Router Tricks for Trim

Armed with two routers and three bits, an experienced carpenter shares five problem-solving tips for trim, cabinets, doors, and stairs

BY GARY STRIEGLER

Trim router

My editor recently called me a tool junkie. My wife has called me the same thing, but with a few expletives. In my defense, when you've been building as long as I have, you can appreciate how important it is to have a good collection of tools close at hand wherever you are.

I won't tell you how many routers I actually own, partly because I stopped counting 10 years ago. But despite the grief routers might cause me on occasion, they have gotten me out of a lot of jams on the job. Of the many I own, the trim and midsize D-handle models are the two I reach for most.

Different routers for different jobs

The first trim routers were called laminate trimmers because they made quick, clean work of flush-cutting laminate for countertops. Today, more powerful motors and a variety of accessories make trim routers a staple for most finish carpenters. One of my favorite features is that I can safely use my trim router with one hand, leaving the other hand free to hold the workpiece.

I use a trim router when I need to make short, shallow cuts in doors, cabinets, and trim. Because most have only 1-hp motors and ¼-in. collets, they shouldn't be commissioned for heavy work like cutting detailed profiles into a piece of hardwood. I don't use anything larger than a 1-in.-long by ½-in.-dia. straight bit in my trim routers. Larger-diameter bits put too much strain on the motor.

D-handle router

For bigger tasks that require more power, such as cutting deep mortises or plowing wide dadoes, I use a 1½-hp D-handle router. The D-handle allows me to use one hand or two, and it is easy to control.

If you don't own either of these tools or the bits I mention here, show this article to whoever is likely to give you a hard time about a tool purchase. Together, they'll save you an incredible amount of time, which will let you find reasons to buy more tools.

Gary Striegler is a builder in Fayetteville, Ark. Photos by Chris Ermides, except where noted.

THE BITS I USE THE MOST

Bits equipped with a bearing that matches the cutting diameter follow a template aligned to the cutline, which makes setup quick and easy. **Pattern bits** have a bearing mounted on top of the cutting area that follows a template mounted to the top of the workpiece. **Flush-trim bits** have a bearing mounted on the bottom that follows a template mounted below the workpiece. **Dado bits** aren't equipped with a bearing, so they require the use of a guide for the router. Their deep, nearly hollow center allows waste to exit the dado as you cut. No matter which style you're using, buy carbide-tipped bits that have two flutes. Carbide lasts longer, and two flutes make a cleaner cut than one.

Photos this page: Krysta S. Doerfler

PATCH BLOWOUTS ON TRIM AFTER IT'S INSTALLED

Pneumatic nail guns are nice, except when fixing an errant nail adds to my list of things to do. Bondo or wood filler works when the blowout is not large and deep. But nothing does the trick quite like a dutchman, or wooden patch, especially when the blowout happens in the jamb reveal (shown here). I used to use a hammer and chisel to make the mortise for a dutchman. Now, I plow a better mortise in half the time with a trim router equipped with a ½-in.-dia. pattern bit. The bit doesn't need to have a large cutting length; I usually use one about ½ in. long to keep the router closer to the cut, which gives me more control.

When working with stain-grade trim, I make the dutchman from the same material and match the grain. If it's paint-grade trim I'm patching, I don't worry about wood type too much.

I often use headless pins to provide extra holding power for the dutchman, but I've seen them clamped in place with masking tape as well. Either way, after the glue dries, a quick pass with 120-grit paper on a random-orbit sander makes the patch practically disappear.

This approach also works for replacing damaged sections of profiled trim, especially if the trim is already installed.

Set the depth

Nail an MDF guide strip to the jamb using headless pins; then adjust the bit depth to match the jamb's reveal.

Plow a mortise

With the router on, push the bit into the jamb until the bearing registers. Then follow the guide until the blowout is gone.

Fit the dutchman

It's faster to radius the dutchman than to square the corners of the mortise. Make the dutchman a bit thicker than the mortise's depth.

Fasten and sand

Glue and nail the dutchman with headless pins. Once the glue dries, sand the patch flush with the jamb.

GET CLEAN, EVENLY SPACED DADOES TO MAKE DENTIL MOLDING ON SITE

I hang a lot of custom built-up crown that includes dentil molding, and I often make the dentil molding on site. Some carpenters do this by ripping multiple dadoes on a tablesaw, but I have found that using a router is faster, is more accurate, and produces cleaner cuts.

I plow dadoes across a length of 1x6 poplar; then I rip the board to width. To space the dadoes evenly, I attach a subbase and a guide strip to my D-handle router. The subbase creates a wide, stable surface for cutting, and the guide strip rides in the previously cut dado. Centering the subbase on the router ensures that at least 3 in. of the strip locks into the dado before the bit engages and as it exits the cut.

The size of the bit I use depends on the size of the dentil molding I'm making, but I prefer to use bits with a ½-in.-dia. shank; smaller shanks can flex, which affects the cut. They also break more easily when plowing large dadoes.

