



Installing Quadrant Hinges

Rout the recesses right
to hold a lid upright.
Here's how.

Like many hinges, the leaves of quadrant hinges rest flush with the surface of the lid and box. However, the stays that hold the lid open need room to hide inside when the box is closed, which requires four precisely positioned mortises. The two methods shown on the following pages make this task easy.

The budget option

This method uses a plunge router with an edge guide, and a downcut spiral bit that matches the width of the narrowest hinge leaf. And because you use the hinge itself to lay out the cuts, you can use this technique with any size quadrant hinge.

To start, lay out the length of the side leg of the hinge [Photo A]. Set the router bit's depth to match the hinge leaf thickness, then rout a centered recess to the line [Photo B]. Repeat on the opposite side of the lid and the mating surfaces of the box.

Without changing the edge guide position, rout a shorter $\frac{3}{4}$ "-deep mortise inside each recess [Photo C].

Slide a hinge leaf into each recess and mark the length of the back leg [Photo D]. Rout the recess [Photo E], then square up the ends with a chisel. Fit a hinge in each recess, and drill the screw pilot holes. Replace the lid stop in each hinge before screwing them in place.

► Find the edge guide plan in issue 213 (September 2012) or purchase the plan at woodmagazine.com/edgeguide.

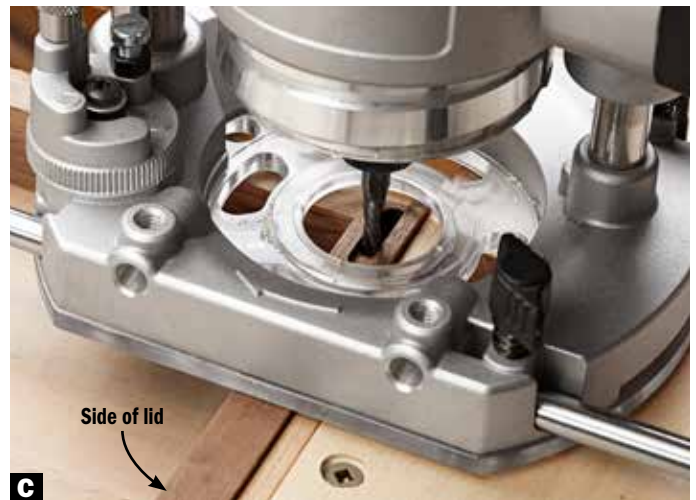
► Angle the pilot holes for the back leg inward a few degrees to prevent blowout on the rear of the box or lid.



A Center a hinge on the thickness of mating corners of the lid and box, with one leaf pressed against the back face of the box or lid. Mark the leaf length on the mating edges.



B A downcut spiral bit cuts clean shoulders and leaves a rounded end that matches the hinge leaf. An edge guide keeps the router on track while routing the recesses.



C Starting $\frac{1}{8}$ " from the rear edge of the lid or box, rout a $\frac{5}{8}$ "-long mortise inside the existing recess. Rout in several successively deeper passes.



D With a leaf snug in the recess, and the edge of the back leg against the back of the lid, mark the length of the leg.



