Installing Baseboard

One builder's take on installing this fundamental trim element

BY JOHN SPIER



Knife marks the spot. *Wherever possible, the author places a slightly oversize piece of stock in place and then marks the exact length with the blade of a razor knife.*

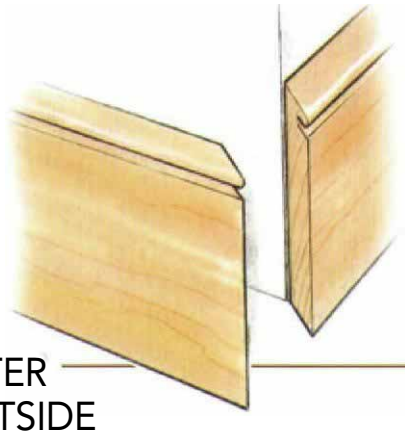
Most trim carpenters I know started their trade by learning to run baseboard, and the first baseboard they ran was probably in a closet. You might think this happened because baseboard is easy to install or because mistakes are harder to see near the floor, especially in a closet. The real reason is that the teacher has bad knees and probably doesn't fit so well in the closet anymore.

There are lots of types of baseboard, from a simple 1x4 to elaborate assemblies of multiple moldings. To illustrate the basics, the baseboard featured in this article has a flat profile with a simple bead along the top, and I installed it in a new house.

Which comes first: flooring or baseboard?

Whether flooring or baseboard comes first depends on the type of flooring in each room. For wood floors, I install the floor first so that I can sand the floor edges and then run the base. I also install and grout tile before the baseboard goes in, unless the tile is so rough and irregular that I would have to scribe the bottom of the base to fit the rile. In this case, I run the base first, finish it and then tile and grout to it.

In areas prone to wetness, tile should be installed first so that water doesn't collect around the bottom of the baseboard. Because vinyl flooring is so easily damaged, I don't like working over it. In rooms that will receive vinyl floors, I often cut and fit pieces of base-

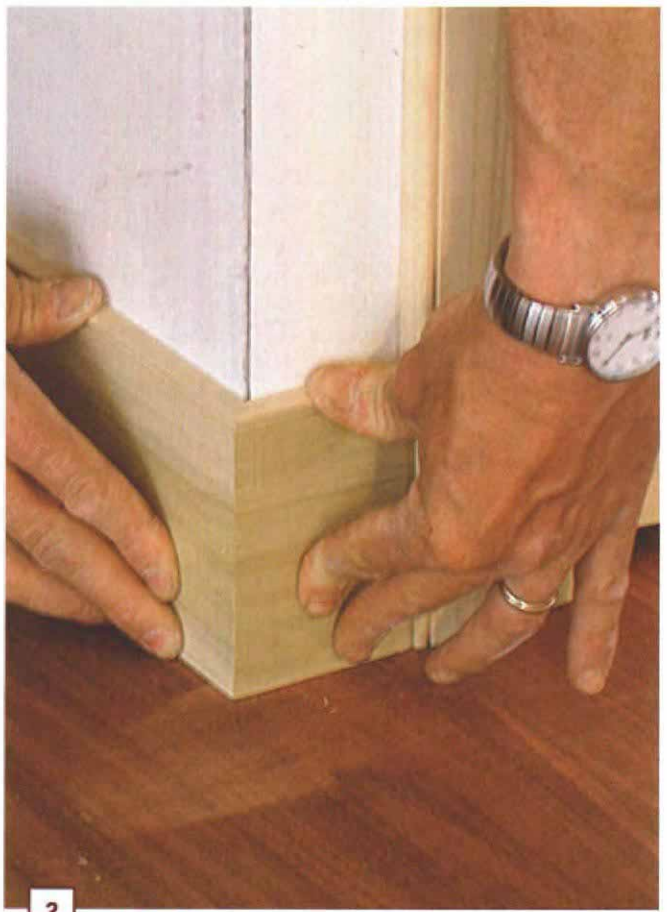


MITER OUTSIDE CORNERS

The quickest way for a tight outside baseboard corner is to scribe both pieces to the corner (1). The author adjusts the miter cut by eye to make up for any out-of-square condition and follows the scribe lines to compensate for any differences in plumb. The pieces then are dry-fit (2), and the first piece goes into place (3). The joint then is glued and pinned before the second piece is nailed to the wall (4).