Use a subbase and a guide strip. *With a square as a guide, start by plowing a starter dado on one end of the board, then make an oversize router base with a 12-in.-sq. piece of ¾-in. MDF. In the center of the MDF, drill a hole larger than the diameter of the bit you're using, and run screws through the router's base to secure it. Then attach a strip of clear stock, such as pine or poplar, that fits the first dado; it should fit snugly but slide freely. To make it easier to register the template in the dado, run the strip just past the subbase so that it's visible. A few headless pins hold it in place.*

TRIM A CABINET FACE FRAME IN PLACE

When rough openings for appliances are too small, they often need to be widened on site. Modifying cabinet face frames can be nerve-racking, especially when the cabinet is already installed. I've tried plenty of approaches to this task, many of which left me disappointed with the results. The most precise way I found is with a ½-in.-dia. flush-trim bit and a trim router.

I pin a piece of flat stock, typically MDF, to the cabinet behind the stile I'm cutting as a guide for the bearing. Keeping in mind that the bearing is the same size as the bit's cutting diameter, I select stock based on the amount of material I plan to take off (typically 1/16 in. to ⅛ in. at a time).

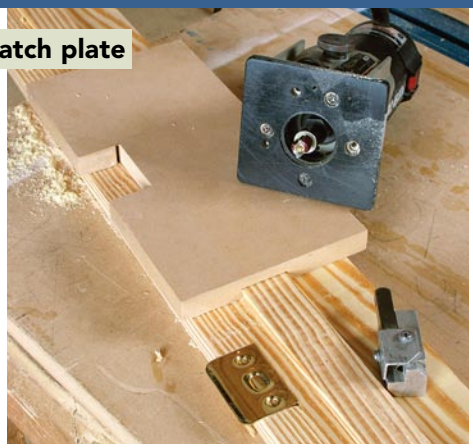
I like to use a trim router here because I can grip it with both hands for complete control while still having clear sight of the bit as it's removing material. If I need to take more than ⅛ in. off at a time, I switch to a D-handle; the added power produces a cleaner cut.

Move in the right direction. *When the bit is to the left of the stile, as it is here, move from the top down. When it's to the right of the stile, move from the bottom up. Keep both hands on the router, and move slowly. Straight bits produce a radiused corner (photo below). The radius size depends on the bit's diameter and the amount of material you're taking off. Use a ½-in.-dia. bit to keep the radius as small as possible. The smaller it is, the less work you'll have to do with a chisel.*

MORTISE TRICKY DOOR HARDWARE WITH SIMPLE JIGS

It's easier to mortise a latch plate, ball catch, and slide bolt before hanging the door. When mortising a latch plate, I dismantle the jamb before it's installed and set it up on a workbench. A short pattern bit and a trim router are good for latch-plate and ball-catch mortises. Slide bolts require a deep mortise, so I use a longer pattern bit and a D-handle router.

Latch plate

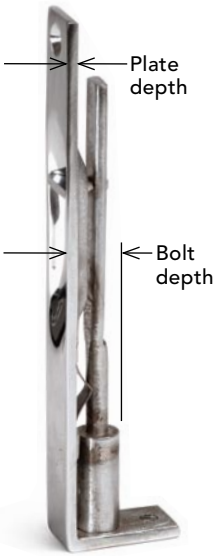


Make a self-clamping jig. *Cut a dado into a piece of ¾-in. MDF to register on the doorstop. Then make a cutout the same size as the latch plate. Hold the template down with one hand, and plow the mortise with the other. Use a corner chisel to square radiused corners with a quick tap of the hammer.*

Ball catch

Ball catches get a saddlelike three-piece jig. *Nail and glue two 4-in.-long pieces of ¾-in. MDF, ripped to match the door thickness, in between two pieces of ¾-in. MDF. Space the ripped sections apart the length of the ball latch. Glue shims inside the opening on each side piece so that the opening width matches the ball-catch plate. Center the jig on the hole, and clamp it in place. Place the router onto the jig, locating the bit in the hole. Make a test cut near the hole to double-check the depth.*

Slide bolt



Slide bolts get a similar jig and two cuts. *Slide bolts like the one shown here sit in a mortise cut into the door's corner. Use a pattern bit with a cutting diameter that matches the width of the slide-bolt plate. Make the first cut with the bit set to the plate depth.*

Add a stop for the second cut. *Make a second, deeper cut to the bolt's depth. Before making the cut, drop a stop into the jig to keep the bit from carrying through the end of the shallow cut where the plate will register. Make this cut in two passes.*

HOUSE TREADS IN A SKIRTBOARD FOR A TIGHT JOINT

I build stairs on site by wrapping framed stringers with hardwood treads and plywood risers. One of the most challenging parts of this process is creating a tight fit between stair treads and a skirtboard. You can scribe and butt the tread to the skirtboard, but it takes a lot of time and doesn't account for seasonal movement of the stringers or treads, which can cause the joint to open. For a better joint, I house the treads in the skirtboard. **(1)** After scribing the skirtboard to the stringers, I plow a dado for each tread using a template and a 1⅛-in. pattern bit (above). The bit creates a radiused end for the tread's bullnose, so I make sure to stop the bit exactly where the tread needs to end. The guide should be rigid enough that it won't flex and has to be perfectly flat, so I make one by gluing up a couple of pieces of 6-in.-wide ¾-in. MDF. **(2)** After installing the skirtboard, I test-fit each tread. I shim the tread as needed to push it tight to the top and front of the dado.