

Best Hinge for Built-Ins

Easy to install and adjust, cup hinges speed up cabinetmaking

BY TONY O'MALLEY



Adding a set of built-ins is a good way to increase your home's value. And in today's economy, expending a bit of sweat equity is smarter than spending your savings.

Making beautiful built-ins isn't usually as hard as making fine furniture, partly because cleverly engineered hardware for cabinet doors and drawers has sped up the process tremendously. European cup hinges make it simple to hang and fit doors of all types, from inset to overlay.

With traditional hinges, hanging a door requires careful layout and precise mortising. Achieving even gaps involves trimming with a handplane—taking a bit off one edge, then some off the others. But you only get one shot. Take off too much

and the gap is large and unattractive.

Cup hinges are easier to install, because the only mortise needed is drilled with a 35 mm Forstner bit. A simple turn of a screw adjusts the fit in any of three directions. There are self-closing models available and some are soft-closing, so you never have to hear a slamming door again. And after the door has been hung, you can unclip it from the cabinet in seconds for finishing, transport, or to install large items like stereo equipment, and return it just as quickly without the fit being changed.

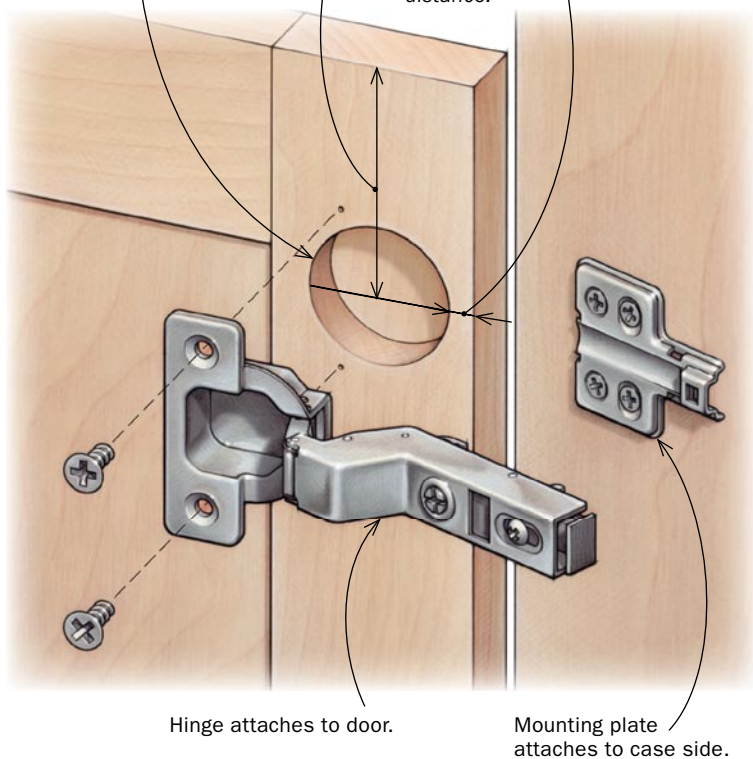
The only downside to cup hinges

CUP-HINGE BASICS

Choose an even distance from the top and bottom to the centerline: For example, 3 in. is easier to remember and measure than $3\frac{5}{16}$ in.

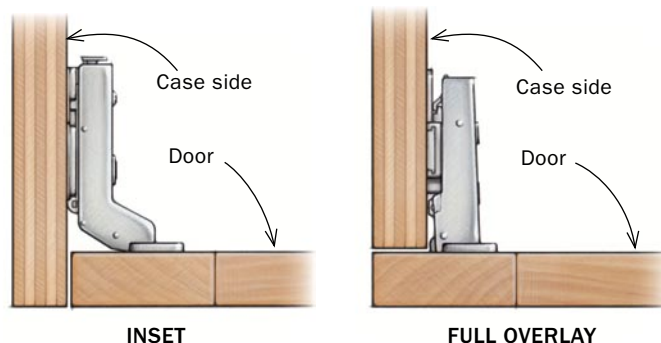
35-mm-dia. mortise for hinge cup

Typical setback is $\frac{1}{4}$ in., but it can vary with the hinge. Check instructions for the correct distance.



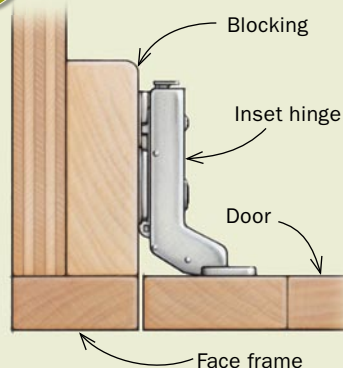
INSET OR OVERLAY?

A full-overlay door needs a different hinge design than an inset door. The examples shown are for frameless cabinets. For face frames, see the tip below.



