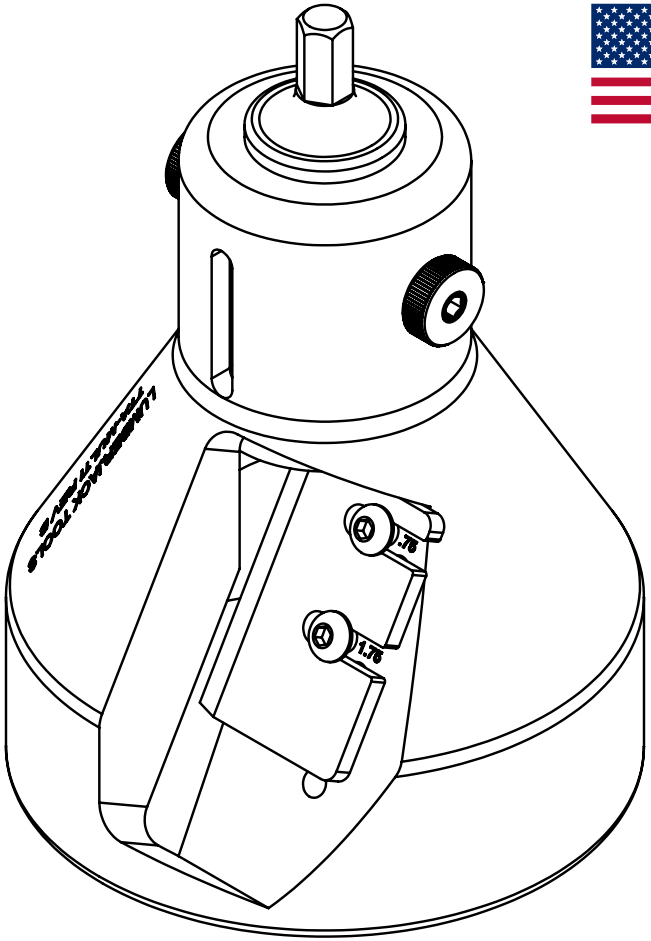
LUMBERJACK TOOLS

made in usa



USER MANUAL

Industrial Series (60° Shoulder Profile)

Multi-Tool

Lumberjack Tools Inc.
PO Box 730
Chippewa Falls, WI 54729
www.lumberjacktools.com
Email: info@lumberjacktools.com
Phone: 715-720-4719
Rev: 3/17

MODEL: TTA-MULTI

About Your Product

Thank you for purchasing our Industrial Series - Multi Tool!

Our Multi-Tool is a revolution in tenon-cutter design, allowing the user to cut six different tenon sizes with a single tool. Create tenons ranging from .75" up to 2" by adjusting blade position and switching tool inserts. The tool body is precision CNC machined out of a solid billet of aircraft-grade aluminum ensuring durability and long-life. Two heat-treated blades distribute the cutting force evenly across razor-sharp, precision ground edges. A shank made to endure the rigor of cutting Beveled aluminum quick-release inserts keep the tenon straight, and are quickly and easily changed.

Our lifetime guarantee covers the tool body, aluminum inserts, and shank. The blades are covered for 90 days from the date of purchase for breakage under normal working conditions. Blades will dull faster cutting hardwoods vs. softwoods (peeled or unpeeled). Soil and other abrasive substances will reduce blade life, and contact with these substances is not covered under this warranty. When making a claim, you must show proof of purchase from an authorized distributor. This warranty is valid only to the original buyer, and not valid for tools sold secondhand, used, or sold "as-is"

What Voids Warranty

In order to keep our lifetime and 90 day warranty you must **AVOID** the following actions:

- Operating the tool in a drill press or lathe (or any system other than a hand-held drill)
- Running the tool into a nail or foreign object
- Altering or misusing the tool

SAFETY

Before beginning any project, carefully read and follow ALL safety and operational instructions for any tools or devices you will be using. Failure to do so may cause physical harm to yourself or those around you. If you feel uncomfortable using our tenon cutters or any other tool, STOP immediately. Lumberjack Tools assumes no responsibility for injury caused to the operator, bystander, or tools used in conjunction with the use or misuse of our tenon cutters.

