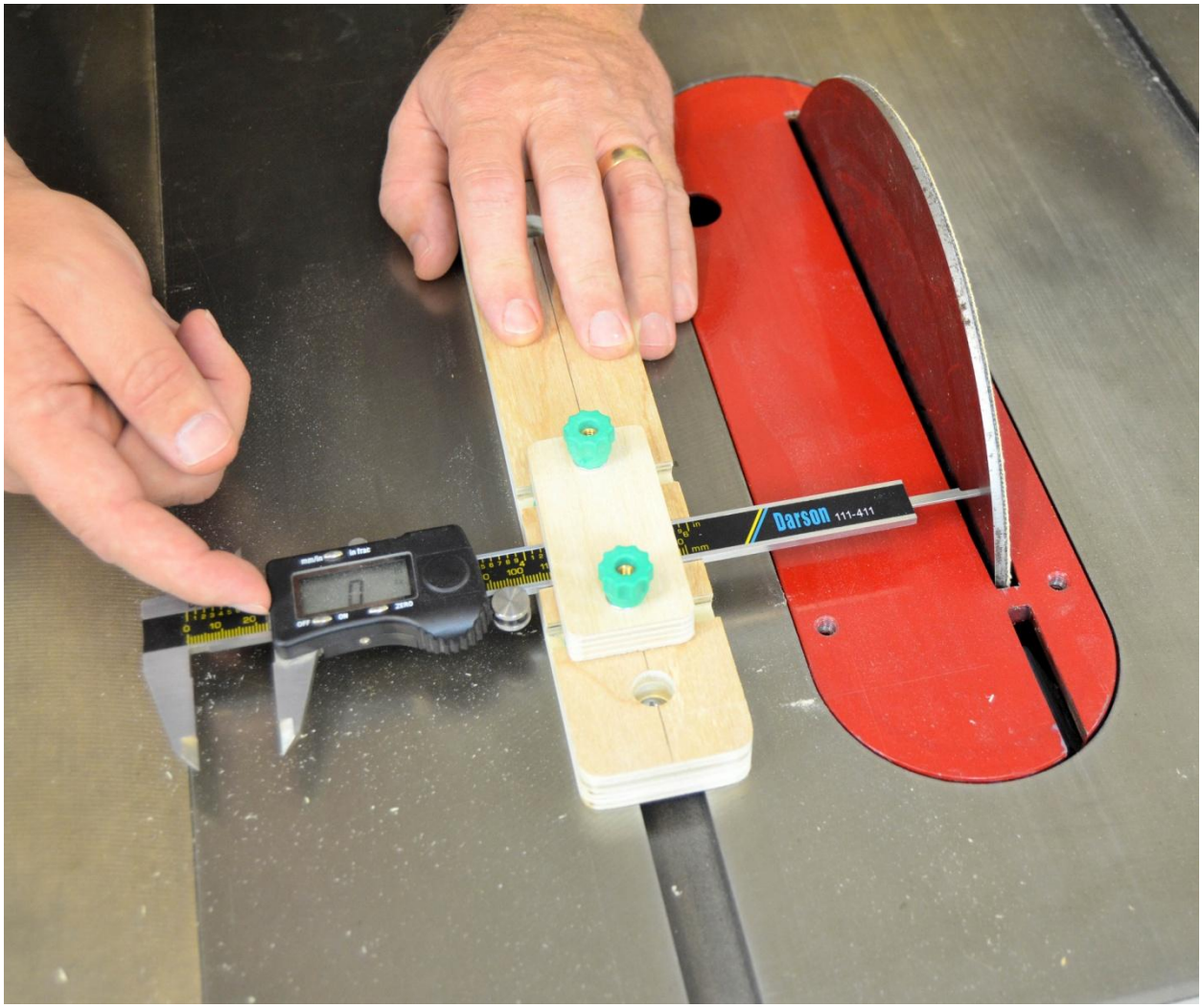
Saw Setup Jig



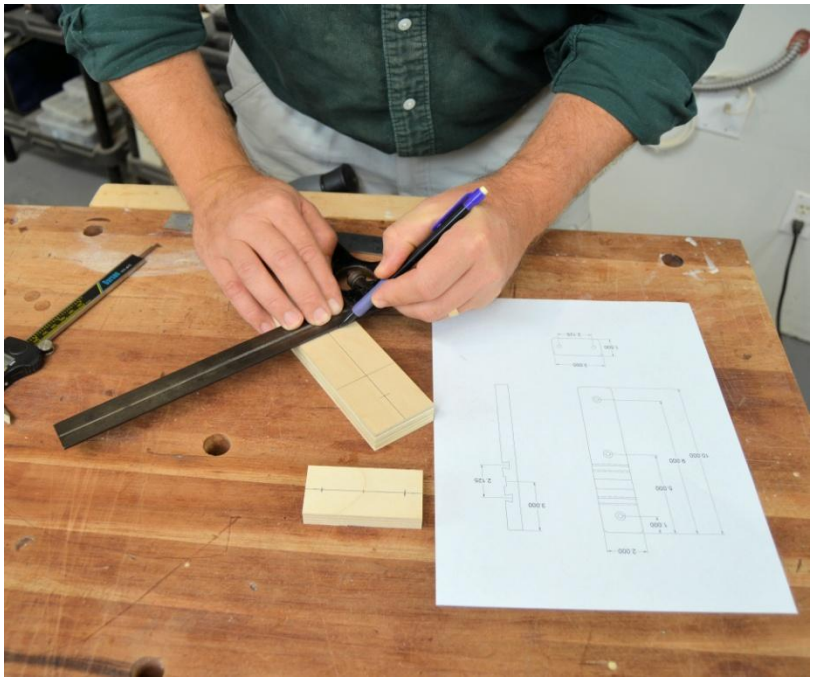
This simple jig holds your caliper accurately in the miter slot for fine tuning your saw.

The first step to safe and accurate work at the table saw is to set the blade and rip fence exactly parallel to the miter slot. A digital caliper makes this task easier, but it needs to be located accurately within the miter slot to be effective. This jig makes the process easy using MicroJig's ZEROPLAY Guide Bar and Dovetail Hardware.

Making the Jig

The body of the jig is a piece of good quality 3/4" plywood, 2" wide and 10" long. The clamping block that holds the caliper is 1-1/2" by 3" and the clamp block is cut from 1/2" ply at 1-1/2" by 3"

