

A Simple Hinge Jig

A basic MDF template makes it easy to install cabinet hinges

BY CRAIG THIBODEAU

FIT THE TEMPLATE TO THE CABINET

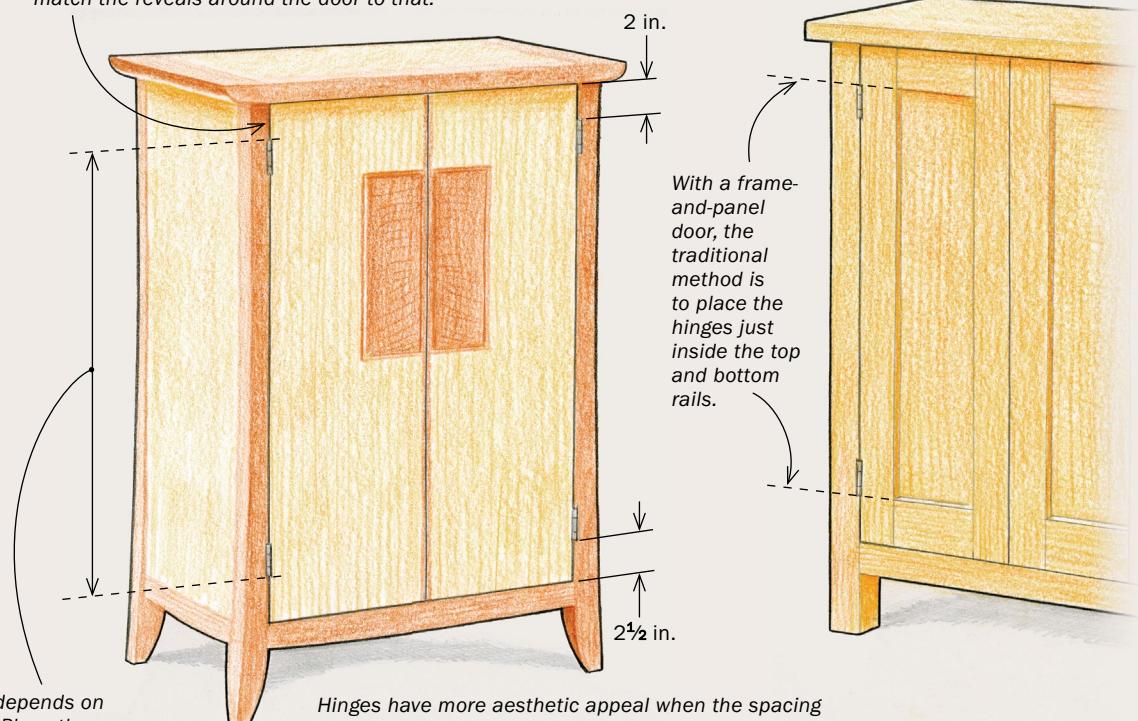
TIP



The ideal gap. Use spacers to set the reveal, or gap, around the door. When making a spacer, Thibodeau uses the hinge as a guide, setting the spacer's thickness to match the space between the leaves when the hinge is closed. With the spacer between them, the leaves should be parallel to one another. He then matches the other reveals around the door to the hinge-side reveal.

REVEALS AND HINGE LOCATIONS

Set the reveal on the hinge side first. Then match the reveals around the door to that.



The hinge location depends on the cabinet design. Place them where they look best visually, and remember that they support the door better if they are farther apart.

Hinges have more aesthetic appeal when the spacing to the door edge is greater at the bottom than at the top. For the cabinet example here, the top hinge is 2 in. from the top of the door while the bottom hinge is 2 1/2 in. from the bottom of the door.

In the past, I routed butt-hinge mortises free-hand and chiseled them square one at a time. Though I had success with the method, it was time-consuming, and I frequently ended up with some slight misalignment between the door and the cabinet mortises. I've since come up with a better way to rout hinge mortises. I use my tablesaw to make a simple MDF template that I then use to rout the mortises in both the door and cabinet. With the template, little to no measuring is required for the hinge install, and the alignment between door and cabinet mortises is perfect every time.

Fit the template to the cabinet

Begin by dry-assembling the cabinet, having already fitted the door(s) to the opening. Set a door in the opening and place spacers at the bottom to ensure a consistent gap, or reveal. Save the spacers because you'll use them later. Now mark the hinge locations on the edge of the door. If you have two doors, mark the hinges on the second one as well.



