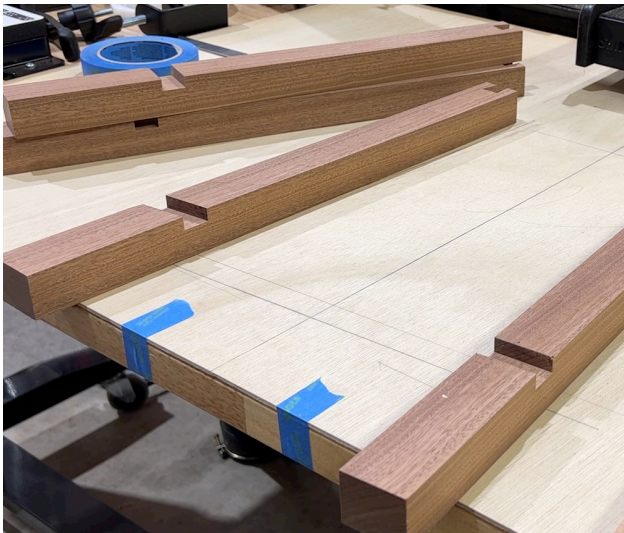


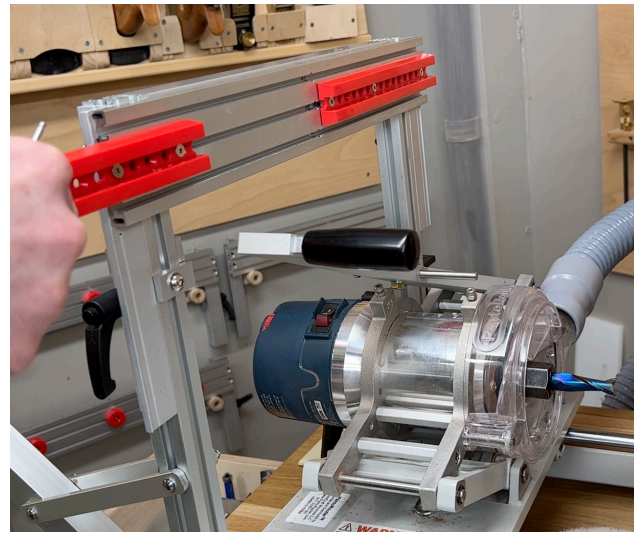
# PantoRouter®

## TECH TIPS

### Dialing in perfect Dados using the Template Holder Micro-Adjust



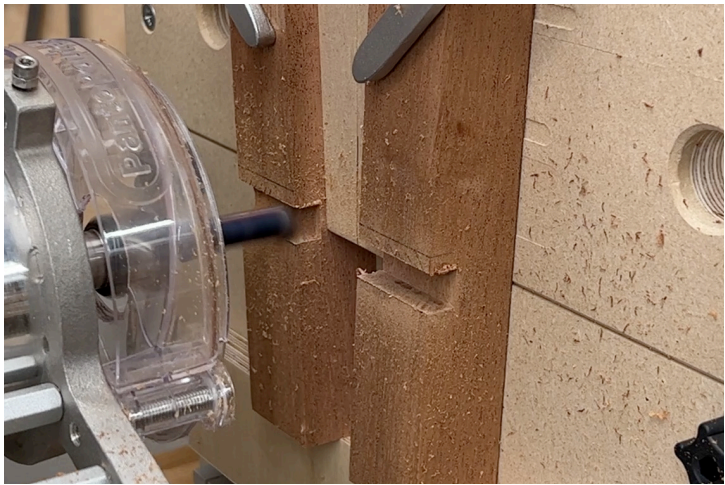
We have been working on a small bench project in the shop and we needed to cut angled slots or dados in the legs to accept the lower shelf. This is a great application for the slot mortising template with some help from our new Template Holder Micro-Adjust.



The dado needs to be 3/4" wide, but since it is being cut across the grain, we elected to use our 1/2" Amana spiral up-cut bit rather than a 3/4" straight bit like the one provided in our Monster mortise and tenon set. This means the cut will be made in multiple passes and we will adjust the height of the template holder to get a perfect fit.



