Congratulations on the purchase of your new Large Box Spline Jig! It allows you to quickly and easily add beautiful dovetail, straight or cylindrical splines to reinforce the mitered corner joints of larger projects. For safe and effective operation of the jig, please read the instructions fully before starting.
Set the Jig’s Fence
1. For precise results, the fence of the Large Box Spline Jig must be positioned so that the center of your router lines up with the centerline on the jig.

2. Calculate the setting by measuring the diameter of your router’s base plate, dividing that measurement by 2, then subtracting 3/4”. For example, the setting for a router with a 5 3/4” diameter base plate would be 2 1/8” (5 3/4” ÷ 2 = 2 3/8”, and 2 3/8” - 3/4” = 2 1/8”). **Fig. 1 and 2.**

3. Use the scales on the top and bottom edges of the jig to position the fence. Make sure the settings are equal so that the fence will be parallel, then tighten the knobs to secure it in place.

4. Set the router bit to the desired depth.

5. Set up a test corner with scrap stock and make a test cut. Make any necessary adjustments.

Cut the Spline Slots
1. On your project, mark where you want to locate the splines. These lines indicate where the center of the splines will be, so be sure to take that into account when determining positioning. **Fig. 3.**

2. Place the jig on your project, aligning the jig’s centerlines with your marks. **Fig. 4.**
3. Clamp the jig securely in place. If your box is wider than the jig, you'll need to position a caul across at least the top clamping zone of the jig to secure the clamps. (You also can clamp the bottom clamping zone, if desired.) Fig. 5.

4. Place your router on the jig, toward the bottom, with the base plate tight against the fence. Rout upward, making sure to keep the router against the fence. Fig. 6.

5. Reposition the jig, repeating Steps 2-4 as necessary to complete additional spline cuts.

**Add the Splines**

**For Straight and Cylindrical Splines**

1. Cut or obtain appropriately dimensioned stock or dowels. (The fit should be snug but not overly so.)

2. Apply glue to the splines and slots and install the splines. Let glue dry.

3. Trim splines flush to box sides with flush-cut saw, then sand smooth.

**For Dovetail Splines**

1. To cut the splines, you will use the same dovetail bit you used to cut the slots, this time with your router installed in a router table with a fence. Set the bit height 1/16" greater than the depth of the spline slots.
2. Position the router table fence so that about only 30% of the cutter extends beyond the fence face. This is only a starting point; you will need to fine-tune the fence position through trial and error.

3. Select stock that is thicker than the maximum width of the dovetail bit you used to cut the spline slots. For example, if you used a 1/2" bit, the stock should be at least 5/8" thick.

4. Routing a test piece on edge and taking care to keep the stock tight against the fence, make a pass on each side. Test the fit in the spline slot. (The goal is a fit that’s snug but not overly tight.) Fig. 7.

5. If the spline doesn’t fit, adjust the fence position slightly and make more test cuts. Repeat until you arrive at the right setting, then rout your splines.

6. Rip the dovetailed section of the spline blank(s) from the rest of the stock and cut into shorter pieces. Fig. 8.

7. Apply glue to the splines and slots and install the splines. Let glue dry. Fig. 9.

8. Trim splines flush to box sides, then sand smooth. Fig. 10.

Check Rockler.com for updates. If you have further questions, please contact our Technical Support Department at 1-800-260-9663 or support@rockler.com