NEVER OPERATE POWER TOOLS UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR ANY MEDICATIONS

ALWAYS WEAR SAFETY GLASSES, DUST MASK, AND ANY OTHER PERSONAL PROTECTION ITEMS AS NEEDED

NEVER WEAR LOOSE ITEMS THAT COULD BE CAUGHT IN MOVING PARTS. SECURE LOOSE OR LONG HAIR AWAY FROM AREA

WE STRONGLY RECOMMEND A SINGLE-SPEED, GEAR DRIVEN DRILL WITH RPMS OF 500 OR LESS. EXCEEDING THESE RPMS MAY RESULT IN DAMAGE TO THE TOOL

ALWAYS DISCONNECT POWER AND ALLOW DRILL TO COME TO A COMPLETE STOP BEFORE INSTALLING, REMOVING, OR ADJUSTING THE TOOL

NEVER APPLY BENDING FORCE (SIDE LOADING) THE TOOL. SIDE LOADING COULD CAUSE THE SHANK TO FAIL, OR MAY RESULT IN BLADE DAMAGE

ALWAYS SECURE THE LOG IN A VISE OR CLAMP PRIOR TO STARTING YOUR DRILL. FAILURE TO DO SO MAY RESULT IN INJURY

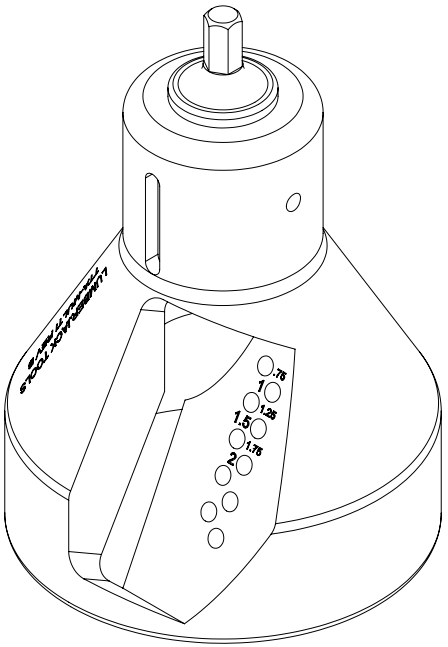
ALWAYS HANDLE THE BLADES WITH EXTREME CARE! FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY

NEVER PUT HANDS OR ANY BODY PART INSIDE THE TOOL WHILE THE BLADES ARE ATTACHED! DOING SO MAY CAUSE SERIOUS INJURY

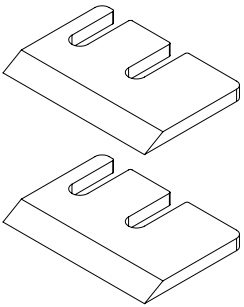
WHEN EXCESSIVE FORCE IS REQUIRED TO CUT, RE-SHARPEN OR REPLACE THE BLADES. A SHARP TOOL IS A SAFE TOOL!

What's Included

Tenon Cutter (Qty. 1)

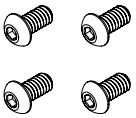


TB2500 Blades (Qty. 2)

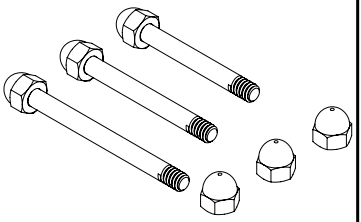


Hex Wrench (Qty. 1)

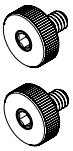
Button Head Cap Screw (Qty. 4)



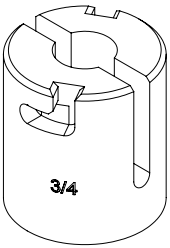
Quick Stop Pin (Qty. 3)



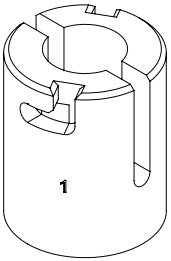
Thumb Screw (Qty. 2)



