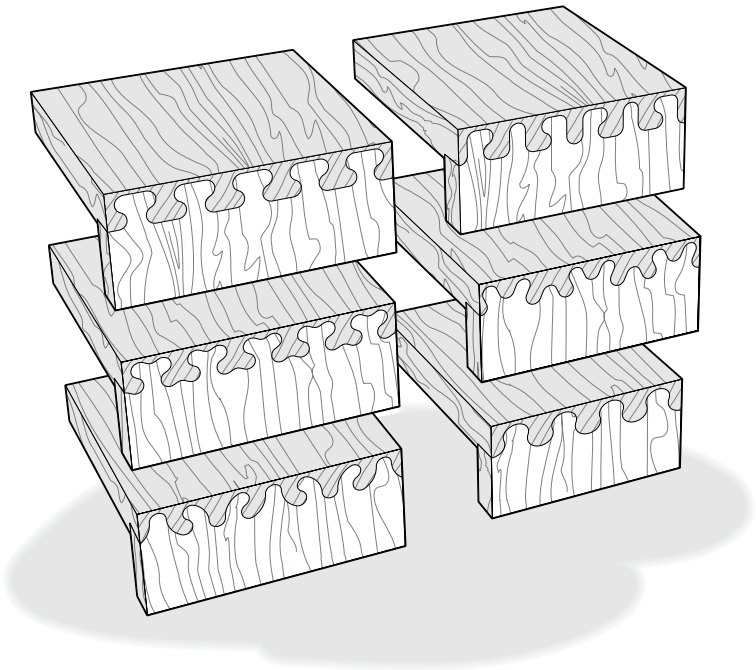
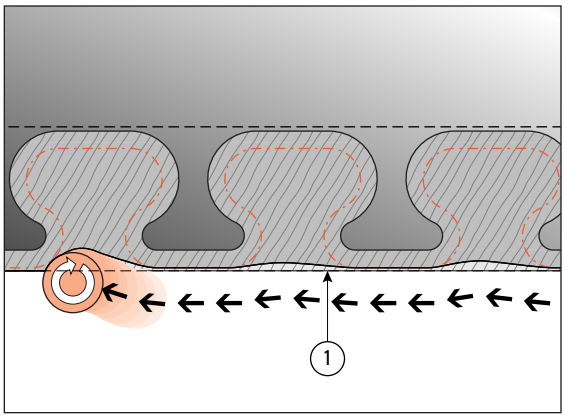
CHAPTER 12

Routing Procedures Hints and Tips

Chapter Foreword

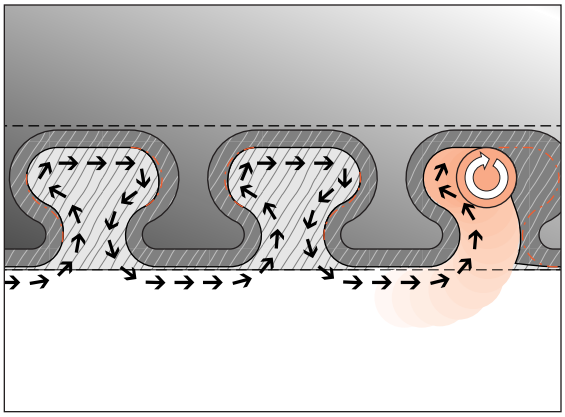
Isoloc joints are unique, beautiful, and strong. They are different from routed dovetail joints and require different routing techniques, particularly the horizontal socket boards. There are no "through" cuts when routing Isoloc half-blind joints, the cutter never exits the back of a board (except through Isoloc, see Chapter 9). Also, the complete "front" (the part of the board nearest you) of each board is routed away. This means more routing than with dovetails, but the result more than justifies the means. Here are some special techniques and ideas to help you get the most out of your Leigh LS7 Isoloc Template.



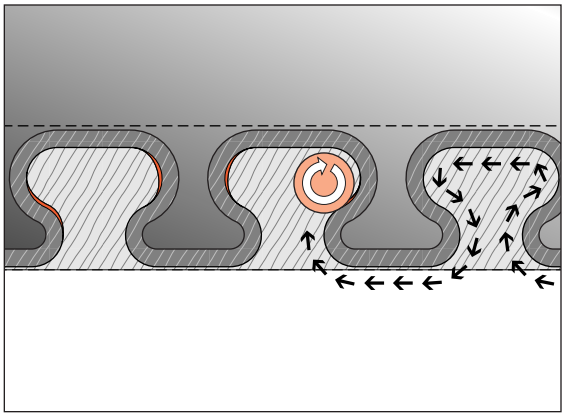


12-1 Routing Techniques for Pins
The vertical pin boards are the easiest to rout and require little in the way of special technique.

