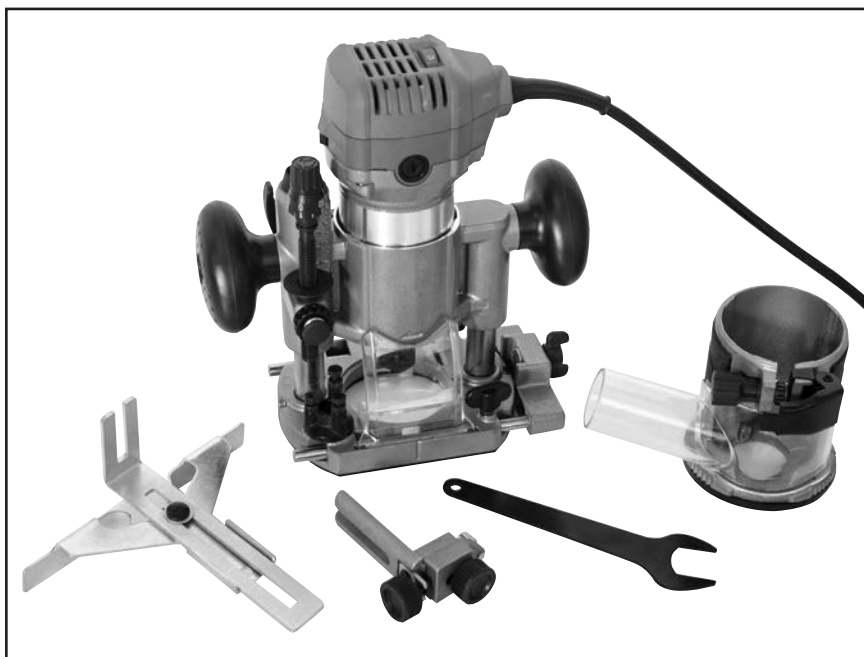


Grizzly ***Industrial, Inc.***®

MODEL T27139 **LAMINATE TRIM ROUTER** **w/PLUNGE BASE** **OWNER'S MANUAL**

(For models manufactured since 3/16)



COPYRIGHT © DECEMBER, 2014 BY GRIZZLY INDUSTRIAL, INC. REVISED MARCH, 2016 (MN)

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

#BB16943 PRINTED IN CHINA

V2.03.16

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

SECTION 1: SAFETY	1
Additional Safety Instructions for Laminate Trim Routers	3
SECTION 2: INTRODUCTION	4
Tool Description	4
Foreword	4
Contact Info	4
Identification	5
SECTION 3: SETUP	8
Unpacking	8
Needed for Setup	8
Inventory	9
Assembly	10
Power Connection	11
Test Run	11
SECTION 4: OPERATIONS	12
Removing/Installing Router Bit	12
Adjusting Bit Depth	12
Feed	13
Direction	13
Routing Operations	14
Curved Trim Guide	15
Straight Guide	15
SECTION 5: ACCESSORIES	17
SECTION 6: MAINTENANCE	18
Cleaning & Protecting	18
Replacing Brushes	18
SECTION 7: SERVICE	19
Troubleshooting	19
SECTION 8: WIRING	20
Wiring Safety Instructions	20
Wiring Diagram	21
SECTION 9: Parts	22
Main Breakdown	22
Plunge Base Breakdown	24
WARRANTY	28

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 hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

DANGER

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

WARNING

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

CAUTION

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

NOTICE

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

WARNING

Safety Instructions for Power Tools

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 power tool. When tool is not being used, disconnect power, and store in out-of-reach location to prevent unauthorized use—especially around children. Make workshop kid proof!

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

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

DISCONNECT POWER FIRST. Always disconnect tool 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

ELECTRICAL SAFETY. Tool plug must match outlet. Double-insulated tools have a polarized plug (one blade is wider than the other), which must be plugged into a polarized outlet. Never modify plug. Do not use adapter for grounded tools. Use a ground fault circuit interrupter if operation is unavoidable in damp locations. Avoid touching grounded surfaces when operating tool.

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

HAZARDOUS DUST. Dust created while using tools 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, and connect tool to an appropriate dust collection device 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. Never leave adjustment tools, chuck keys, wrenches, etc. in or on tool—especially near moving parts. Verify removal before starting!

INTENDED USAGE. Only use tool for its intended purpose. Never modify or alter tool for a purpose not intended by the manufacturer or serious injury or death may result!

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

SAFE HANDLING. Firmly grip tool. To avoid accidental firing, do not keep finger on switch or trigger while carrying.

FORCING TOOLS. Use right tool for job, and do not force it. It will do job safer and better at rate for which it was designed.

SECURING WORKPIECE. When required, use clamps or vises to secure workpiece. This protects hands and frees both of them to operate tool.

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

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

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

MAINTAIN WITH CARE. Keep cutting tool edges sharp and clean. Follow all maintenance instructions and lubrication schedules to keep tool in good working condition. A tool that is improperly maintained could malfunction, leading to serious personal injury or death. Only have tool serviced by qualified service-personnel using matching replacement parts.

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

MAINTAIN POWER CORDS. When disconnecting cord-connected tools from power, grab and pull the plug—NOT the cord. Carrying or pulling the cord may damage 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, sharp edges, moving parts, and wet/damp locations. Damaged cords increase risk of electrocution.

UNATTENDED OPERATION. Never leave tool running while unattended. Turn tool **OFF** and ensure all moving parts completely stop before walking away.

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.

WARNING

Additional Safety Instructions for Laminate Trim Routers

READ ENTIRE MANUAL. This manual contains proper operating instructions for this router.

SAFETY EQUIPMENT. Wear safety glasses, respirator, and hearing protection when operating a router.

POWER SOURCE. Unplug the router and make sure the switch is **OFF** before inserting or removing bit, making adjustments, or performing maintenance or service. **DO NOT** make adjustments while the router is connected to power.

ROUTER BITS. Inspect router bits before use. **DO NOT** use router bits that have been dropped, cracked, or damaged. The router bit may shatter, causing serious injury.

INSTALLING BIT. Insert the bit to within $\frac{1}{8}$ " of the bottom of the collet and tighten firmly. If the bit is not inserted far enough, the bit may slip or come out, causing injury. **DO NOT** use bits with a diameter larger than $1\frac{1}{8}$ ".

COLLET WRENCHES. Make sure the collet wrenches are removed from the router before turning it **ON**.

WORKPIECE. Check the workpiece for nails or other foreign objects which may cause the router to kickback or damage the bit, possibly causing injury to the operator.

HOLDING WORKPIECE. Secure the workpiece with clamps or attach it to an immovable object. **DO NOT** hold the workpiece in your hand or across your legs.