Both parts are marked out, first with a center line, then with the hole locations. The Body needs mounting holes for the ZEROPLAY Guide Bar at 1", 5" and 9" along the center. The Clamp block is marked at 1/2" and 2-1/2".



Next mark the center lines for the dovetail slots in the body. These are at 2" and 4" measured from the front end.

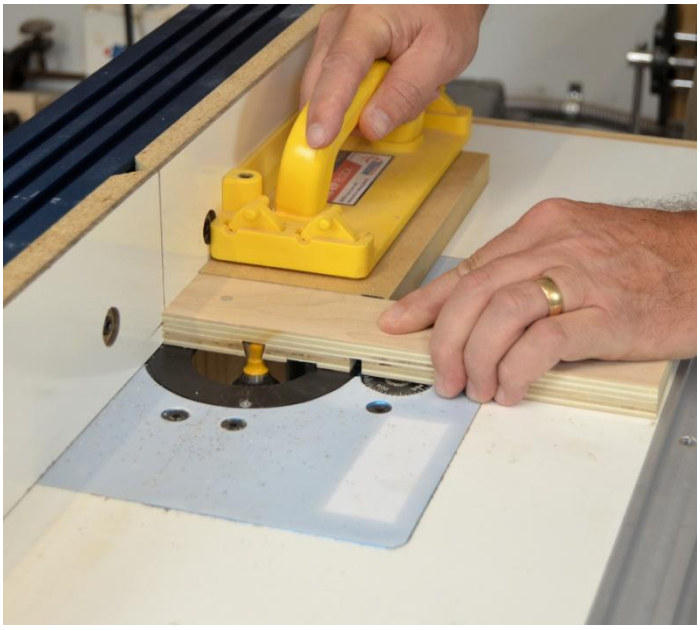
The guide bar mounting holes get counter bored to 1/2" deep using a 1/2" forstner bit. A 1/4" bit is used to drill through holes in the center of the counter bores. Use the same bit to drill the hardware holes in the clamping block.

