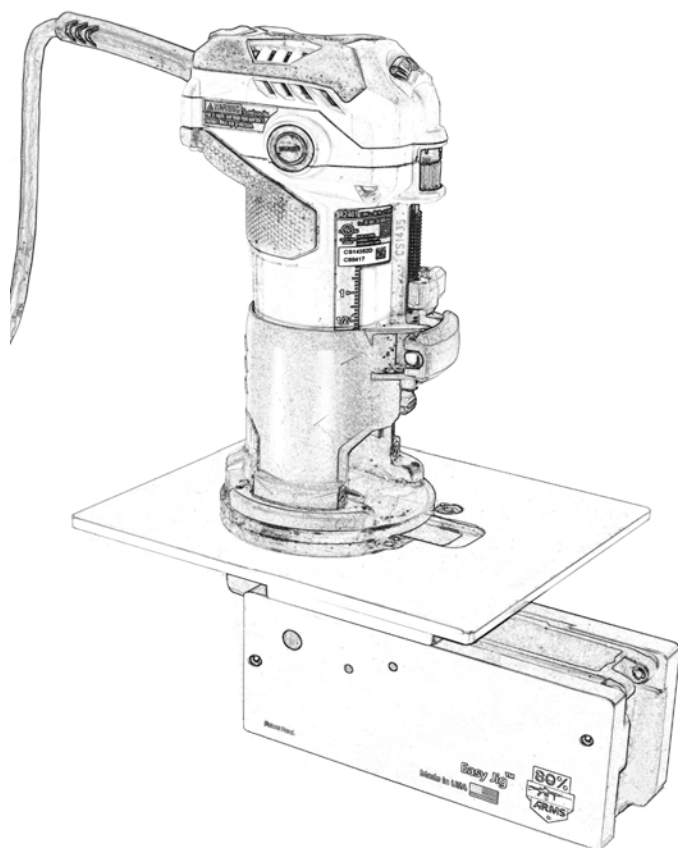




# **.308 EASY JIG® MANUAL**

# **WARNINGS AND SAFETY NOTICE**

**READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THE PRODUCT. DO NOT USE THIS PRODUCT IF YOU DO NOT UNDERSTAND THE INSTRUCTIONS AND WARNINGS. FAILURE TO READ THESE INSTRUCTIONS AND TO FOLLOW THESE WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH TO YOU AND OTHERS AND DAMAGE TO PROPERTY.**

This manual should always accompany your jig and be transferred with it upon change of ownership. A copy of the manual can be downloaded for free from <http://www.80PercentArms.com/pages/manuals> or by contacting 80 Percent Arms.

Using this product on an 80% lower will convert the 80% lower into a firearm. Even if the 80% lower is not fully milled or completed, it may still be legally considered a firearm. It is your responsibility to comply with all federal, state and local laws and regulations regarding the ownership, possession, and transportation of a firearm. Certain configurations of the lower created by the end-user with an upper, may subject the firearm to classification under the National Firearms Act, which imposes registration, taxes, and other requirements on the owners of such firearms.

Working with power tools and cutting metal is inherently dangerous. Follow all safety instructions provided by the power tool's manufacturer. By using this product you agree that you are aware of these risks, and agree not to hold 80 Percent Arms liable for any injuries or property damage that may occur through the use of our product. Proceed at your own risk.

80 Percent Arms warns all users of our products to exercise extreme caution in the handling of any firearm. Because any firearm is potentially dangerous, the user should successfully complete a recognized firearms safety course before handling or employing any firearm. Before attaching your finished lower receiver to an upper receiver, ensure that the safety and trigger mechanisms are functioning properly. This must be done BEFORE the lower receiver is attached an upper receiver or made capable of firing. If you are not an experienced gunsmith, we recommend taking your completed lower receiver to a licensed gunsmith who can ensure that it is functioning properly, and that the safety is in good working order. Remember that you are the most important safety device when it comes to the safe handling of your firearms. By using our product you further agree that 80 Percent Arms will not be held liable for any personal injury, death or property damage that results from the use of any firearm created with our products. If you do not agree to these terms, please do not use this product, and contact us to return your unused product for a refund.

Under no circumstances shall 80 Percent Arms be responsible for incidental or consequential damages with respect to economic loss, injury, death or property damage, whether as a result of breach of warranty, negligence or other-wise. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## MESSAGE FROM 80 PERCENT ARMS

Thank you for purchasing our 80 Percent Arms Easy Jig®. Our patented router based milling system is the fastest, easiest, and most popular method to mill your 80% lower at home using common household tools. Our jig's heavy duty construction ensures your jig will last a very long time and allow you to complete several lowers before needing any replacement parts.

**For best results, we strongly recommend that you read this manual from start to finish before getting started with your build.** It's very important that you are familiar with all the steps you will need to perform to minimize the chance of making a mistake. If you have any questions after reading the manual, please contact us for assistance. We highly recommend watching our video tutorials prior to milling your lower. Additional resources including video tutorials and online manuals are available at our website at: [www.80PercentArms.com/pages/manuals](http://www.80PercentArms.com/pages/manuals)