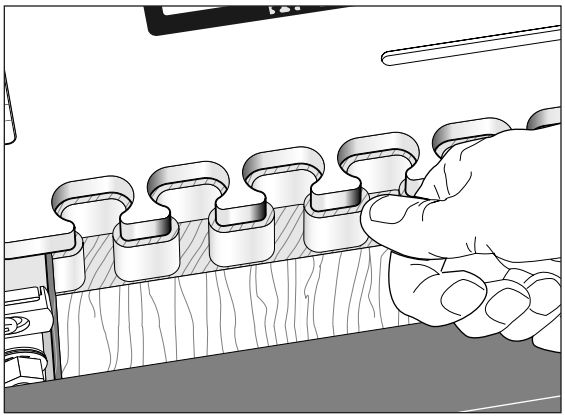
⚠ For the first light cut, move the router from right to left, across the face. **Make sure you control the router firmly, because it is driven in this direction by the cutter rotation.** This "back" or "climb" routing leaves a very clean shoulder in the side grain ①.



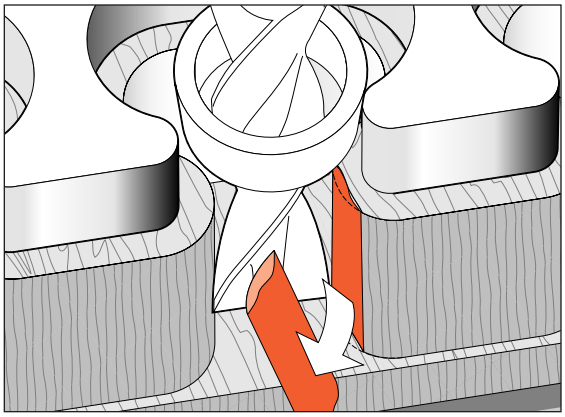
12-2
Now rout left to right, following the template contours to rout out the pins.
Keep the feed rate up; routing too slowly will cause the cutter to overheat. Remember, you will be coming back for a cleanup cut.



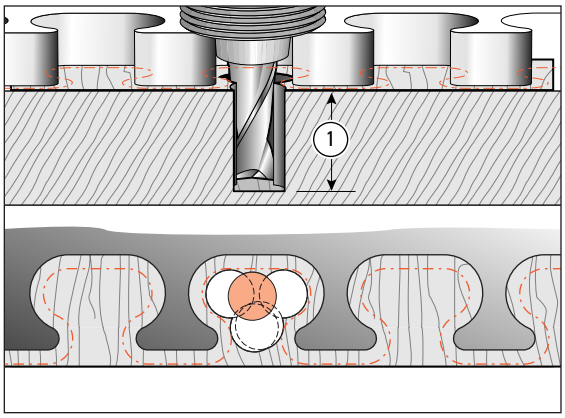
12-3
Go back from right to left to make a final cleaning cut and to ensure no tiny parts have been missed.



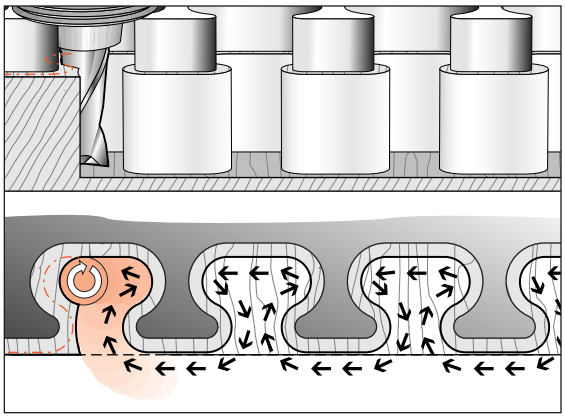
12-4
Before removing the board, examine the routed pins to ensure a clean cut.



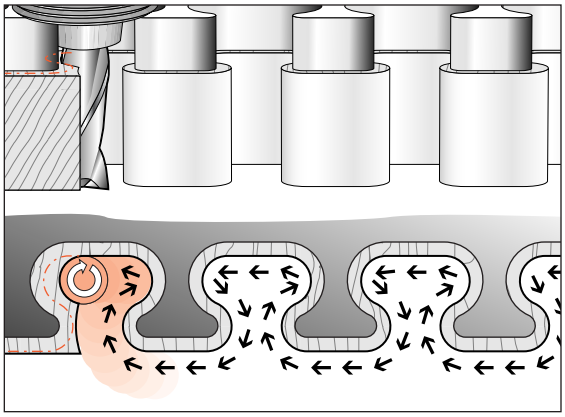
12-5 Routing Techniques for Sockets
While there is no "exiting" of the cutter to cause tear-out, the combination of horizontal and end grain in horizontal socket boards can present its own problems. Much depends on the wood species. The most vulnerable part when routing is shown here.



