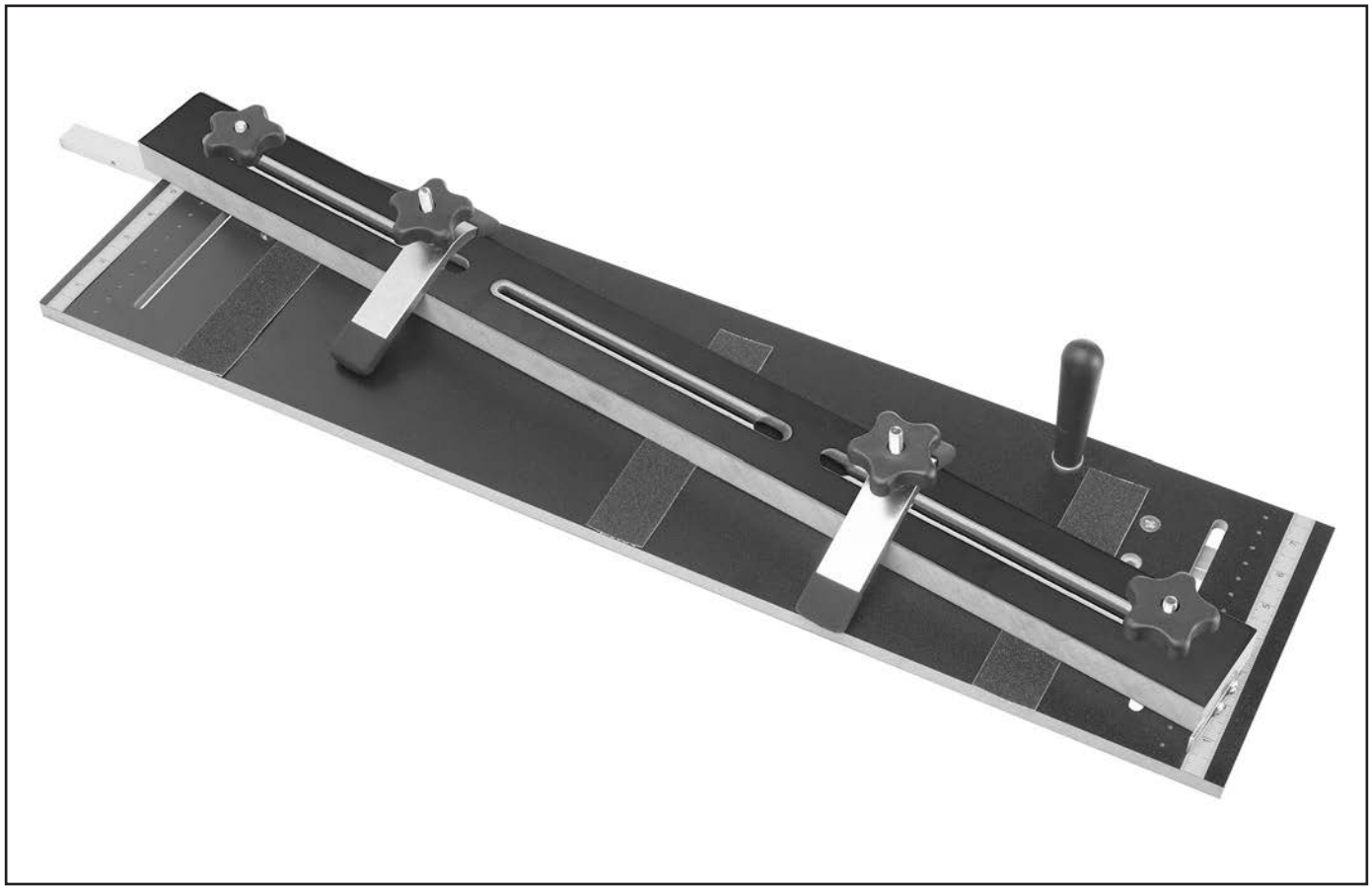
MODEL T33989
TAPER/STRAIGHT LINE JIG
OWNER'S MANUAL
(For models manufactured since 11/23)



#CS22986 PRINTED IN TAIWAN V1.01.24

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

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Table of Contents

⚠WARNING

Like all machinery there is potential danger when operating this equipment. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this equipment 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.

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

Specifications

Product Weight	6 lbs.
Width x Depth X Height	10-1/4 x 36 x 4-3/4 in.
Table Saw Requirements	
Table Miter Slot Width	3/4 in.
Table Miter Slot Depth	3/8 in.
Blade to Right Miter Slot Minimum Distance	3-3/4 in.
Maximum Stock Thickness (10" Blade)	2 in.
Maximum Stock Width	4-1/2 in.
Taper Angle	0–12 deg.
Fence Length	32 in.
Fence Width	2-1/2 in.
Fence Height	1 in.
Construction	
Base	Laminated MDF
Fence	Laminated MDF
Miter Bar	Aluminum

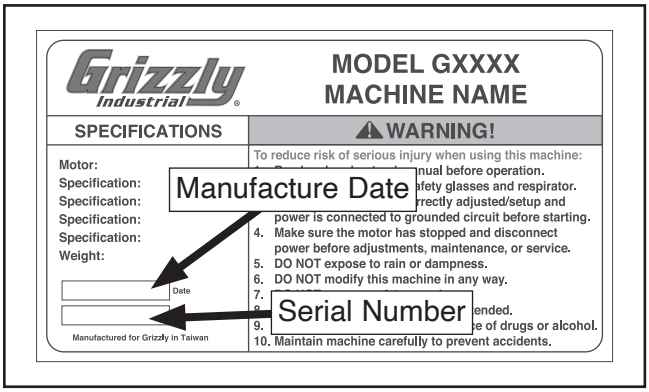
Manual Accuracy

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.



SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

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

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

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

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

Safety Instructions for Machinery

⚠WARNING

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

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

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

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.

⚠WARNING

WEARING PROPER APPAREL. Do not wear loose clothing, gloves, neckties, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

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

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

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

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

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

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

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine ***OFF*** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

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

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Taper/Straight Line Jigs

⚠WARNING

Serious cuts, amputation, or death can occur from contact with rotating saw blade during operation. Workpieces, broken blades, or flying particles thrown by blade can blind or strike operators or bystanders with deadly force. To minimize the risk of these hazards, operators and bystanders MUST completely heed the hazards and warnings below.

HAND & BODY POSITIONING. Keep hands away from saw blade and out of blade path during operation, so they cannot accidentally slip into blade. Only feed jig from right of blade on infeed side of machine. Always stand to side of blade path. Never reach behind or over blade when blade is spinning.

FEEDING JIG. Feeding jig incorrectly increases risk of kickback. Turn ***OFF*** machine, lower blade, and feed jig forward to check for blade interference and to ensure proper outfeed support. Allow blade to reach full speed before cutting. Feed jig from right side of blade at infeed side of machine so force of blade rotation presses workpiece and jig against table. ALWAYS use two hands to firmly hold and maintain downward pressure on jig. Exerting downward pressure where workpiece hangs off of jig may cause jig to rock. Failure to maintain proper downward pressure on jig could cause jig to lift out of miter slot or off of table. Feed cuts through to completion. Do not change feed direction while table saw is ***ON*** or while blade is in motion. Never pull jig from behind blade or plunge cut.

TAPER CUTS. Do not use table saw rip fence with jig while cutting tapers. Jig miter bar must be placed in miter slot to right of blade during taper cuts. Ensure that fence is set up so wide end of intended tapers will be cut first to reduce the risk of kickback.

RIP CUTS. Remove miter bar from jig before performing rip cut. Do not perform a rip cut freehand; always use table saw rip fence to guide jig when rip cutting. When rip cutting is complete, always install miter bar on jig before performing taper cut.

KICKBACK. Kickback occurs when saw blade ejects workpiece back toward operator. Know how to reduce risk of kickback, and learn how to protect yourself if it does occur.

