

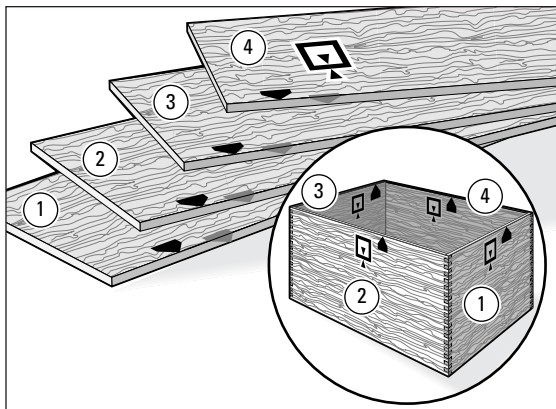
Wider Box Joints

Chapter Foreword

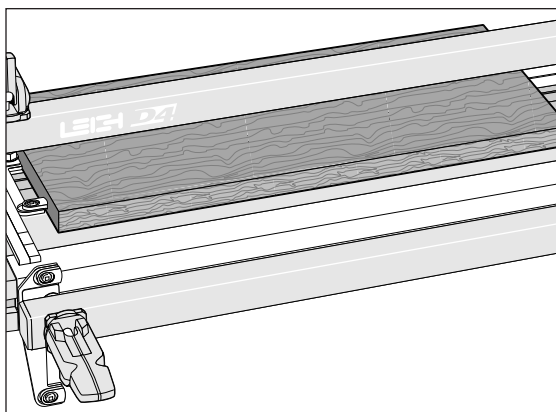
Occasionally, you may need box joints that are wider than the combs on the F1 Template. Woodworker and Leigh Jig user Donald Brown of Havana, Florida, sent us this good idea on routing procedures for wide box joints on the Leigh F1.



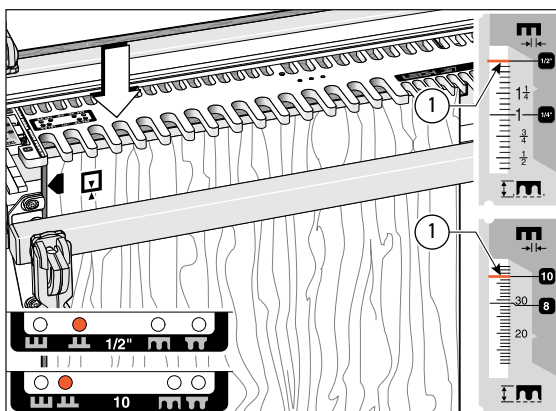
These instructions are based on the assumption that you are fully conversant with the use of the F1 Template and the instructions in this User Guide. Do not attempt the following procedures until you are. Practice with scrap boards before attempting to make a finished project.

**11-1**

Refer to the extended board width charts on page 84 to select the width and comb size. Prepare four boards and mark them 1,2,3,4. Select the grain alignment and mark the common top (or bottom) edges. Don't worry about face side selection, this can be done after routing.

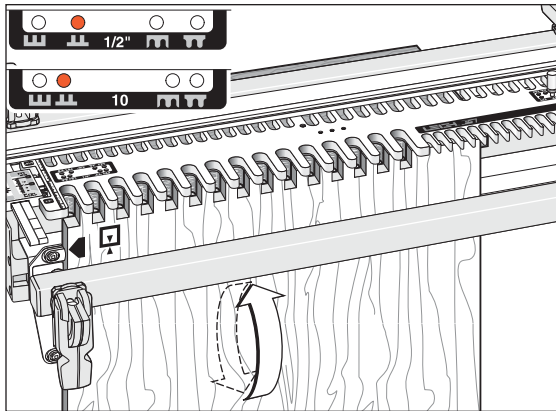
**11-2**

Replace the spacer board with a scrap backup board. This board needs to be flat and even thickness like the spacer board and have its front edge straight. It should be long enough to extend past the end of the active comb.