1 Mark both pieces.



2 Test the fit.

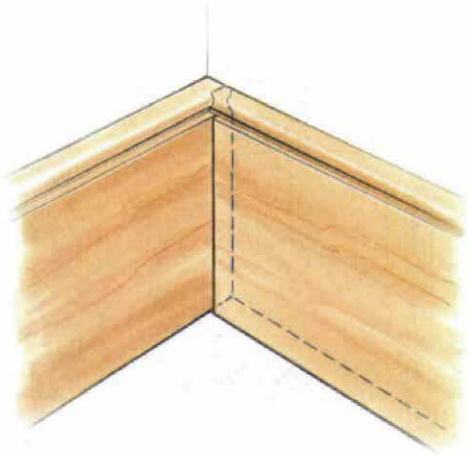


3 Long piece goes in first.



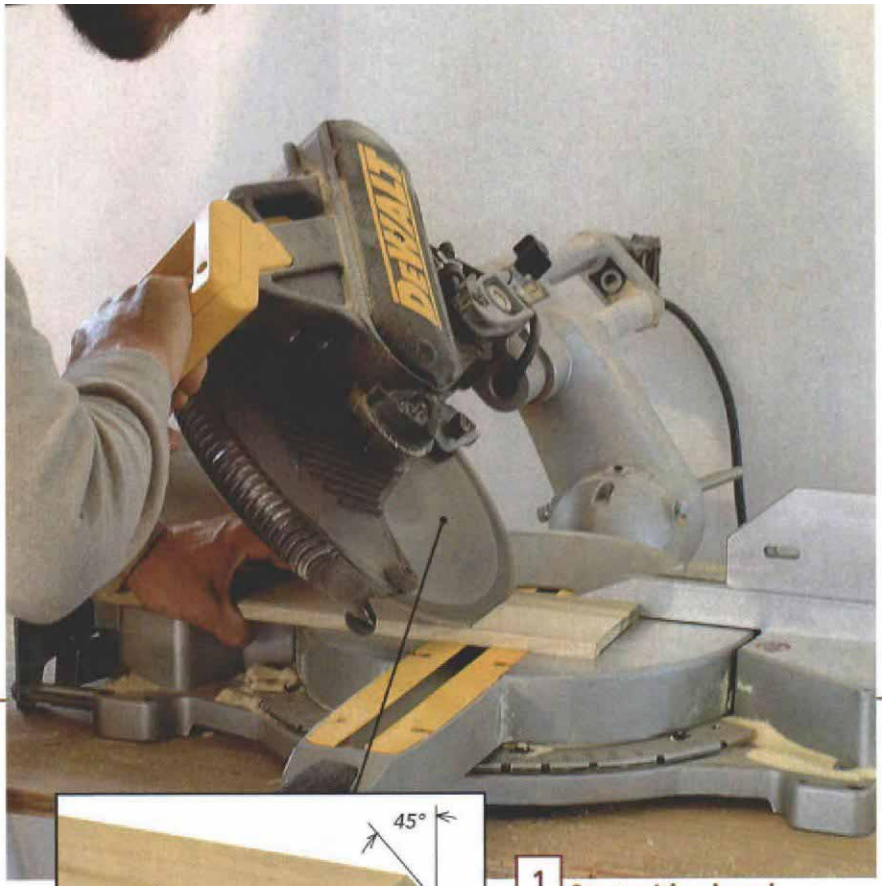
4 Glue and pin the joint.

Drawings: Dan Thornton



COPE INSIDE CORNERS

With the first piece cut square and installed in the corner, the author cuts a 45° angle on the adjoining piece as if for an inside miter (1). The piece then is flipped up, and the miter saw plunges down the straight part of the profile with a slight back bevel (2). A coping saw then cuts the detailed part of the profile (3), and a sharp chisel or a rasp can be used to clean up small areas of the cut.



1 Start with a bevel. *Using a miter saw, the author cuts a 45° bevel. This cut exposes the profile for the cope.*

board and then take them away to be painted while the vinyl installer works. Carpeted floors are generally the easiest. I install and finish the baseboard first, usually with a ¼-in. space underneath where the carpet layer can tuck the edges of the carpet.

Baseboard butts to door casings

In most simple trim jobs, baseboard butts to the outside of the door casings, so the casings must be installed first. Other things that baseboard runs into, such as built-in shelving, window seats and fireplace surrounds, also should be installed or at least precisely located.