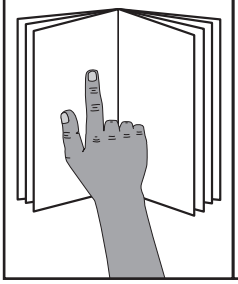
WORKPIECE. ALWAYS securely clamp workpiece to jig and make sure all fasteners and lock knobs are tight before you start saw. Make sure workpiece is in stable position against jig base, jig fence, and jig stop during cutting operation, and that workpiece is secured with both hold-down clamps. Clamps must secure workpiece without interfering with or contacting blade or blade guard during cut. If workpiece cannot be secured with provided hold-down clamps, use an alternate hold-down method. Always adjust jig stop as far out as operation allows to provide as much workpiece support as possible. Never start saw with workpiece touching blade.

CUT-OFF PIECES. To avoid risk of injury due to blade contact, turn table saw ***OFF*** and allow blade to completely stop before removing cut-off pieces near blade. Never use your hands to move cut-off pieces away from blade while saw is running.

CUTTING CORRECT MATERIAL. Cutting metal, glass, stone, tile, etc., increases risk of operator injury due to kickback or flying particles. Only cut natural and man-made wood products, laminate-covered wood products, and some plastics. Never cut materials not intended for your saw.

SPECIFICATIONS. DO NOT use jig on table saw that does not meet the requirements included in **Specifications** section of this manual. Table saws that do not meet these requirements or are adjusted incorrectly may cause an increased risk of kickback and operator injury.

SECTION 2: SETUP



⚠WARNING

Jig setup and use presents serious injury hazards to untrained users. Read through this entire manual to become familiar with operations before beginning setup!

⚠WARNING

Wear safety glasses during entire setup process!

⚠WARNING

Setup for some table saws requires trimming jig base. Eye injuries, respiratory problems, or hearing loss can occur while operating table saw. Wear personal protective equipment to reduce your risk from these hazards if your setup requires you to trim jig base with table saw.

Needed for Setup

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

Description	Qty
• Safety Glasses	1
• Phillips Head Screwdriver #2	1
• Table Saw	1
• Ruler or Measuring Tape	1
• Scissors or Precision Knife	1

Unpacking

This equipment 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 equipment 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 equipment later.*

Inventory

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

Loose Inventory (Figure 1)	Qty
A. Jig Base	1
B. Hold-Down Clamps	2
C. Miter Bar	1
D. Fence	1
E. Adhesive Scales	2
F. Adhesive Grip Strips	3
G. Flat Head Screwdriver 1/8"	1

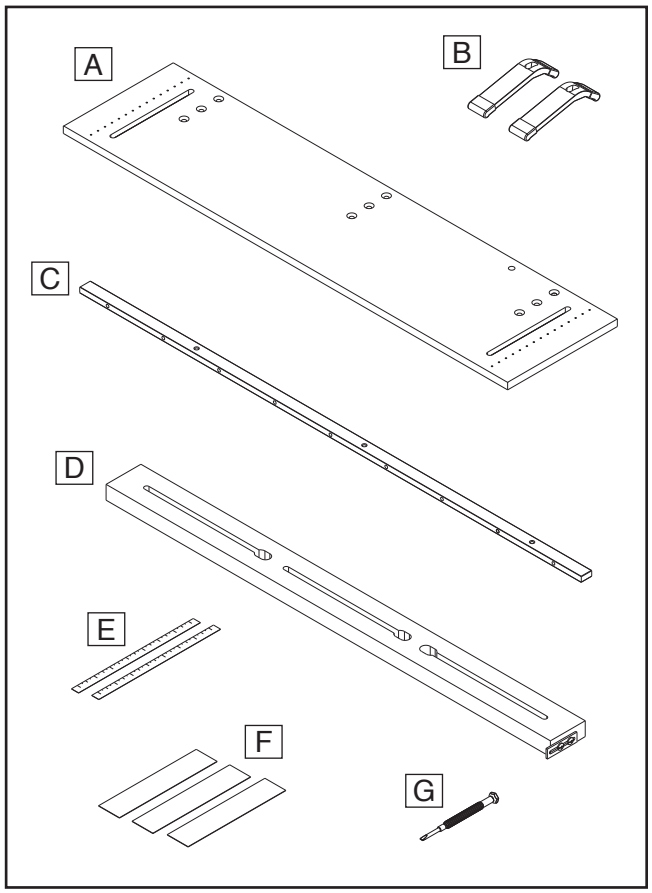


Figure 1. Loose inventory.

Fasteners (Figure 2)	Qty
H. Knobs 5/16"-18	4
I. Tapered Knob 5/16"-18	1
J. T-Bolts 5/16"-18 x 3 1/2"	2
K. T-Bolts 5/16"-18 x 2 1/2"	2
L. Flat Head Screw 5/16"-18 x 1"	1
M. Flat Head Screws 1/4"-20 x 3/4"	3
N. Slotted Set Screws 10-32 x 5/8"	9
O. Flat Washers 5/16"	5

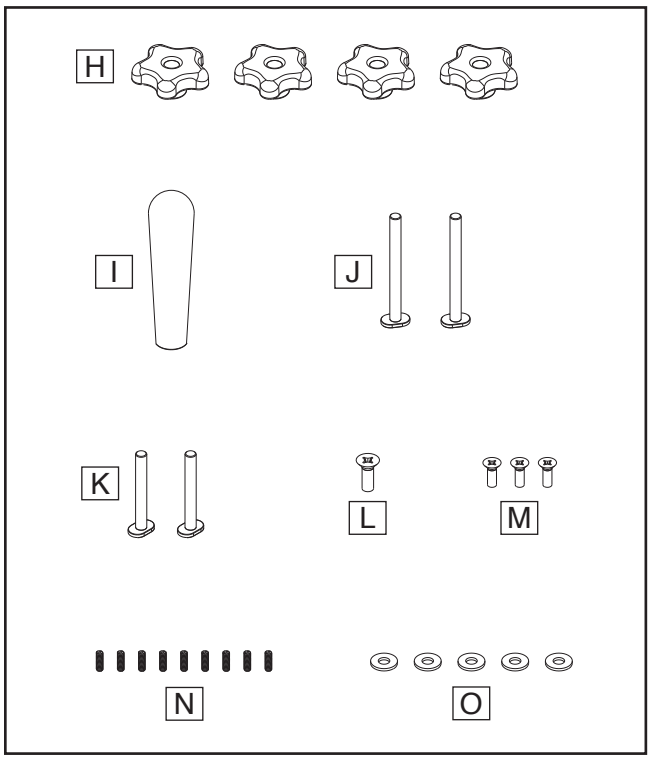


Figure 2. Fastener inventory.

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.

Assembly

The jig must be fully assembled before it can be used. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items.

To assemble jig:

1. DISCONNECT TABLE SAW FROM POWER!

2. Remove existing table saw miter gauge and fence.

3. Attach 5⁄16"-18 tapered knob to jig base with 5⁄16" flat washer and 5⁄16"-18 x 1" flat head screw (see **Figure 3**).

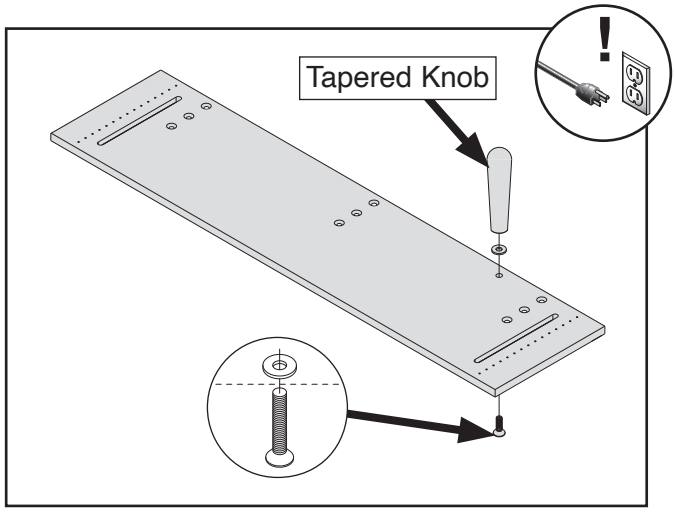


Figure 3. Attaching tapered knob to jig base.