A perfect example.
Thibodeau's MDF hinge jig helps ensure that the hinge mortises in the door and case align perfectly. In a case with two doors, the jig also ensures that the hinges in each door align with one another.



Locate the hinges. With the door fitted to its opening and the spacers in place, pencil in the hinge locations on the door.



Cut and fit the template. The template is made from $\frac{1}{2}$ -in. MDF that's about 6 in. wide. Cut it for a snug fit top to bottom, and then mark its orientation in the opening. Those arrows will guide the work later.

MARK THE TEMPLATE

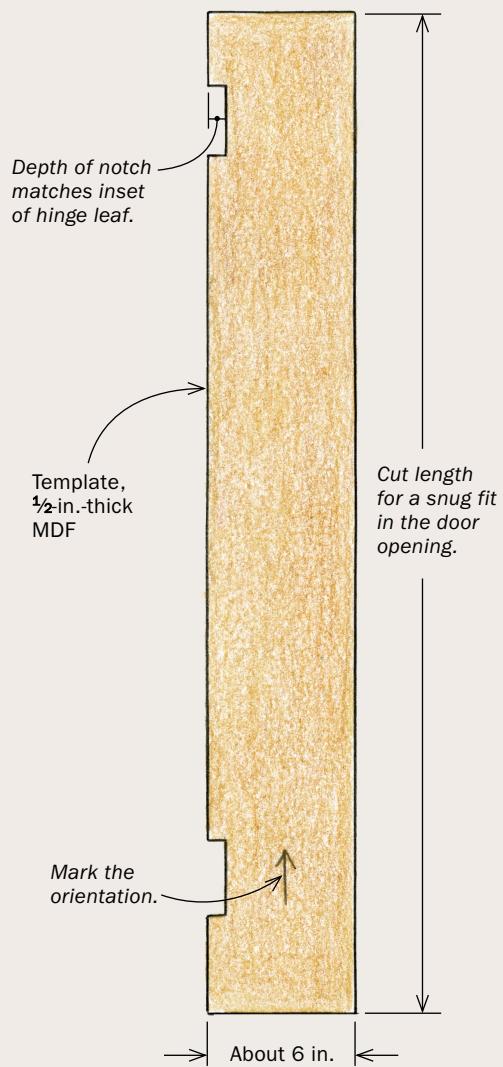
Lay out the hinges on the edge of the door. Place the door on the bench, with a spacer taped to the bottom. Transfer the hinge marks from the front of the door to its edges.



Transfer the marks to the template. With the template oriented correctly, align it flush with the spacer at the bottom. Then transfer the hinge layout from the door to the template.



TEMPLATE GUIDELINES



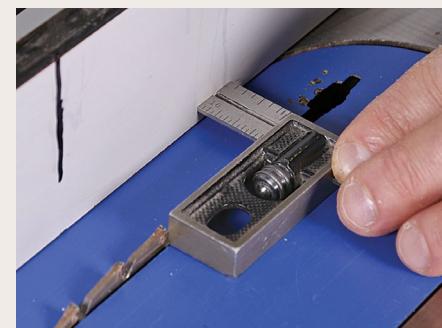
Simple way to set the inset. Use a small combination square to measure and set the inset of the hinge.



Mark the inset on the template. Use the square to scribe the inset for all of the hinges. Keep the square at that setting; you're about to use it again at the tablesaw.



MAKE THE CUTOUTS



The first cut. Use the combo square, set to the hinge leaf inset, to set the tablesaw fence (above) and mark the blade's centerpoint on the fence. Lower the blade and clamp the template in place with the hinge location centered below the blade's center mark. Slowly raise the blade through the template until it cuts the length of the hinge (left). Repeat for the other hinge mortises.

Make a template from a piece of $\frac{1}{2}$ -in. MDF about 6 in. wide and long enough that it will fit snug inside the height of the door opening. Mark the direction the template sits in the cabinet as well, so you'll know which way to orient it when routing later.

Make the hinge cutouts on the tablesaw

The next step is to cut the template openings on the tablesaw. Those cutouts will guide the router work. Start by transferring the hinge location marks from the door to the edge of the template. From there, mark the inset of the hinge leaf on the face of the template.