Stair skirtboards often tie into the baseboard and should be in place as well. When the trim is to butt into baseboard heating units, the plumber or electrician gives me the exact locations and dimensions for the spaces to be left out of the baseboard. Last, I check for any steps, ramps, landings or other changes in floor level or material, such as where a carpeted living room makes a transition to a vinyl kitchen floor. If the difference is minimal, the baseboard can be ripped down to keep the top all at the same level.

Mark the lengths with a knife

I like to work from a pile of baseboard stock at a miter-saw table centrally located in the house. Here, I can keep offcuts organized so that I use the stock more efficiently. Almost invariably, I work my way around each room from left to right. I choose this direction because as a right-handed carpenter, I find that most base profiles are easier to cope on the left end of each piece.

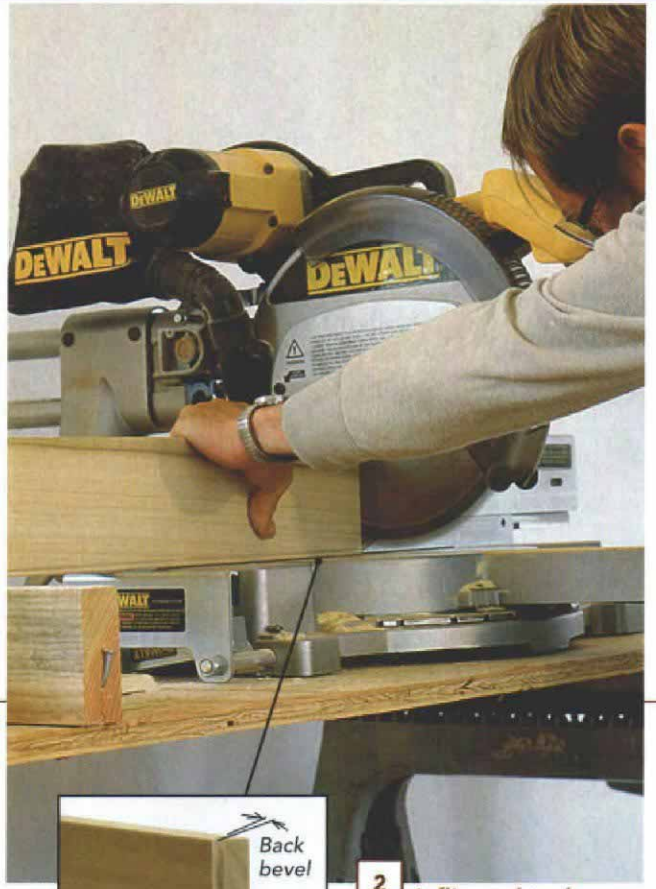
My first piece starts at the right-hand side of a door casing and runs to a corner or to the next casing or wall interruption. There are a couple of ways to get the right length of each piece. The most obvious way is getting the exact measurement of each piece with a tape measure. Wherever possible, though, I prefer to take a piece of stock that's slightly long, put it in place and then mark the exact length with a razor knife (photo p. 84).

Coping is easier than it looks

Installing baseboard requires the same joints as the rest of the trim in the house. Inside corners are coped, outside corners are mitered, and long runs are joined with scarf joints. Simple butt joints suffice where baseboard meets stair skirtboards or casings. I often use a biscuit to align and strengthen a butt joint.

