

Pocket Door Primer

by Sal Alfano

*Precision framing
and quality
hardware make
for a trouble-free
installation*



Whenever Mr. Spock left the bridge of the Starship Enterprise, the pocket door hissed open automatically and disappeared into the wall. You probably won't be asked to install this kind of high-tech hardware anytime soon, but there are a few tricks to hanging plain old hand-operated pocket doors that will keep your installations efficient and trouble-free.

Why Use a Pocket Door?

Pocket doors save floor space because the wall area to one side of the opening doesn't need to be kept clear to make room for the swing of the door. This makes them useful in entries, laundries, or other rooms where the door remains open most of the time. They are also a practical solution for tight spaces, like the end of a hallway, where there is little room for someone opening the door to get out of its way (see Figure 1).

The tradeoff for this gain in floor space is the pocket itself. Because the door slides into the wall, a section of the wall cavity equal to the

size of the door must be kept free of pipes and wires. If the wall is load-bearing, the larger span requires a header that's significantly larger than the header for a hinged door. Also, when it's time to paint or install carpet, it takes more time to remove a pocket door from its track than a swinging door from its hinges.

Framing

It's important to frame a pocket door opening carefully because the jamb also acts as a door stop, and the door must align properly in both the closed and open position. You can adjust pocket doors to the opening, but it's easier if the rough opening is framed plumb and square.

Rough opening dimensions vary depending on the hardware you use, so it's a good idea to have the track hardware and installation instructions on hand when you frame the opening. If you have to guess, remember that there are really two openings for a pocket door (see Figure 2). The larger one must accommodate two door widths and one thickness of trim, plus the thickness

of the bumper. The smaller opening sits "inside" the larger one and frames the door when it's closed. It should be wide enough for the door width plus two jamb thicknesses. If you're installing two pocket doors that close against each other, frame the larger opening wide enough to accommodate four door widths and two bumpers, but no trim.

To help keep all of these dimensions straight, lay out the pocket door framing directly on the floor. Header heights also vary, but you should allow at least 4½ inches over the finished door height.

I have used both 1x stock and ¾-inch plywood on edge to stick-frame pocket doors into 3½-inch-thick walls, but I wouldn't recommend it. Not only is it expensive, but the narrow material deflects too much and is difficult to fasten. It's much easier to use a manufactured kit (see "Prefab Pockets," page 26). The narrow, steel-reinforced wood studs and pre-assembled header fit a 3½-inch wall thickness perfectly. Most pocket door frame kits are designed for

both 1⅜-inch and 1¾-inch interior doors.

Kits are also made for 5½-inch walls, but in walls this thick you can also stick-frame the pocket using 2x4s or 2x6s on edge, as shown in Figure 2. To minimize twisting, choose dry, straight-grain studs that are free of knots. If the floor is out of level, use a threshold under the door to level the opening. If the floor slopes down toward the lock side, be sure to add the height of the threshold to the rough opening height or you'll have to trim the door to get it to fit.

Hanging the Door

Because the track extends into the pocket, you need to install it before the finish wall material. Most U-shaped and I-beam tracks are designed to stop short of the lock side jamb, allowing enough room to slide the hanger wheels onto the track from the end. On some tracks, however, the bottom flange stops several inches short to give you room to slip the wheels on. Make sure you know which kind you have,

because it's virtually impossible to remove and rehang the track after the wall material is in place.

To give the door stability and ensure smooth travel, each door hanger should have three or four wheels. Hardware designed for heavy doors usually has better bearings, so it's worth spending the extra money for it even when you're hanging a light door. There's nothing more annoying than a pocket door that doesn't roll smoothly, and you might avoid a callback if you use higher quality hardware.

You can wait until after the trim is installed to hang the door, but I usually give it a dry run as soon as the track is in place. Start by installing the bumper on the door about halfway up the edge. Don't fasten the bumper to the jack stud inside the pocket because it will be inaccessible once the finish wall material is applied. If the bumper isn't included with the track hardware, a door knob bumper from the hardware store will work.

Locate and install the support plates on the top of the door according to the manufacturer's instructions, then mount the door onto the rolling hangers. With the door in the closed position and before you tighten everything down, raise and lower the hangers until the edge of the door is parallel to the lock-side jamb. Some hangers can be adjusted by hand, but some manufacturers provide a special angled wrench. This is a very handy item to have around, and I usually dado out a small recess in the top of the door to hold it. Since you have to remove the head jamb to adjust the door, it's easy to retrieve the wrench when you have to adjust the door and don't have your toolbox.