4. Thread (9) 10-32 slotted set screws into miter bar (see **Figure 4**).

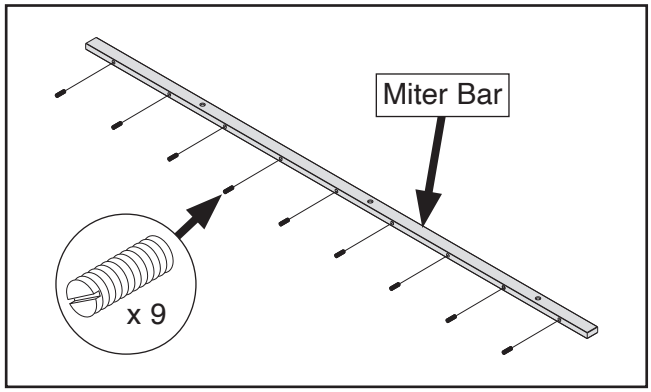


Figure 4. Installing slotted set screws in miter bar.

5. Measure distance between inner edge of right miter slot and blade on your table saw (see **Figure 5**).

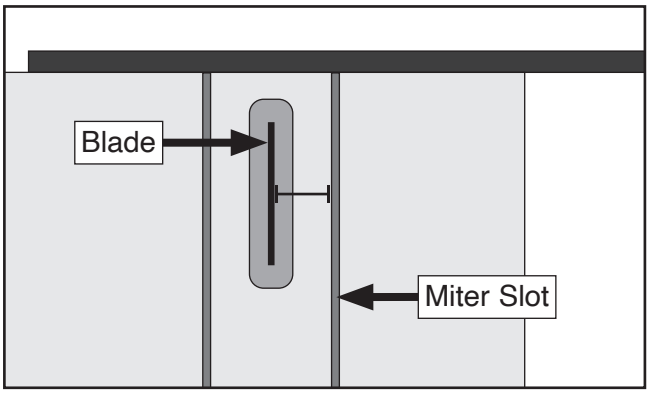


Figure 5. Distance between inner edge of right miter slot and blade.

6. Attach miter bar to jig base with (3) ¼"-20 x ¾" flat head screws (see **Figure 6**). Miter bar should extend past rear edge of jig base when installed correctly.

— If distance measured in **Step 5** is between 3¾"–5", use left mounting holes.

— If distance measured in **Step 5** is between 5"–6⅜", use center mounting holes.

— If distance measured in **Step 5** is more than 6⅜", use right mounting holes.

Note: *Some table saws require cutting edge of jig for blade clearance to provide zero-clearance support.*

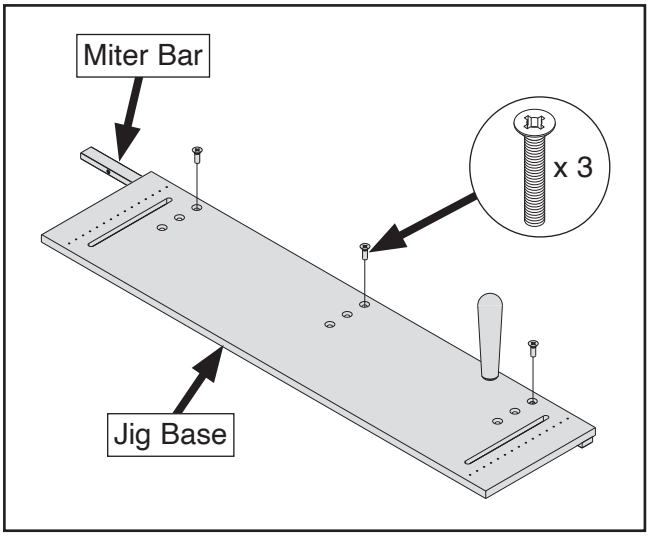


Figure 6. Attaching miter bar to jig base (right mounting hole setup shown).

7. Refer to owner's manual of table saw to check and adjust saw blade parallel to miter slot and blade 90° to table.

8. Completely lower table saw blade below table surface and remove splitter blade guard.

9. Place jig miter bar in table saw miter slot on right of blade (see **Figure 7**) to check how miter bar moves through slot.

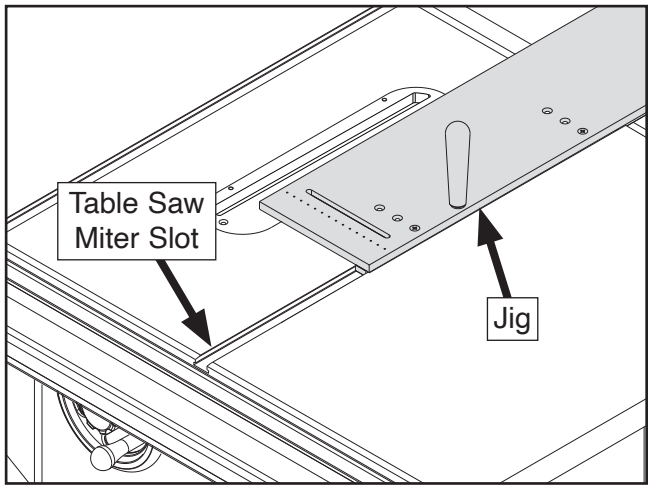


Figure 7. Jig miter bar in table saw miter slot.

10. Remove jig from table saw and adjust (9) slotted set screws installed in **Step 4** until miter bar will move snugly and smoothly through miter slot, without wobbling side-to-side.

11. Slide jig in miter slot so it is in starting position and blade opening is clear (see **Figure 8**).

12. Raise table saw blade so it is just high enough that gullets clear workpiece (usually no more than ¼" above table) (see **Figure 8**).

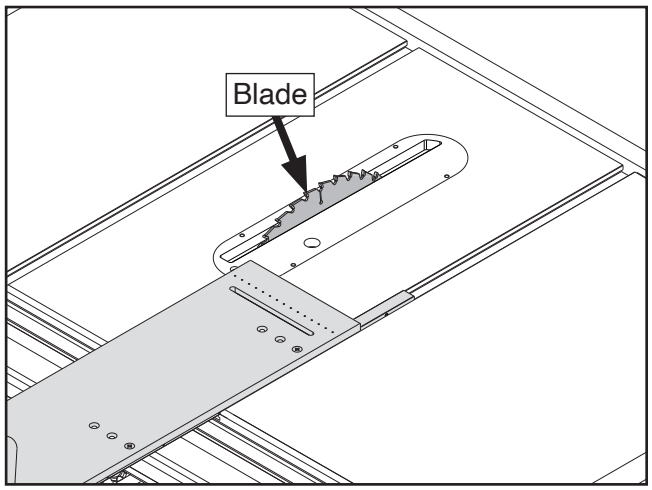


Figure 8. Checking blade clearance.

13. Push jig toward rear of table saw in miter slot to check jig for blade clearance.

    — If jig contacts blade, proceed to **Step 14**. You will need to cut edge of jig to provide blade clearance.

    — If jig can move through entire miter slot without contacting blade, install blade guard, then proceed to **Step 20**.

14. Slide jig toward front of table saw until it is not contacting blade, then install splitter blade guard (see **Figure 9**).

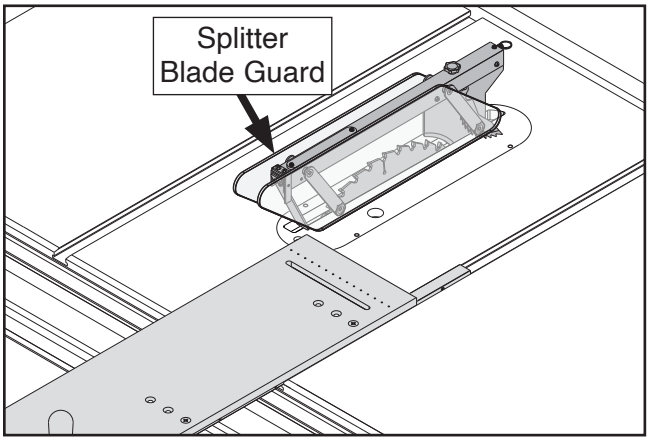
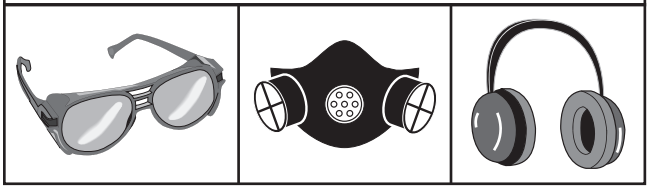


Figure 9. Jig positioned for blade clearance cut.