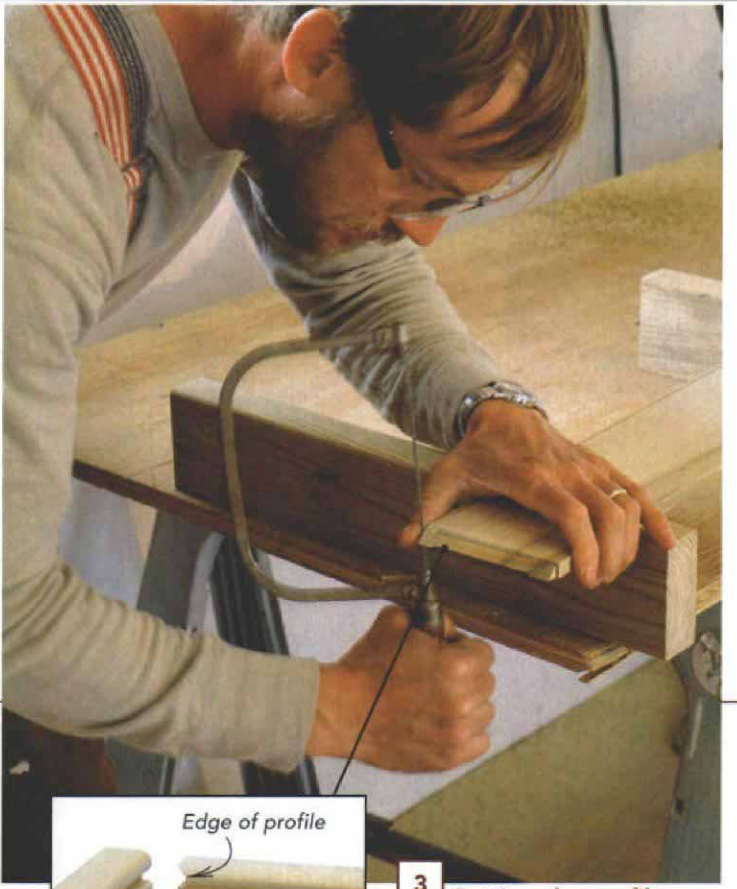
Coped joints are easier to make than they look, and they're actually quite forgiving. A coped joint has the baseboard on one wall running square into the corner with the adjacent piece scribed or shaped to fit into it.

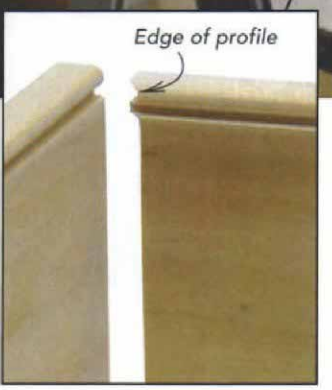
The coped piece starts with a 45° bevel on the end that joins with the square-end piece, as if it were to be mitered for an inside corner. Then the excess beyond the mitered edge is removed so that the two pieces fit together.





2 **A flip and a plunge.** *The baseboard then is flipped upside down on edge, and the saw is plunged down the straight part of the profile at a slight back bevel.*





3 **Cutting the profile.** *Following the edge of the exposed profile at a slight back bevel, the author uses a coping saw to finish cutting the profile.*

I make the initial 45° cut with a miter saw (photo facing page). Next, I flip the board on edge and plunge the miter saw down the straight part of the profile with the blade set at about a 5° back bevel (photo top left). The excess for any decorative detail then can be cut back with a coping saw (photo top right). The bead on this baseboard was tough to cut perfectly with the coping saw, but I used a sharp chisel to clean it up. Again, only the top edge of the profile needs to be square and precise. The back bevel along the rest of the profile makes it easier to fine-tune the fit.

Working around the room means mat only one end of each piece is coped. So after the cope is cut, the length is measured, and the other end is cut square. If that end goes to a corner, it is in turn covered by the next cope.

Don't measure for outside corners

Outside corners are mitered together, but I never measure these pieces. Instead, I cut them a few inches long, hold them in place and scribe a line on the back of the piece for the cutline (top photo, p. 85). I mark both pieces before fastening either one.

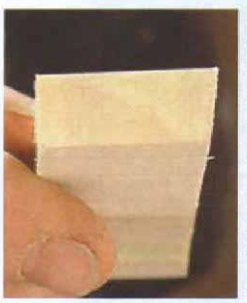
Often, corners are not exactly square, and baseboard isn't always exactly plumb. I usually can estimate how much I need to adjust the miter, and following the scribed cutline takes care of the out-of-plumb condition. For problem areas, I test the angles with two scrap pieces.

When I've cut the two outside corner pieces, I try them to make sure they fit and form a tight corner (photo bottom left, p. 85). Then I fasten the first piece in place (photo center right, p. 85). After running a bead of carpenter's glue along the joint, I install the second piece, pinning the corner together with a brad nailer (photo bottom right, p. 85).