## IMPORTANT SAFETY NOTICE

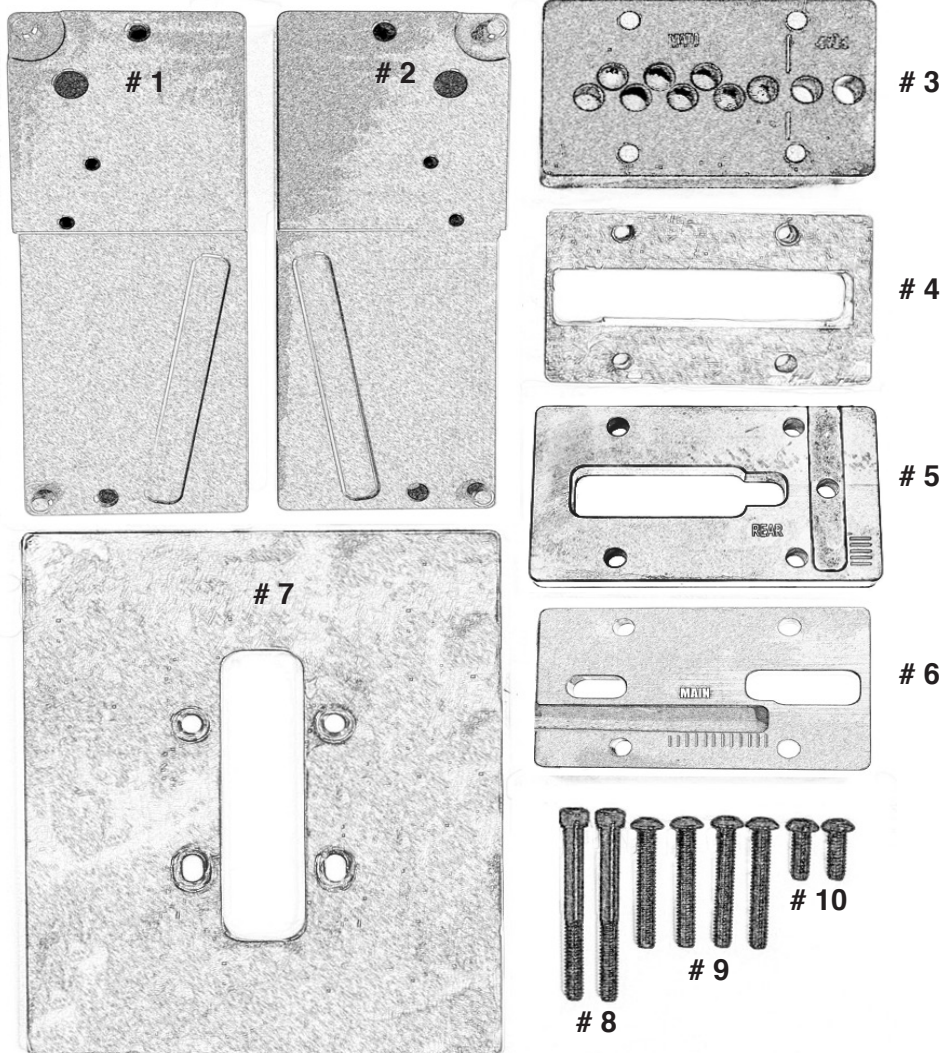
**Eye and hearing protection MUST BE WORN AT ALL TIMES when operating any of the power tools required to finish your 80% lower.** You must wear impact resistant safety goggles at all times to protect your eyes from flying debris and chips while drilling and milling. Do not wear open style safety glasses as they do not provide adequate protection from flying chips. **Never use compressed air to blow or clear metal chips.** Instead, use a Shop-Vac to suck out chips from your jig and work area.

## ROUTER INFORMATION

Most good quality small laminate routers with a 1/4" collet can be used with the Easy Jig®. They may be fixed or variable speed. Full size routers may also be used along with a spacer to provide clearance for the buffer tube when milling the trigger slot. However, we recommend using a smaller laminate router for best results. Recommended routers include the Home Depot Ridgid #R24012, Porter-Cable PCE6430, and Dewalt DWP611. Economy routers such as Harbor Freight and Black & Decker brands should be avoided.

For best results, set your router speed to 24,000 - 30,000 RPM. Cutting fluid is required to prolong the end mill and drill bit life, and to achieve a smooth finish. **Keep the flutes and shank of the end mill lubricated at all times.** Clear out chips after each pass for longer tool life and a smoother finish.

# INCLUDED PARTS ILLUSTRATION



# PURCHASED SEPARATELY EASY JIG® TOOL KIT



## INCLUDED PARTS

- # 1: Right Jig Wall (1pc)
- # 2: Left Jig Wall (1pc)
- # 3: Pocket Drilling Block (1pc)
- # 4: Template Spacer (1pc)
- # 5: Trigger Pocket Template (1pc)
- # 6: Rear-Shelf Pocket Template (1pc)
- # 7: Router Base Support Plate (1pc)

### Included Bolt Set

- # 8: Jig Wall Bolts 2.5" (2 pcs)
- # 9: Template Bolts 1.75" (4 pcs)
- #10: Trigger Milling Bolts 0.75" (2 pcs)

## REQUIRED TOOLS

- Router (w/ 1/4" collet)
- Drill (Hand or Drill Press)
- Table Vise or 2 Table Clamps
- 1/8" Allen Wrench (for template bolts)
- 3/16" Allen Wrench (for jig bolts)
- 3/32" Allen Wrench (for stop collar on drill bit)
- Cutting fluid such as Tap Magic, Relton A9, Oatey Dark Cutting Oil mineral oil, or motor oil.
- Masking tape
- Eye and hearing protection

## END MILL CAUTION NOTICE

The drill bits and other tools required to use the Easy Jig® are available at local hardware stores, or you may already have them at home; however, the required 1/4" solid carbide end mill is custom made for 80 Percent Arms with very short flutes to work safely with the Easy Jig®. **Using any other type of end mill with longer flutes will allow the flutes to cut into the jig causing permanent damage not covered by the warranty.**

You can purchase just the 1/4" end mill, or a complete tool kit with all the drill bits and the end mill, from 80 Percent Arms or from the store where you purchased your Easy Jig®.

## PURCHASE SEPARATELY

### Easy Jig® Tool Kit Includes:

- #11. 1/4" x 4" long 3-flute Solid Carbide End Mill with 0.75" flute cut length
- #12. 3/8" drill stop collar
- #13. 3/8" drill bit
- #14. 5/32" Jobber Length Drill Bit
- #15: 19/64" Jobber Length Drill Bit

## DRILL BIT ADVICE

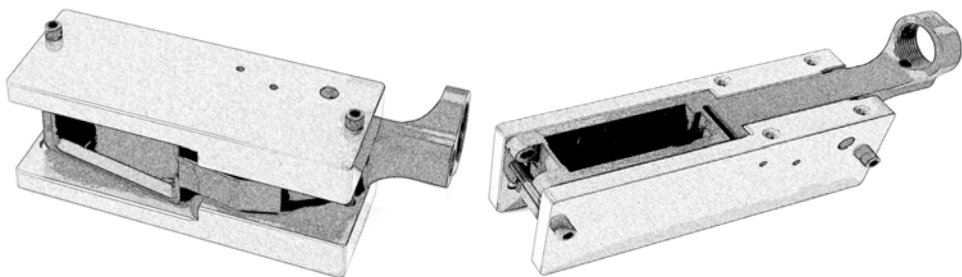
Use sharp high quality drill bits designed for drilling aluminum, such as those sold with our Easy Jig® Tool Kit. Using dull or low quality drill bits will make drilling very slow and difficult. This is very important when drilling through 7075 aluminum lowers which are harder to drill.