**11-3**

Lower the template onto the backup board and set scales on the comb size to be used (example here: 1/2" [and 10mm] combs ①). Position the template with the template pin in the position shown in the diagram. Clamp board No. 1 in the jig, side edge mark to side stop, top end edge touching the underside of the template. Make sure the horizontal scrap board is touching firmly against the rear of the workpiece.

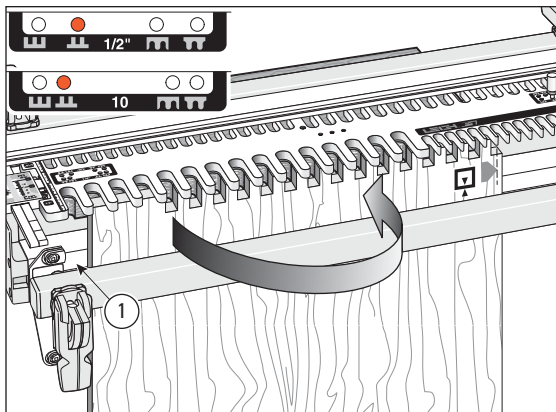
Chapter 11 F1 User Guide

**11-4**

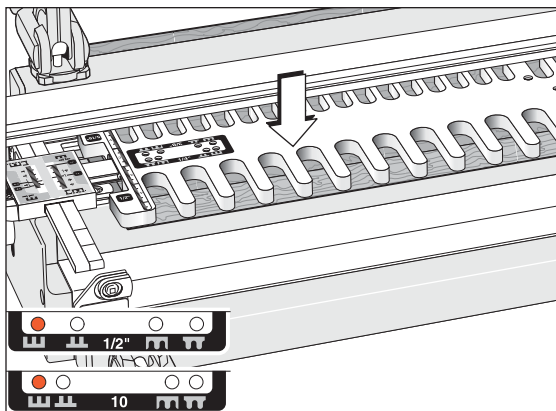
Route the full width of the active comb on both ends of boards 1 and 3 in position **1**. Be sure to keep the same side edges to the side stop.

Do not move or remove the backup board.

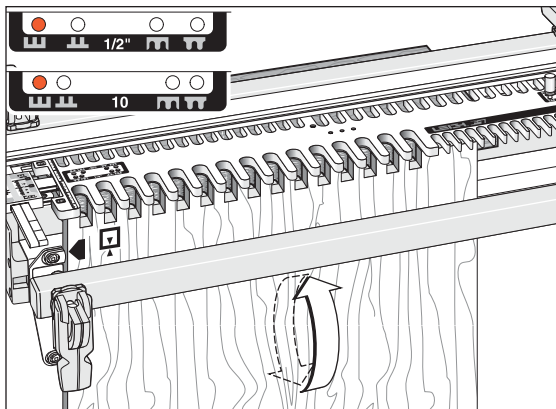
*Remember: All square box joint boards (for boxes or end-on-end joints) are clamped alternately face-in and face-out **1**.*

**11-5**

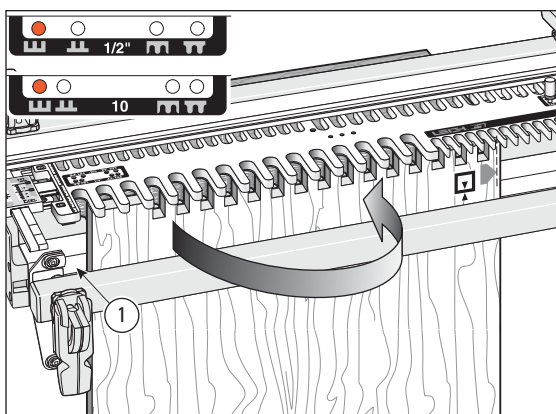
Turn board No. 1, like turning the page of a book so the side stop mark is now to the right. Very carefully position and clamp the board in the jig so the previously routed sockets in the workpiece **perfectly line up with the routed sockets in the backup board**. Keep the left edge of the board away from the side stop **1**. Route the left side of this end. Repeat this procedure to complete the routing of the other end of board 1, and both ends of board 3.