TIP

TRICK FOR FACE FRAMES



Cup hinges designed specifically for face frames are clunky and unattractive. They are also screwed to the edge of the face frame, which can cause the wood to split. Use one designed for a normal inset door on a frameless cabinet instead. Install some blocking behind the frame for the mounting plate, and then installation and adjustment are the same.

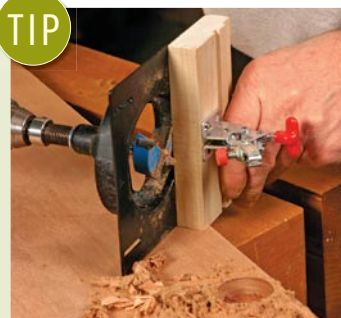
Step 1 Mount the hinge to the door

The hinge cup must be located a specific distance (called the setback) from the door edge. A drill press and fence make it easy to bore consistently located holes for the cups.



Bore a hole for the hinge cup. Mark the hinge centerlines on the door. Then use a 35 mm Forstner bit to drill the mortises.

TIP



NO DRILL PRESS? BUY A JIG

Get a cup-hinge jig, like this one from Rockler. It has a wooden fence to dial in the setback. A toggle clamp locks it to the door, and a stop on the shaft allows you to drill every mortise to the same depth.



Screw the cup to the door. Align the hinge square to the door edge with a combination square. Then screw it to the door.



Step 2 Mount the plate to the cabinet

TWO-DOOR CABINET

On a cabinet like this, mounting the plate is quite simple. Clip it to the hinge, clamp the door in its desired position, and reach inside to drive the screws home.

Clip the plate to the hinge. With the mounting plate clipped in place, there's no guessing as to where to mount it on the cabinet. The hinge puts it right where it needs to go.



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is their appearance. To be sure, they would be out of place on a period reproduction or a delicate Krenovian cabinet-on-stand. But they're great for practical cabinetry, both freestanding and built-in. I'll explain the basic types and the features to consider.

Choosing the right hinge

Because of their popularity in kitchen cabinetry—a massive industry—cup hinges are offered in a great variety of formats and features. You can choose among various degrees of opening angles, closing mechanisms, and mounting styles. With so much variety available, there's a cup hinge for just about every situation.

I always use hinges designed for frameless cabinets, even on cabinetry with a face frame, because they're sleeker and easier to install. I'll show you how to install them on both types of cabinet. And I'll focus on hinges for full-overlay and inset doors, the best choices for fine cabinetry.

With that in mind, here are the three most important features to consider.

Opening angle—Standard cup hinges open between 95° and 100°. That is adequate for most situations. But there are times when you want the door to open farther. In the kitchen, a shelf on full-extension slides would require a door that opens more. So too would a cabinet meant for home theater equipment. That's when you should use a hinge with a greater opening angle, like 165° or 170°.

Closing mechanism—Traditional hinges swing freely and require a catch or latch to hold the door closed. In contrast, most



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Clamp the door to the cabinet. After the plate is clipped in, set the door in place and hold it with two bar clamps. For an inset door, use shims to create even gaps. Leave the second door off for now.

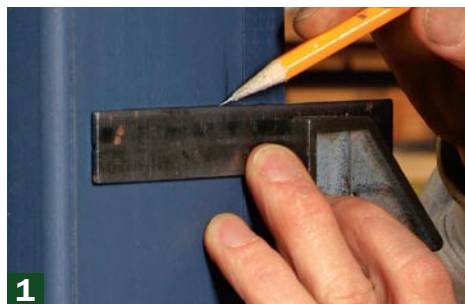


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Attach the plate to the cabinet. Lean through the opening and drive home the screws.

SINGLE-DOOR CABINET

On a cabinet like this, unless you have the back off you can't have the door in the closed position and reach inside to attach the hinge plate. So you'll have to measure.



1 **Mark the centerline.** Start with the vertical location of the hinge plate. Add the gap for inset doors, and subtract the overlay for overlay doors.



2 **Mark the setback.** The plate's horizontal location is specified by the manufacturer, so check the instructions for the right distance.

cup hinges have a spring-loaded self-closing mechanism that pulls in the door and keeps it closed.

More expensive hinges have a soft-close mechanism that controls the swing of the door as it nears the cabinet, bringing it in for a slow and gentle landing.

Mounting style—A hinge is attached to a baseplate in one of two ways: It either is screwed to the plate or it clips into the plate. Use the latter type. The clips are precisely engineered and have strong springs, so they work well. After the door is mounted and adjusted, you can unclip it quickly, and re-clip it just as quickly, without affecting the door's fit.

Installation in three steps

Cup hinges are not difficult to hang, and they can be adjusted easily afterward. But that doesn't mean you can be sloppy. The setback must be accurate, and the centerlines for the hinge and mounting plate should align. So test your setups on spare parts before installing the cup hinges.