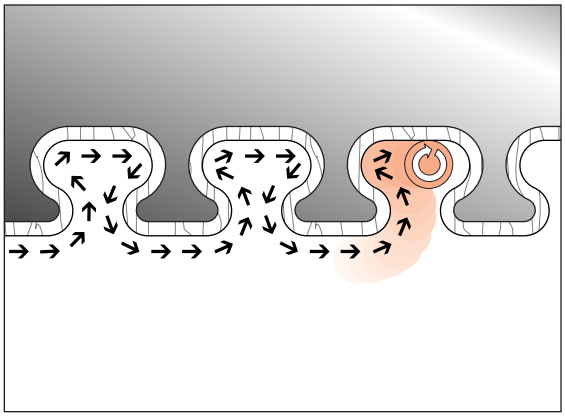
12-6
The quickest solution in troublesome wood is to plunge two to four times in each opening to **90% of board thickness only** ①.
Note: Any slight "breakout" in the first 90% of cut will be buried in the finished joint, and will not be visible on the outside.



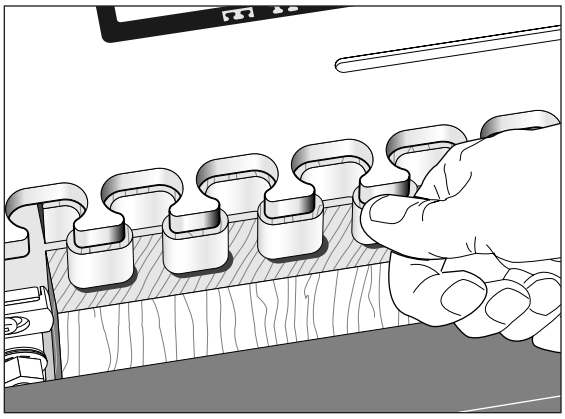
12-7
Now rout right to left, following the template contours, the cutter still set at 90% depth. *Note: In thicker socket boards and hardwoods, rout in several passes at progressively deeper cuts.*



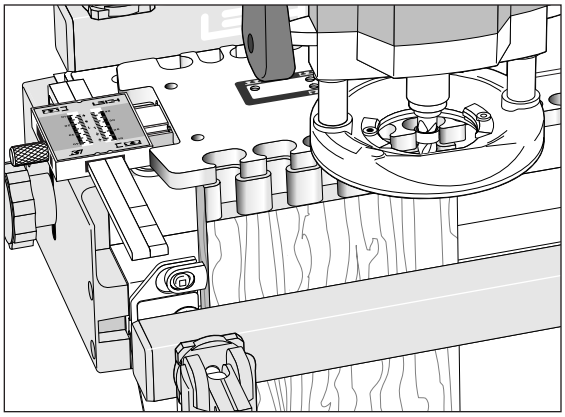
12-8
Now rout right to left again at **full through**.



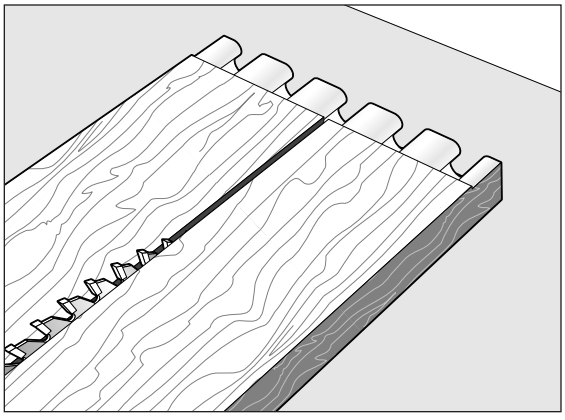
12-9
Finish up left to right at full through.



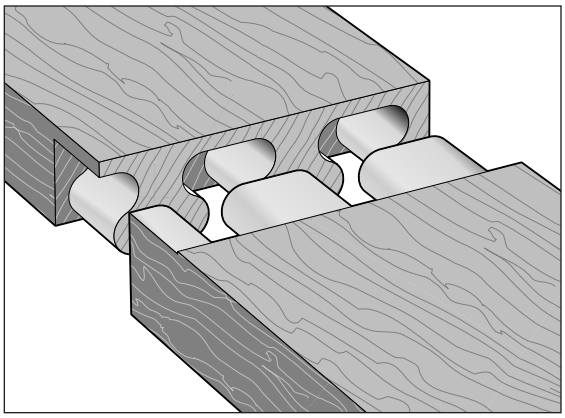
12-10
Before removing the board, examine the routed sockets to ensure a clean cut.