## STEP 1

**Assemble lower into jig: Attach Side Plates #1 and #2** to the lower receiver using two **Jig Wall Bolts #8**. Make sure the jig side plates are flush against the lower and tighten the two bolts in an alternating manner. **Do not over tighten bolts**, just snug with an Allen key. **TIP:** For anodized and painted lowers, apply one layer of painter's tape to each side of the receiver to prevent chips that may get trapped between the lower and the jig from rubbing against the finish.

**NOTE:** The .308 Easy Jig uses an efficient 2 bolt mounting system along with 4 precision alignment pins. The jig side plate must be held level with the lower for both pins to glide into the lower at the same rate. To remove the side plate lightly wiggle the plate in a vertical rocking motion until it slides off the lower. Keep the lower even and parallel to the side plate while removing the lower.



## STEP 2

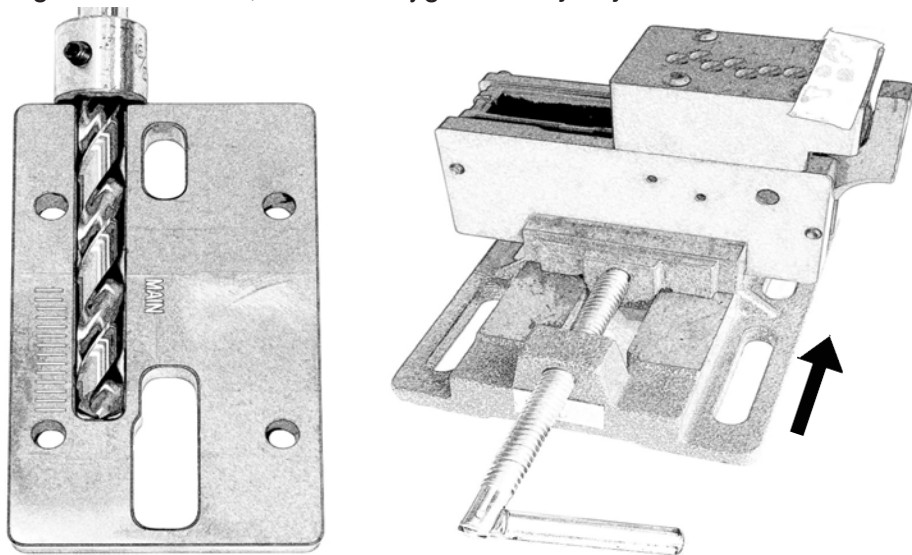
**Attach Drill Block #3 to the top of the jig using four #9 Bolts.** Alternate tightening the top bolts to ensure you have your jig walls parallel and spaced apart correctly. **Use a piece of tape to cover up the two rear pocket holes** located on the "REAR" side of the **Pocket Drilling Template #3**.

**WARNING:** Do not drill the last two holes closest to the buffer tube which you covered with tape. They sit above the rear shelf and will be drilled later using a more shallow drill depth.



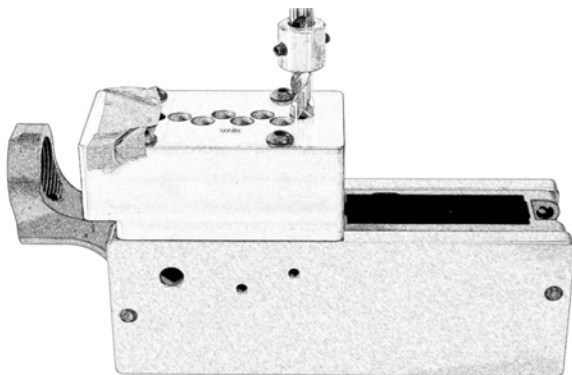
## STEP 3

**Set the depth of the 3/8" Drill Bit #13 and 3/8" Drill Stop Collar #12:** Set the drill bit to the correct length by using the depth gauge on the **Rear Shelf Pocket Template #6** labeled **MAIN**. The drill bit should be touching the bottom of the depth gauge. Securely tighten the drill stop collar. Before drilling out the 7 holes, secure the jig assembly in your vise.



## STEP 4

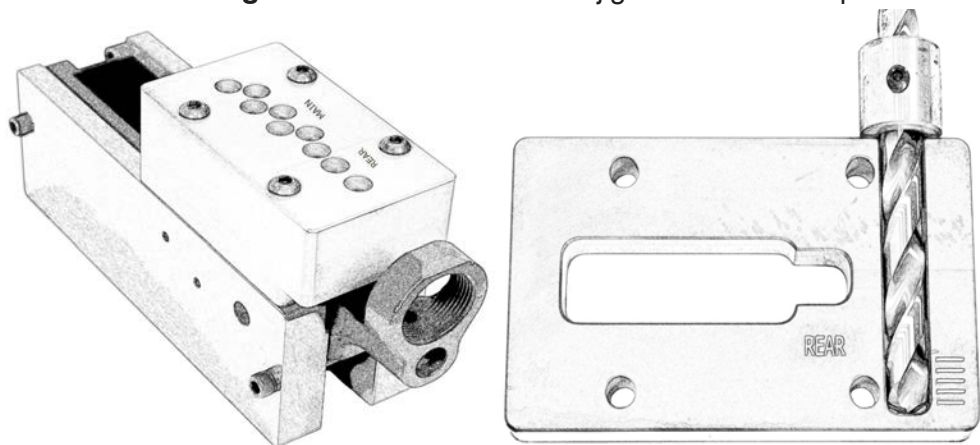
**Drill out the 8 holes: Check the drill bit length using the template depth gauge after drilling each hole. TIP:** If you're using a hand drill, make sure you drill straight down—do not lean at any angle. Elevate yourself with a step stool to make it easier to ensure a straight drill. Slow down and reduce the pressure when the **Drill Collar** gets close to touching the **Drill Block**. Avoid allowing the drill collar to touch the drill block in order to prevent the drill stop collar from slipping and over-drilling the hole. We suggest using cutting fluid while drilling and a shop-vac to periodically clear out the chips as you drill.