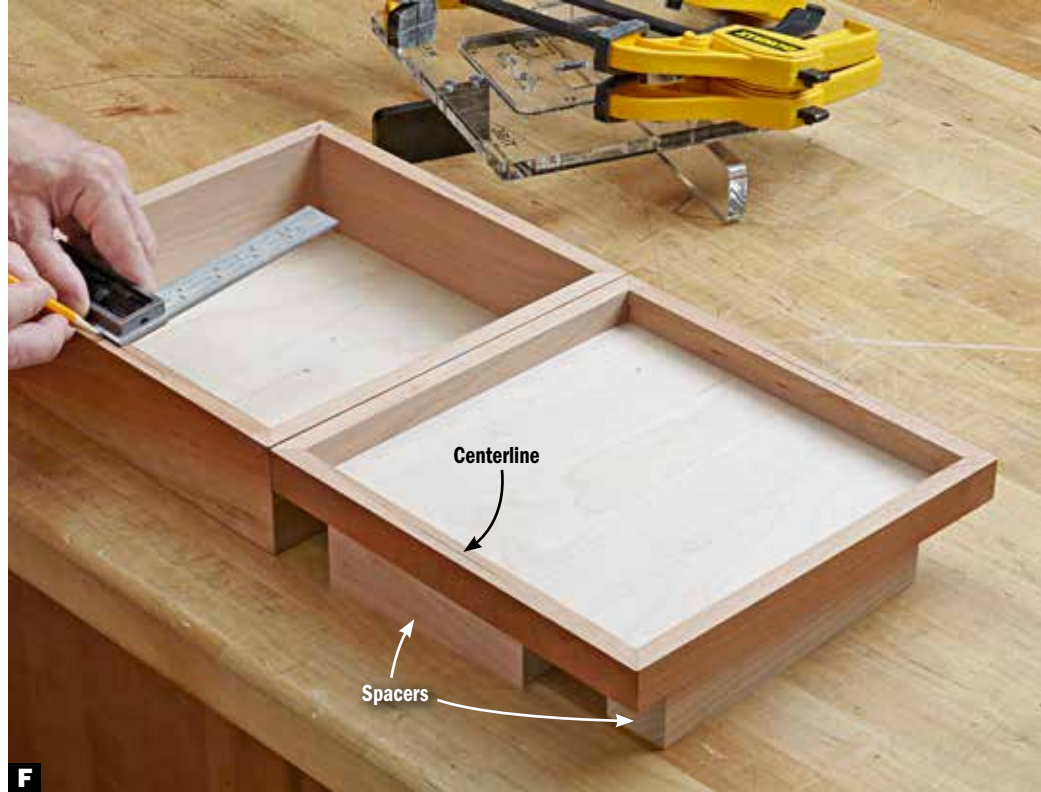
E As with the side recesses, rout the rear recesses with an edge-guided router. After making the initial pass on each, reset the edge guide if needed to clean up the rear edge.

The easily repeatable option

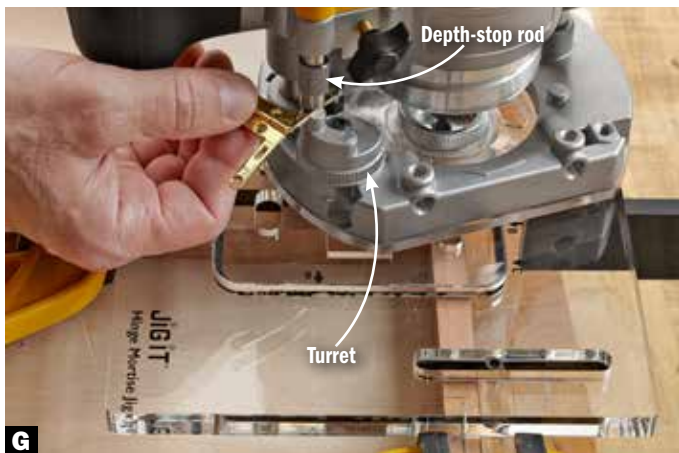
If you plan to install a number of quadrant hinges, the Rockler Jig-it can make the job easier, provided you are using hinges with leaves that are 1x1", 1¼x1¼" or 1⅝x1⅝". The jig clamps to the box and lid as shown in Photos I and J. A ⅜" guide bushing in the base of the router guides a ⅜" downcut bit around the jig openings to make the cuts in mating parts in one operation. (You'll need to buy the bit and guide bushing if you don't already have them.) 🌲