A 1/8" deep groove is milled into the body next. This is to hold the caliper. The groove width is determined by the body of the caliper, and it should be centered between the dovetail groove marks.

To get an accurate fit, I used the caliper itself to set MicroJig's Dado Stop, but this is not strictly necessary.

The dovetail grooves for the hardware need to be cut next. With undercuts like this, I always mill a relief slot first. This makes for cleaner cuts and greatly improves the live of the dovetail bit. These 1/4" wide by 5/16” deep relief grooves can be cut at the table saw, or milled at the router table.

The dovetail grooves need to be milled 3/8” deep using a 1/2" wide, 14 degree dovetail bit. ANY bit of these dimensions will work, and you may already have one in your bit collection, but it must be 1/2", 14 degree or the hardware will not work.

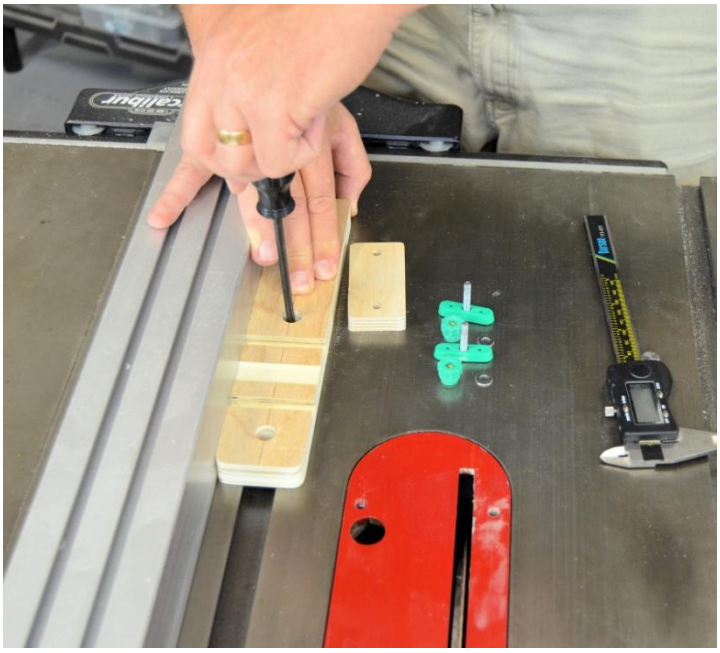


The bit shown is MicroJig’s Dovetail Bit. It is ground specifically to make the proper groove and round over the top edge. If you are going to use their Dovetail system around the shop, this bit is good to have, but again not required.

The final step is to round off the corners of the body and clamp block, and the jig is ready to assemble.

Assembly

The ZEROPLAY Guide Bar is the key to this jig, and it must be set properly for the jig to work. Since the ZEROPLAY will work at the top of the miter slot, it is best to set it there. To do this, place a pair of washers or nickels in the bottom of the miter slot, then lace the assembled ZEROPLAY on top of them. Then slide the two halves together until they snug up lightly to both sides of the miter slot and secure the set screws.