15. Check outfeed side of machine for proper support and make sure jig can safely pass all the way through blade without interference or blade contact.

⚠WARNING

Setup for some table saws requires trimming jig base. Eye injuries, respiratory problems, or hearing loss can occur while operating table saw. Wear personal protective equipment to reduce your risk from these hazards if your setup requires you to trim jig base with table saw.



16. Connect table saw to power and turn saw ***ON***.

17. Using tapered knob, feed jig forward all the way through the blade while maintaining steady forward and downward pressure on jig to cut extra material from jig base (see **Figure 10**).

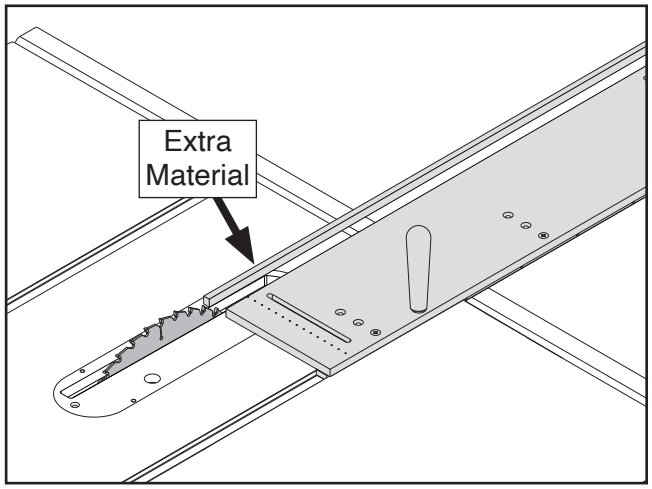


Figure 10. Extra material cut from jig base (blade guard removed for clarity).

18. Turn ***OFF*** table saw, allow blade to come to a complete stop, and DISCONNECT MACHINE FROM POWER.

19. Discard extra material cut-off piece.

20. Remove backing from (2) adhesive scales and (3) adhesive grip strips and apply them to jig, as shown in **Figure 11**. 0" on scales and left edges of grip strips should be aligned with left edge of jig base.

IMPORTANT: Do not cover miter bar mounting screw holes with grip strips (see **Figure 11**).

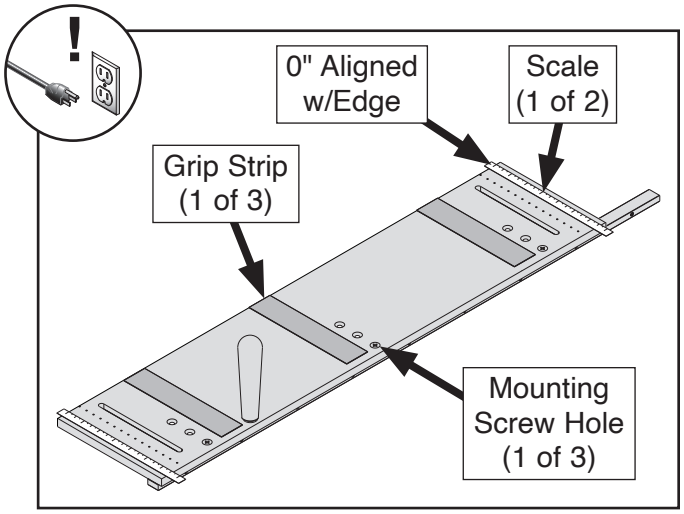


Figure 11. Scales and grip strips affixed to jig.

21. Trim excess scale tape.

22. Insert (2) 5/16"-18 x 3½" T-bolts up through fence slots shown in **Figure 12**, place hold-down clamp and 5/16" flat washer on each bolt, then secure by loosely threading (2) 5/16"-18 knobs onto bolts (see **Figure 12**).

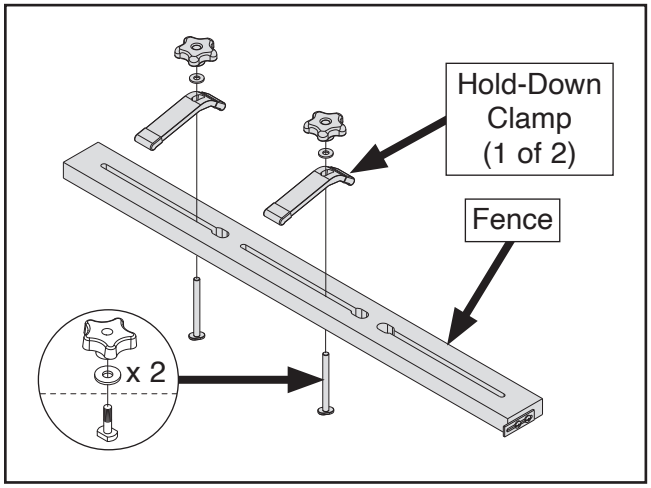


Figure 12. Installing hold-down clamps in fence.

23. Insert (2) 5/16"-18 x 2½" T-bolts up through jig base slots, as shown in **Figure 13**.

24. Align bolts with slots in fence, place 5/16" flat washer on each bolt, then secure fence to jig base by loosely threading (2) 5/16"-18 knobs onto bolts (see **Figure 13**).

IMPORTANT: Fence must be installed so stop shown in **Figure 13** is on same side as tapered knob.

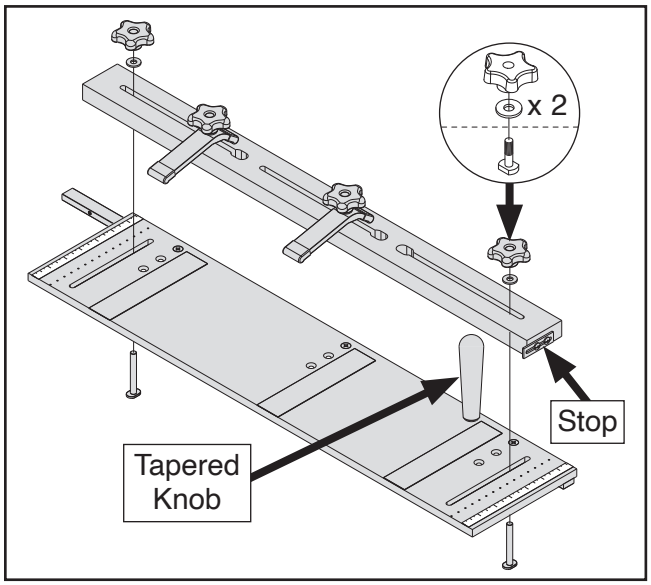
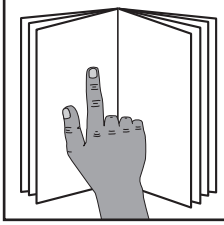


Figure 13. Attaching fence to jig base.

SECTION 3: OPERATIONS



⚠WARNING

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

⚠WARNING

Eye injuries, respiratory problems, or hearing loss can occur while operating table saw. Wear personal protective equipment to reduce your risk from these hazards.

⚠WARNING

Cutting narrow end of a taper first will cause workpiece to press against blade and will likely result in kickback. Kickback is often defined as the high-speed expulsion of stock from table saw toward its operator. In addition to the danger of operator or others in area being struck by flying stock, kickback can also pull operator's hands into blade. Always adjust jig fence so wide end of taper will be cut first to prevent these risks.

NOTICE

If you are not experienced with this type of equipment, 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.

Adjusting Fence Taper

Adjust the jig fence angle in relation to the jig edge to produce a taper. The jig must be adjusted so the intended wide end of the taper is cut first to prevent an unnecessary risk of kickback.