Produced by **Craig Ruegsegger** with **John Olson**

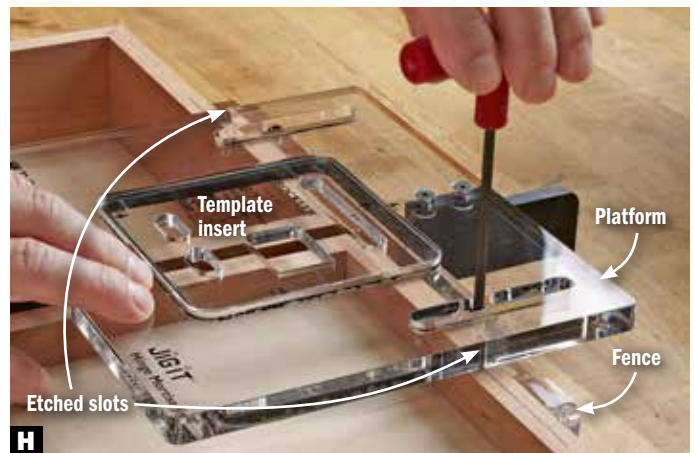
Sources: Jig-It platform, no. 58822; template inserts sized for specific hinges, Rockler Woodworking and Hardware, 800-279-4441, rockler.com. ⅜" CMT downcut spiral bit with ⅜" cutting length no. 192.005.11, available at Sears and amazon.com.



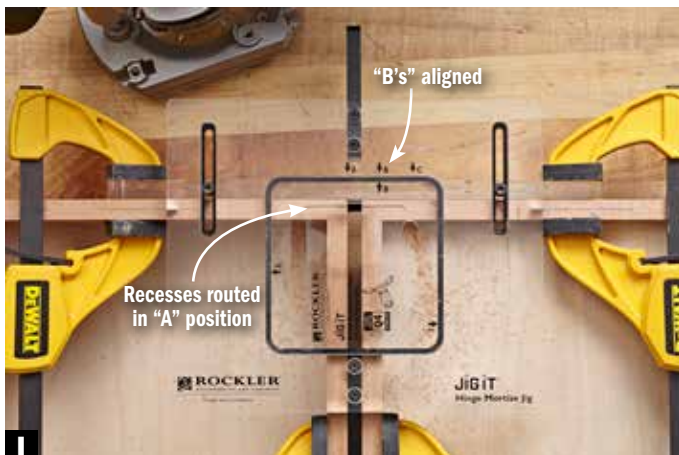
F First, mark centerlines on the mating edges of the lid side and box side. Elevate the lid on spacers to level it with the box.



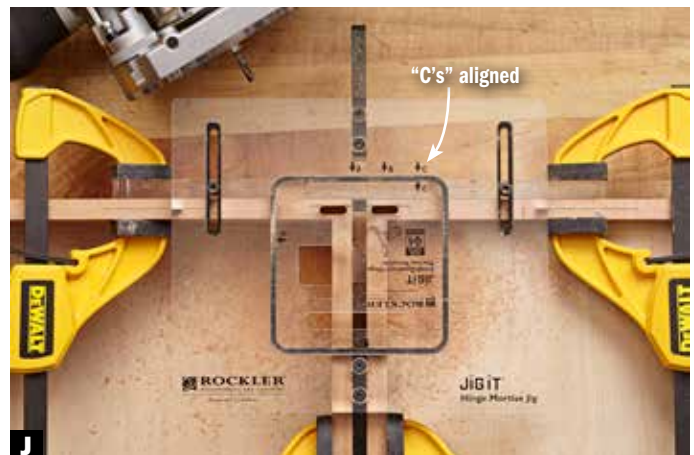
G To set the router-bit cutting depth, place the router on the jig and lower the bit until it contacts the box. Sandwich a hinge leaf between the depth-stop rod and the turret and secure the depth-stop rod.



H Align the etched slots in the jig with the centerlines. Slide the fence against the box and lid, and secure it. Clamp the jig in place, making sure the box and lid contact the underside of the platform. (The template insert rests above the bottom face of the platform.)



I Align the "A" on the template insert with the "A" on the jig platform and rout the recesses in the sides of the lid and box. Rotate the template 90° to align the "B's" and rout around the large opening to form the recesses in the rear of the lid and box.



J Rotate the template again to align the "C's" and, in several passes, rout the two remaining slots ¼" deep. Repeat the routing procedures on the opposite side of the lid and box. Remember to reset the bit depth before beginning.