**11-6**

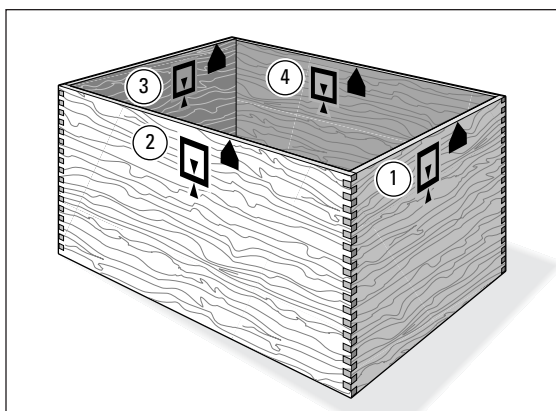
Move the template to position **10** and replace the backup board with a new clean-edged piece.

**11-7**

Rout both ends of boards 2 and 4, first routing both ends of each board against the the left side stop, and then...


**11-8**

...reposition (as with boards 1 and 3) to align and complete the routing. **Keep the left edge of the board away from the side stop ①.** Rout the left side of this end of boards 2 and 4.

**11-9**

Keeping the marked side stop edges of all boards toward the top (or bottom) of the box, select the preferred outside faces of the boards and assemble the box. Remember; box joint corners need clamping from both directions, or use strap clamps and blocks.

BOARD WIDTH CHART (INCHES and MM)

	1/2"	3/8"	10mm	8mm
				
30				
31	15.686 ▼ 15 11/16			
32				▼ 261
33	16.702 ▼ 16 11/16			▼ 269
34				▼ 277
35	17.718 ▼ 17 23/32	13.343 ▼ 13 11/32		▼ 286
36		13.726 ▼ 13 23/32	▼ 356	▼ 294
37	18.734 ▼ 18 23/32	14.109 ▼ 14 3/32	▼ 376	▼ 302
38		14.492 ▼ 14 1/2		▼ 310
39	19.750 ▼ 19 3/4	14.875 ▼ 14 7/8	▼ 396	▼ 318
40		15.258 ▼ 15 1/4		▼ 327
41	20.766 ▼ 20 3/4	15.641 ▼ 15 5/8	▼ 417	▼ 335
42		16.024 ▼ 16 1/32		▼ 343
43	21.782 ▼ 21 25/32	16.407 ▼ 16 13/32	▼ 437	▼ 351
44		16.790 ▼ 16 25/32		▼ 359
45	22.798 ▼ 22 13/16	17.173 ▼ 17 3/16	▼ 458	▼ 368
46		17.556 ▼ 17 9/16		▼ 376
47	23.814 ▼ 23 13/16	17.939 ▼ 17 15/16	▼ 478	▼ 384
48		18.322 ▼ 18 5/16		▼ 392
49		18.705 ▼ 18 23/32	▼ 498	▼ 400
50		19.088 ▼ 19 3/32		▼ 409
51		19.471 ▼ 19 15/32	▼ 519	▼ 417
52		19.854 ▼ 19 27/32		▼ 425
53		20.237 ▼ 20 1/4	▼ 539	▼ 433
54		20.620 ▼ 20 5/8		▼ 441
55		21.003 ▼ 21	▼ 560	▼ 450
56		21.386 ▼ 21 3/8		▼ 458
57		21.769 ▼ 21 25/32	▼ 580	▼ 466
58		22.152 ▼ 22 5/32		▼ 474
59		22.535 ▼ 22 17/32		▼ 482
60		22.918 ▼ 22 29/32		▼ 491
61				▼ 499

Use to the nearest 1/32" or 1mm for width selection. To make symmetrical square joints, use the board widths in red. For asymmetrical square joints, use the board widths in black. Rounded joints cannot be routed wider than the dimensions on pages 37 and 38.

Numbers in white columns are the number of sockets and pins