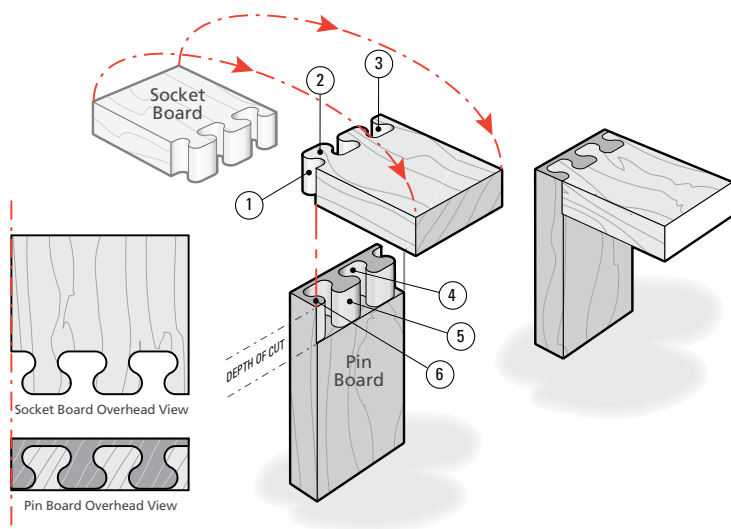


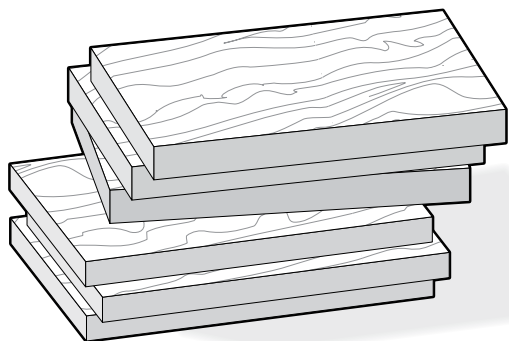
Half-Blind Isoloc Joint Procedures



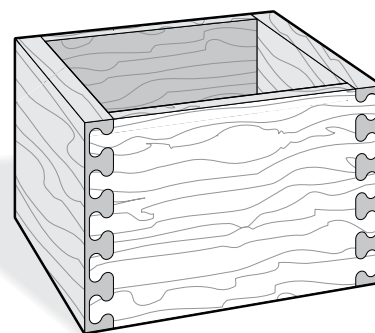
6-1 Isoloc Joint Terminology:

This drawing shows the Socket and Pin boards as they would be mounted in the jig. The Socket board is flipped over to join with the Pin board.

- | | |
|---------------------|---------------|
| ① Half-pin socket | ④ Tail socket |
| ② Socket board tail | ⑤ Pin |
| ③ Pin socket | ⑥ Half pin |

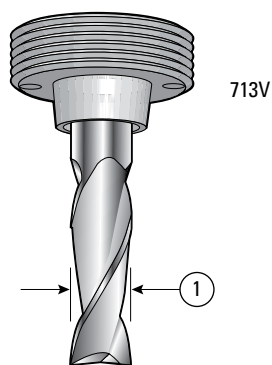


6-2 Always use scrap boards to practice and test for fit. Rip the boards to width to suit the chosen template. The pin boards should not be less than $\frac{3}{4}$ " [19mm] thick. For this test, make the socket boards $\frac{3}{8}$ " [10mm] to $\frac{1}{2}$ " [12mm] thick. Joint specifications are in Appendix II.



6-3 Let's rout a flush Isoloc joint. These generic instructions are the same for any of the patterns. The illustrations always show the left-hand side of the jig, which is where every Isoloc joint is started. Rout only single corners to adjust the joint fit.

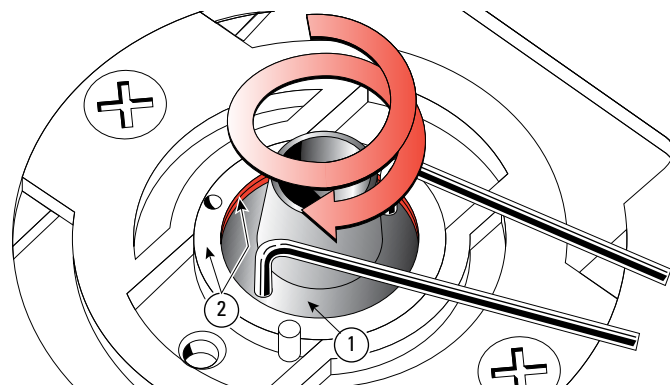
Note: This chapter combines instruction for joint procedures and joint fit. It's a good idea to follow through step by step the first time, but there is also a "quick fit test" method in Chapter 11, Figs 11-11 to 11-15.