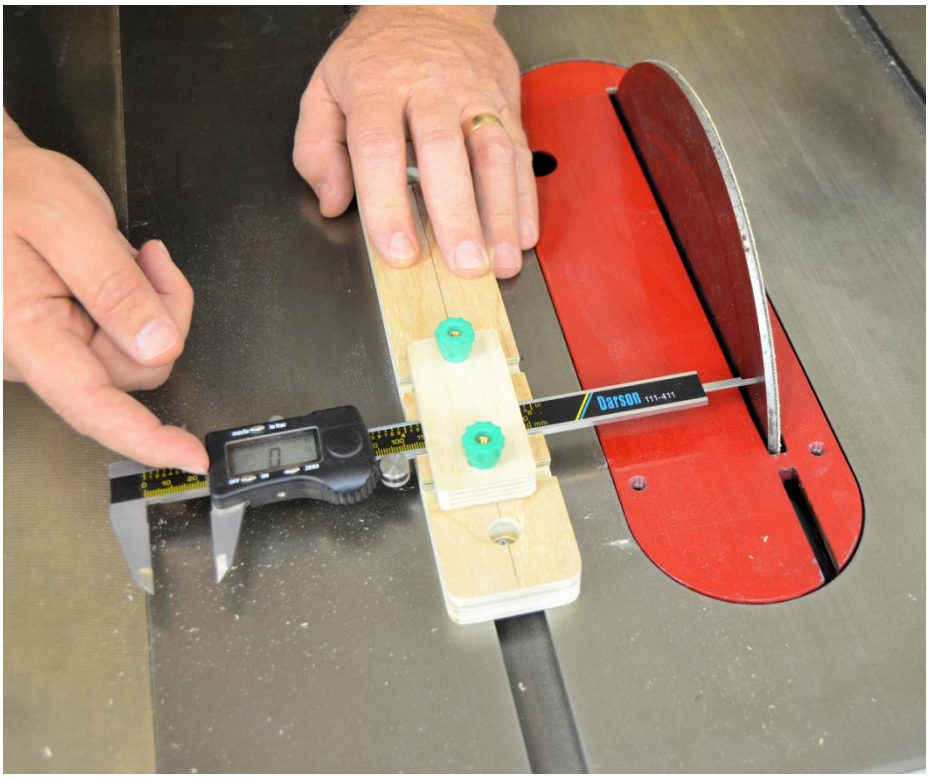


Flip the ZEROPLAY over, set it back onto the nickels, and attach the body using the mounting screws that come with it. Do not tighten them, just get them started.

Use the rip fence to square the jig, and secure the screws. The 8-32 screws in the 1/4" holes allows for any errors in drilling the mounting holes.

Finally, the Dovetail Track Screws are slipped into the grooves, the clamp block aligned over the studs, and the nuts screwed on. The 1” Track Screws are shown here with their small knobs. If you used 3/4" stock for the Clamp Block, you will need to use the 1-1/2” long Track Screws.

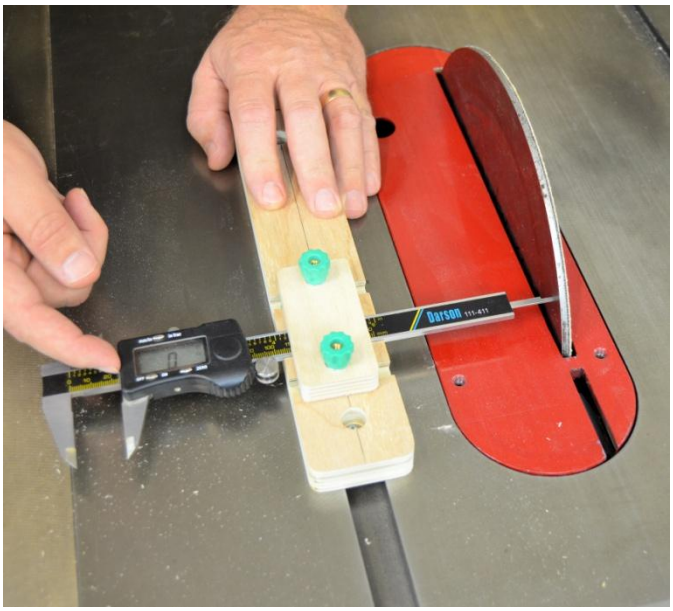
The caliper is snugly but gently clamped into the groove in the body, and the Setup Jig is ready to tune your saw to perfection.



Setting the Blade

The blade needs to be aligned exactly parallel to the miter slot. The jig will slide very accurately back and forth along the miter slot for measuring the blade front and back.

With the saw unplugged, this can be done using a set up plate as shown, or you can simply use your blade. For best results, mark one tooth at the front of the blade, touch the BODY of the blade next to that tooth with the caliper, and zero the display.



Rotate the blade so that the marked tooth is at the back, slide the jig to the back of the blade and check the measurement at the same tooth. Using the same tooth for both measurements will eliminate any errors if your blade is not perfectly flat.

The table or trunnions must be adjusted until both measurements are zero, or the same if you use an analog caliper.

The exact process for this adjustment differs between types of saw. Refer to your Owner's Manual for the correct process on your saw.