There are two methods for adjusting the taper: using the scales or using the indexing holes.

Adjusting Taper with Scales

The scale value indicated by the front of the jig fence minus the scale value indicated by the rear of the jig fence will equal the total taper for the distance between the two scales (between 29"–32", depending on where they were installed). For example, if you align the fence with 4" on the front scale and 2" on the rear scale, there is a difference of 2" between them, so the jig will produce a 2" taper per the scale distance (see **Figure 14**).

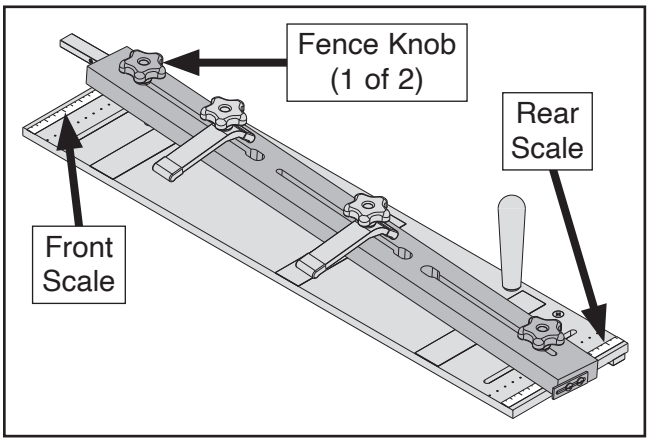


Figure 14. Scale taper adjustment components.

To adjust taper with scales:

1. DISCONNECT TABLE SAW FROM POWER!
2. Loosen (2) fence knobs (see **Figure 14**).
3. Align front and rear ends of fence with desired values on scales (see **Figure 14**), then tighten fence knobs to secure setting.

Adjusting Taper with Indexing Holes

Each indexing hole on either end of the jig represents 1° of taper. For example, if you align the front of the fence with hole #7 and align the rear of the fence with hole #4, there is a difference of 3 holes between them, so the jig will produce a 3° taper (see **Figure 15**).

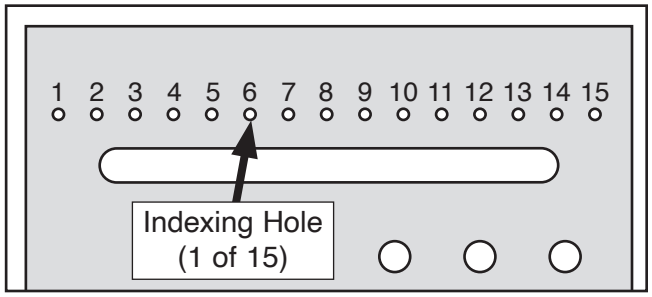


Figure 15. Location of indexing holes.

Note: *Your jig may not have all 15 of the original indexing holes if your jig was cut to fit your table saw.*

To adjust taper with indexing holes:

1. DISCONNECT TABLE SAW FROM POWER!

2. Loosen (2) fence knobs (see **Figure 16**).

3. Align front and rear ends of fence with desired indexing holes (see **Figure 16**), then tighten fence knobs to secure setting.

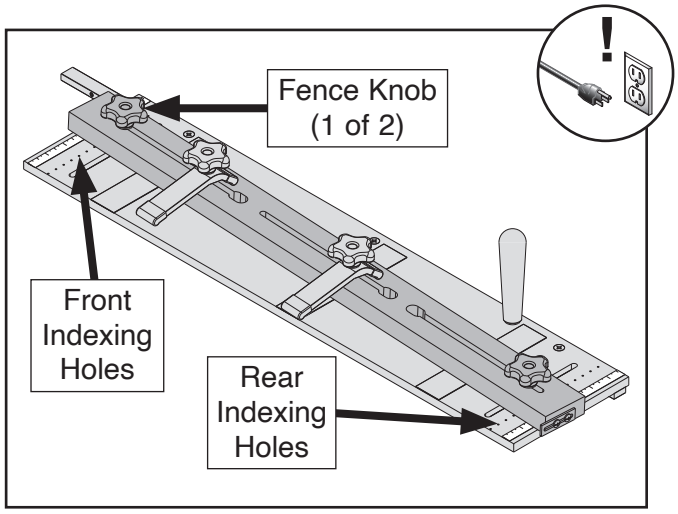


Figure 16. Indexing hole taper adjustment components.

Cutting Tapers

Use the following steps to complete a basic taper cut using the Model T33989.

To cut a taper:

1. DISCONNECT TABLE SAW FROM POWER!

2. Position jig in start position at front of table saw with miter bar in miter slot on right of blade, then loosen (2) fence and (2) hold-down clamp knobs (see **Figure 17**).

3. Place workpiece on jig against fence and stop shown in **Figure 17**.

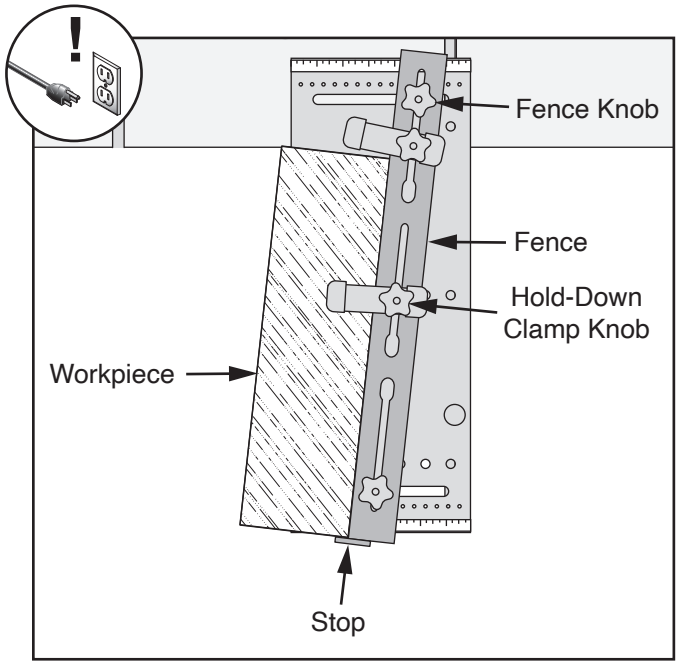


Figure 17. Workpiece against fence and stop.

4. Adjust fence to desired taper.

   — For workpiece without pre-drawn cut line, refer to **Adjusting Fence Taper** on **Page 11** to use scales or indexing marks to adjust fence to desired taper.

   — For workpiece with pre-drawn cut line, adjust fence until cut line is aligned with blade kerf, then tighten (2) fence knobs to secure.

5. Loosen stop screws, adjust stop as far out as the operation allows to provide as much workpiece support as possible (see **Figure 18**), then tighten screws to secure.

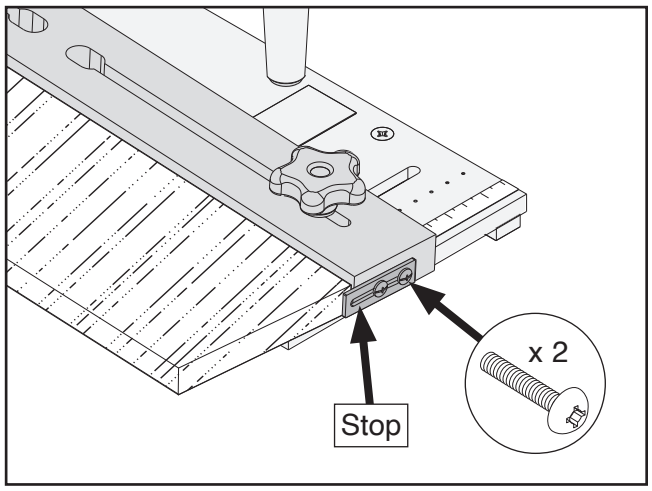


Figure 18. Location of stop screws.

6. Secure workpiece with hold-down clamps so they will not contact blade or blade guard during cut (see **Figure 19**), then tighten hold-down clamp knobs to secure.