6-4 Guidebush and Bit Selection

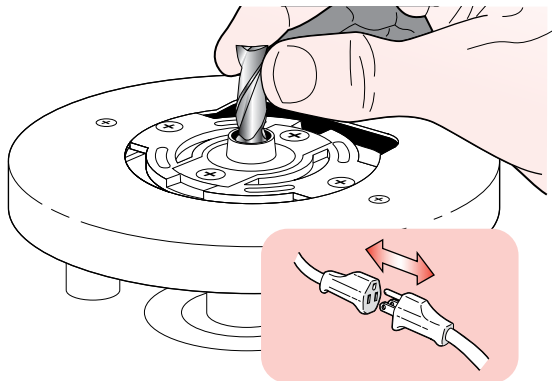
This is really easy!

Use only the 713V guidebush and either a Leigh No.170 or 170C ($\frac{5}{16}$ "), or an 8mm diameter straight bit ①. Spiral upcut bits are much preferred for cleanly routed Isoloc joints. We also recommend solid carbide for stiffness and long life.

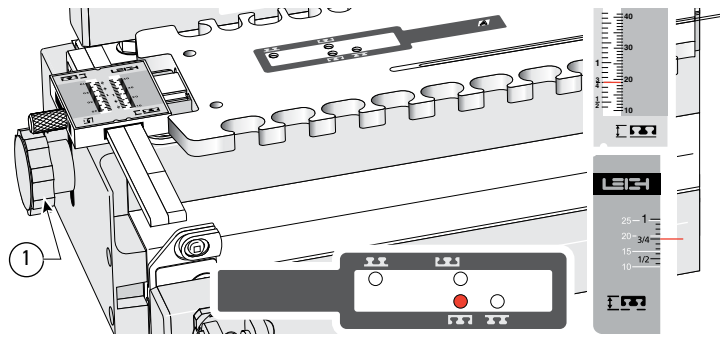



6-5 Always start test routing with the bush flange ① turned one to one-and-a-half turns farther into the holder flange ②.

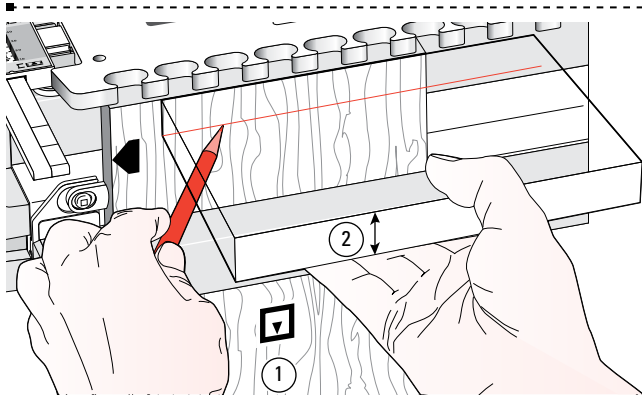
Note: Some guide bush adaptors may already be set up into the router base. If so, the test could be started with the bush flange flush with the holder flange.




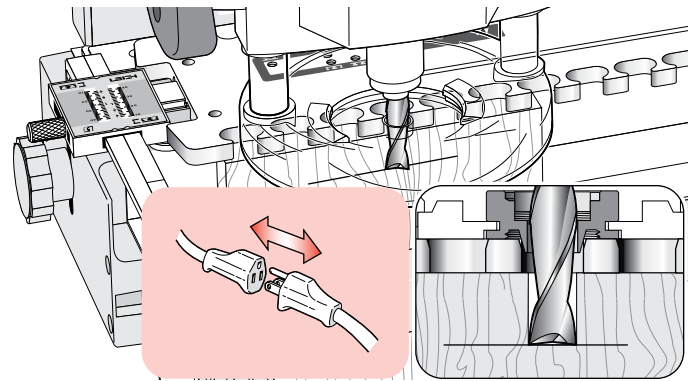
6-6 Fit the $\frac{5}{16}$ " or 8mm bit to the router and tighten securely. If you don't have an 8mm collet you will need an 8mm collet reducer (Leigh part No. 172-8) in your $\frac{1}{2}$ " [12.7mm] collet.