HOLDING ROUTER. Hold the router with both hands to control torque twist and kickback. Keep hands away from the spinning bit. Make sure the bit has come to a complete stop before setting the router down.

ROUTING. Always route with the base flat upon the workpiece. **DO NOT** start the router with the bit in contact with the workpiece.

FEED DIRECTION. Always feed the router against the cutter rotation. **DO NOT** start routing at a corner. Starting at a corner may cause the router to grab, damaging the workpiece, and possibly causing personal injury.

REMOVING BIT. The bit is sharp and will be hot after use. Use gloves when removing.

WORK AREA. **DO NOT** use the router in an area that may contain hidden live wires. Disconnect all power leading to the work area.

TOOL SERVICE. If the router is damaged, or not working correctly, repair it before use.

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 tools with caution and respect. Failure to do so could result in serious personal injury, damage to equipment or poor work results.

SECTION 2: INTRODUCTION

Tool Description

The Model T27139 Laminate Trim Router comes equipped with a plunge base and a fixed base to accommodate the widest range of applications. The fixed base allows for the attachment of a dust collection system, while the plunge base offers maximum control.

Foreword

We are proud to offer this manual with your new T27139 Laminate Trim Router! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the trim router we used when writing this manual. However, sometimes we still make an occasional mistake.

Also, owing to our policy of continuous improvement, your trim router may not exactly match the manual. If you find this to be the case, and the difference between the manual and trim router leaves you in doubt, check our website for the latest manual update or call technical support for help.

For your convenience, we post all available manuals and manual updates for free on our website at **www.grizzly.com**. Any updates to your model of tool will be reflected in these documents as soon as they are complete.

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

Identification

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

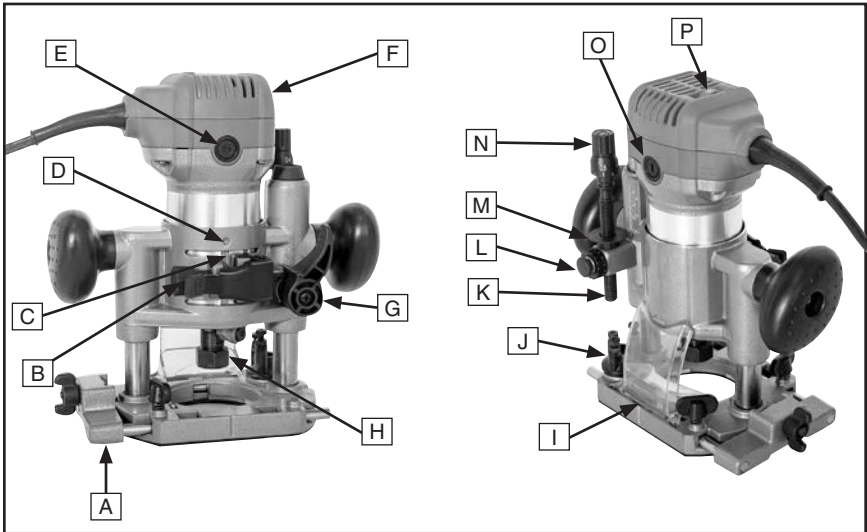
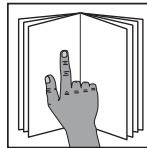


Figure 1. T27139 component identification.

- A. Straight-Guide Holder
- B. Clamping Lever
- C. Guide Channel
- D. Guide Pin
- E. Motor Brush Cap
- F. ON/OFF Switch
- G. Plunger Locking Lever
- H. Collet
- I. Dust Shield
- J. Three-Position Stop Block
- K. Depth Stop
- L. Depth-Stop Quick-Release Button
- M. Depth Pointer
- N. Depth-Stop Fine Adjustment Knob
- O. Depth Scale
- P. Variable-Speed Control



⚠ 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 T27139 LAMINATE TRIM ROUTER WITH PLUNGE BASE

Product Dimensions:

Weight..... 7 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 8-3/4 x 4-1/4 x 9-1/2 in.
Footprint (Length x Width)..... N/A x N/A

Shipping Dimensions:

Type..... Cardboard Box
Content..... Machine
Weight..... 18 lbs.
Length x Width x Height..... 11 x 9 x 12 in.
Must Ship Upright..... No

Electrical:

Power Requirement..... 120V, Single-Phase, 60 Hz
Full-Load Current Rating..... 6.5A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6-1/2 ft.
Power Cord Gauge..... 18 AWG
Plug Included..... Yes
Included Plug Type..... 1-15
Switch Type..... Toggle Switch ON/OFF

Motors:

Main

Type..... DC Brush Type
Horsepower..... 710W (1 HP)
Phase..... Single-Phase
Amps..... 6.5A
Speed..... 10,000—30,000 RPM
Power Transfer..... Direct Drive
Bearings..... Sealed & Permanently Lubricated

Other Specifications:

Country of Origin..... China
Warranty..... 1 Year
Approximate Assembly & Setup Time..... 10 min.
Serial Number Location..... ID Label
ISO 9001 Factory..... Yes

SECTION 3: SETUP

Unpacking

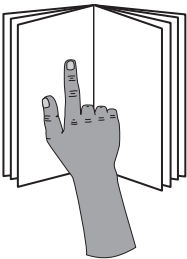
Your tool was carefully packaged for safe transportation. Remove the packaging materials from around your tool and inspect it. If you discover the tool is damaged, please immediately call Customer Service at (570) 546-9663 for advice.

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

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

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.

WARNING



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

Needed for Setup

The following are needed to complete the setup process:

Description	Qty
• Safety Glasses (per person)	1
• Solvent/Cleaner	1
• Shop Rags	1
• Collet Wrench	1

Inventory

The following is a list of items shipped with your tool. 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.