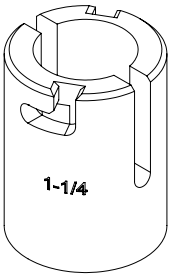
Ø3/4" Spacer (Qty. 1)*



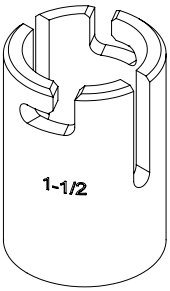
Ø1" Spacer (Qty. 1)*



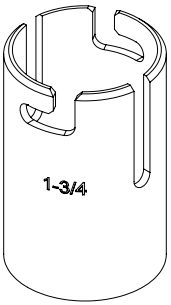
Ø1-¼" Spacer (Qty. 1)*



Ø1-½" Spacer (Qty. 1)*



Ø1-¾" Spacer (Qty. 1)*



Plan Booklet (Qty. 1)

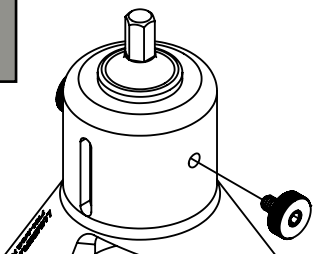
*Some spacers not included with certain models

Tool Prep

IMPORTANT: add the insert BEFORE installing the blades.

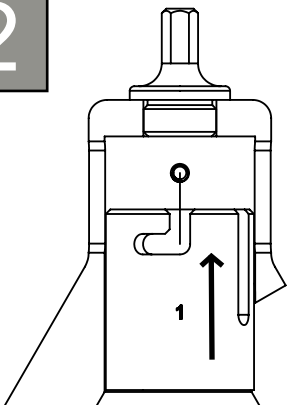
WARNING: NEVER PUT HANDS OR ANY BODY PART INSIDE THE TOOL WHILE THE BLADES ARE ATTACHED! DOING SO MAY CAUSE SERIOUS INJURY

1



- Begin by installing the two thumbscrews in the tool body (near the shank end)

2

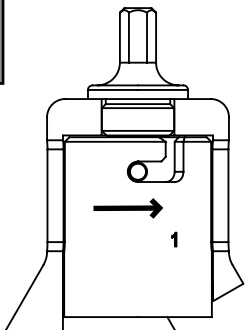


- Select the correct size insert based on the desired tenon size

  NOTE: No insert is required to cut a 2” Tenon

- Slide the insert into the tool body so that the thumbscrews fit into the insert “L” channels

3



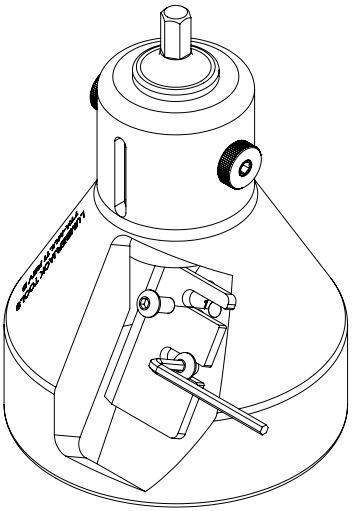
- Turn the insert clockwise to lock in place

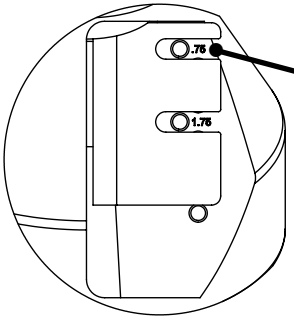
Setting the Blades

- Install and secure the blades with the Button Head Cap Screws
- Take care to keep the blade offset of both blades equal (see below)

The Industrial Series Multi-Tool has six possible settings that range from ¾" to 2" by ¼" increments. The blades must be moved to cut a different tenon size.

