

RTJ400 OPERATION

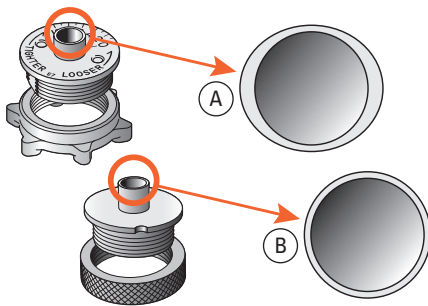
CHAPTER 6

The Leigh eBush

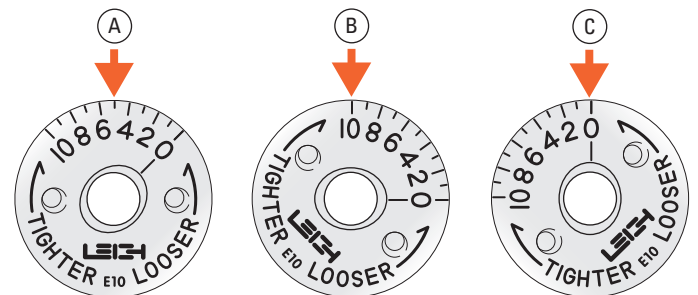
Note: Normal tolerances with bits, guide bushings and router runout will generally produce poor fitting joints. Leigh elliptical guide bushings (e7 and e10) solve this problem.

Patents for all Leigh elliptical guide bushings: U.S. 8,256,475 UK GB2443974

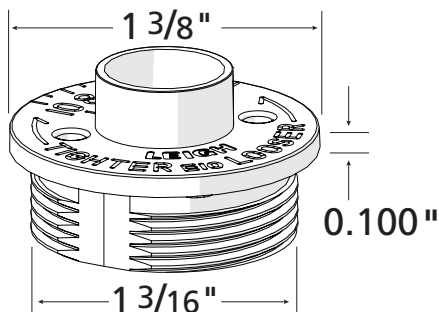
Joint Fit Adjustment



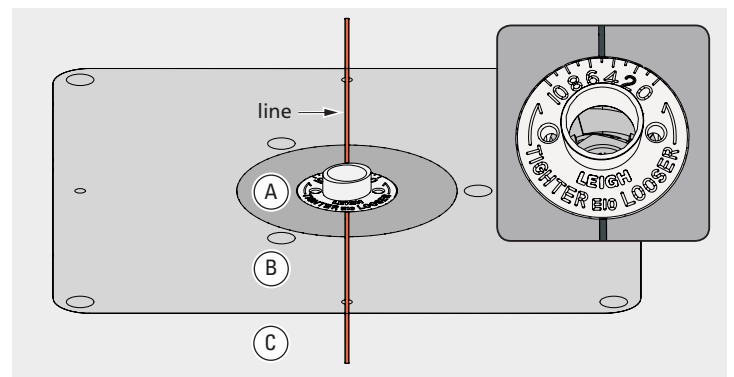
6-1 The Leigh eBush barrel is elliptical (A), unlike plain circular template guide bushings (B). When rotated, the effective diameter of the barrel changes, allowing fit adjustments as small as 0.001" [0.025mm]. The e10 eBush is included with the RTJ400.



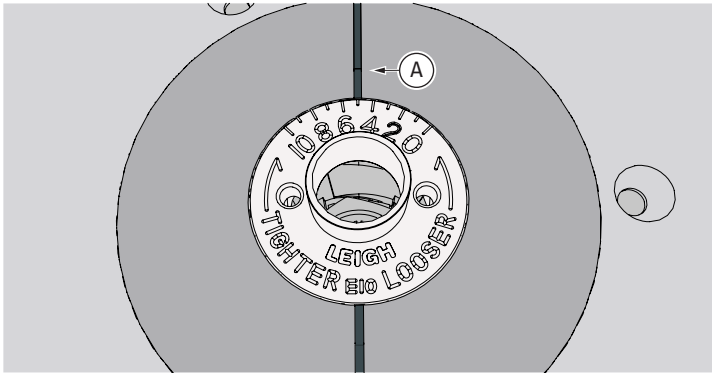
6-2 All routing starts with the eBush in the No.5 position (A). Turning the eBush toward the No.10 position (B) results in a tighter fit because the guide bushing is now wider. Turning the eBush toward the No.0 position (C) results in a looser fit.



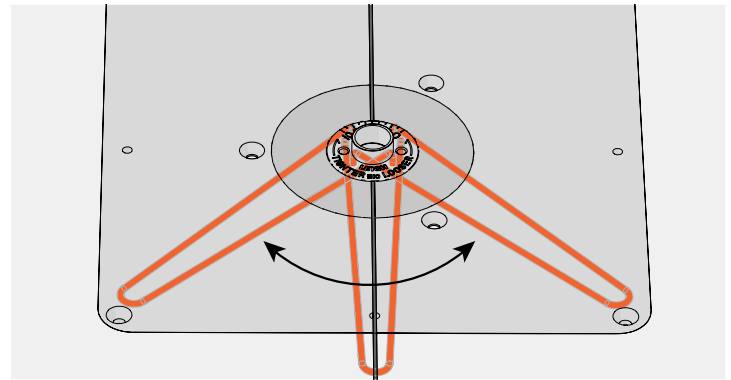
6-3 The Leigh eBush system is designed around the decades-old Porter Cable/Black & Decker industry standard. Therefore you will likely need to adapt your router table or router table insert plate to accept a Leigh eBush with an insert ring that has a 1 3/8" diameter counter bore. See page 6 for details. Check with your router table or insert plate manufacturer as to what adaptation is required.



6-4 Draw a line with a permanent pen on the router table, centered on the guide bushing opening at 12 o'clock and 6 o'clock (shown in red for clarity only). This will ensure correct orientation of the eBush to the insert ring (A), the insert plate (B), and the router table (C).



6-5 All settings for the eBush will be aligned to the line **A** you've drawn on the router table. The line will also help guide the RTJ400.



6-6 Adjust the eBush with the pin wrench. Markings on the eBush indicate which way to turn it for a looser or tighter fit. **Remember, every time you adjust the eBush you must re-tighten the eBush nut.**



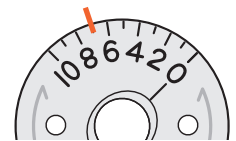
6-7 One division of the eBush changes the joint glue line by 0.002" [0.05mm]. A perfect fit will be established with one or two test cuts.



3/8" Box Joint



*Through
Dovetails
Bits 80-500
and 160*



*Half-Blind
Dovetails
128-500 bit*

6-8 As shown in the examples above, each chapter provides a place to mark your perfect eBush setting, for easy repeatability the next time. ■