## STEP 5

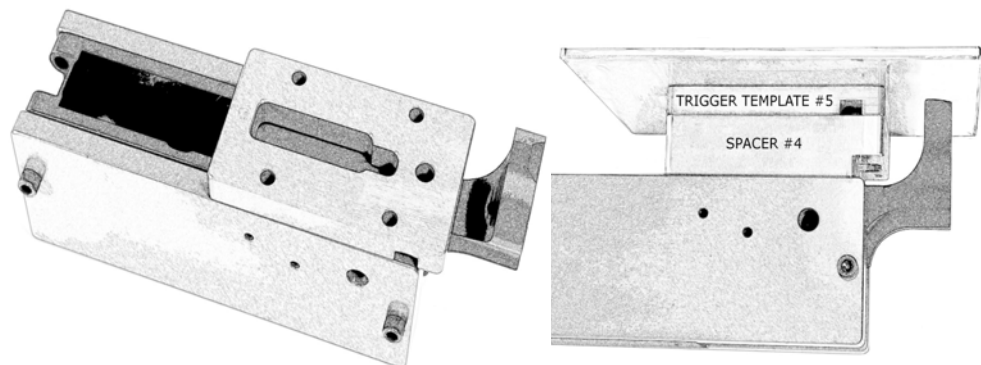
Drill the two rear holes for the rear shelf: (**NOTE:** If your lower already has the rear shelf lug area milled out, skip step 5 completely and go to step 6. **IMPORTANT:** If you have an older 308 Easy Jig with 4 bolts holding the jig side plates together, please visit our website's manuals page for additional steps and information.)

Remove tape over the REAR **Drill Block** holes. Prepare the **3/8" Drill #13** and **3/8" Drill Stop Collar #12** to the correct length using the **Trigger Pocket Template #5** labeled **REAR**. Set drill bit length to the full depth of gauge and tighten the collar. Drill out the 2 rear shelf holes. When you're done, remove the **Pocket Drilling Block #03** and clean the jig and lower of chips.



## STEP 6

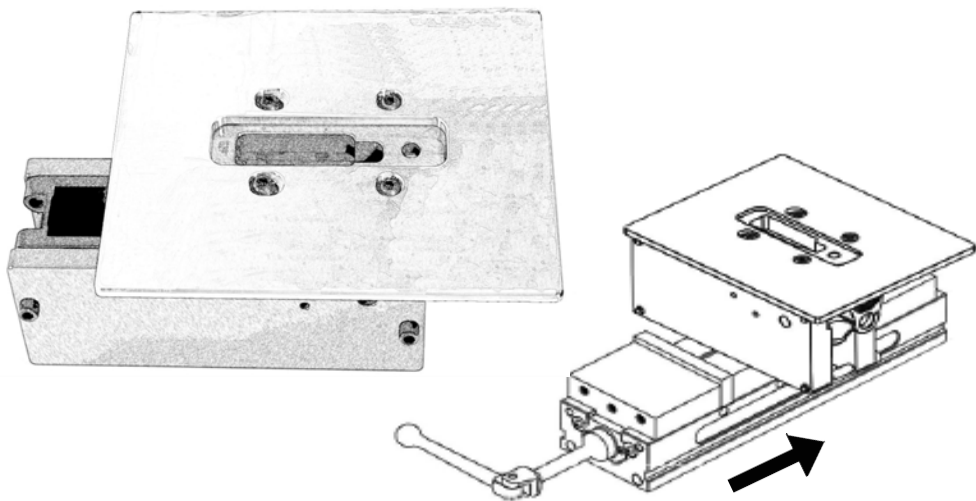
**Prepare to mill the trigger pocket:** Set the **Template Spacer #4** on the jig with the notched end towards the buffer tube hole. Stack the **Trigger Pocket Template #5** on top of the spacer with the narrow end of the template and the round hole pointing to the buffer tube hole. The depth gauge on the **Trigger Pocket Template #5** should be facing down.





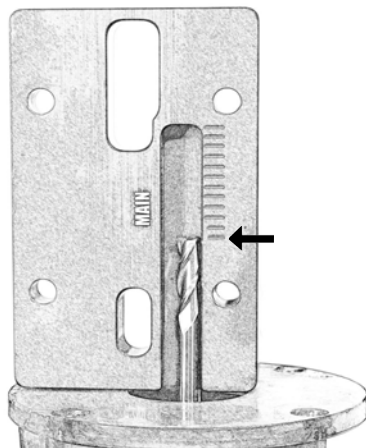
## STEP 7

Set the **Router Base Support Plate #7** over the **Trigger Pocket Template #5** with the recessed bolt holes on the Router Base Support plate facing up. Attach the plate using 4 of the **#09 Template Bolts**, tightening the bolts to the top of the jig walls in and alternating fashion. Secure the assembled jig in the vise with the buffer tube hole closest to you.



## STEP 8

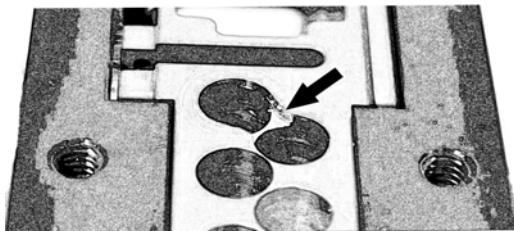
**Install the 1/4" End Mill #11 into your router:** Make sure the end mill is **VERY TIGHTLY** secured in the collet to prevent it from creeping out while milling. Adjust the cutting depth by using the depth gauge on the **Rear Shelf Pocket Template #6** labeled **MAIN**. Adjust the depth of the router so the tip of the end mill is just below the first hash mark on the template depth gauge.



