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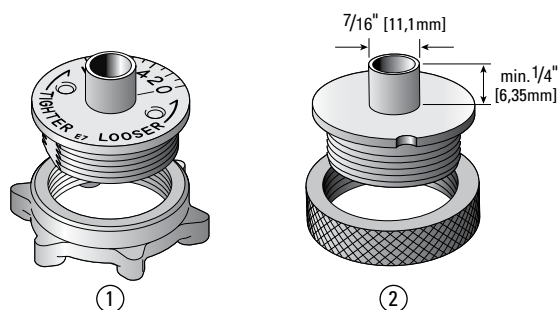
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# D4R Pro - CHAPTER 3

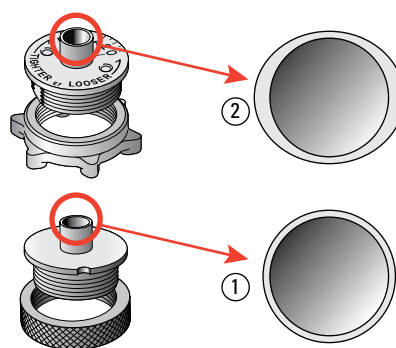
## The Leigh eBush & Optional Guidebushes

The guidebush is the vital link between router and jig. All joints created on the D4R Pro are routed with the unique e7\* elliptical guidebush. This Leigh innovation provides precise joint fit adjustment for box joints and sliding dovetails. \*Supplied with the D4R Pro. U.S. Patent No. 8,256,475. UK Patent No. GB2443974. Canada Patent No. 2,611,232

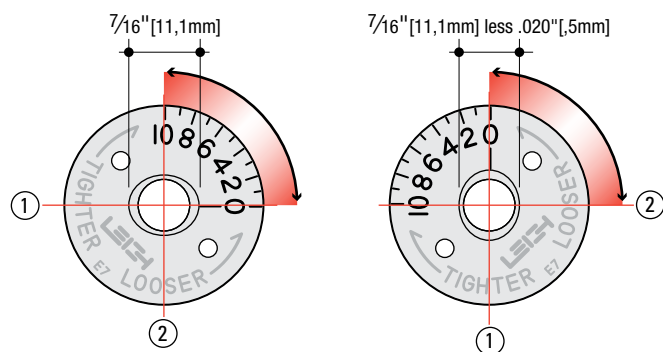
**Note: If your router doesn't accept the e7-Bush, you can use an alternative guidebush with some limitations.**



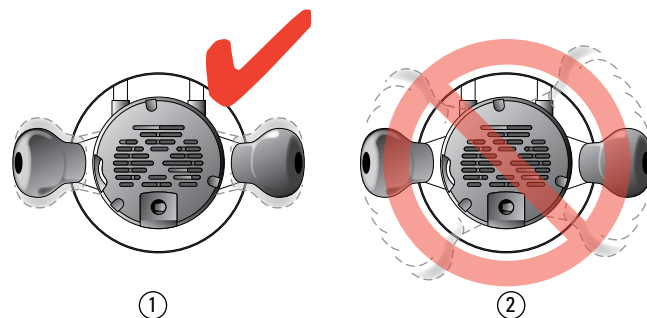
**3-1** The Leigh e7-Bush ① is used to rout through, half-blind, single pass half-blind and sliding dovetails, and also box joints on the D4R Pro. The elliptical design provides precise joint fit adjustment for box joints and sliding dovetails. A round  $\frac{7}{16}$ " [11,1mm] guidebush (min. barrel length  $\frac{1}{4}$ " [6,35mm]) ② can be used to rout through, half-blind, and sliding dovetails on the D4R Pro.



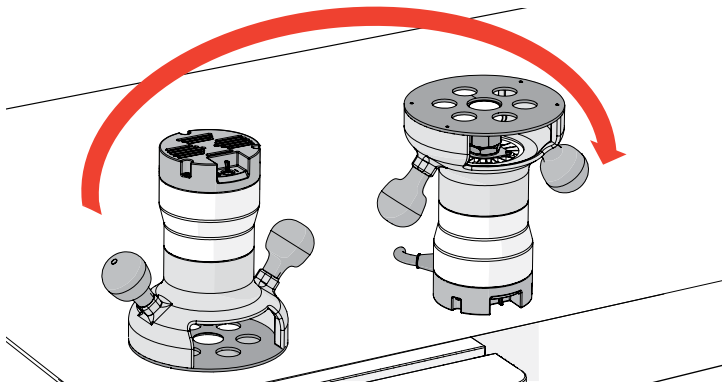
**3-2** The Leigh e7-Bush that comes with your D4R Pro is a unique template guidebush that is adjustable in size. Unlike regular circular template guidebushes ①, the e7-Bush is slightly elliptical in cross section ②. This simple innovation effectively changes the guidebush "active diameter size" when it's rotated, and provides benefits not possible with a standard round guidebush.



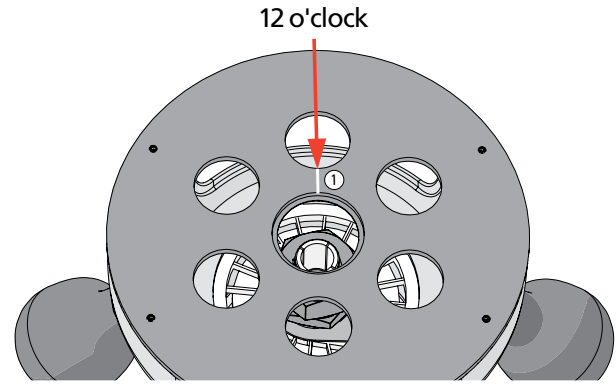
**3-3** The e7-Bush ( $\frac{7}{16}$ ") fits the router base or a guide bush adaptor in the base (see Appendix I). The ellipse/oval shape has a major axis ①  $\frac{7}{16}$ " [11,1mm], and minor axis ②  $\frac{7}{16}$ " [11,1mm] less .020" [5mm]. Turning the eBush 90° in the router base changes the active diameter by .020" [5mm] providing minute adjustment and recordable settings for perfectly fitting box joints.