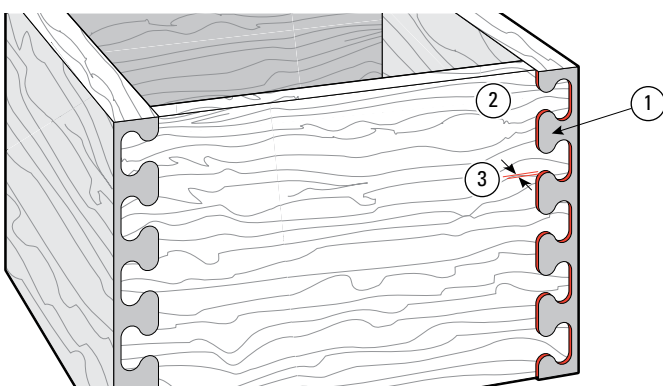
6-7 With the selected Isoloc pattern to the front, set the scales to your vertical pin board thickness. This is the only scale setting used. This example is shown on $\frac{3}{4}$ " [19mm]. Your pin board and scale setting may be greater. Lower the template onto the spacer board and tighten the support bracket knobs ①. Position the template with the template pin in the  position at the right hand end of the template. Remember, the template pin is always positioned at the right end of the template, except when routing the right side of wide boards.



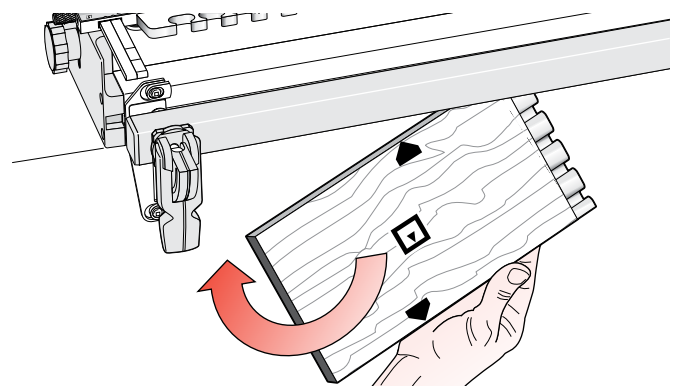
6-8 Clamp the pin board ① against the left side stop, with the end edge flush under the template. The board must be clamped with the inside face  away from the jig. Mark and adjust the depth of cut to suit the thickness of the socket board. Use the socket board ② to mark the depth of cut.




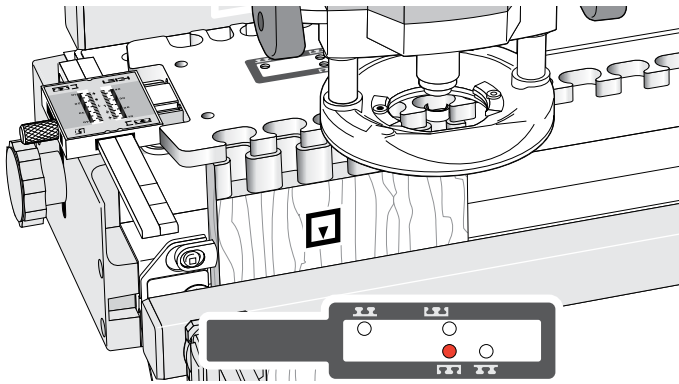
6-9 Adjust the bit to cut down to the centre of the pencil line. Make sure the collet will not rub on the guidebush.



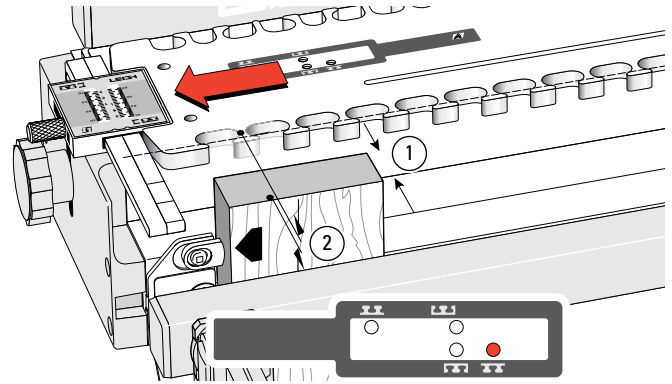
6-10 You want the pins ① to come through the socket board ② by a maximum of $\frac{1}{64}$ " [.40mm] ③ for cleanup later, just like half-blind dovetails. Setting the bit to the pencil centreline should ensure this.