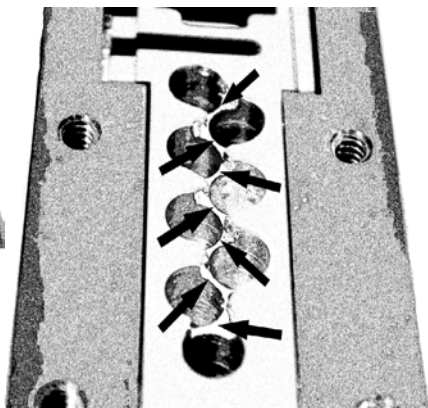
## STEP 9

**With the router turned off**, insert the end-mill into the center of the furthest hole from you. The tip of the end-mill should be just slightly below the top of the 3/8" hole you drilled out earlier. Maintain a firm grip on the router when turning it on. **For your first cutting pass, only focus on removing material between the holes.** Mill using a zig-zag pattern until all the holes are connected as shown with the arrows. Do not change the depth of the end-mill yet.

**WARNING:** Always turn off the router and wait for it to **completely stop rotating** before removing or inserting it into the jig or lower. Failure to do so will damage your lower and jig.

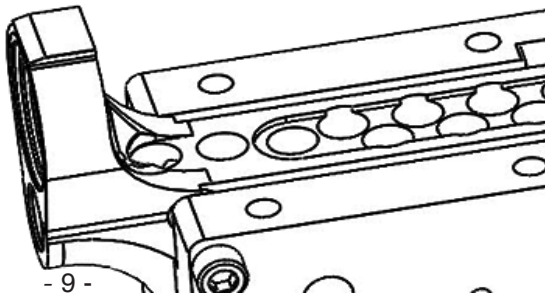
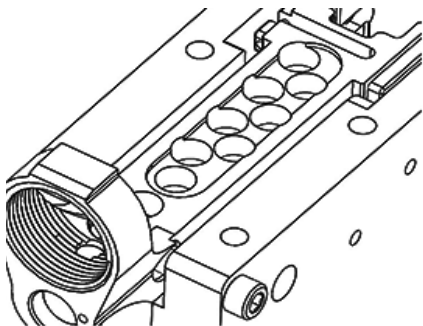


**START MILLING INSIDE THE TOP LEFT HOLE AND WORK BACK IN A ZIG-ZAG PATTERN.**



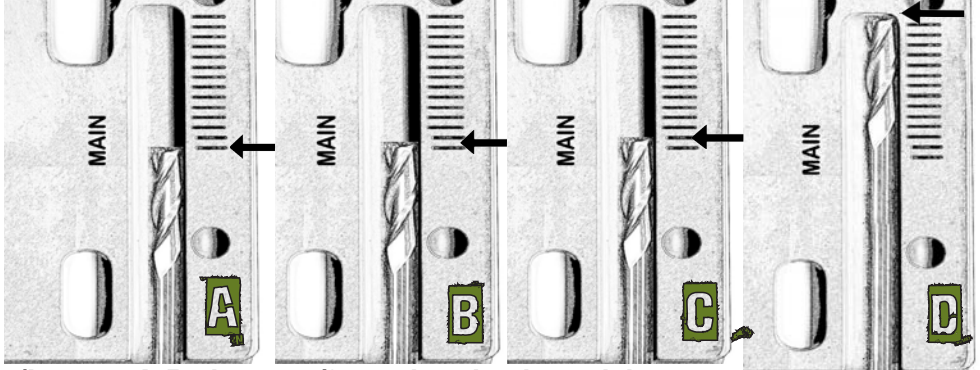
## STEP 10

**Begin milling out the rest of the area once all the holes are connected.** Start from the middle and work outwards in a circular **clockwise** motion. Keep doing this until the end mill shank is riding against the template. (**Keep the end mill lubricated and there should only be mild pressure between the shank and template wall.**) Once the first pass is complete, move the router to the middle of the pocket and turn it off before lifting it out of the jig. **Clear chips frequently with your Shop-Vac to avoid re-cutting chips.**



## STEP 11

Continue taking deeper cuts by adjusting the end mill using the depth gauge on the Rear Shelf Pocket Template #6 labeled MAIN. For 6061 lowers increase the depth of the end mill incrementally by 1/2 notch or less per pass until you bottom out the end mill inside the depth gauge. **For 7075 lowers increase the depth by 1/3 notch or less.** Each time, start inside one of the 3/8" holes and work from the middle out in a clockwise motion.



(Images A-B show a 1/2 notch or hash mark incremental move. A-C is a 1 hash mark move. For the final pass, set end mill depth to the very top edge of the gauge as shown in D.)

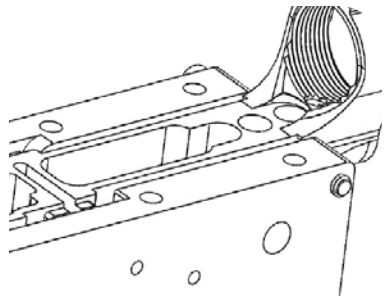
**WARNING:** AFTER EACH PASS DEPTH ADJUSTMENT, RETIGHTEN THE END MILL COLLET, and check depth setting again on the depth gauge. Failure to do so may eventually result in the end mill pulling out of the collet, removing too much material, and damaging your lower and jig.

On the final two passes before getting to the bottom, the end mill will not have a pre-drilled hole to start in. To prevent the end mill from jerking when powering up the router, hover the router slightly above the template and power up the router without the end mill touching the lower. Then, very slowly, lower the router while maintaining a firm grip on the router. For the final pass, the end mill depth is set so the end mill is past the last notch and touching the top of the depth gauge.

When this step is complete, you'll have the main trigger pocket milled out and two rear shelf holes drilled out.

**TIP:** For best finish, go slowly and adjust the depth back by 1/4 notch if you hear excessive noise or feel excessive chatter. Vacuum chips frequently.

**NOTE:** For lowers that have the rear shelf area already milled out, you do not need to drill the two rear holes. The front trigger pocket also does not need to be connected to the rear shelf pocket.