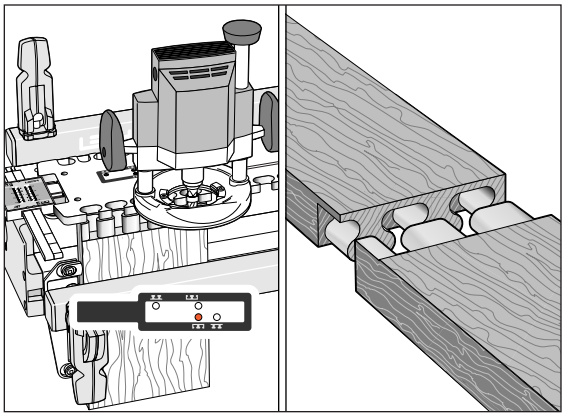
12-11 Quick-Fit Test
Rather than rout two test pieces, here is a quick way to get 99% of the way there. Rout one scrap pin board, at least four pins wide.



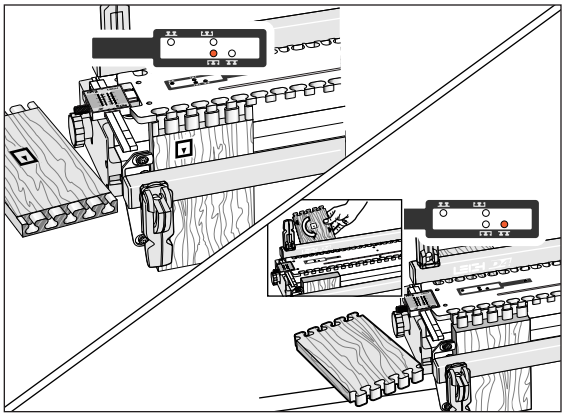
12-12
Saw the board in half.



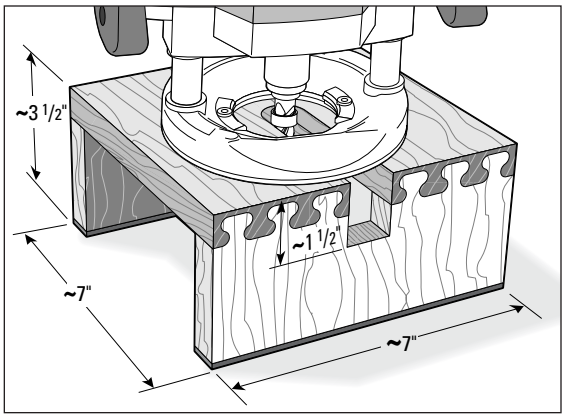
12-13
Try the boards end-on-end for fit.
If too loose, lower the bush.
If too tight, raise the bush.



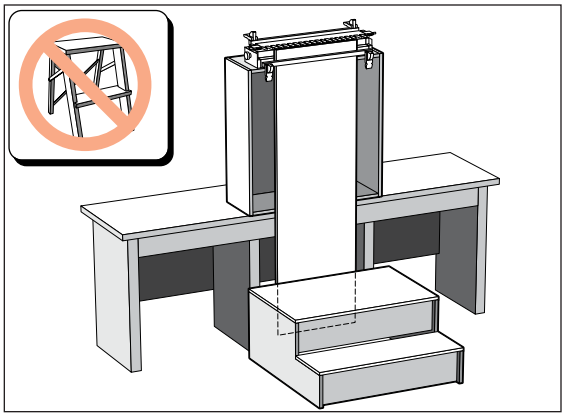
12-14
Rout and test again.



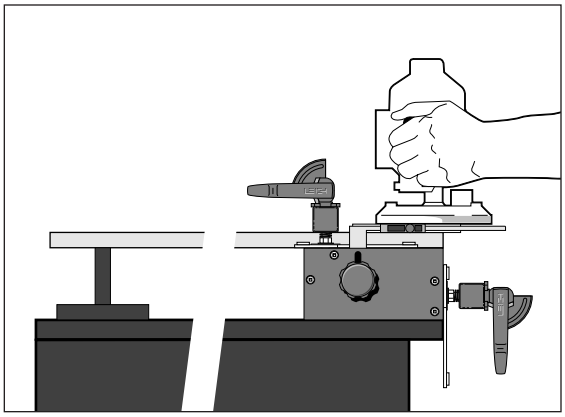
12-15
Once you have a good fit, rout a complete pin and socket joint, using the same species wood as for the workpieces, to test for final fit.



12-16 Router Stand
If you do not already have one, make up a small router stand as illustrated, to mount the router securely on the bench when not in use.



12-17 Routing Long Vertical Boards
For routing long vertical boards, it may be necessary to build a jig stand to mount securely on your bench. Make the stand and bench height combination sufficient to accept the board length you have in mind. The jig stand should be bolted securely to the bench. Make up a stable platform to stand on as in the illustration. Do not use a set of steps. Steps are not stable enough.



12-18 Routing Long Horizontal Boards
When placing long horizontal boards in the rear clamp, make sure the rear end of the board is supported to prevent unnecessary racking of the jig.