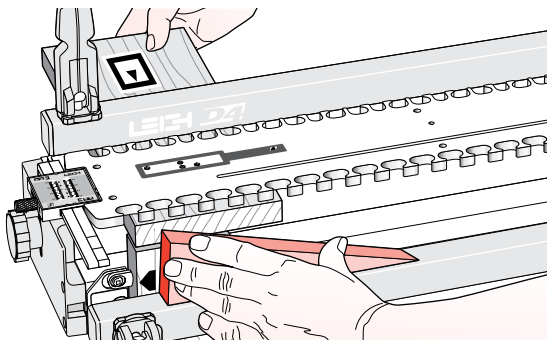
6-11 The inside surfaces of all boards used for making Isoloc corner joints always face away from the jig body  just like half-blind dovetail boards on the dovetail jig. So alternate side edges go against the side stop and joining boards must all be exactly the same width.





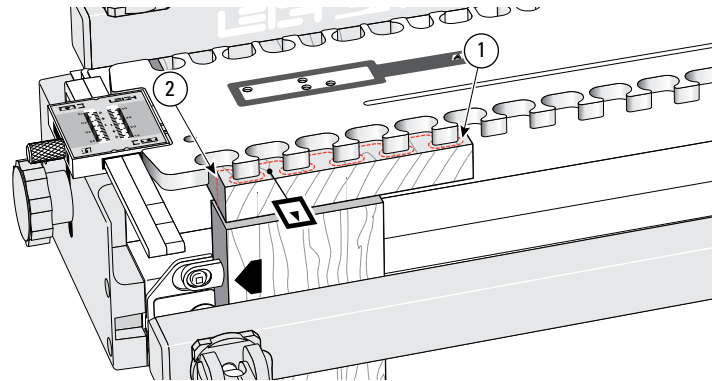
6-12 See Chapter 12 Routing Procedures Hints & Tips. Rout one end of a scrap pin board. Make sure to touch the guide-bush continuously on the sides of each template opening.



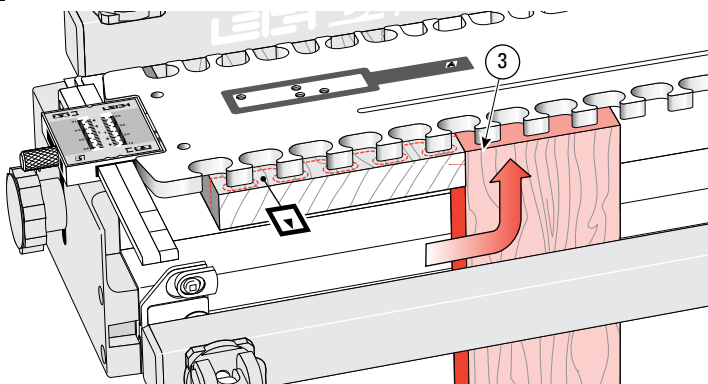
6-13 Remove the test pin board and insert the template pin in the  hole. Do not change any other setting. Clamp a scrap board of exactly the same thickness as the pin board ① in the front clamp, with the top end edge slightly below the top surface of the jig body ②. Leave the scale setting the same as for pin boards.



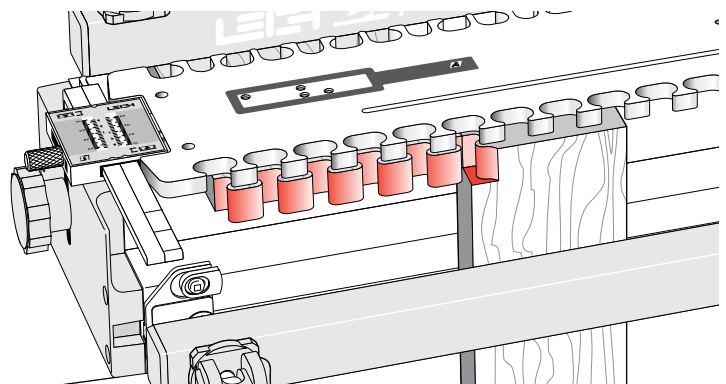
6-14 Remove the spacer board and clamp a test socket board horizontally in the rear clamp, inside face  of the board facing away from the jig body and the end edge flush with the outer edge of the vertical scrap board. Lower the template flush and level onto the socket board.  **Tear-out Warning!** Don't rout this board before reading the next two paragraphs and 11-5 through 11-10, Routing Technique for Sockets.