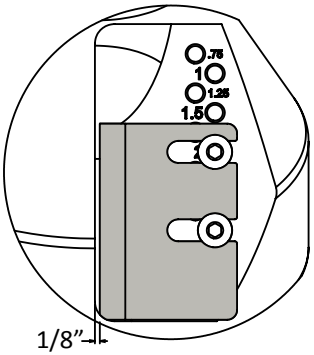
Tenon Size	Max Log Dia.	Approximate Blade Offset
0.75"	3.25"	.090"
1.00"	3.50"	.110"
1.25"	3.75"	.130"
1.50"	4.00"	.150"
1.75"	4.25"	.170"
2.00"	4.50"	.190"



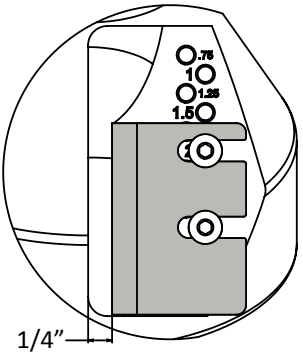


The top number that is visible will always be the size of the tenon cut

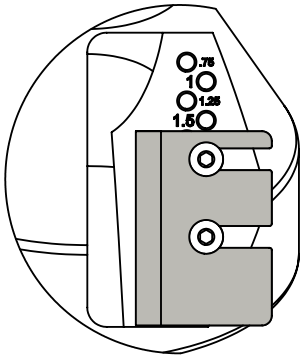
Blade Offset



Correct (smaller tenon)



Correct (larger tenon)

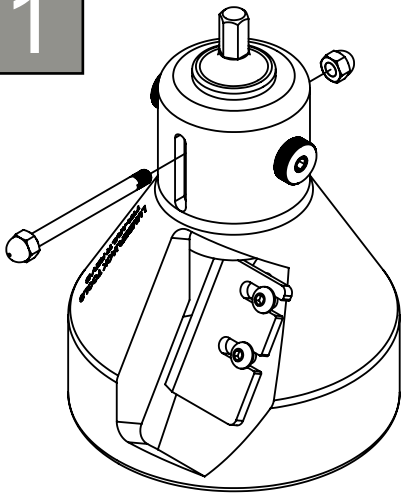


WRONG

The tenon diameter is variable based on the blade offset. Smaller offset = smaller tenon, larger offset = larger tenon. Approximate blade offset (in the table above) is a good place to start, but you will want to test tenon fit in holes to achieve the correct offset (we recommend writing the results down). **DO NOT** set the blades beyond 5/16" or the blade edge will not contact the log and will not cut.

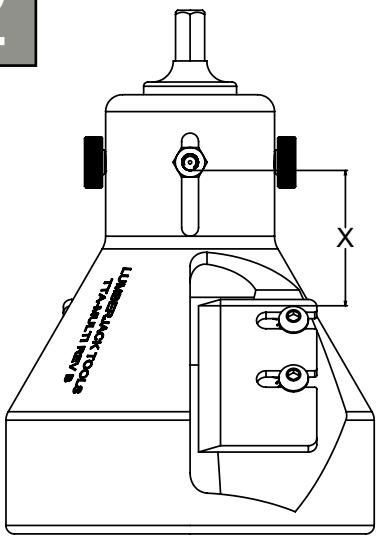
Quick Stop Installation

1



- Install the quick stop pin through the tool body and insert
- Secure with the supplied acorn nut

2

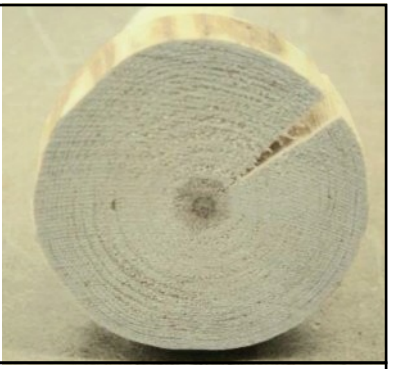


- The length of the tenon is determined by measuring from the top of the blade to the bottom of the Quick Stop Pin
- In the image to the left, dimension "**X"** represents the length of the tenon

