

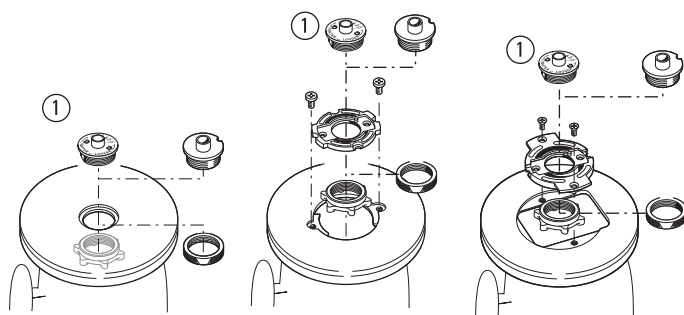
### Watch the Online Instructional Video

The online video will reduce your learning time **dramatically!** Stream to your smart phone or tablet to use in your shop as a visual reference. Find the video in the Instructional Videos section of the Support menu at [leighjigs.com](http://leighjigs.com).

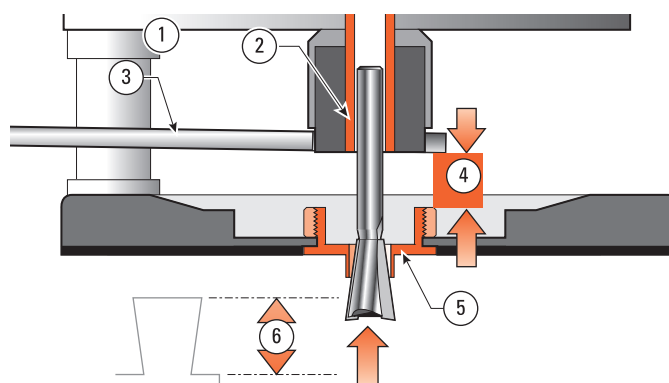


## D4R Pro - CHAPTER 7

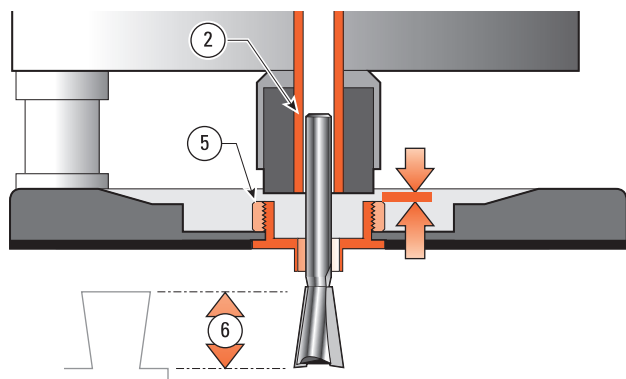
# Router Preparation



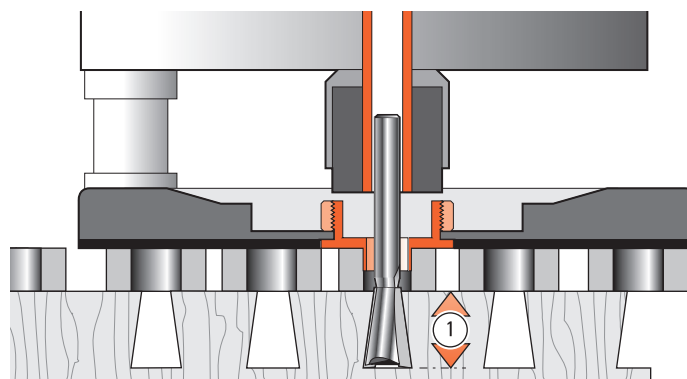
**7-1** Fit the e7-Bush ①. One is included with your D4R Pro. If the eBush is incompatible with your router, any  $\frac{7}{16}$ " [11,1mm] guidebush (min. barrel length  $\frac{1}{4}$ ", see page 70) will work for all but box joints on the D4R Pro.



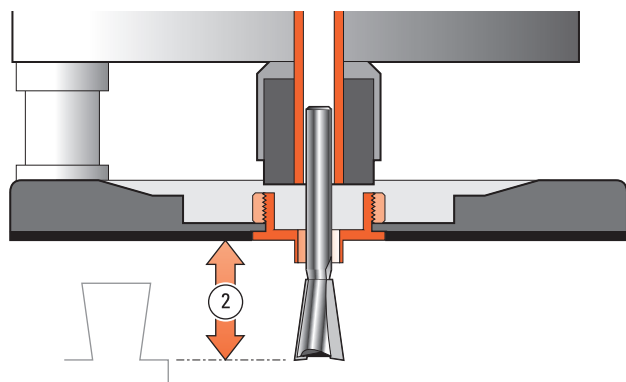
**7-2** When fitting a bit to the router ①, fit the shank as far into the collet ② as possible. Always rout with the collet as close to the guidebush as possible. Usually you can't securely grip the collet nut with a wrench ③ if the collet is at its optimum low position. Fit the bit so that the remaining travel ④ between collet and guidebush ⑤ will let the bit reach the required depth of cut ⑥.