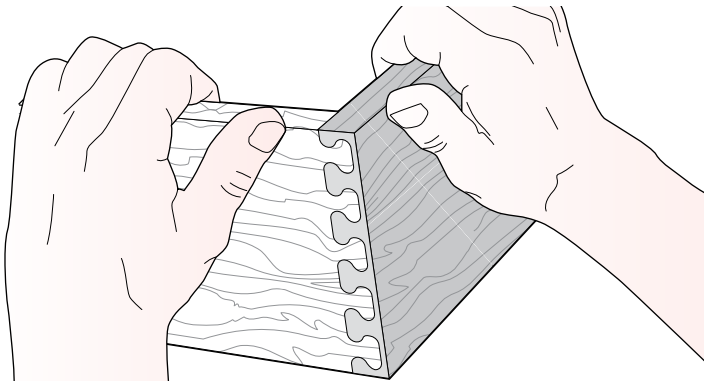
6-15 If you rout this horizontal socket board in the conventional way you may tear away the right hand board edge ①, although some woods will rout quite cleanly. The edge at ② may cause the router to pull itself quickly into the template comb, so good router control is important.



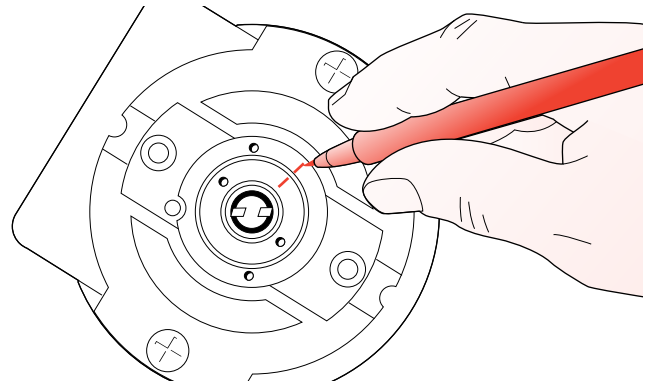
6-16 If necessary, the best way to avoid the right-edge tearout problem is to clamp the front scrap ③ against the right side edge of the board. Simply clamp it under the front clamp bar, making sure it's firmly against the right edge of the socket board. By rotating and flipping its position, one scrap will be good for 4 cuts.



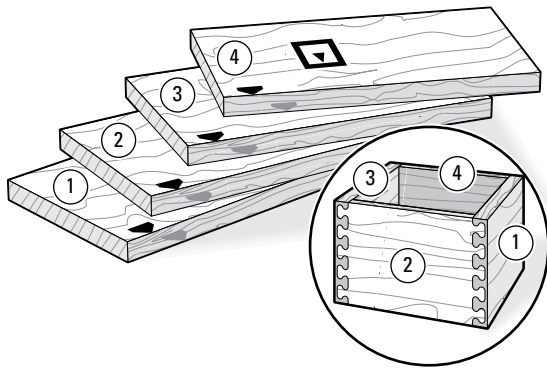
6-17 Rout one end of the socket board, with the inside face  away from the jig body. See Chapter 11, Routing Procedures Hints and Tips.



