Cut perfect miters on the tablesaw

Unlike most tablesaw sleds, this one has two fences of different lengths. A short fence is used to make the first cut on the right-hand side of the molding; a long fence is used to cut the left-hand miter. The longer fence incorporates a ruler and a stop block that allow moldings to be cut to precise and repeatable lengths. Hold-downs support the stock over its entire length.

SLED DESIGN BY ROBERT HAMON

ACCURATE FRAME DIMENSIONS
The size of a frame is measured from the inside of the rabbet, so the jig and the stop block are designed to take this into account.
Using your miter sled

When cutting frame molding, always cut the longer sides first. If you should err, you still will be able to cut the longer piece into a shorter side. With your rough-cut section of molding secured to the short fence, miter the right-hand end. Move the molding to the long fence, using the ruler to establish the desired length. Clamp the molding and set the adjustable stop at the end of the molding. Cut the left-hand miter. The parallel section of molding is cut in the same way, but now you have a stop, making the two sections identical in length.

THE FIRST CUT
Clamp the piece of molding, rough-cut to length, to the short fence of the jig to cut the right-hand miter

PRECISION STOP BLOCK
Clamp the molding to the long fence and set the stop block at the correct distance from the blade

THE SECOND CUT
With the molding butted up against the stop block, go ahead and make your second cut.

Three bits yield two moldings

Both of these picture-frame moldings were cut on the router table using only three bits. For the mahogany and curly maple model at left, a 1/2-in. straight cutting bit and 1/2-in. ogee bit get the job done. For the white oak frame at right, a 3/4-in. straight cutting bit was used for both the accent rabbet on the frame’s face as well as the rabbet running along the back side of the frame.