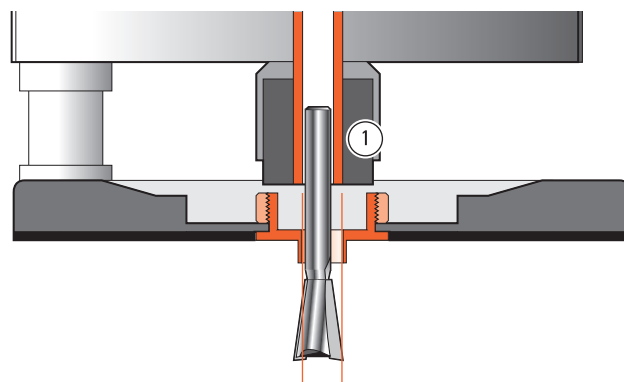
**7-3** Tighten the collet ② securely and lower the collet to adjust the depth of cut ⑥, but make sure the collet does not contact the guidebush ⑤. Some smaller collets can go down into the inside of the guide bush. Take advantage of this.



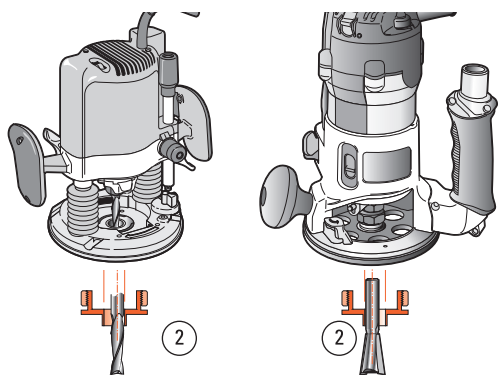
**7-4 Depth of Cut:** The depth of cut always refers to the actual depth of the cut into the wood beneath the guidefingers ①.



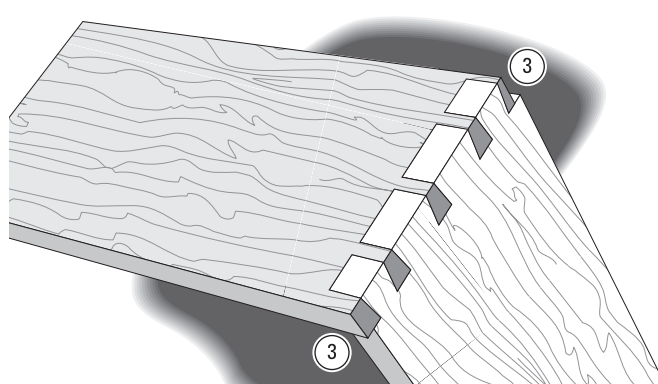
**7-5** Depth of cut is **not** the distance the bit projects from the router base. This is **bit projection** ②. This guide generally refers to depth of cut. Bit projection ② is always .450" [11,5mm] more than depth of cut.



**7-6** Ideally, the router collet (and bit) should be concentric (centered) to the guidebush as in figure 7-5. Regrettably, this is often not the case; the bit can be off center (eccentric to) the guidebush ①. The illustration shows the problem highly exaggerated. The good news: bit to bush alignment doesn't affect joint fit or flushness; both are "adjusted out" in normal jig setup.

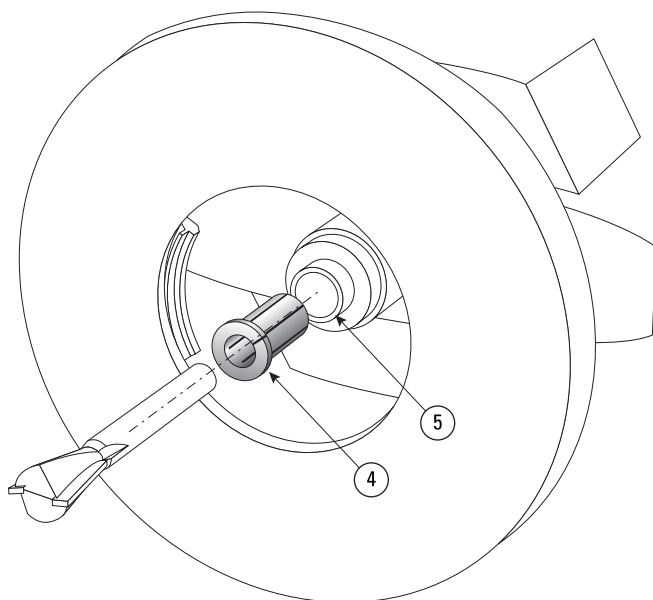


**7-7** Concentricity problems can only arise if two routers are used for through dovetails, (one for pins; one for tails). Routers with different bit to guidebush offsets ② (misalignment shown highly exaggerated)...



**7-8** ...will cause pin to tailboard ③ misalignment (again, shown highly exaggerated).

Fortunately, some newer routers have sub-bases that can adjust for concentricity. If you don't have this type, it might pay to stick to a single router for through dovetails.



### 7-9 Shank Selection/Collet Reducer

All Leigh Dovetail jigs are shipped with superior strength 8mm shank dovetail bits and a 1/2" to 8mm collet reducer. The reducer ④ simply slides into the 1/2" collet of your router ⑤ (do not remove the collet nut) and the 8mm shank bit is inserted into the collet reducer. The collet is tightened as normal. The collet reducer is not required with 1/2" [12,7mm] shank bits. ■