Start by marking out the desired cut location so you have a visual reference of where to start the cut. With the 10mm guide bearing in the center slot of the Slot Mortise Template, adjust the height of the Template Holder so the bit aligns with the bottom pencil mark.



Make the cut using shallow passes to avoid tear out.

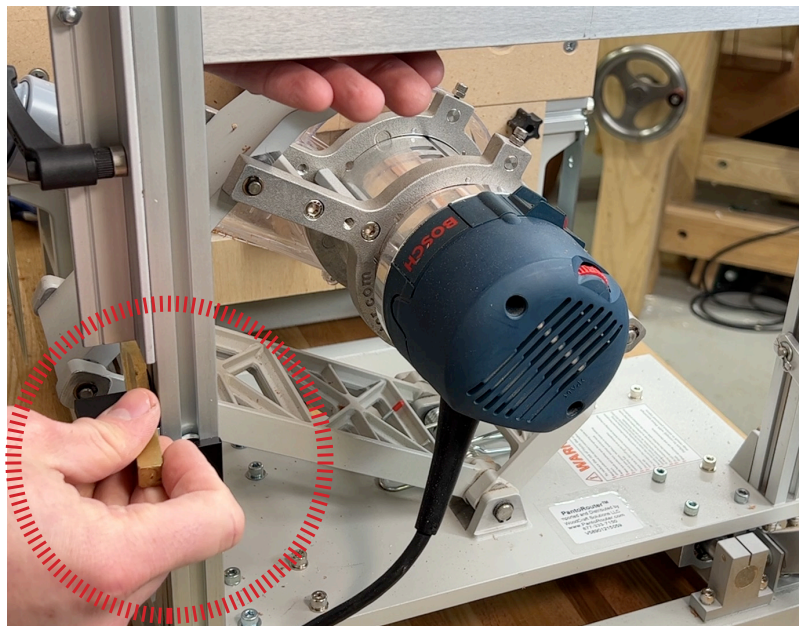
Once the first cut is made, the template holder is raised to remove the remaining material.

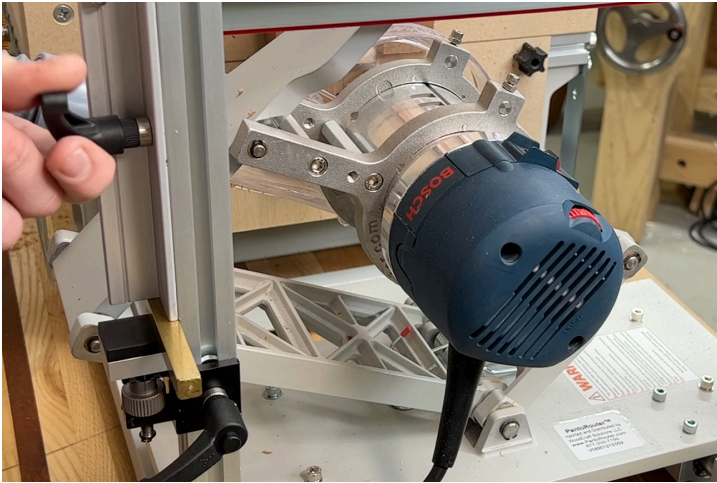
See note on installing the Template Holder Micro Adjust at the end of this Tech Tip.