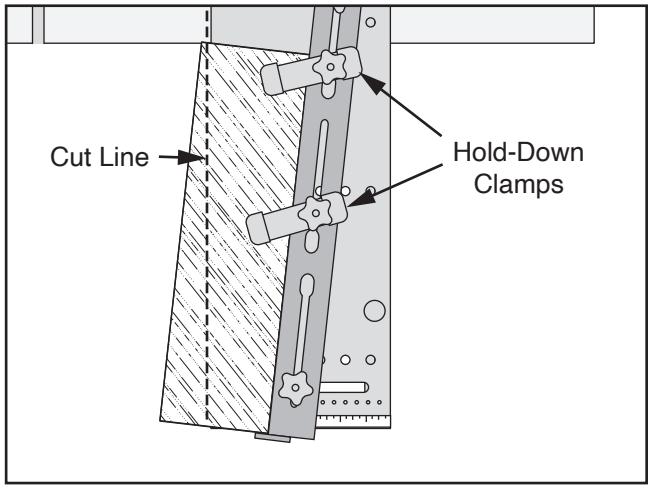


Figure 19. Workpiece prepared for cut.

⚠WARNING

If workpiece cannot be secured with hold-down clamps, use different hold-down method or DO NOT cut workpiece on jig. If kickback occurs, hold-down clamps will prevent or slow down kickback.

7. Completely lower table saw blade below table surface.

8. Push jig forward in table saw miter slot to check outfeed side of machine for proper support and to make sure hold-downs, fence, and adjustable stop can safely pass through blade and blade splitter guard without interference.

9. Return jig to start position, then adjust blade height so blade is just high enough that gullets clear workpiece (usually no more than ¼" above table).

10. Put on safety glasses, respirator, and hearing protection.

11. Start dust collection system, then start saw.

12. Maintaining firm downward pressure on jig against table, with right hand on tapered knob and left hand (or push stick, if necessary) at rear of jig, feed workpiece all the way through blade, keeping hands and fingers clear of blade (see **Figure 20**).

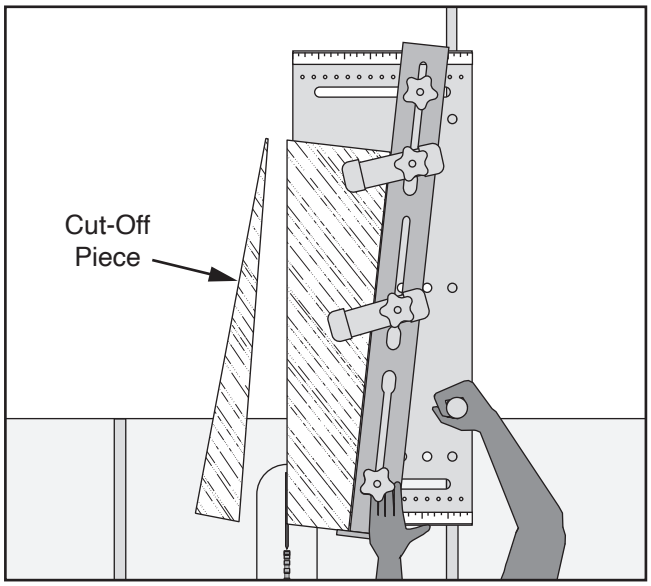


Figure 20. Completed cut (splitter blade guard removed for clarity).

13. Turn ***OFF*** saw and allow blade to come to complete stop before removing cut-off piece or bringing jig back to start position.

Cutting Straight Lines

Use the following steps to cut a basic straight line (or "rip") using the Model T33989.

To cut a straight line:

1. DISCONNECT TABLE SAW FROM POWER!

2. Remove jig from table saw and install table saw rip fence.

3. Remove (3) miter bar screws shown in **Figure 21** to remove miter bar.

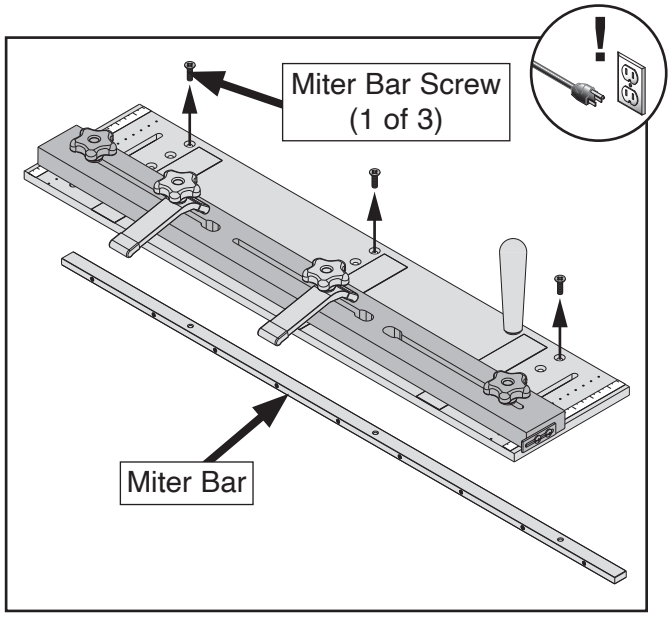


Figure 21. Removing miter bar.

4. Loosen (2) fence and (2) hold-down clamp knobs (see **Figure 22**).

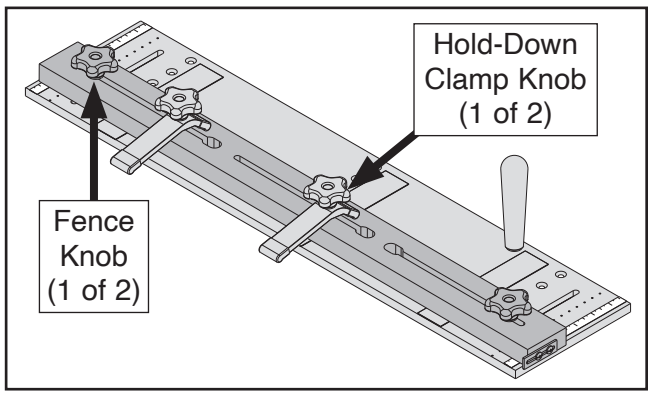


Figure 22. Location of miter bar attaching screws and jig knobs.

5. Place jig against table saw rip fence (see **Figure 23**).

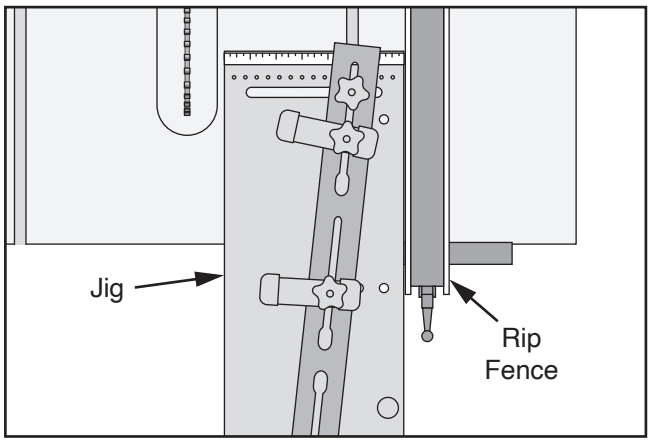


Figure 23. Jig against table saw rip fence (splitter blade guard removed for clarity).

6. Adjust jig fence so it is parallel with blade, then tighten jig fence knobs to secure.

7. Measure and draw cut line on workpiece.

8. Place workpiece on jig against jig fence and stop shown in **Figure 24**.

IMPORTANT: Cut line of workpiece must extend past edge of jig (see **Figure 24**). If cut line falls inside jig border, readjust jig fence so cut line extends past the edge.