Join long runs with a scarf joint

When a wall is too long for a single piece of baseboard stock, I break the run on a stud

DEALING WITH LITTLE PIECES



A little bevel is a big help. *Putting a slight back bevel on a small piece of baseboard compensates for any irregularities in the corner so that it slips easily into place.*

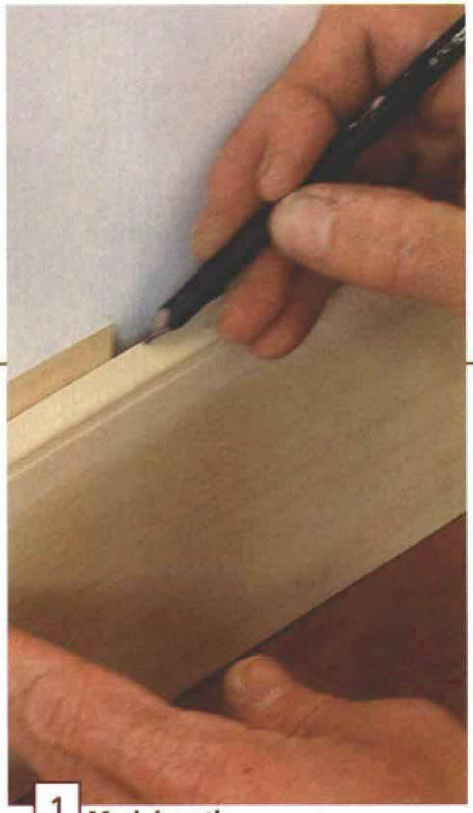


Narrow pieces shouldn't be nailed. *Most small pieces that fit into corners cannot be nailed without danger of splitting, but the adjacent piece often can hold it in place without nails.*

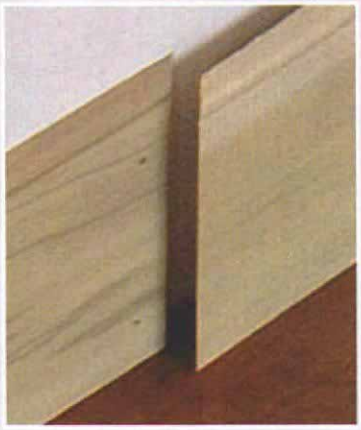


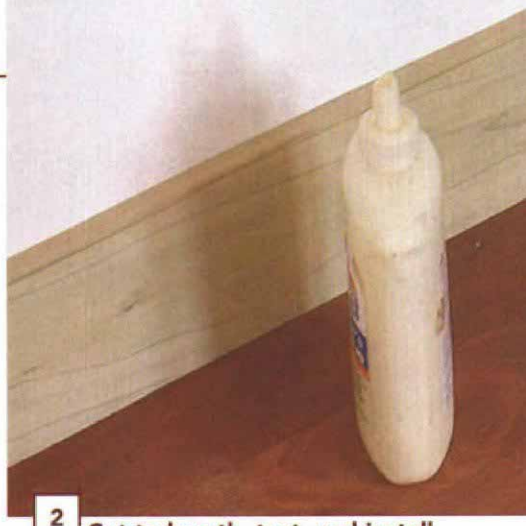
USE SCARF JOINTS ON LONG RUNS

When a run is too long for a single piece of baseboard, a scarf joint can join two or more pieces. The first piece goes in with a 45° angle cut into the end. The next piece extends past the first, and the length is marked (1). After that piece is cut and dry-fit (inset photo), glue and brads secure the overlapping joint (2).



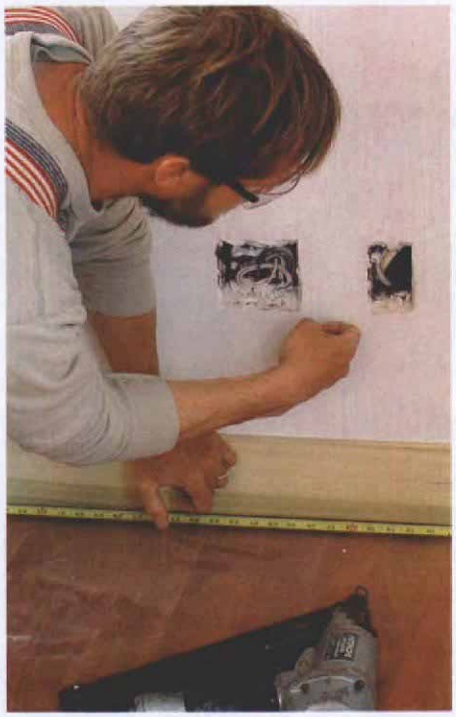
1 Mark length.