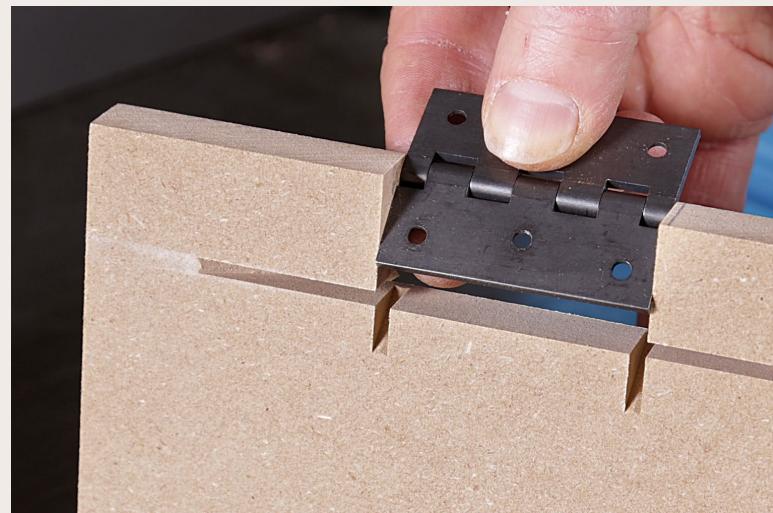
At the tablesaw, the first step is to mark the center of the blade on the face of the rip fence. The first cut you'll make will be along the line marking the back edge of the hinge leaf. Use the square to adjust the rip fence to cut just at the line—you want the blade on the hinge side of the line.

Make this cut by raising the blade up through the template (see photos, above). Clamp the template so that the hinge location is centered over the blade. Slowly raise the blade until it cuts the entire length of the line at the back of the hinge. Do the same for the other hinges.

Once you've made those inside cuts, you'll use a miter gauge to complete the cutouts. Set the tablesaw blade fairly high, and use the rip fence as a stop to ensure accuracy. Using a miter gauge, cut on the inside of the side layout lines. Finish one cutout, and check the fit of the hinge before moving on to the next cutout. You'll likely have to take a few cuts to creep up on the perfect fit.



Finish up. Set the blade fairly high. Use the fence as a stop to finish the cutouts for the hinges. Remember to cut on the hinge side of the line and try to keep the blade exactly at the line. Make one cutout, check the fit, and then move on to the next one.



CUT THE CABINET MORTISES

Set the depth.
Open two hinges and place them on both sides of the template's cutout. Put the router base on the hinge leaves—not the barrels—and lower the bit until it just touches the cabinet side. Setting the depth in this manner automatically accounts for the thickness of the template and the hinge leaves. Before routing, use a chisel to score the outside corners of the mortise to prevent blowout.



Rout away. Carefully rout out the mortise, riding the bearing against the edges of the cutout in the template.

Cabinet mortises come first

With the hinge cutouts in the template complete, it's time to shut off the tablesaw and grab your trim router to cut the mortises in the doors and the cabinet sides.

Place one cabinet side on the workbench, and align the template (facing the correct direction) with the hinge layout marks. Bring the front edge of the template flush with the front edge of the cabinet side and clamp it in place. Set the router bit's depth (see photo above), and you're ready to start routing. I use a trim router with a flush-trimming, bearing-guided bit. Before I turn on the router, I take one extra step. I use a sharp chisel to slice the outside corners of the mortise. This step prevents blowout.

Carefully rout away all of the waste inside the template cutouts. Then use a chisel to square off the inside corners of the mortise using the template as a guide. Rout the other mortises in the same way. When you remove the template and check the fit of the hinges, they should all fit perfectly in their mortises.

Door mortises are trickier

Routing the door mortises takes a bit more setup. I find it easiest to do this with the door clamped in a vise and held securely. Set the template on the edge of the door, aligned correctly, and clamp it in place with enough force to hold it while still allowing it to be moved a bit.

Tape one of the spacers to the bottom of the door and align the template flush with it. The template also must be properly placed for the amount the hinge leaves are inset on the door. This will be determined by your cabinet design. I set a small combination square to that dimension and use it to align the template.

Once the template is aligned properly, you can rout the door mortises, following the same steps as the cabinet mortises. Chisel the ends first, rout the waste, then clean up the inside corners. Remove the template and you are ready to install the door. □

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Finish the mortise. Once the router work is complete, use the template as a guide to chisel the inside corners square.



DOOR MORTISES CLOSE THE DEAL

Same process.

With the door in a vise, clamp a strip of wood to the back of the door to help support the template. Then clamp the template lightly in place, aligning the bottom of the template flush with a spacer taped to the bottom of the door. With a combo square, align the template for the correct hinge inset, then cinch the clamps and rout the mortises. Follow the same steps you used to cut the cabinet mortises.