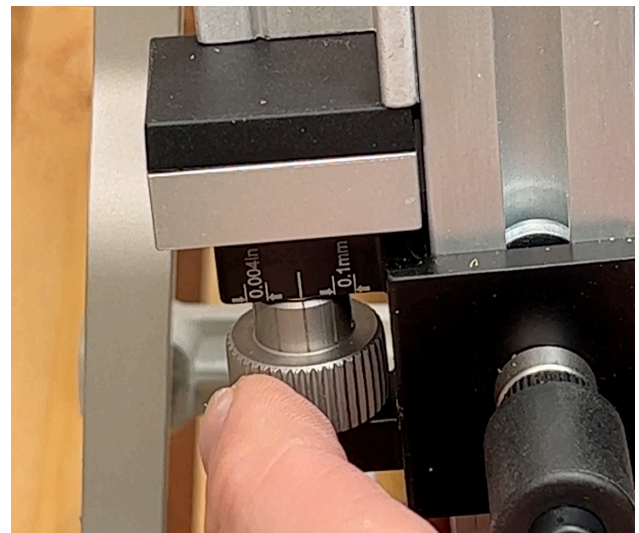
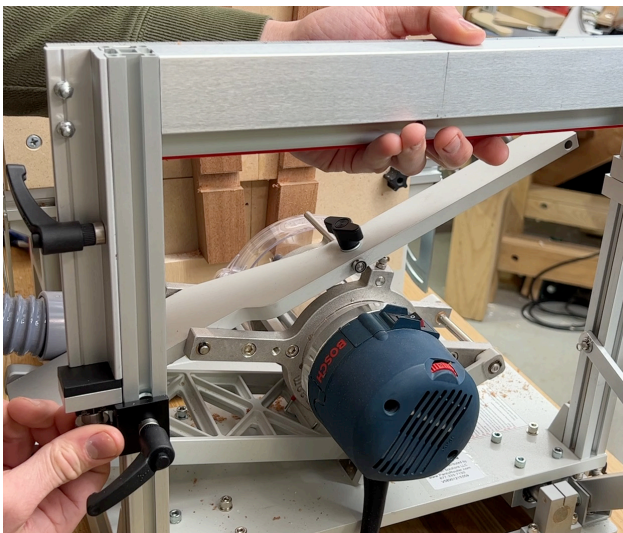
Start by sliding it up until it contacts the bottom of the Template Holder Slider and lock it into position.

Since there is approximately 1/4" of material left to remove in the dado, we know the template holder needs to raise ~1/2" due to the 2:1 ratio from template to workpiece. We could lift the template holder until the bit is close to the layout line on the workpiece but instead we opted to use a setup block between the Template Holder Slider and the Micro-Adjust. By using a 3/8" setup block, we know it will leave enough material to then sneak up on a perfect fit using the micro adjust.





Loosen the Template Holder and slide it up. Place the setup block between the Template Holder Slider and the black contact surface of the Micro-Adjust, then lower the template holder until it contacts the setup block. Lock both template holder knobs and remove the setup block. Now the template is ready to make the next cut.



With the majority of the material removed, you can now use the Template Holder Micro-Adjust to sneak up on a perfect fit. Simply loosen the Template Holder lever knobs and raise the template holder by turning the Micro-Adjust Knob. Each indication line on the knob adjusts the height by 0.1mm (0.004"). A full rotation of the knob moves the height 1mm (0.039"). Keep in mind the bit is only moving half that distance giving you a very fine amount of adjustment.

When using the Micro-Adjust to raise the Template Holder, always remove the guide bearing from the template so the weight of the router is not on the Template Holder when making fine adjustments. A hand on the center of the Template Holder (as shown in the photo above) to lightly lift and support the Template Holder when turning the adjustment knob yields the most accurate results.

Continue making minor adjustments and testing the fit with your workpiece still clamped to the machine until you get the perfect fit. This is an easy way to cut any size dado and is much faster than endlessly adjusting shims in a dado stack and yields more consistent results than making a similar cut on a router table with a miter gauge.



The result was perfect fitting dados for our lower slatted shelf of the bench. We will have a full build video of this project soon. Happy PantoRouting!

## Installing the Template Holder Micro-Adjust

The Template Holder Micro-Adjust is intended to be used on template holder support post on the non-operator side of the pantograph carriage. It can be stored on the machine at the bottom of the post when not in use making it easily accessible when needed.

Before using the Micro-Adjust, it is imperative that the Template Holder is calibrated and dialed in correctly. Instructions on this process can be found on page 14 of the assembly guide or on page 42 of the How-to guide. You can also find a video of this process on our youtube channel titled “Dialing in the PantoRouter” or scan the QR code to view it.