NOTICE

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

Box 1 (Figure 2)	Qty
A. Laminate Trim Router Motor.....	1
B. Dust Shield/Port.....	1
C. Fixed Base.....	1
D. Collet Wrench.....	1
E. Curved Trimmer Guide.....	1
F. Straight Trimmer Guide.....	1
G. Plunge Router Base.....	1
H. Bag 1 (not shown).....	1
— Replacement Motor Brushes.....	2
I. Bag 2 (not shown).....	1
— Collet $\frac{3}{8}$ ".....	1
— Thumb Screw.....	1

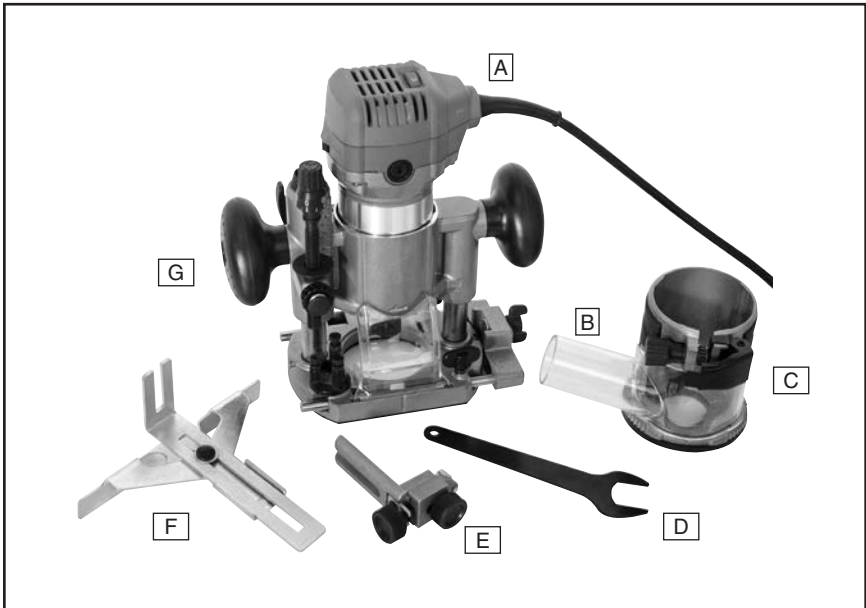


Figure 2. T27139 inventory.

Assembly

The Model T27139 router is supplied with a plunge base, a fixed base, a straight trimmer guide, and a curved trimmer guide. Select the proper base and guide for the intended use during assembly.

To assemble router:

1. Thoroughly wipe down all components of trim router with a dry shop rag.
2. Release clamping lever on router base.
3. Attach router motor to base by aligning guide channel with guide pin (see **Figure 3**).

— If using fixed base, engage adjustment gear attached to clamping lever assembly.

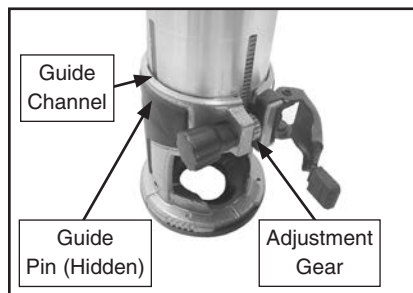


Figure 3. Fixed base with gear.

4. Tighten locking lever.
5. Verify that laminate trim motor is secure in base and does not move.

To attach dust collector/shop vacuum:

1. Place dust shield/port alignment pin into fixed base.
2. Seat dust shield/port so thumb screw hole and threads align.
3. Install and tighten thumbscrew (see **Figure 4**).
4. Attach 1¼" vacuum hose to dust port.

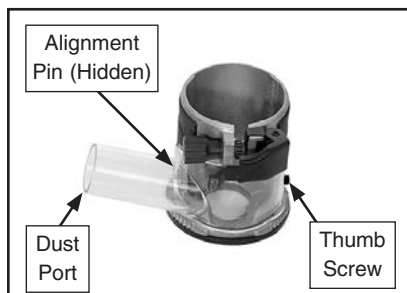


Figure 4. Fixed base with dust port.

Power Connection

After you have completed all previous setup instructions the tool is ready to be connected to the power supply.

To avoid unexpected startups or property damage, use the following steps whenever connecting or disconnecting the tool.

Connecting Power

1. Turn tool power switch **OFF (O)**.
2. Insert power cord plug into a matching power supply receptacle. Tool is now connected to power source.

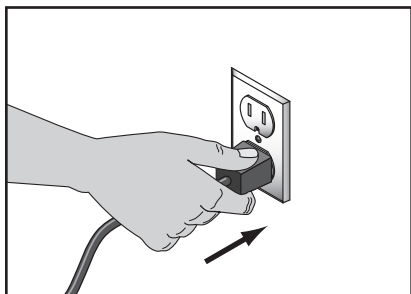


Figure 5. Connecting power.

Disconnecting Power

1. Turn tool power switch **OFF**.
2. Grasp molded plug and pull it completely out of receptacle. Do not pull by cord as this may damage wires inside.

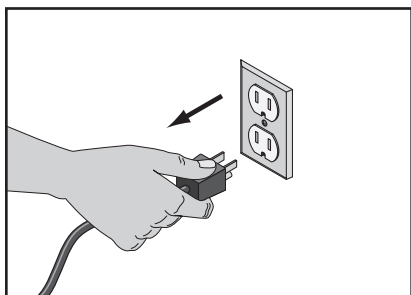


Figure 6. Disconnecting power.

Test Run

WARNING

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

WARNING

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

To test run tool:

1. Clear all setup tools away from tool.
2. Remove collet nut and collet.
3. Connect tool to power supply.
4. Turn tool **ON**, verify motor operation, and then turn tool **OFF**. Tool should run smoothly and without unusual problems or noises.

SECTION 4: OPERATIONS

Removing/Installing Router Bit

This router is supplied with a 1/4" collet for use with 1/4" shank router bits. Carefully inspect router bits for cracks, chips, or other damage before installing. **DO NOT** use router bits that have been dropped, cracked, or damaged. The router bit may shatter, causing serious injury.

To remove or install router bit:

1. DISCONNECT TOOL FROM POWER!
2. To access collet, release clamping lever and remove laminate trim router from base.
3. Align spindle lock button pin with spindle shaft, and press lock button.
4. Use collet wrench to loosen collet nut, and remove router bit (see **Figure 7**).

⚠ CAUTION

Router bit is sharp and will be hot after use. Wear gloves to prevent injury when removing bit.

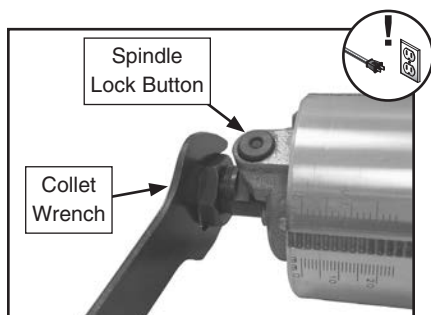


Figure 7. Collet wrench and lock button.

5. Slide router bit to within 1/8" of the bottom of collet, press lock button, then securely tighten collet with wrench.

Note: *The collet can be damaged if it is tightened without a bit.*

Adjusting Bit Depth

⚠ WARNING

Unplug router and make sure switch is OFF before inserting or removing bit, making adjustments, or performing maintenance or service. **DO NOT** make adjustments while router is connected to power. Serious injury may occur if this is ignored.

To adjust bit depth using fixed base:

1. DISCONNECT TOOL FROM POWER!
2. Loosen clamping lever shown in **Figure 8**, and adjust base to approximately desired height with the height adjustment knob.