Cutting Tenons

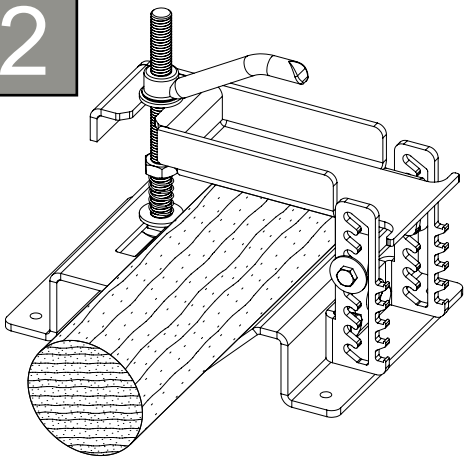
WARNING: If the log comes loose or unclamped while cutting the tenon, DO NOT drop the drill or try to grab the log! Stop the drill and remove it from the end of the log. Re-secure the log, and resume cutting

1



- Obtain the log you want to tenon.
- Cut it to length and make sure the ends are flat. If the ends are not even/flat, the tenon will be crooked

2



- Secure the log in a vise, clamp, or fixture with a “V” shaped notch
- The **Log Lock** (LL1545) is a safe, easy, economical way to clamp logs, and is available on our website

3

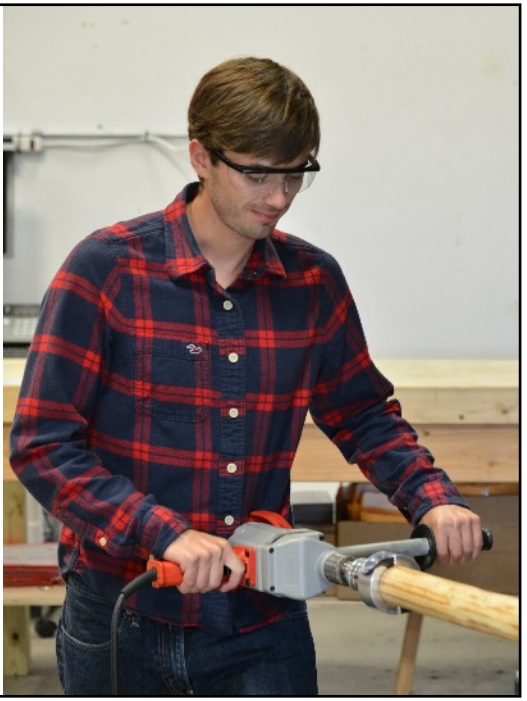
- If the log diameter is larger than the tool can accept, taper the end with a draw knife

Cutting Tenons (cont.)

ALWAYS unplug the drill before adjusting the blades or adjusting the chuck

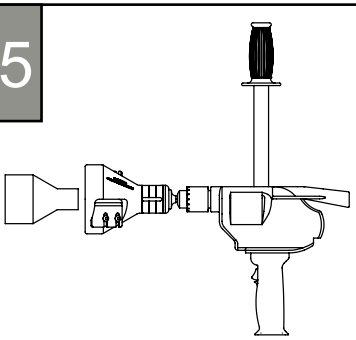
4

- Carefully install the tenon cutter into an unplugged 1/2” drill, and tighten it firmly. Use the tee handle to tighten the chuck
- Square up to the log so that the cutter is flush against the flat face of the log
- Apply body pressure by leaning into the drill
- Pull the trigger to cut the tenon
- Wait until the drill comes to a stop before removing the cutter from the log

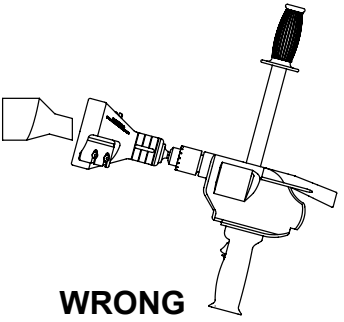


- **Make sure the tool is square against the end of the log before cutting**
- **If the tool is held at an angle the tenon will be cut angled**

4.5



CORRECT
Drill in-line with log



WRONG
Drill not in-line with log (crooked)