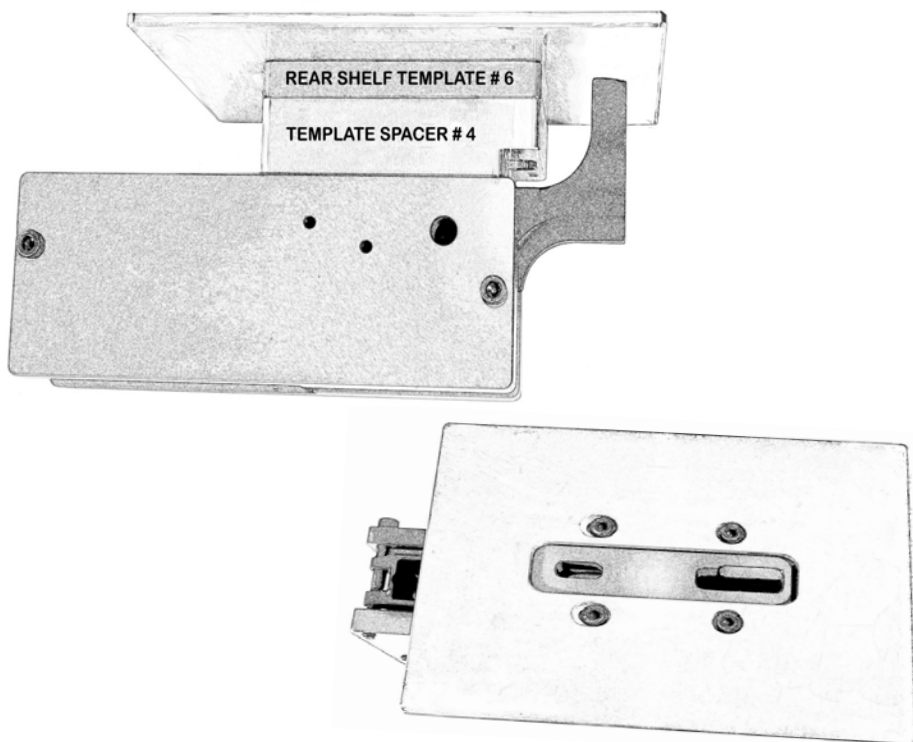


## STEP 12:

Prepare the jig to mill the rear shelf:

**NOTE:** If your lower already came with the rear shelf / lug area milled out, you can skip steps 12 and 13 and move directly to step 14.

Remove the **Router Base Support Plate #7** and the **Trigger Pocket Template #5**. Set the **Rear Shelf Template #6** on top of the **Template Spacer #4** so that the longer hole is closer to the buffer tube hole, and the small hole closer to the mag well slot. Next, place the **Router Base Support Plate #7** over the template with the recessed bolt holes facing up. Attach the router base support plate using 4 of the **Template Bolts #9**. Tighten the bolts to the jig walls in an alternating pattern. Secure the assembled jig in the vise with the buffer tube hole facing **away from** you.



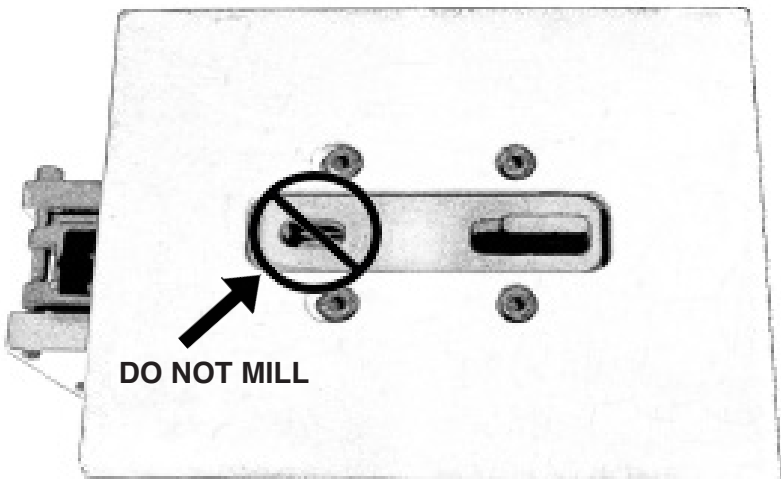
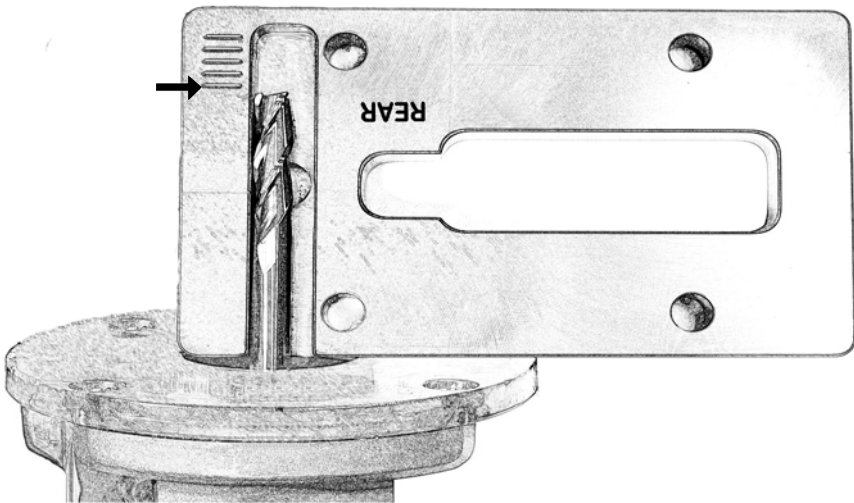
(Note: If you have an earlier version of the 308 Easy Jig, which uses 4 bolts to secure the side plates to the lower, please visit our website at [www.80PercentArms.com/pages/manuals](http://www.80PercentArms.com/pages/manuals) for additional directions. The 4 bolt version of the 308 Easy Jigs requires partial removal of a bolt before milling the rear shelf.)

## STEP 13:

**Adjust the end-mill to the appropriate length to mill the rear shelf by using the depth gauge on the Trigger Pocket Template #5 labeled REAR.**

Adjust your router depth so the end mill is touching the first notch / hash mark on the template depth gauge. Use the same milling process of connecting the holes and milling as outlined in Steps 9, 10 and 11 to mill out the rear shelf pocket.