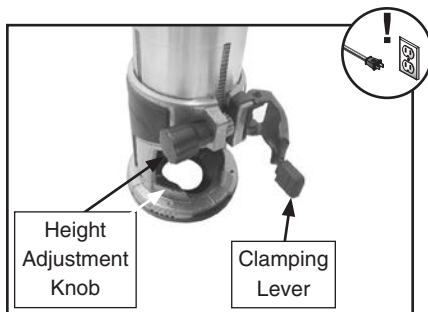


Figure 8. Height adjustment knob.

3. Fine-tune depth of router bit by using a measuring device, such as a pair of digital calipers.

Note: Scale is not calibrated to any specific point. Only use it for reference when making incremental changes.

4. Tighten clamping lever to secure base plate.

To adjust bit depth using plunge base:

1. DISCONNECT TOOL FROM POWER!
2. Loosen depth-stop lock nut.
3. Turn three-position stop block to lowest setting (see **Figure 9**).

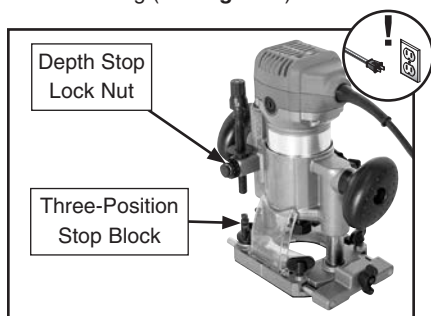


Figure 9. Depth-stop locking nut.

4. Push depth-stop quick-release button and raise depth stop all the way (see **Figure 10**).
5. With router base sitting on flat surface, loosen plunge locking lever and push down until bit is touching surface.
6. Tighten plunge locking lever.
7. Push depth-stop quick-release button, and lower depth stop until it touches three position stop block.

8. Move depth pointer to the "0" mark on the depth scale (see **Figure 10**).

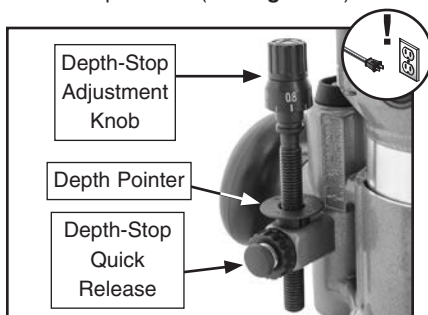


Figure 10. Depth-stop adjustment.

9. Adjust depth stop until depth pointer indicates desired depth of cut.
10. Fine tune adjustment by turning depth-stop adjustment knob.
11. Tighten depth-stop lock nut and loosen plunge locking lever.

Feed Direction

Once the bit has been selected and installed properly, and the depth has been set, determine the proper feed direction of the router across the workpiece:

To determine feed direction:

1. Examine top face of workpiece and determine direction of grain. Feed router so bit is cutting *with* grain (cutting along growth rings as shown in **Figure 11**). Cutting against grain chips wood rather than cutting it, making a rougher surface with more "chip out."

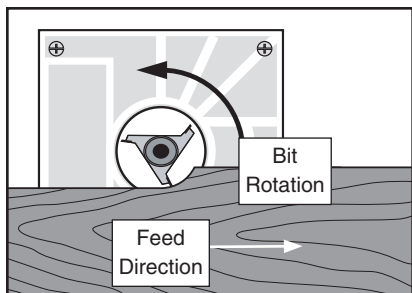


Figure 11. Correct feed direction and grain orientation (bottom view).

2. Pass router across workpiece with bit rotating opposite the feed direction, as shown in **Figure 11**. If cutters are moving in same direction you are feeding the router, you are performing a “climb cut.” This is a very dangerous operation because router could lunge forward out of your hands, causing serious personal injury.

Routing Operations

Once the router bit is installed, the depth is set, and the feed direction is determined, it is time to start routing.

To perform routing operations:

1. Secure workpiece to a stable surface.
2. Place router flat on surface of workpiece, making sure that bit is not touching workpiece.
3. Firmly grasp router (fixed base) or handles (plunge base) and turn router switch **ON (I)**.
 - If using plunge base, slowly push down on router handles to initiate cut.

CAUTION

Router will “kick” when started. If it comes in contact with workpiece it could jump out of your hands and cause injury.

4. Smoothly move router in correct feed direction along workpiece (see **Figure 11**).

CAUTION

DO NOT start routing at a corner. Starting at a corner may cause router to grab, damaging workpiece corner, and possibly causing injury.

Note: Feed router along workpiece at a consistent rate of speed. Be aware of sound of router motor and sound of bit cutting. If motor begins to bog down, or sound pitch of router bit lowers, reduce feed rate.

5. When finished routing, turn router **OFF**, and allow it to come to a complete stop before setting it down.

Curved Trim Guide

The curved trim guide is used for trimming curved surfaces, such as adding a decorative edge to a round table or trimming curved corners on a laminate counter top.

This guide is only used with the fixed base, and with router bits that do not have guide bearings.

To use curved trim guide:

1. DISCONNECT TOOL FROM POWER!
2. Slide trim guide onto base plate as shown in **Figure 12**, set guide height, and tighten height adjustment lock knob.

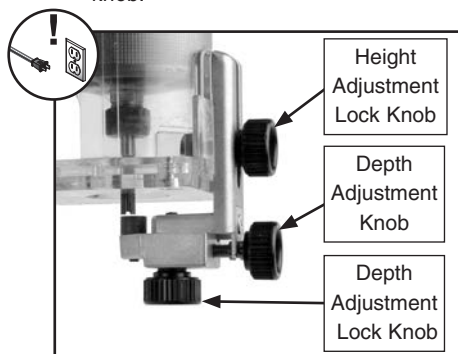


Figure 12. Curved trim guide adjustments.

3. Loosen depth adjustment lock knob and turn depth adjustment knob to adjust depth of cut.
4. Follow instructions in **Routing Operations** on **Page 13**. Make a test cut by sliding guide bushing along edge of a scrap piece of wood.
5. Repeat **Steps 1–4** until cut is correct height and depth.

Straight Guide

The straight guide can be used for trimming, cutting dadoes, straight dovetails, and for cutting circles.

Only use router bits with no guide bearings when using the straight guide.

Using Straight Guide for Trimming

1. DISCONNECT TOOL FROM POWER!
2. Slide straight guide onto base plate as shown in **Figure 13**, then set guide height and tighten lock knob.

— If using plunge base, straight guide will attach to straight guide holder (see **Figure 1** on **Page 5**).