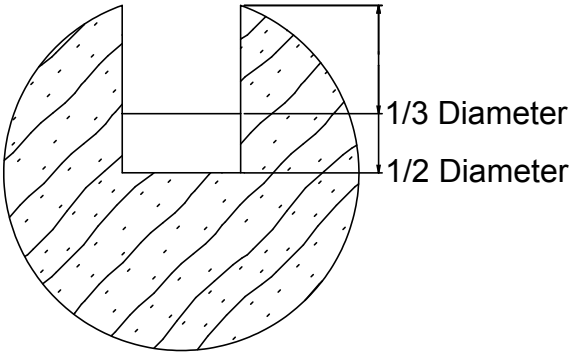
Drilling Holes (Mortise)

1

- Measure and mark the locations of all holes before drilling
- Place the center of the bit on the desired hole location
- Take care to hold the drill perpendicular to the log
- Use a forstner bit (or spade bit) to drill the hole

2

- Drill mortise between 1/3 and 1/2 of the log diameter
- Do not drill more than 1/2 of the log diameter unless a specific project calls for a deeper mortise



Additional Tips

- It takes time to master using these tools
- Make a plan of what you want to build before you begin
- Have a list of all tools and materials you will need
- Do not over complicate your first few projects
- Practice reading the natural twists and defects in the wood
- Practice cutting tenons and using the tools on scrap material

Maintenance

- **Body**
  - Cleaning
    - Keep the tenon cutter body clear of sap and other build-up
    - Always remove the blades before cleaning
    - Clean the tool with a solvent (such as mineral spirits)

WARNING: ALWAYS HANDLE THE BLADES WITH EXTREME CARE! FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY

- **Blades**
  - Care
    - Always wipe blades with a thin film of oil at the end of the day to help prevent oxidation
  - Cleaning
    - Clean the blades with a solvent (such as mineral spirits) and **immediately** apply a thin film of oil to prevent oxidation
  - Sharpening
    - Use a sharpening stone or file to re-sharpen the blades, then clean the blades and apply a thin film of oil
- **Shank**
  - Replacement
    - If your shank breaks, we offer replacement shanks (see first page for contact information)
    - Turn the shank counter-clockwise to remove
    - Turn the shank clockwise to install

TASK	EACH USE	MONTHLY
Clean blade pockets	X	
Clean cutter bore	X	
Clean spacer inserts	X	
Clean blades	X	
Inspect blades	X	
Oil blades	X	
Oil shank & screws		X

Troubleshooting

PROBLEM	CAUSE	SOLUTION
• Tool Skips off to one side or bounces around	• Log is larger than tool will accept	• Taper down the end of the log with a draw knife
	• Not enough pressure is being applied	• Lean into drill with body
• Not cutting log	• Log is larger than tool will accept	• Taper down the end of the log with a draw knife
	• Blades are slid too far back	• Position blades so they are back no further than 5/16"
	• Blades are dull • Not applying enough pressure	• Sharpen blades • Purchase new blades • Lean into drill with body
• Takes too much of a "bite"	• Aggressive cutting from dual blades	• Remove one blade or "shim" blade up to .020”
• Crooked Joint	• Holding drill crooked while cutting	• Position the drill square against the log before cutting
• Drill stops or cuts on small diameter logs but not larger ones	• Using a variable speed drill	• Make sure you are using a single-speed drill with low RPMs
	• Using a non-Milwaukee brand drill	• We recommend purchasing a Milwaukee brand hole hog drill
• Spiral grooves on the tenon joint	• Lateral wobbling of the drill	• Hold the drill as steady as you can while cutting
	• Removing the cutter while drill is still spinning	• DO NOT remove the cutter until the drill has come to a complete stop

Unexpected Occurrences

Engineers and Quality Control staff at Lumberjack Tools have provided you with one of the easiest to use and safest tenon cutters on the market. However, there is always the unexpected chance of failure.

- Please contact our customer support for a replacement if a failure ever occurs to the tool body, shank or blades

Thank you again for purchasing our tools!