**WARNING: Do not mill out the smaller hole (trigger slot hole) on the Rear Shelf Template #6 during this step.**





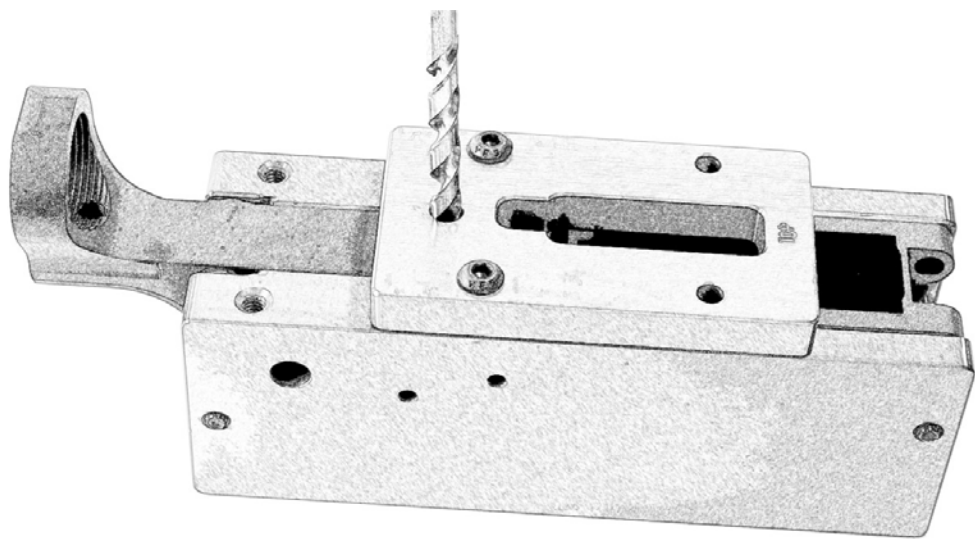
## STEP 14

**Complete the trigger slot:** Remove all the top plates and the template spacer from the jig. Clear away chips from the lower and jig. Place the **Trigger Pocket Template #5** on the jig with the depth gauge facing down. Attach the **Trigger Pocket Template #5** to the jig side plates using only the 2 short **Trigger Milling Bolts #10**. Put the bolts into the two holes on the template closest to the buffer tub. Screw the 2 bolts into the 2 jig wall screw holes furthest away from the buffer tube to secure the trigger pocket template to the jig.

Secure the jig into the vise. Using the **19/64" drill #15**, **SLOWLY** drill the pilot hole.

**WARNING: USE VERY LITTLE DOWNWARD FORCE WHEN DRILLING THE PILOT HOLE.** It is possible to drill past the bottom of the trigger area and into the trigger guard below if pressing too hard. Make sure to **drill slowly** and control the downward pressure at all times.

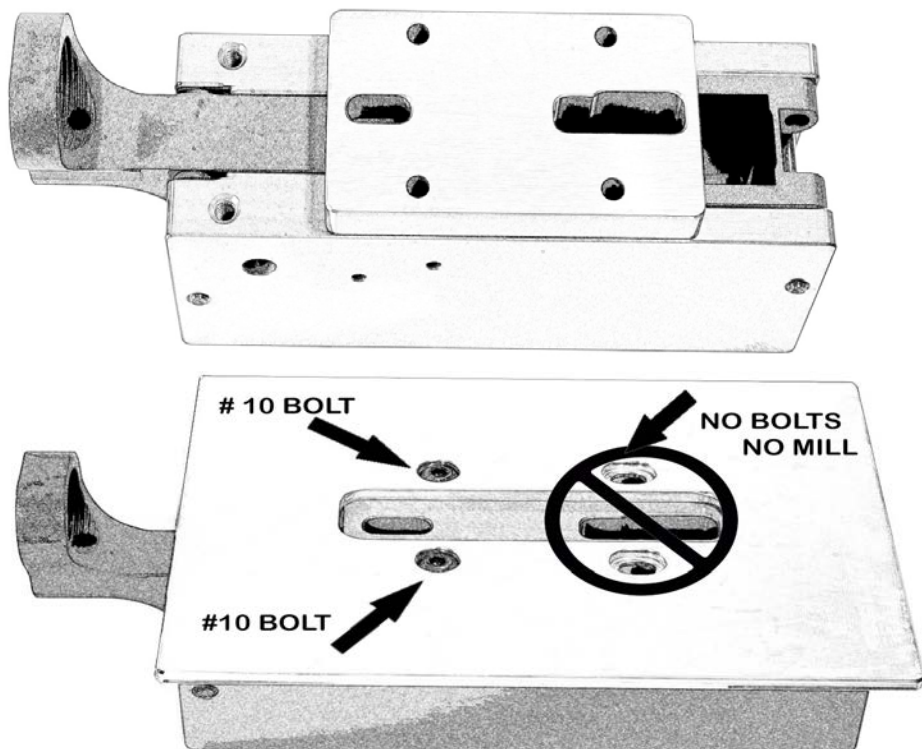
**TIP:** If you are using a hand drill, it's important that you drill the pilot hole very straight. Do not drill at an angle, or the pilot hole may drift outside the boundary of the trigger slot template. Use a punch, if available, to further prevent the drill bit from walking when you start drilling. **USE VERY LITTLE DOWNWARD FORCE AND DRILL SLOWLY WHEN DRILLING THE PILOT HOLE TO PREVENT THE DRILL BIT FROM WALKING.**



## STEP 15:

**Mill the trigger slot:** Remove the **Trigger Pocket Template #5** and set the **Rear Shelf Pocket Template #6** on the jig. Secure the **Router Base Support Plate #7** on top of the template using only the 2 short **Trigger Milling Bolts #10**. Only use the 2 bolts to attach the template and router base support plate. Insert the bolts into the 2 holes on the base plate closest to the buffer tube. The 2 bolts will screw into the holes on the jig side plates furthest away from the buffer tube. The trigger slot guide should be located closest to the buffer tube. **Do not mill the larger slot over the mag well.**

Adjust the router's depth setting so the end mill is slightly inside the drilled out trigger slot pilot hole. With the end mill centered in the hole, turn on the router while keeping a firm grip on the router. Mill back and forth in a clockwise motion. Turn off the router and increase the depth by 1/2 to 1/3 notch and repeat the process. Continue until the trigger slot hole is fully milled out.



**TIP:** Only if using a full sized router with a large base, insert the **Template Spacer #4** between the **Trigger pocket Template #6** and the jig wall, and use 2 of the longer **1.75" Template Bolts #9** instead of the short Trigger Milling Bolts. This will elevate the Router Support plate to allow a larger router to clear the buffer tube.