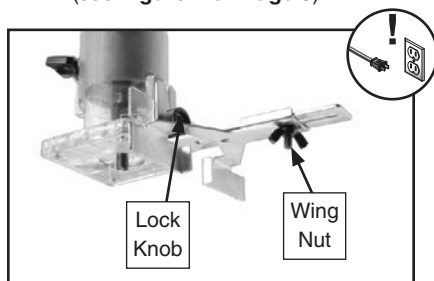


Figure 13. Typical straight guide installation.

3. Loosen wing nut and position straight guide at approximately desired depth.
4. Follow instructions in **Routing Operations** on **Page 13**. Make a test cut by sliding straight guide along edge of a scrap piece of wood.
5. Repeat **Steps 1–4** until cut is correct.

Using Straight Guide for Interior Cuts

1. Follow instructions for **Straight Guide** setup on **Page 14**, but adjust to allow bit to cut an interior slot.

Note: *When cutting interior slots, router will tend to follow wood grain. Keep constant pressure, pulling straight guide into workpiece.*

2. Make sure there is enough excess material at end of cut to support straight guide. If guide slips off end of workpiece, it will wander off of desired line. You may wish to add a longer piece of wood to workpiece for straight guide to follow.
3. Follow the instructions in **Routing Operations** on **Page 13** to make the desired cut, as shown in **Figure 14**.

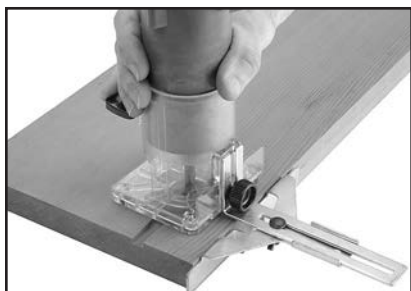


Figure 14. Example of routing a slot.

Using Straight Guide for Cutting Circles

1. Set up straight guide with guide plate facing up (see **Figure 15**).

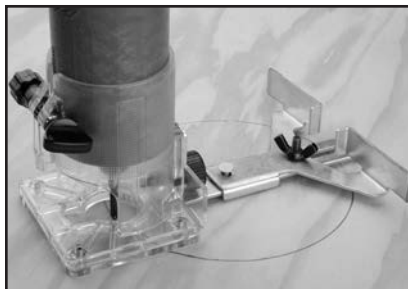


Figure 15. Example of guide setup for cutting circles.

2. Use a compass to mark desired circle on workpiece.
3. Place hole in straight guide over mark, drive a small nail into workpiece at center of circle, then loosen lock bolt and adjust guide until outer bit aligns with marked circle.
4. Adjust router bit to desired depth.
5. Lift router above surface, turn it **ON**, and then carefully lower it into workpiece.
6. Rotate router in a clockwise direction, using nail as pivot point.

SECTION 5: ACCESSORIES

⚠ WARNING

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

NOTICE

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

Basic Eye Protection

T20501—Face Shield 4"

T20502—Face Shield 7"

T20503—Face Shield Window

T20451—"Kirova" Clear Safety Glasses

T20452—"Kirova" Anti-Reflective S. Glasses

H7194—Bifocal Safety Glasses 1.5

H7195—Bifocal Safety Glasses 2.0

H7196—Bifocal Safety Glasses 2.5

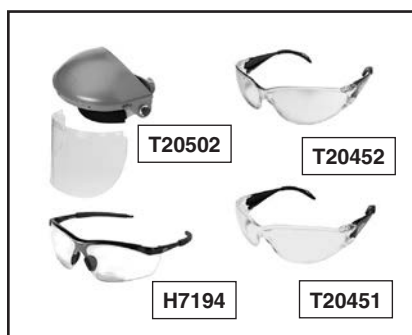


Figure 16. Assortment of basic eye protection.

H5554—20 Pc. Carbide 1/4" Router Bit Set

H3168—30 Pc. Carbide 1/4" Router Bit Set

Grizzly Industrial carries an extensive selection of 1/4" shank router bits. The following router bit sets are a very small portion of what Grizzly carries. For the latest models and pricing, check our website, www.grizzly.com, our catalog, or call 1-800-523-4777.



Figure 17. Model H5554 20-Pc. 1/4" Shank Router Bit Set.



Figure 18. Model H3168 30 pc. 1/4" Shank Router Bit Set.

order online at www.grizzly.com or call 1-800-523-4777

H4978—Deluxe Earmuffs - 27dB

H4979—Twin Cup Hearing Protector - 29dB

Protect yourself comfortably with a pair of cushioned earmuffs. Especially important if you or employees operate for hours at a time.



Figure 19. Hearing Protection.

T23245—The Missing Shop Manual: Router

In Router, woodworkers will find out how to best utilize this essential workshop tool, and how to get the most for their money by getting the most from their equipment. Filled with clear diagrams and instructions, this pocket-sized, durable manual is ideal for quick reference in the workshop.

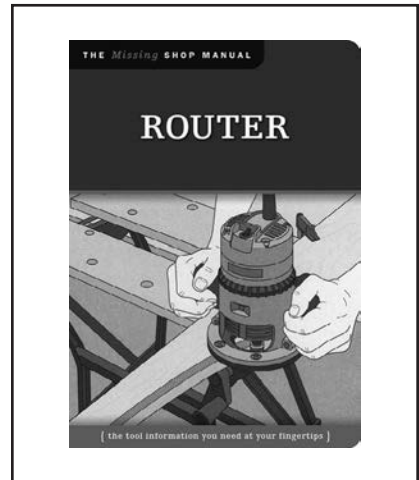
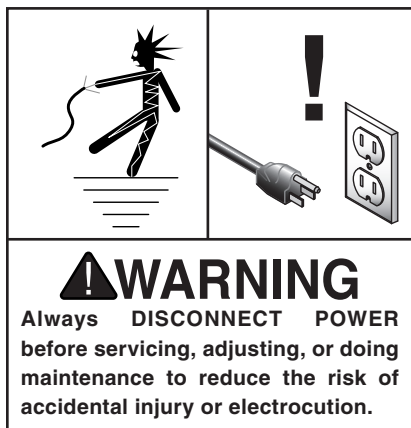


Figure 20. The Missing Shop Manual: Router.

order online at www.grizzly.com or call 1-800-523-4777

SECTION 6: MAINTENANCE



Cleaning & Protecting

Cleaning the Model T27139 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Inspect the router for loose parts, damaged cord or switch, and inspect the bits for chips or cracks. Replace the bit if it is worn or damaged. Continuous use of a worn or damaged bit will not only decrease working efficiency, but also overload the motor, so the bit must be frequently checked.

With the exception of the motor brushes, the electrical components of this router are not user serviceable.

Contact our Technical Support at (570) 546-9663 for any repair work that requires opening the motor housing and for replacement parts.