Gently slide the door into its pocket. If the jambs are plumb and you measured accurately, the bumper will stop the door in the pocket so that the door edge is parallel to the edge of the pocket opening, and even with or slightly recessed into the pocket jamb trim. If the trim isn't installed yet, be sure to allow for its thickness.

If the rough opening is too far out of plumb, you'll have to compensate for it by shimming the finish jambs. How you do this depends on your finish detail (see Figure 3). A flush jamb on the lock side is very unforgiving, so if this is what you're using, make that side plumb and shim out the jamb on the pocket side so it's parallel to the door.

On the other hand, if you're going to use applied stops or a dado on the lock side, you can split the difference by shimming the jambs on both sides of the door. As a last resort, you can fine-tune the door's alignment in the open position by building out or recessing the bumper. Once everything aligns, you can lock down the hardware and slide the door into the pocket, or remove it from the hangers and store it until the drywall work is done.

Pocket Doors Save Space

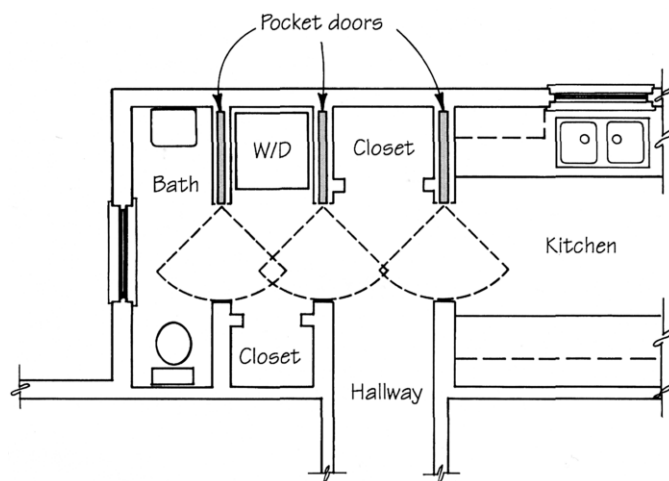


Figure 1. The swing of a hinged door requires clear wall and floor space on one side of the opening. Use pocket doors where space is at a premium, as in the narrow hallway and small courtesy bath shown here.

Framing a Pocket Door

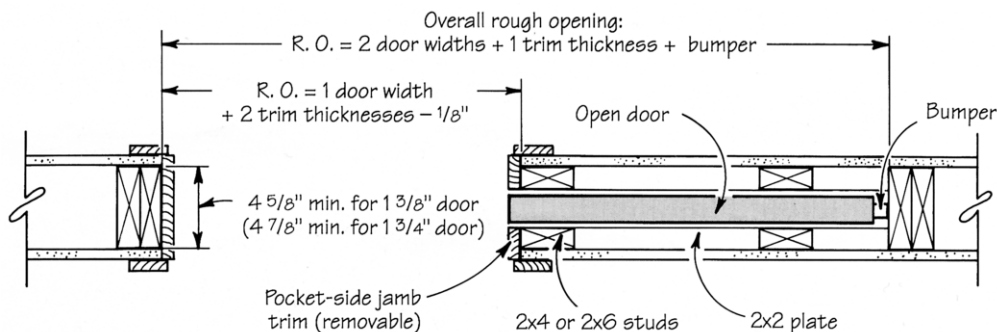


Figure 2. To stick-frame a pocket door, use 2x2 sole plates and 2x4 or 2x6 studs on edge. Rough opening dimensions may vary, so consult the track hardware installation instructions.

Lock Side Trim Details

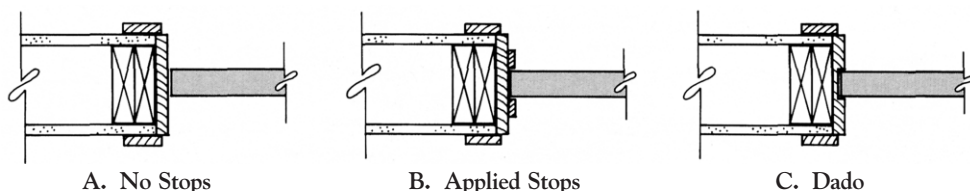


Figure 3. A flat jamb at the lock side (A) may allow light to show when the door is closed. To solve this problem, apply shallow stops (B) or route a dado to accept the edge of the door (C).