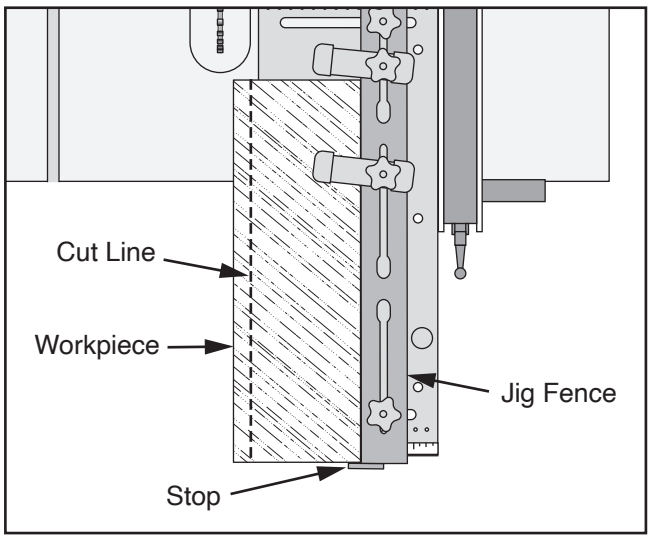


Figure 24. Workpiece against jig fence and stop.

9. Loosen adjustable stop screws, adjust stop as far out as the operation allows to provide as much workpiece support as possible (see **Figure 25**), then tighten screws to secure.

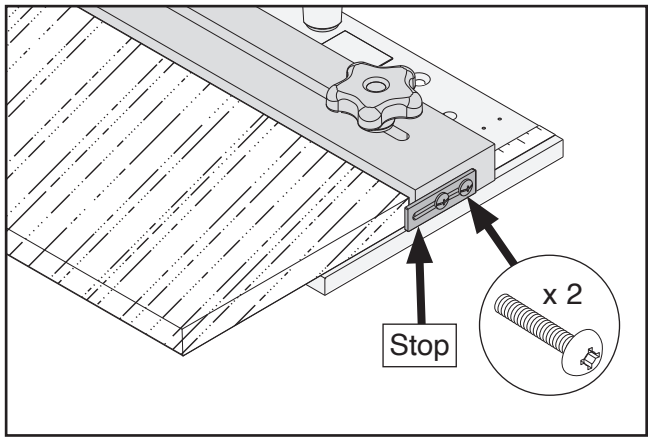


Figure 25. Location of adjustable stop screws.

10. Secure workpiece with hold-down clamps so they will not contact blade or blade guard during cut (see **Figure 26**), then tighten hold-down clamp knobs to secure.

11. Adjust table saw rip fence so workpiece cut line is aligned with blade kerf (see **Figure 26**), then lock.

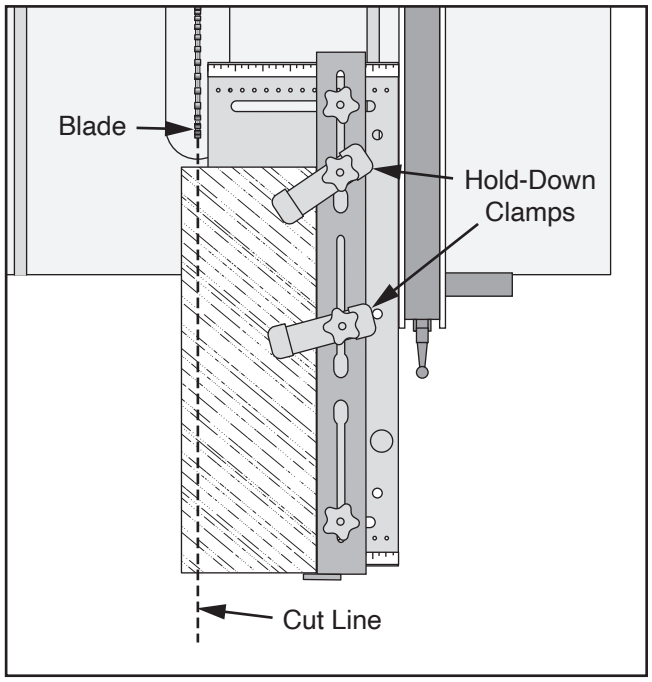


Figure 26. Workpiece prepared for cut.

⚠WARNING

If workpiece cannot be secured with hold-down clamps, use different hold-down method or DO NOT cut workpiece on jig. If kickback occurs, hold-down clamps will prevent or slow down kickback.

12. Completely lower table saw blade below table surface.

13. Push jig forward to check outfeed side of machine for proper support and to make sure hold-downs, fence, and adjustable stop can safely pass through blade without interference.

14. Return jig to starting position, then adjust blade height so blade is just high enough so gullets clear workpiece (usually no more than ¼" above table).

15. Put on safety glasses, respirator, and hearing protection.

16. Start dust collection system, then start saw.

17. Maintaining firm downward pressure on jig against table, with right hand on tapered knob and left hand (or push stick, if necessary) at rear of jig, feed workpiece all the way through blade, keeping hands and fingers clear of blade (see **Figure 27**).

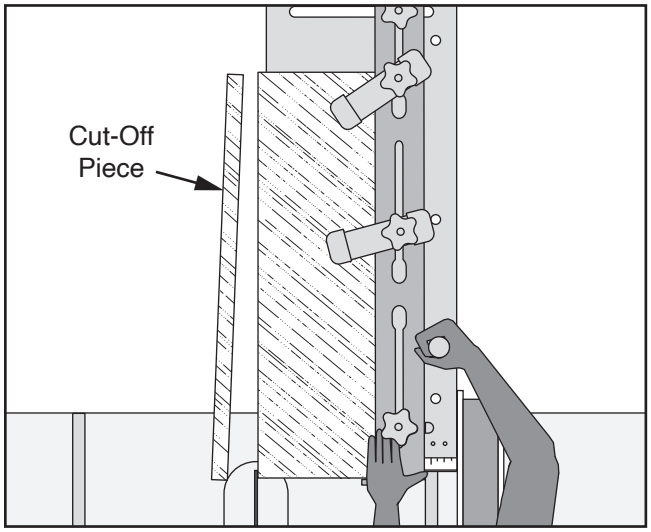


Figure 27. Completed cut.

18. Turn ***OFF*** saw and allow blade to come to complete stop before removing cut-off piece or bringing jig back to start position.

IMPORTANT: Install jig miter bar before completing any taper cuts with jig.

SECTION 4: 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.

T32428—37" Bear Roll Outfeed System

This unique roller system folds down easily without tools and snaps up in place quickly when needed. Safely support large sleds, jigs, and workpieces all by yourself. The advanced outfeed design allows for straight, level feeding and significantly reduces the possibility of kickback, binding, and blade jams.

Figure 28. T32428 37" Bear Roll Outfeed System.

T33987—Small Item Sled

The T33987 Small Item Sled allows you to cut workpieces less than 1" thick and 5½" wide. Table saw miter slot must be ¾" wide and ⅜" deep, there must be at least 2½" between blade and miter slot, and there must be at least 11½" between blade arbor and rear table edge.

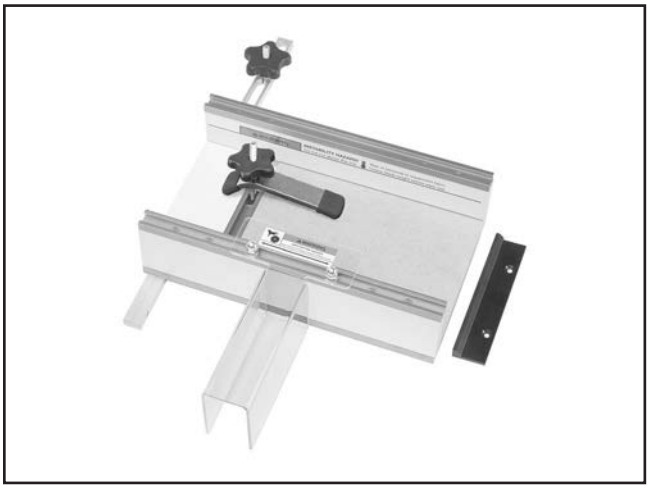


Figure 29. T33987 Small Item Sled.

T33988—Crosscut Sled

The T33988 Crosscut Sled cuts miters on table saws with ¾" wide and ⅜" deep miter slots. It has an aluminum miter bar, a laminated MDF fence face and base, and an inlaid angle scale for setting your angle exactly.

