-3	CLAMP PLATE
35-4	PT32720035-4	FLAT WASHER 6MM
35-5	PT32720035-5	KNOB BOLT M6-1 X 20, 6-LOBE, D30
35-6	PT32720035-6	BASE PLATE
36	PT32720036	HEX NUT M8-1.25 THIN
37	PT32720037	FLAT WASHER 12MM
38	PT32720038	ANGLE GUIDE
39	PT32720039	CRIMP CONNECTOR 7.6 X 17.5MM
40	PT32720040	TAP SCREW M4.2 X 8
41	PT32720041	DRIVE WHEEL COVER
42	PT32720042	TAP SCREW M4 X 14
43	PT32720043	VARIABLE-SPEED DIAL
44	PT32720044	CARBON BRUSHES (PAIR)
45	PT32720045	BRUSH CAP
46	PT32720046	ABRASIVE STROPPING PASTE

Labels & Cosmetics



REF	PART #	DESCRIPTION
101	PT32720101	SPECIFICATIONS LABEL
102	PT32720102	SERIAL NUMBER LABEL
103	PT32720103	DRIP LOOP/GFCI LABEL
104	PT32720104	COMBO WARNING LABEL
105	PT32720105	GRINDING WHEEL LABEL/BLOTTER

REF	PART #	DESCRIPTION
106	PT32720106	QR CODE LABEL
107	PT32720107	ELECTRICITY LABEL
108	PT32720108	RPM LABEL
109	PT32720109	MACHINE WARNING 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.

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.