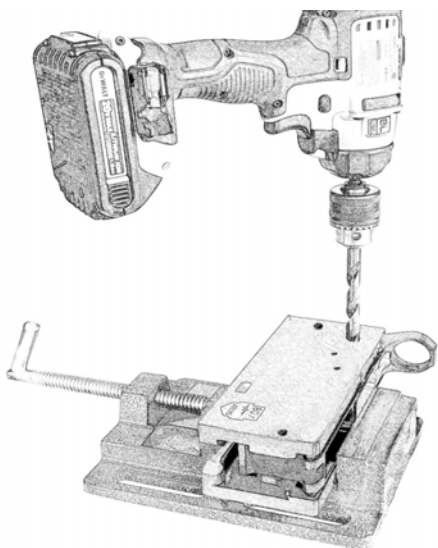
## STEP 16

**Drill the trigger pin, hammer pin, and safety selector holes:** Remove the router support plate and rear shelf template from the jig. Clear out chips and reposition the jig with the lower on its side. Because the bolts holding the jig together may protrude out of the jig side plates, use spacers (such as the template plates) to raise the jig assembly so that it is laying level. Secure the jig on its side with a vice or clamp.

**WARNING:** If using a hand drill, make sure you drill straight down. Do not lean at any angle. Only drill minimum depth needed to clear thickness of the lower's side wall to avoid enlarging the pin holes. **TIP:** If using a hand drill, elevate yourself over the top of the jig using a step stool to better ensure you are drilling straight.

**Insert the 5/32" Drill #14** into your drill press or hand drill and drill out the trigger and hammer pin holes on the right side. Next, install the **3/8" Drill #13** and drill out the safety selector hole on the right side. Flip the jig over and do the same for the left side. **Do not drill all the way through from one plate to the other.** Measuring from the top surface of the jig side plate, do not drill deeper than 1".

**WARNING:** To ensure proper function, use a paperclip to clear out any chips from the safety selector detent hole. It is common to have chips stuck in the selector detent hole, which may interfere with the function of the safety selector. These chips are not always easy to see. Push a paper clip though the safety selector detent hole even if you don't see any chips in there to clear out any hidden chips.



## CLEAN UP TIPS

During milling, it's possible for small chips to rub between the jig plates and the lower. Aluminum residue from the chips can rub onto the anodized finish of the lower. The anodized finish on the lower is much harder than the raw aluminum chips. You can use a sponge with a mildly abrasive green Scotch Pad to remove marks left on the lower by the chips. Dip the sponge in soapy water and **gently** rub the lower to remove any marks.

If you milled a raw lower, **do not anodize or apply a finish coat to the lower until after you have installed your lower parts kit and performed a function test.** If you milled an anodized or Cerakoted lower, it is not necessary to apply a finish to the milled raw aluminum area.

## SHOW OFF YOUR WORK

There's a great sense of satisfaction in building your own firearm. Join our community of builders on Facebook where you can display your work, see what others have done, and keep up with 80% news and new product announcements. Join us at [www.facebook.com/80percentarms](http://www.facebook.com/80percentarms).

## CONTACT US

Our dedicated support team is available by phone, email, and walk-in to answer your questions and for any service needs.

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3480 W Warner Ave., Suite L  
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Phone sales and support: (949)-354-2767

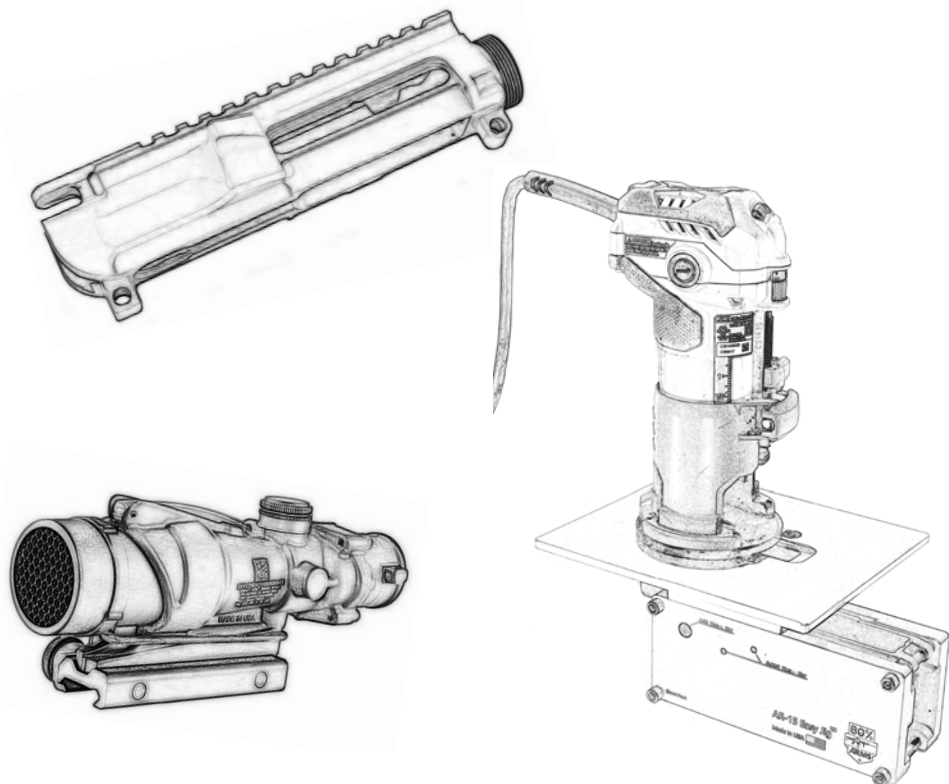
Email support: [support@80percentarms.com](mailto:support@80percentarms.com)

## LEGAL NOTICE

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# PARTS AND ACCESSORIES

80 Percent Arms carries a complete line of replacement parts for the Easy Jig® and other parts and accessories to finish your build project, including matching 80 Percent Arms billet upper receivers. Visit us at [www.80PercentArms.com](http://www.80PercentArms.com) to browse our full catalog of parts and accessories.





## NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

**A WELL REGULATED MILITIA, BEING NECESSARY TO THE  
SECURITY OF A FREE STATE, THE RIGHT OF THE PEOPLE TO  
KEEP AND BEAR ARMS, SHALL NOT BE INFRINGED.**

