

## Fast Joist-Hanger Installation

**Q** What is the best way to install joist hangers?

**A** Mike Guertin, a custom-home builder in East Greenwich, R.I., and a regular presenter at Deck Expo, responds: Most decks require dozens of joist hangers, so the faster and more accurately I can install them, the more time and money I can save. I've found that preinstalling the hangers on the ledger and rim joist allows me to simply drop each joist in place without having to struggle to hold it in position while attempting to nail it off. Another advantage of this approach is that the joists can be seated hard in their hangers; otherwise, if the hangers are installed after the joists are tacked in place, often there is a gap at the bottom, or the hanger ends up

cocked to one side or the other.

But one problem with my technique is that the actual size of framing lumber often varies quite a bit. For example, 2x8s that are nominally 7<sup>1</sup>/<sub>4</sub> inches deep can range from 7<sup>1</sup>/<sub>16</sub> inches or less to 7<sup>3</sup>/<sub>8</sub> inches or more. To account for this, I usually run through my stack of joists and measure the joist depths before installing the hangers. If they vary less than 1/4 inch, I go with the average; any that fall outside the 1/4-inch tolerance on the fat side get a haircut with a chisel.

I use jigs when installing the metal hardware. There are several commercially available joist-hanger jigs, but most of them have predrilled holes that presume

some standard joist height, and can't be adjusted to account for variations from nominal lumber dimensions.

Instead, I take a few minutes to screw together T's from lengths of scrap lumber, which are sized according to the actual dimensions of the framing lumber being used for each particular job (see illustration, below). Shortening the vertical leg of the T by 1/2 inch places the joists 1/2 inch higher than the ledger, which allows the ledger flashing to slope down and away from the house. To hold the hanger snug to the T while I fasten it in place, I use a FastCap joist clip, which is a wire frame that snaps around the hanger (fastcap.com).

### Quick Joist Hanger T-Jig

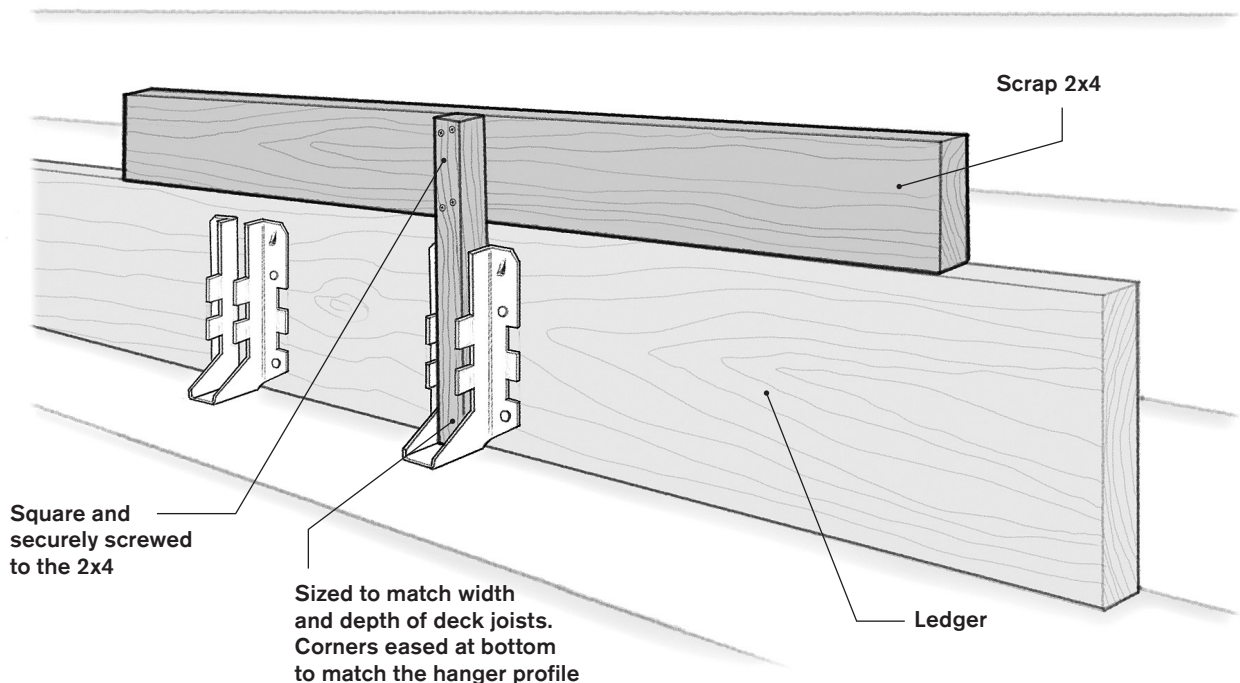


ILLUSTRATION: CHUCK LOCKHART

## How Neat Do Joist Hangers Need to Be?

**Q** I subbed out a deck frame and wasn't too thrilled with the sloppy way the crew installed the joist hangers. There are gaps—some almost  $\frac{1}{4}$  inch—between the seats on some hangers and the bottom of the joists. All the joists are flush with the top of the ledger, but I'm afraid the joists will sink down to the hanger-seat level eventually and the decking will telegraph the resulting wave. The framer offered to install shims to fill the gaps between the hanger seats and joist bottoms, but I'm wondering if there may be a problem doing so? Or should I have him pull the hangers off and install them properly?

**A** David Finkenbinder, a branch engineer with Simpson Strong-Tie, responds: The bulk of a hanger's download capacity is by way of the joist bearing on the seat of the hanger, with that force then being transferred through the steel and into the header via the hanger fasteners installed into the header face. Without full bearing, the hanger joist fasteners would still transfer some download to the header, but there would be a significant reduction in capacity from

our published download values. We do not have recommendations for shimming because it's difficult to do properly. Most materials on a jobsite that might be used for shims—such as cedar shingles or scrap lumber or decking ripped to size—have insufficient strength.

Another consideration would be the code requirements for bearing of joists and beams. Section R502.6 in the 2015 IRC calls for joists, beams, and headers to have no less than  $1\frac{1}{2}$  inches of bearing on

wood or metal, and similar wording has existed in the code for some time now. I believe the common interpretation from a building official would be that the gap you describe does not meet this section. This is also why most building departments would not accept framing angles (such as the A35Z or ML26Z) to attach joists to a header, though some might. Your framer isn't going to like this, but the best fix is to remove the hangers that show gaps and install them properly. ❖