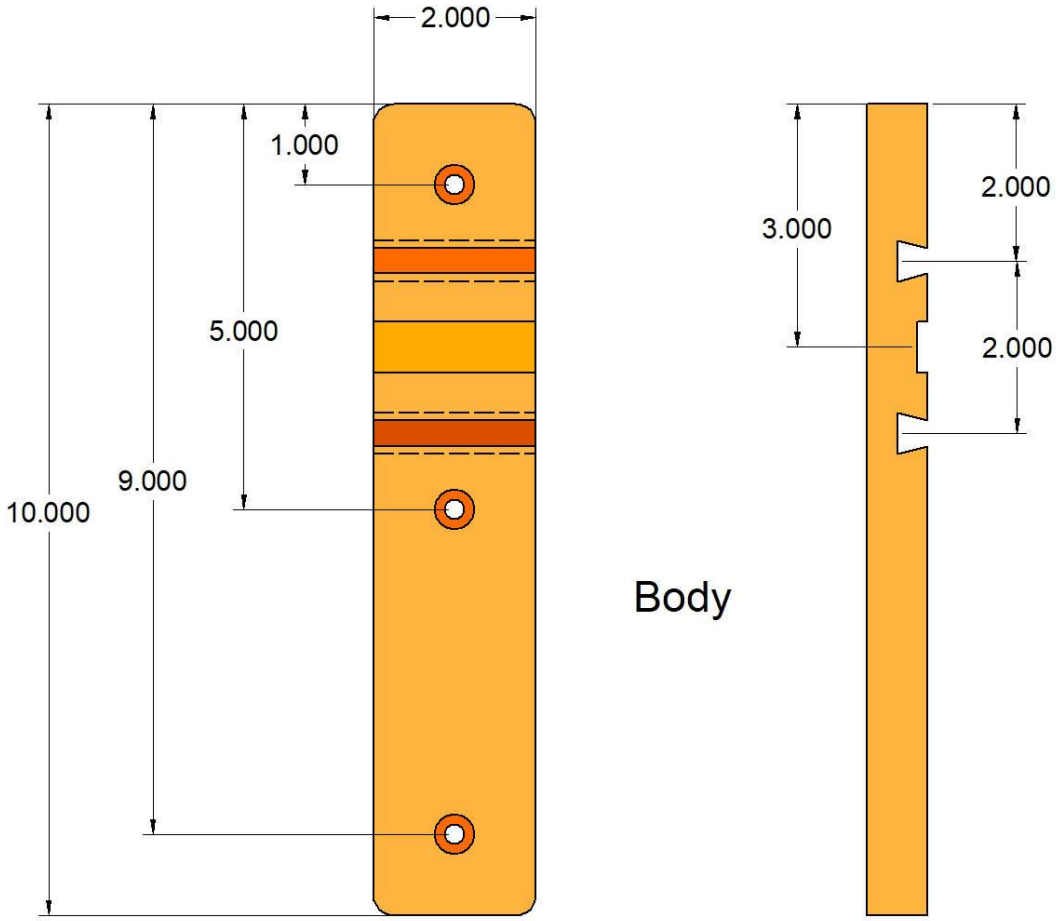
Setting the Rip Fence

Each rip fence will also have specific instructions for adjusting the position, so you will need to read up on that too.

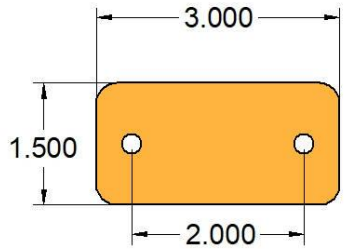
The caliper is reversed in the jig, and the fence checked at both the front and back in the same manner as the blade.

Note: Some folks believe that fence should angle very slightly away from the blade front to back. THIS IS INCORRECT AND DANGEROUS.

Even a slightly angled fence forces the wood to move across the blade at an angle causing tool marks, burning and possible kick back. The rip fence MUST be parallel to the blade to get the safest and most accurate cuts.



Body



Clamp Plate

Sources

[360 Sled Kit](#)

[Zeroplay Guide Bar](#)

[Dovetail Hardware Variety Pack](#)

[Dovetail Router Bit](#)

[Dado Stop](#)

[Digital Caliper](#)