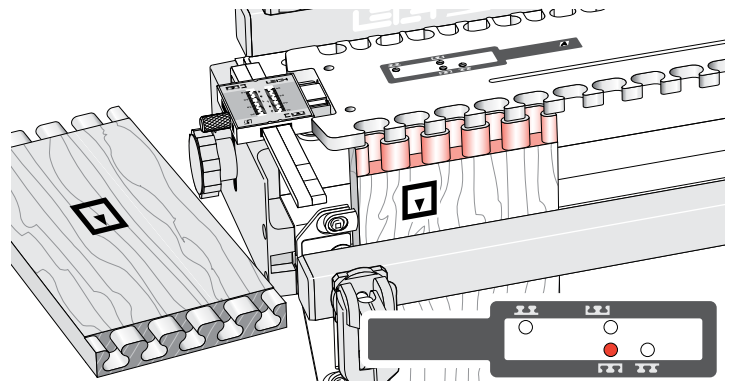
6-18 Test the two boards for fit. Adjust the height of the variable guidebush by trial and error and rout more pairs of test boards to achieve the desired fit. Remember, lower the variable bush (out of the base) for a tighter joint and raise the variable bush (into the base) for a looser joint. The fit should be a firm sliding fit, just like dovetails and box joints. Note: For a "quick-fit test" method, see Chapter 11, Figs 11-11 to 11-14.



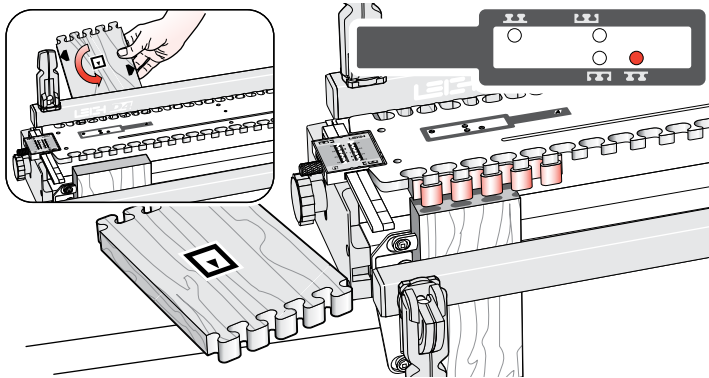
6-19 When the fit is just right, mark the bush and holder with permanent ink for future reference.



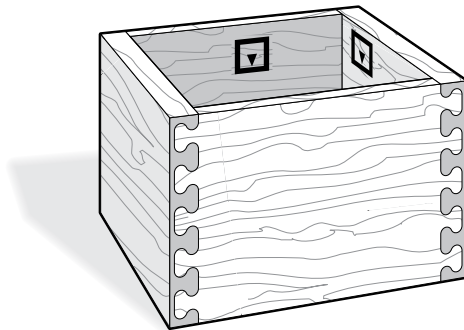
6-20 Let's make a box. Prepare four boards and mark the selected inside faces. The opposite sides of the box must of course be equal lengths.



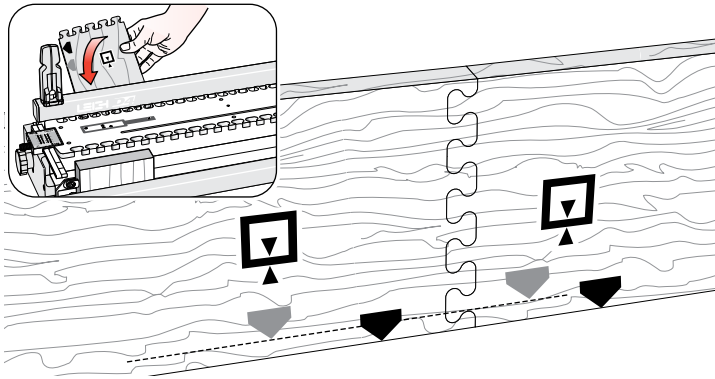
6-21 Rout both ends of pin boards 1 and 3 in template position.



6-22 Rout both ends of socket boards 2 and 4 in position.



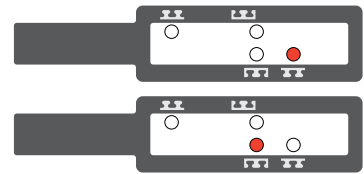
6-23 Assemble in the usual way. You may need to clamp in both directions when gluing up. Check for squareness and correct as necessary when clamping.



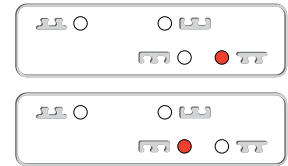
6-24 End-on-End Isoloc Joints

These are routed exactly the same way as the socket boards in the previous instruction, except that you must keep the same side edges against the side stop and alternate face side up/face side down.

I1



I1600
I18
I24



6-25 Rout half the end-on-end boards at the  setting and the other half at the  setting. ■

This page is left blank intentionally.