Replacing Brushes

Motor brushes will become loaded with carbon deposits or wear out over time. Extend the life of the motor brushes by removing them periodically and cleaning off the carbon deposits.

If the motor will not run, makes squealing or grinding noises, or performance is dramatically decreased, check to see if the motor brushes need to be replaced. When replacing the motor brushes, replace both at the same time.

To replace motor brushes:

1. Remove motor brush caps on sides of motor housing, as shown in **Figure 21**.

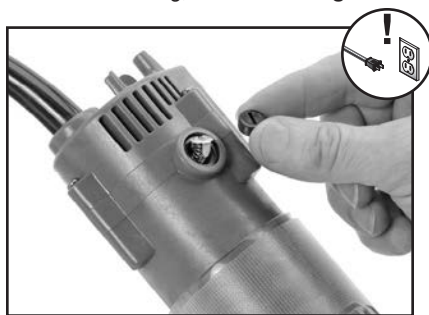


Figure 21. Example of replacing motor brushes (1 of 2).

2. Replace motor brushes and re-install caps.

SECTION 7: SERVICE

Troubleshooting



Symptom	Possible Cause	Possible Solution
Tool does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Wall circuit breaker tripped. 2. Plug/receptacle at fault/wired wrong. 3. Wiring open/has high resistance. 4. Motor brushes at fault. 5. Motor at fault. 	<ol style="list-style-type: none"> 1. Ensure circuit size is correct/replace weak breaker. 2. Test for good contacts; correct the wiring. 3. Check/fix broken, disconnected, or corroded wires. 4. Replace brushes. 5. Test/repair/replace.
Tool stalls or is under-powered.	<ol style="list-style-type: none"> 1. Workpiece material unsuitable for tool. 2. Workpiece crooked; guide mis-adjusted. 3. Tool undersized for task; wrong bit. 4. Plug/receptacle at fault. 5. Motor bearings at fault. 6. Motor overheated. 7. Motor brushes at fault. 8. Motor at fault. 	<ol style="list-style-type: none"> 1. Only cut wood; ensure moisture is below 20%. 2. Straighten or replace workpiece; adjust guide. 3. Use correct bit; reduce feed rate or depth of cut. 4. Test for good contacts/correct wiring. 5. Test/repair/replace. 6. Clean motor, let cool, and reduce workload. 7. Replace brushes. 8. Test/repair/replace.
Tool has excessive vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component loose. 2. Bit at fault. 3. Motor mount loose/broken. 4. Tool incorrectly mounted. 5. Motor bearings at fault. 	<ol style="list-style-type: none"> 1. Inspect/replace damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Replace broken bit; sharpen dull bit. 3. Tighten/replace. 4. Re-install router motor into base. 5. Test by rotating shaft; grinding/loose shaft requires bearing replacement.

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 tools. Compare the manufacture date of your tool to the one stated in this manual, and study this section carefully.

If there are differences between your tool 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 tool. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your tool before calling. This information can be found on the main tool 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 tool 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 tool 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 tool to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or tool 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 tool. If you find this to be the case, use the wiring diagram inside the motor junction box.

