2 Cut to length, test, and install.

HOW TO FIND THOSE STUDS





When all else fails, make lots of holes. *Sometimes the only way to find a stud is to make a series of nail holes in the wall (photo above). When the stud is located, find the edges and mark the centerline of the stud.*

Knock, knock, stud's here. *Electrical boxes in new construction are also a good indication of stud location, and a rap with a knuckle shows on which side of the box the stud is running. A tape measure is used to find the rest of the wall studs (photo left).*

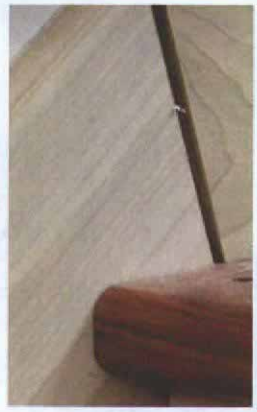
with a scarf joint, preferably in a place where the joint will be hidden—by furniture, for instance. A scarf joint is simply two pieces cut with 45° bevels so that the one piece overlaps the other. Scarf joints don't tend to separate like butt joints, and they look smoother.

When a scarf joint is called for and the run begins in a corner, I start with the coped end first. I make the 45° cut so that the face is the short side of the angle, and I tack that piece in place. Next, I line up a piece a few inches too long, butting the square end into the opposite corner, and I mark the distance to the backside of the cut, or the short side of the 45° angle (photo top left). I test-fit the joint, adjusting the length on the square end to get the scarf just right (inset photo, facing page). When I'm satisfied with the fit, I tack the pieces in place, and then I glue and pin the joint with a brad nailer before nailing off the rest of the piece (photo left, above). If you try to glue that slippery glued bevel joint first, it's bound to slip out of alignment.

Another baseboard detail found in many houses is an intersection with a stair skirt-



BASE MEETS SKIRTBOARD



Cut the angle before the skirtboard goes in. *The baseboard meets the skirtboard at an angle cut into the skirtboard before it's installed. A small piece of baseboard with the same angle tests the fit.*



A butt joint simplifies the fit. *A glued butt joint makes fitting the base to the skirtboard a whole lot easier.*

board at the top of a stair. Before it's installed, I cut the angle of intersection in the skirtboard. To keep the joint simple, I join the baseboard to the skirtboard with a butt joint, and I cut a small piece to test the fit (photo top right). I then measure, cut the piece and glue the joint before nailing it in place (photo bottom right).

Little pieces need a little help

I was taught to install baseboard using a hammer, a nail set and 8d finish nails, but that was many years and two good knees ago. Now I fasten most of my base using a 15-ga. angled finish nail gun with 2-in. or 2½-in. nails. Along with a dab of wood glue, I fasten scarf joints and miters together with an 18-ga. brad nailer. Coped joints are supposed to allow a bit of movement, so they should not be glued.

Spaces next to door casings in a corner of a room require pieces of baseboard too small to nail. Also, these tight spots are usually out of square, so I cut the piece with a slight back bevel where it fits against the adjacent wall (photo bottom center, p. 87). The adjoining piece of baseboard is usually enough to hold the short piece in place (bottom photo, p. 87), but I also use a shot of construction adhesive on the back of the piece for added strength.

Find studs before firing the nail gun

Before fastening baseboard, you should have a good idea where the studs are. There are lots of clues and tricks to locating studs. If I can still see the subfloor, I usually have the marks I made before the drywall was installed. If wood flooring has been installed, fastened to the joists, the studs are directly above those joists, at least on the bearing walls. I also frame every standard closet with studs 12 in. from the corners for the shelf cleats and one in the center for the pole bracket. In many cases, I'm able to take a common stud layout for the entire house from certain outside walls.

But sometimes all these tricks fail, and I need to go hunting for the studs. On longer walls, I try to find one stud and then lay a tape measure on the floor next to the base as a guide to locate the rest. To find that first stud, I look for subtle clues in the drywall or plaster job, such as a seam or a dimple in the finish over a screw. Failing that, I look for an electrical box that's probably on a common stud (photo bottom left, facing page). A rap on the wall with my knuckle or a look inside the box lets me know which side the stud is on.

Before the base goes in, a nail driven through the drywall in a series of holes can locate both sides of a stud (photo bottom right, facing page). If you're looking for a stud after the base is in place, tapping a knuckle on the wall usually can get you close, and on a paint-grade job, I sometimes shoot an extra nail or two into the baseboard to help find the first stud. A quick-and-dirty trick I used to use on tract jobs was to tip the baseboard forward, rest the nose of the gun on top of it and machine-gun a row of nails into the drywall behind the base. The first nail that didn't go clean through hit a stud. □

John Spier and his wife, Kerri, own Spier Construction, a custom-home building company on Block Island, RI. Photos by Roe A. Osborn.