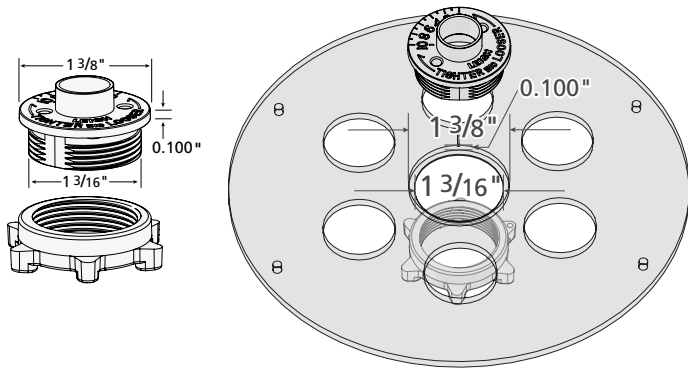
**3-4** Here's how it works. In normal use on a dovetail jig, the operator does not rotate the router more than a few degrees either way ①. In fact because of potential bit-to-bush eccentricity problems it is advisable to minimize router rotation on jigs ②.



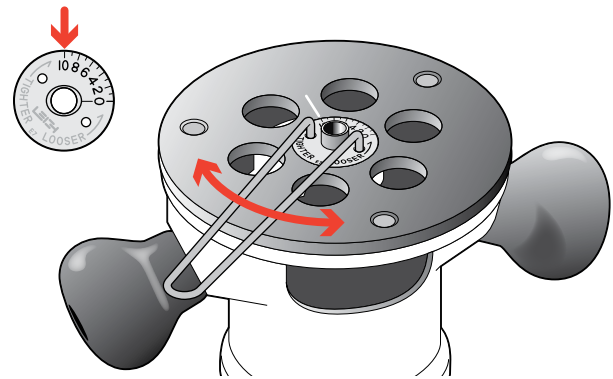
**3-5** To install the e7-Bush, follow these simple steps. Hold the router the way you normally hold and operate it on the jig. Now, upend the router in the same orientation.



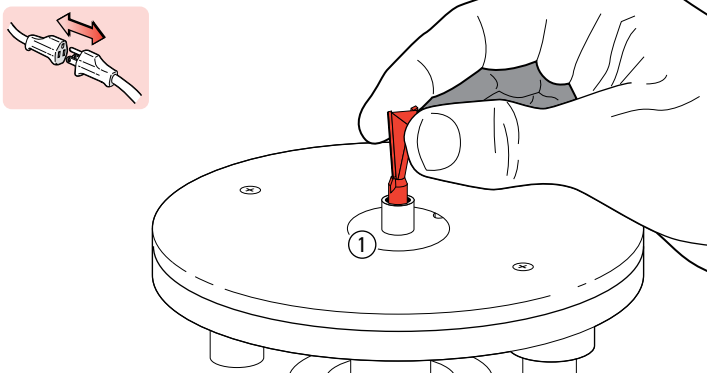
**3-6 eBush Alignment Mark** Think of the router base as a clock face. Make a small scratch line or permanent ink mark on the router base or e-Bush adaptor at the 12 o'clock position ①. This will be your reference mark for all e7-Bush settings.



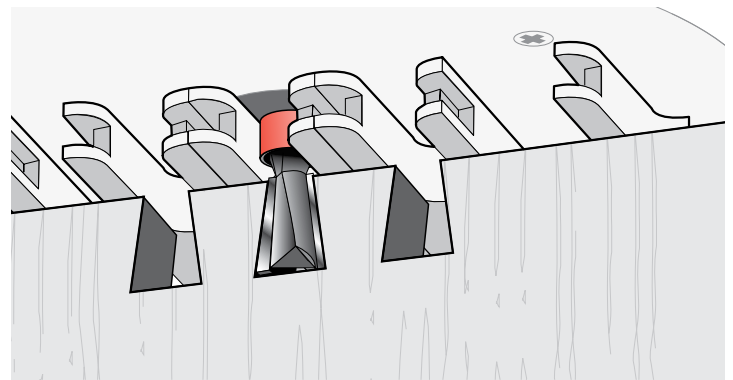
**3-7** To fit the Leigh eBush directly to your router, the router base must have a 1-3/8" diameter counter bore. If your router base does not have the correct counter bore, you will need a guide bush adaptor or aftermarket router base plate. Leigh offers several guide bush adaptors to fit many common routers. See the Guide Bush Adaptor System in Appendix 1, page 69.



**3-8** Fit the e7-Bush to the router and align No.10 to the scratch mark. This setting is used for all through and variably spaced half-blind dovetails on the D4R Pro. Settings for single pass half-blinds, box joints and sliding dovetails are described in applicable chapters. **Be sure to retighten the eBush nut after each adjustment is made with the included pin wrench.**



**3-9** The bit goes through the e7-Bush ① and fits in the router collet or chuck.



**3-10** The projecting part of the guidebush runs along the side edge of the guide finger. The rotating bit cuts the wood only, and touches neither the guidebush nor the guide surface. ■