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

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

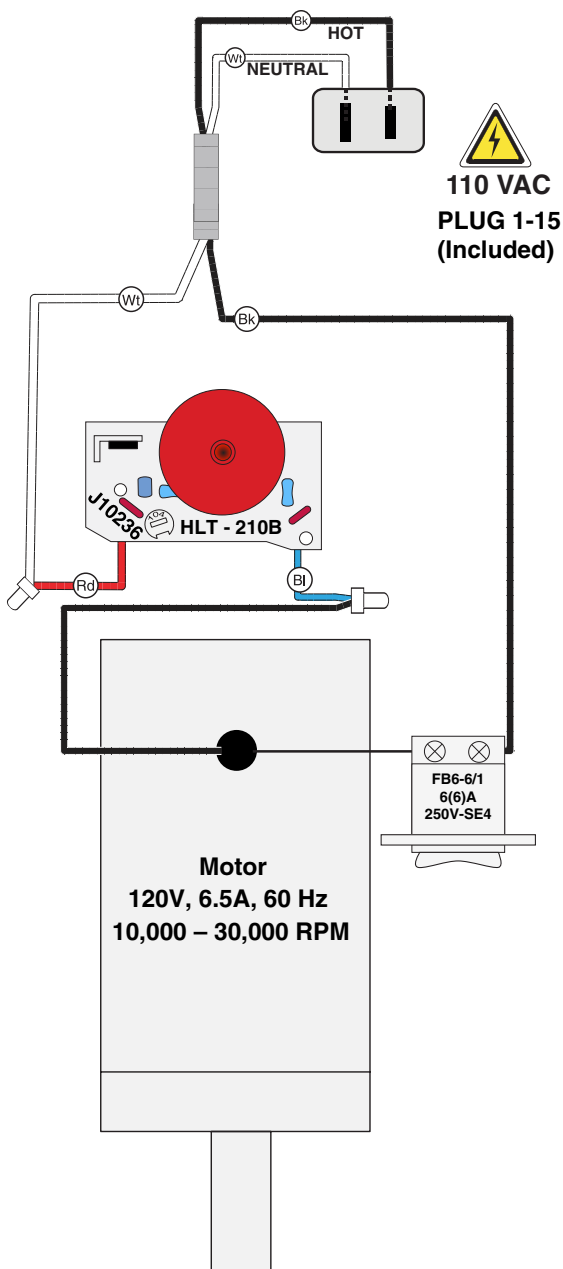
NOTICE

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

COLOR KEY

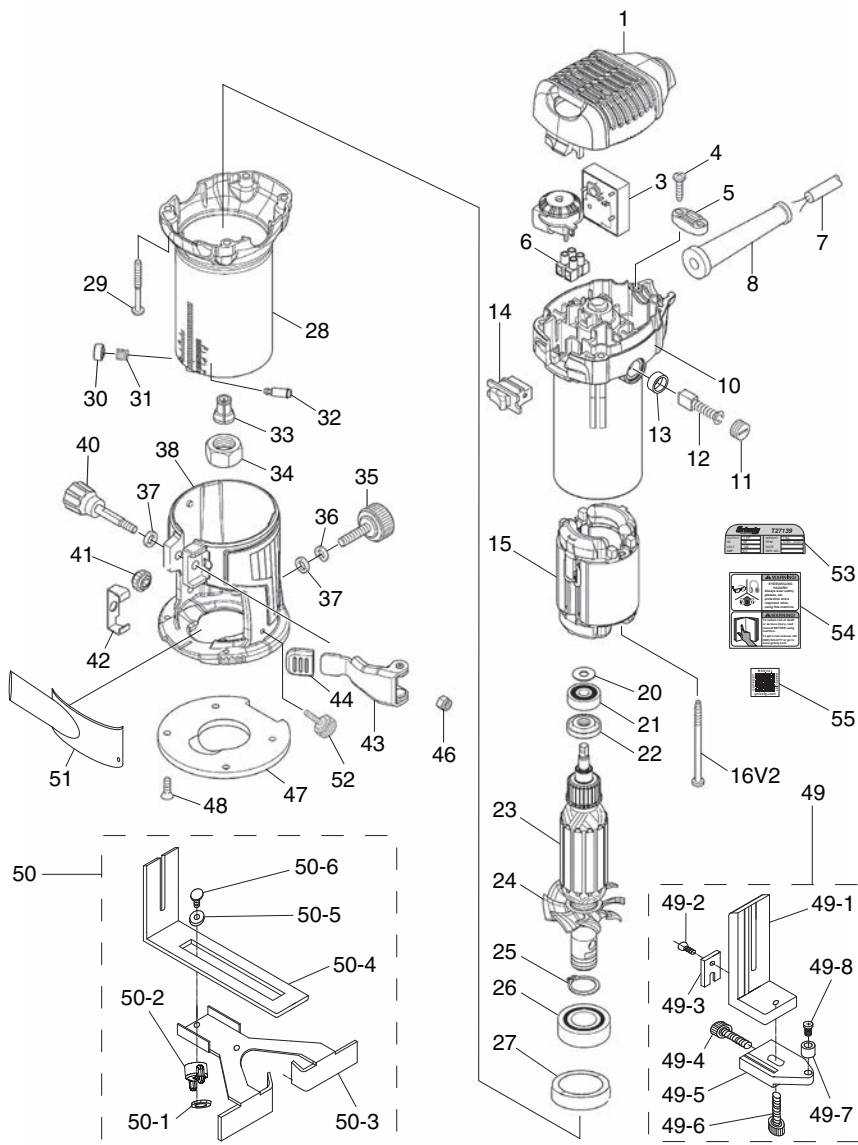
BLACK 	BLUE 	YELLOW 	LIGHT BLUE 
WHITE 	BROWN 	YELLOW GREEN 	BLUE WHITE 
GREEN 	GRAY 	PURPLE 	WHITE 
RED 	ORANGE 	PINK 	TURQUOISE 

Wiring Diagram



SECTION 9: Parts

Main Breakdown

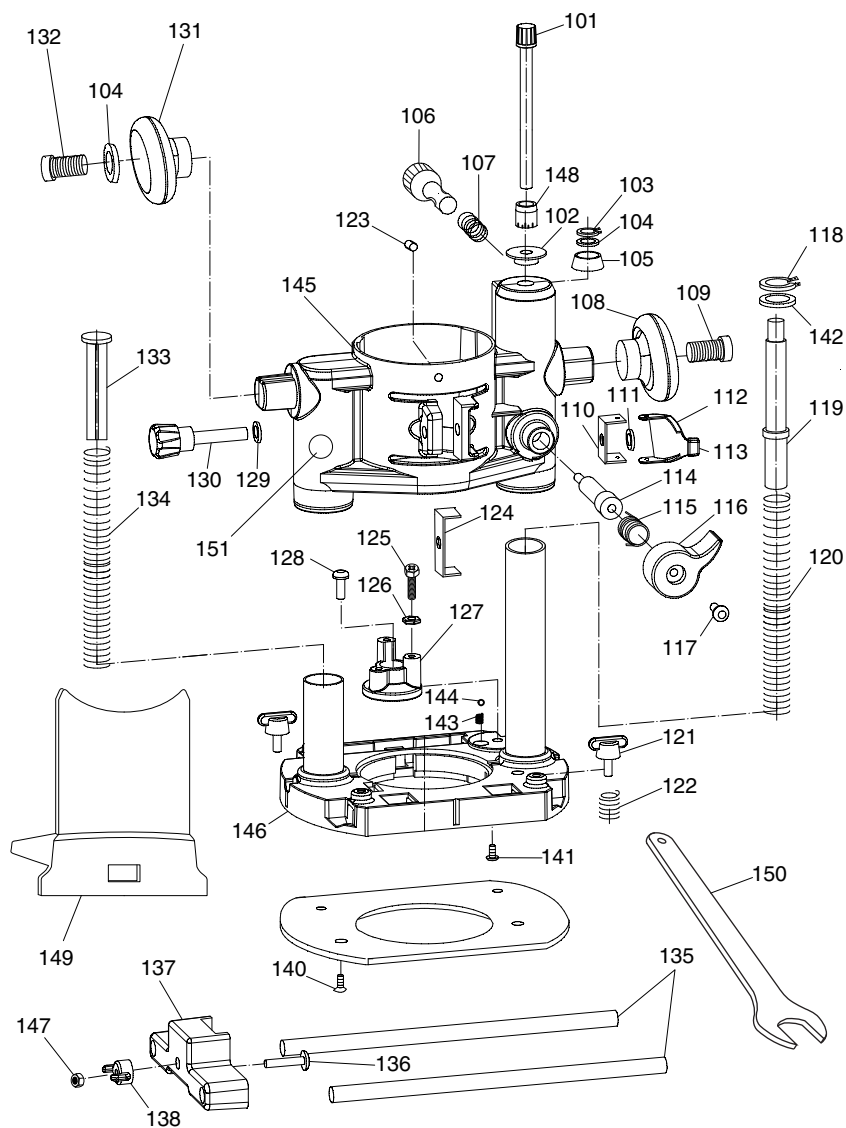


Main Breakdown Parts List

REF	PART #	DESCRIPTION
1	PT27139001	TOP COVER
3	PT27139003	CONTROLLER
4	PT27139004	TAP SCREW M4 X 18
5	PT27139005	CABLE CLAMP
6	PT27139006	TERMINAL BLOCK 2P
7	PT27139007	POWER CORD 18G 2W 72" 1-15P
8	PT27139008	CORD GUARD
10	PT27139010	MOTOR HOUSING
11	PT27139011	MOTOR CARBON BRUSH CAP
12	PT27139012	MOTOR CARBON BRUSH 2-PC SET
13	PT27139013	BRUSH HOLDER
14	PT27139014	ON/OFF SWITCH
15	PT27139015	STATOR
16	PT27139016	TAP SCREW M4 X 65
20	PT27139020	WAVE WASHER 6MM
21	PT27139021	BALL BEARING 627-2RS
22	PT27139022	BEARING WASHER
23	PT27139023	ARMATURE ASSEMBLY
24	PT27139024	MOTOR FAN
25	PT27139025	EXT RETAINING RING 17MM
26	PT27139026	BALL BEARING 6003-2RS
27	PT27139027	BEARING SLEEVE
28	PT27139028	OUTER HOUSING
29	PT27139029	TAP SCREW M4 X 40
30	PT27139030	SHAFT LOCK BUTTON
31	PT27139031	COMPRESSION SPRING
32	PT27139032	SHAFT LOCK PIN
33	PT27139033	COLLET CONE 1/4"
34	PT27139034	COLLET NUT 5/8-20
35	PT27139035	THUMB SCREW M6-1 X 25
36	PT27139036	LOCK WASHER 6MM