Trim Details

To get a pocket door into or out of the opening, you have to remove some of the jambs. Which of the three sides of the opening you trim first depends on the detail at the head, which has to hide the track and hangers. This also affects the rough opening height, so you should work it all out beforehand. If you plan to surface-mount the track, install a full-width head jamb first, then attach the lock-side jamb, and finally, the pocket-side jamb. But if you plan to recess the track — a cleaner looking detail — install the lock-side and pocket-side jambs first and run them all the way up to the rough

header. Then install the track and head jamb between them.

Lock side. Even when the door is perfectly aligned with the lock-side jamb, light may pass between the door and the jamb when the door is closed. If this is a problem, you can attach stops over the finish jamb on either side of the door or put a shallow dado in the finish jamb to accept the door. In either case, make sure to leave enough clearance to comfortably operate the lockset.

Pocket side. If you measure accurately when you build the rough opening, you shouldn't have to remove a side jamb to get the door in or out, but I usually make the jamb on the pocket removable on one side anyway, just

in case. Choose the side from which it will be most convenient to install the door. You can countersink the screws and cover the hole with a finish button, or use exposed oval head screws with finish washers that match the color of the other hardware. Don't plug the screw holes: It may look better, but it creates more work if you ever have to remove the door.

Track details. Surface-mounting the track is easy, but it means that the trim detail won't match that of the hinged doors in the house. If this doesn't concern you and you don't mind seeing an extra width of trim below the casing covering the track, then nail a full-width head jamb directly to the

Prefab Pockets

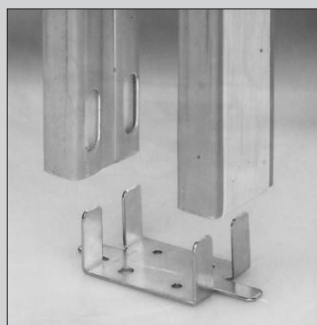
Pocket door frame kits make framing a pocket door relatively easy, especially in a 2x4 wall. Although the slim studs have some flex, pocket door frame kits are surprisingly sturdy. Nail and screw penetration is limited to $\frac{3}{4}$ inch by the metal reinforcement that wraps around the wood stud. This prevents fasteners from poking into the pocket where they can scratch the door. But it also means, for example, that you have to use 1-inch screws to attach $\frac{1}{2}$ -inch drywall. The metal will stop $1\frac{1}{4}$ -inch screws before they properly dimple the paper.

Most kits consist of a pre-assembled head piece that houses the track hardware and is sized to

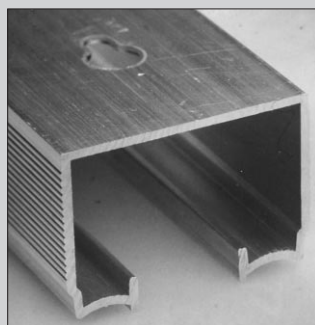
fit the rough opening exactly. Some, like the 1500 series "Universal Pocket Door Kit" from Johnson Hardware, are adjustable and are marked for cutting at intervals that match doors of different standard widths. Johnson's track has keyhole-shaped mounting holes, so it can be removed even after the wall finish is in place.

Kits are rated for different door weights and, depending on which kit you use, the rough opening dimensions also may vary. To eliminate guesswork, it's best to order the hardware ahead of time and have it on site while you're framing the opening.

— S. A.



The Johnson "Universal Pocket Door Kit" comes with 1x2 steel-reinforced studs (left) and all the hardware necessary to install the door. Keyhole slots in the track (right) allow you to remove it without tearing out the wall.



rough header, shim it level, and attach the track hardware (see Figure 4). Remember that regardless of the head detail, the track hardware has to be installed before the finished wall material covers the pocket cavity.

Once the hardware is in place, fasten a piece of trim on edge on either side of the track. It should be wide enough to cover the track and hangers, and should overlap the top of the door enough to block the light. You can nail one piece in place, but the piece on the side of the removable pocket jamb should also be removable, using concealed or exposed fasteners that match those on the jamb trim.

The cleanest head detail by far is to recess the track and hangers at the head. It takes a little more work, but it looks better and the trim will match that of nearby hinged doors. If you planned for a recessed track when you framed, you can attach the track hardware directly to the rough header, as shown in Figure 4, making sure it's level. Provide solid nailing for the bottom edge of the casing and make one side of the head jamb removable. The method you use to conceal or expose the fasteners should be consistent with those on other removable pieces.

Bottom guide. After the trim is in place, install the bottom guide. Most manufacturers supply a side-mounted guide for each side of the door. I find that these can be knocked out of alignment easily and, unless they're angled, they can scratch the side of the door. I prefer to use a single guide centered on the door and mounted to the floor at the mouth of the pocket. It requires making a kerf in the bottom of the door, but it's less likely to get knocked out of alignment. If your hardware package doesn't include a center guide, use a short length of 1-inch aluminum angle and round over the corners so they won't catch the sides of the kerf.