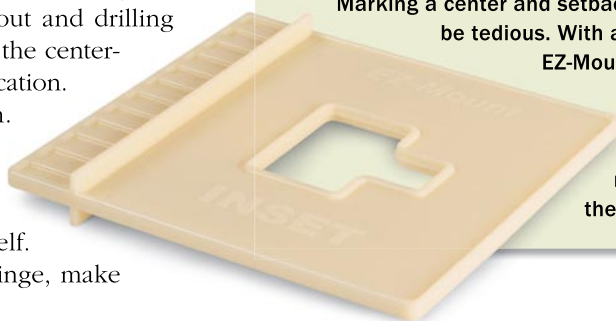
The first step is to mount the hinge to the door. Start by laying out and drilling the cup mortise. Mark the centerline for the vertical location. I've found that 3 in. from the top and bottom works well. But check to see that the hinge won't hit a shelf. When attaching the hinge, make



3 **Attach the mounting plate.** Align it with the centerline and setback line. Hold it in place, and drill pilot holes. Then drive in the mounting screws. O'Malley is using a self-centering bit here.

TIP JIG SPEEDS UP PLATE MOUNTING

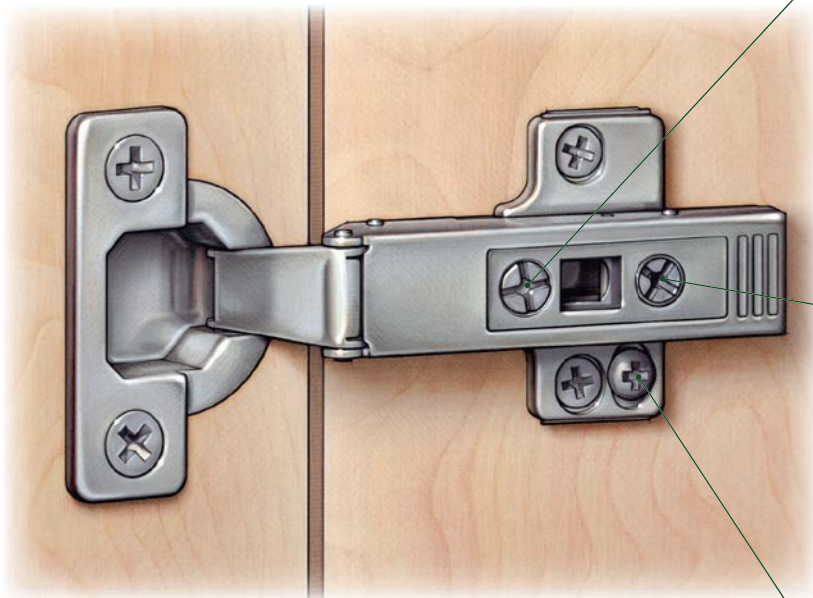
Marking a center and setback for every plate can be tedious. With a jig like this one from EZ-Mount, there's no need to measure. It holds the plate and puts it in the right place when you register the jig against the cabinet.



Step 3 Adjust the door for a perfect fit

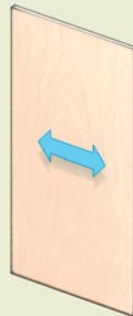
The greatest benefit of cup hinges is that they make it easy to fine-tune the door's fit. With the turn of a screw, you can adjust the door horizontally or vertically.

THREE SCREWS OFFER SIMPLE ADJUSTMENTS

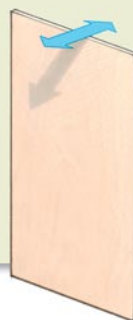


HORIZONTAL ADJUSTMENTS

SIDE TO SIDE



IN AND OUT



Adjust the door horizontally. There are two screws on the hinge for horizontal adjustment. One moves the door in and out; the other moves it side to side.

VERTICAL ADJUSTMENTS

Loosen screws for vertical adjustment. Moving the door up or down requires that you first loosen a screw on each mounting plate. This frees up the door just enough for it to move.



UP AND DOWN



sure that it's perpendicular to the door edge. Otherwise, the hinge and mounting plate won't mate properly.

Next, screw the mounting plate to the cabinet. How you do this depends on whether the cabinet has one door or two (see photos, pp. 48 and 49).

Two-door cabinets are easy. Clip the plate to the hinge, and clamp or shim the door in place. Then lean in through the opening for the other door and screw the plate to the cabinet.

Single-door cabinets take more work, because when the door is in place, there's

no opening to lean through. Instead, mark the plate's centerline and setback on the cabinet wall. Line up the plate with those lines, and screw it in place. Clip on the door.

The last step is to fine-tune the door's fit. Each hinge has three screws that are used to adjust it. One moves the door in and out, another moves it side to side, and a third is loosened so that the door can be shifted up or down. □

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Slide the door up or down. After the screws are loose, it's just a matter of adjusting the door up or down until it's perfect, and then tightening the screws.