REF	PART #	DESCRIPTION
37	PT27139037	FLAT WASHER 6MM
38	PT27139038	TRIMMER BASE
40	PT27139040	KNOB BOLT M5-.8 X 35
41	PT27139041	SPUR GEAR 16T
42	PT27139042	CAM PLATE
43	PT27139043	LOCK LATCH
44	PT27139044	RUBBER CAP
46	PT27139046	LOCK NUT M5-.8
47	PT27139047	BASE PROTECTOR
48	PT27139048	FLAT HD SCR M4-.7 X 8
49	PT27139049	CURVED GUIDE ASSEMBLY
49-1	PT27139049-1	GUIDE SEAT
49-2	PT27139049-2	FLAT HD SCR M5-.8 X 6
49-3	PT27139049-3	KNOB BOLT BRACKET
49-4	PT27139049-4	KNOB BOLT M6-1 X 15 GROOVED
49-5	PT27139049-5	GUIDE PLATE
49-6	PT27139049-6	KNOB BOLT M6-1 X 16
49-7	PT27139049-7	GUIDE WHEEL
49-8	PT27139049-8	SHOULDER SCREW M5-.8 X 8, 5L
50	PT27139050	STRAIGHT GUIDE ASSEMBLY
50-1	PT27139050-9	HEX NUT M6-1
50-2	PT27139050-2	KNOB HEX SEAT 6MM
50-3	PT27139050-3	STRAIGHT GUIDE BODY
50-4	PT27139050-4	STRAIGHT GUIDE BRACKET
50-5	PT27139050-5	FLAT WASHER 6MM
50-6	PT27139050-6	CARRIAGE BOLT M6-1 X 20
51	PT27139051	DUST SHIELD W/1-1/2" PORT
52	PT27139052	DUST SHIELD KNOB M4-.7 X 20
53	PT27139053	MACHINE ID LABEL
54	PT27139054	SAFETY WARNING LABEL
55	PT27139055	QR CODE LABEL

Plunge Base Breakdown



Plunge Base Breakdown Parts List

REF	PART #	DESCRIPTION
101	PT27139101	DEPTH STOP SCREW M10-1.5 X 115
102	PT27139102	DEPTH INDICATOR RING
103	PT27139103	EXT RETAINING RING 8MM
104	PT27139104	FLAT WASHER 8MM
105	PT27139105	RUBBER BUSHING
106	PT27139106	DEPTH STOP LOCK BUTTON
107	PT27139107	COMPRESSION SPRING
108	PT27139108	HANDLE
109	PT27139109	PHLP HD SCR M8-1.25 X 25
110	PT27139110	CAM BRACKET
111	PT27139111	LOCK NUT M6-1
112	PT27139112	LOCK LEVER ASSEMBLY
113	PT27139113	RUBBER END CAP
114	PT27139114	SET BOLT M10-1.5 X 21
115	PT27139115	TORSION SPRING
116	PT27139116	PLUNGE LOCK LEVER
117	PT27139117	PHLP HD SCR M5-.8 X 12
118	PT27139118	EXT RETAINING RING 15MM
119	PT27139119	PLUNGE ROD
120	PT27139120	COMPRESSION SPRING
121	PT27139121	KNOB BOLT M5-.8 X 14
122	PT27139122	COMPRESSION SPRING
123	PT27139123	PLUNGE GUIDE PIN 4 X 4
124	PT27139124	CAM SEAT
125	PT27139125	HEX BOLT M5-.8 X 18
126	PT27139126	HEX NUT M5-.8

REF	PART #	DESCRIPTION
127	PT27139127	DEPTH SELECTOR PLATE
128	PT27139128	SHOULDER SCREW M6-1 X 10, 4L
129	PT27139129	FLAT WASHER 6MM
130	PT27139130	KNOB BOLT M5-.8 X 35
131	PT27139131	HANDLE
132	PT27139132	PHLP HD SCR M8-1.25 X 25
133	PT27139133	SPRING SHAFT PLASTIC
134	PT27139134	COMPRESSION SPRING
135	PT27139135	EXTENSION ROD
136	PT27139136	CARRIAGE BOLT M6-1 X 18
137	PT27139137	EXTENSION BASE
138	PT27139138	KNOB HEX SEAT 6MM
139	PT27139139	BASE PLATE
140	PT27139140	FLAT HD SCR M4-.7 X 10
141	PT27139141	PHLP HD SCR M5-.8 X 12
142	PT27139142	FLAT WASHER 10MM
143	PT27139143	COMPRESSION SPRING
144	PT27139144	STEEL BALL 7MM
145	PT27139145	PLUNGE BODY
146	PT27139146	PLUNGE BASE
147	PT27139147	HEX NUT M6-1
148	PT27139148	DEPTH INDICATOR DIAL
149	PT27139149	DUST SHIELD
150	PT27139150	COLLET WRENCH OPEN-END 22MM
151	PT27139151	GRIZZLY GREY TOUCH-UP PAINT



WARRANTY CARD

Name _____
Street _____
City _____ State _____ Zip _____
Phone # _____ Email _____
Model # _____ Order # _____ Serial # _____

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.***

1. How did you learn about us?

____ Advertisement ____ Friend ____ Catalog
____ Card Deck ____ Website ____ Other:

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

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

3. What is your annual household income?

____ \$20,000-\$29,000 ____ \$30,000-\$39,000 ____ \$40,000-\$49,000
____ \$50,000-\$59,000 ____ \$60,000-\$69,000 ____ \$70,000+

4. What is your age group?

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

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

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

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

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

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

____ Yes ____ No

8. Would you recommend Grizzly Industrial to a friend?

____ Yes ____ No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: *We never use names more than 3 times.* ____ Yes ____ No

10. Comments:

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place
Stamp
Here



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



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name _____
Street _____
City _____ State _____ Zip _____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY

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.



Buy Direct and Save with Grizzly® – Trusted, Proven and a Great Value!
~Since 1983~

*Visit Our Website Today For
Current Specials!*

**ORDER
24 HOURS A DAY!
1-800-523-4777**