Locksets

Pocket doors require special locksets because an ordinary knob or lever handle won't allow the door to slide all the way into the pocket. If the door doesn't need to be latched when it's closed, you can use recessed pulls routed into the door. For more privacy, however, you'll need to use one of several types of privacy locksets made expressly for pocket doors. The one-piece type fits into a square notch cut into the edge of the door (see Figure 5). But because it interrupts the door stile, many door

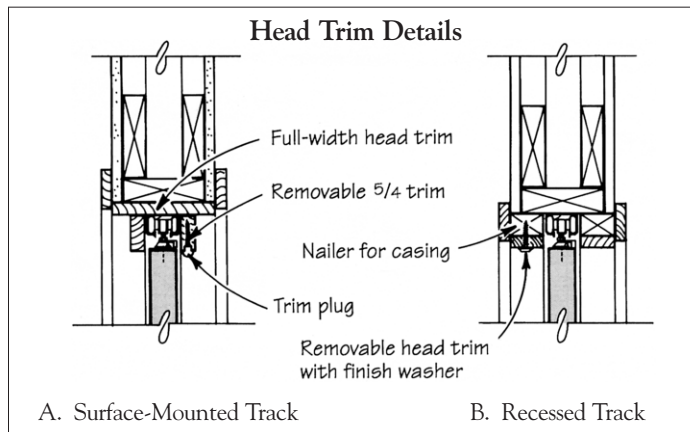


Figure 4. Conceal surface-mounted track and hangers with a piece of trim on edge (A). Make one side removable using oval head screws and finish washers or recessed fasteners covered with buttons. A recessed track (B) makes the finish opening look more like that of a hinged door. Provide a separate nailer for the casing, and make one side of the head jamb removable.

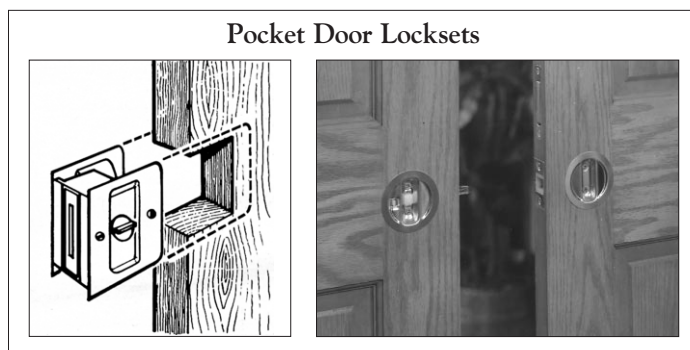


Figure 5. You'll need more than a recessed pull if you want to latch the door. Locksets that fit into a notch in the door (left) may void the door warranty because they interrupt the door stile. An alternative is to use a lockset that fits a standard bore, like this one from Johnson Hardware (right). Both are available with a passage or privacy function.

manufacturers will not warrant doors in which it is installed. Another type, made by Johnson Hardware (P.O. Box 1126, Elkhart, IN 46515; 219/293-5664), fits a standard bored door with a $2\frac{3}{8}$ -inch backset, and it's available with a passage or privacy function.

A third type of pocket door lockset such as Hafele's "Espagnolette" lock (Hafele America, P.O. Box 4000, Archdale, NC 27263; 800/842-3345) allows you to lock the door with a key. This type of lock provides greater security and dampens sound transmission, but is much more difficult to install. It requires a deep mortise for the lock mechanism and a dado along the edge of the door for the latch. Unless you have the tools available on site to make these kinds of cuts, have the door manufacturer mill the door at the factory or hire a specialist to install it for you.

All three types of locksets require an edge pull, which gives you something to grab to pull the door out of its pocket. They are usually mortised into the edge of the door and swing out when you press on the hinged end. ■

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Sources of Supply

The following companies supply pocket door components, including track, hangers, locksets, and prefab frames:

Baldwin Hardware Corp.
841 E. Wyomissing
Reading, PA 19611
215/777-7811

Grant Hardware Co.
1607 Anaconda Rd.
Harrisonville, MO 64701
800/777-1772

Hafele America
P.O. Box 4000
Archdale, NC 27263
800/842-3345

Johnson Hardware
P.O. Box 1126
Elkhart, IN 46515
219/293-5664

Stanley Hardware
195 Lake St.
New Britain, CT 06052
203/225-5111