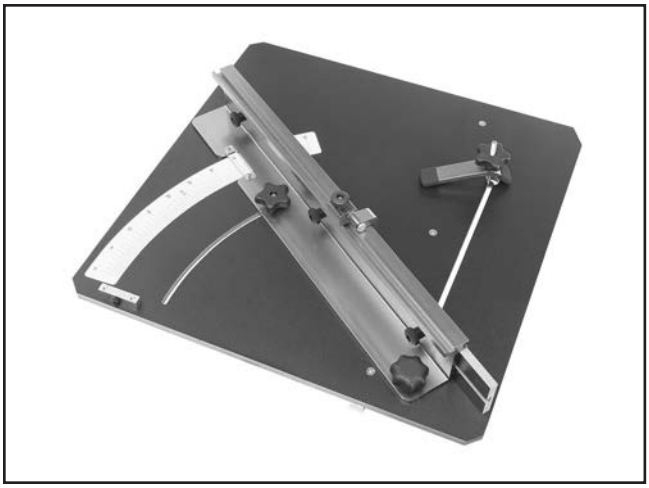
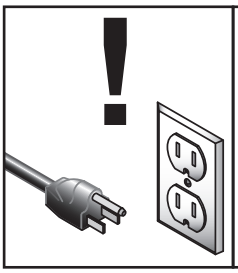


Figure 30. T33988 Crosscut Sled.

SECTION 5: 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 equipment, this maintenance schedule must be strictly followed.

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

- Loose fasteners.
- Dirty miter bar or table saw miter slot.
- Any other unsafe condition.

Cleaning & Protecting

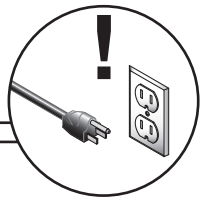
Cleaning the Model T33989 is relatively easy. After use, vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Be sure to dry or clean any water, oil, or chemical solvents that come in contact with jig. These may eat away at or swell the laminated MDF base and warp the jig.

SECTION 6: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your equipment. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the manufacture date of your equipment before calling.*

Troubleshooting



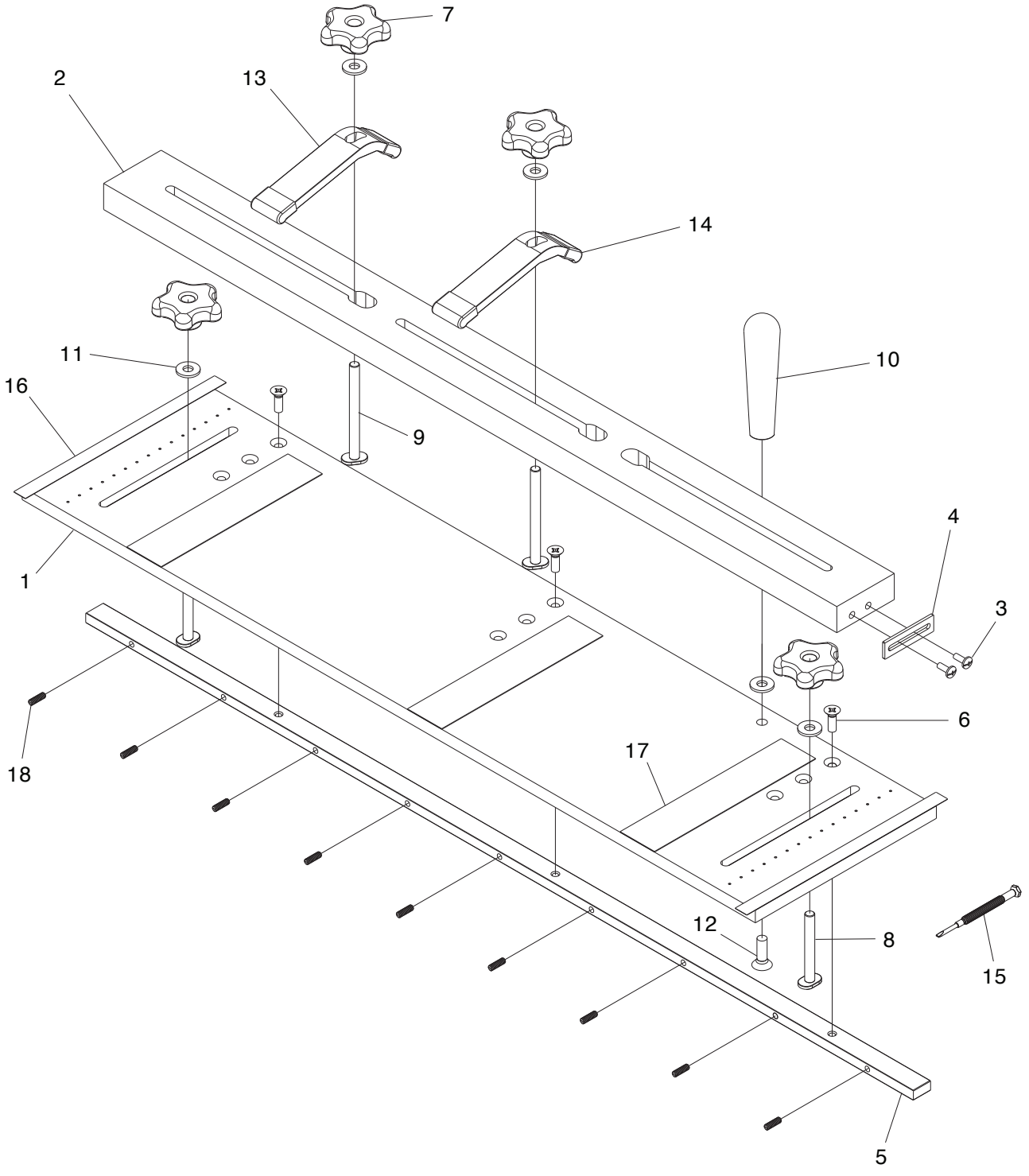
Operations

Symptom	Possible Cause	Possible Solution
Jig does not move smoothly.	1. Miter bar/table saw miter slot and/or table is dirty or sticky. 2. Miter bar set screws are not adjusted correctly. 3. Bent miter bar; burrs on bar/in table saw miter slot.	1. Clean miter bar/table saw miter slot and/or table. 2. Adjust miter bar set screws so bar fits snugly in table saw miter slot. 3. Straighten/replace bar; deburr bar or slot.
Burn marks on workpiece.	1. Feed rate too slow or inconsistent.	1. Increase feed rate and apply consistent pressure through entire cut.
Kickback occurs.	1. Jig not held firmly against table. 2. Using jig and rip fence at the same time when taper cutting. 3. Jig not set up to cut wide end of taper first.	1. Hold jig firmly against table to prevent miter bar lifting out of miter slot. 2. Never use rip fence with jig together when cutting a taper. 3. Set up jig to cut wide end of taper first.

SECTION 7: 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	PT33989001	BASE
2	PT33989002	FENCE
3	PT33989003	PHLP HD SCR 10-24 X 1/2
4	PT33989004	STOP BRACKET
5	PT33989005	MITER BAR
6	PT33989006	FLAT HD SCR 1/4-20 X 3/4
7	PT33989007	KNOB 5/16-18, 5-LOBE, D2-1/8
8	PT33989008	T-BOLT 5/16-18 X 2-1/2
9	PT33989009	T-BOLT 5/16-18 X 3-1/2

REF	PART #	DESCRIPTION
10	PT33989010	KNOB 5/16-18, D1, TAPERED
11	PT33989011	FLAT WASHER 5/16
12	PT33989012	FLAT HD SCR 5/16-18 X 1
13	PT33989013	HOLD-DOWN CLAMP
14	PT33989014	CLAMP GRIP
15	PT33989015	SCREWDRIVER FLAT 1/8
16	PT33989016	SCALE ADHESIVE
17	PT33989017	GRIP STRIP ADHESIVE
18	PT33989018	SET SCREW 10-32 X 5/8 SLOTTED NYLON

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.

For further information about the warranty, visit **https://www.grizzly.com/forms/warranty** or scan the QR code below to be automatically directed to our warranty page.

WARRANTY

grizzly.com