

## Your New Leigh RTJ400 Router Table Dovetail Jig for Through Dovetails, Half-Blind Dovetails and Box Joints

The RTJ400 was designed for the ever increasing use of router tables in shops everywhere. The RTJ400 can produce sizes and types of joints not possible with typical template jigs, including through dovetails, half-blind dovetails and box joints (finger joints), and thanks to the patented Leigh eBush, perfect fitting joints are guaranteed every time.

### Customer Support

If you have any questions that are not answered in this user guide, please call Leigh Customer Support: **1-800-663-8932** in North America or email: [help@leighjigs.com](mailto:help@leighjigs.com). For support contacts in your country of purchase, see Customer Support, Chapter 15. Leigh user guides are updated as required. A downloadable pdf of the latest version can be found on the Support page at leighjigs.com.

*Reminder: If at first you don't succeed, read the instructions!*

### Important! Inches and Millimeters

Text and illustrations in this English language user guide indicate dimensions in both inches and millimeters, where applicable, with “inches” first, followed by “millimeters” in square brackets, i.e. ½" x 2" [12mm x 50mm].

**Do not be concerned that the inch/millimeter equivalents are not mathematically “correct”. Just use the dimensions that apply to your guides and bits.**

The RTJ400 is covered by the following patent: U.S. Patent No. 8,534,329  
Patents for all Leigh elliptical guide bushings: U.S. 8,256,475 UK GB2443974

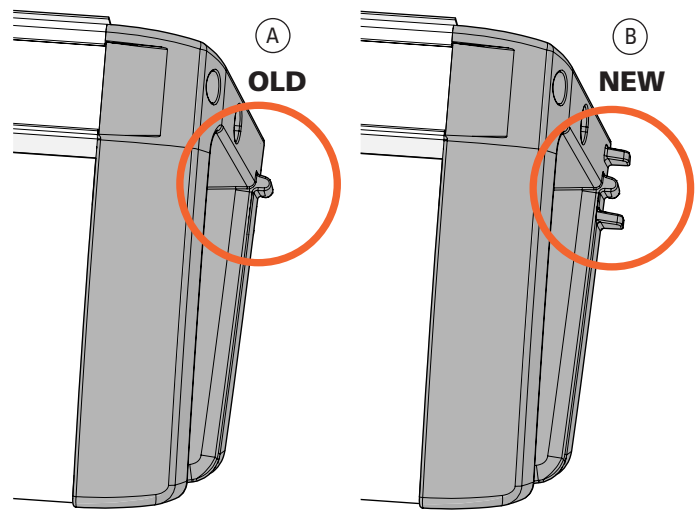
## Contents

Dedicated Customer Support  
**1-800-663-8932**

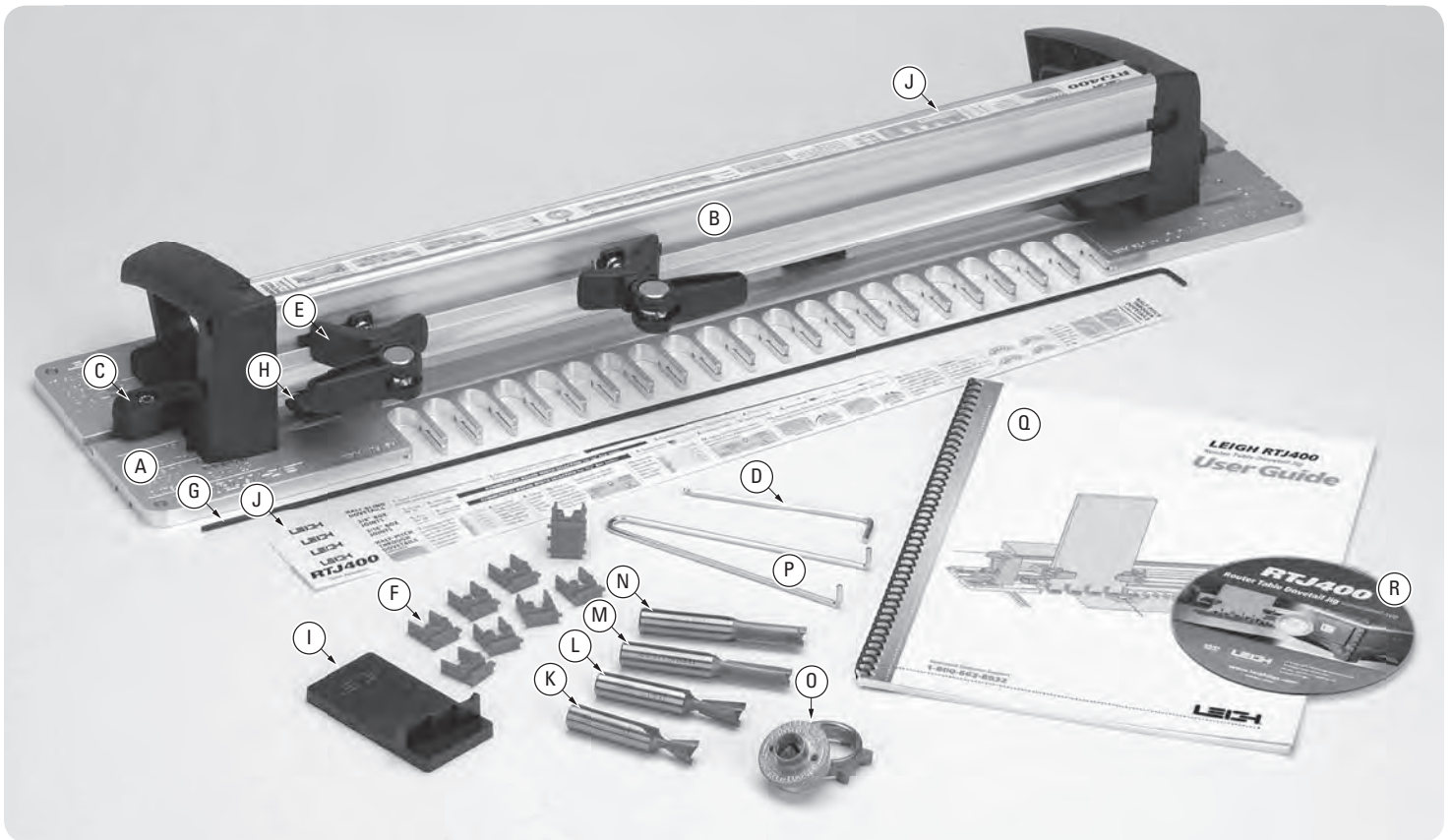
	<b>Introduction</b>	2
	Jig Features	3
	Bit Specifications	4
	Accessory Kit for the RTJ400	5
	Router Table Requirements	6
Chapter 1	<b>Assembling the RTJ400</b>	7
Chapter 2	<b>Glossary of Symbols</b>	11
Chapter 3	<b>Using your Jig Safely</b>	13
Chapter 4	<b>Basic Jig Functions</b>	15
Chapter 5	<b>Wood Preparation</b>	19
Chapter 6	<b>The Leigh eBush</b>	21
Chapter 7	<b>Through Dovetails</b>	23
Chapter 8	<b>Half Pitch Through Dovetails</b>	29
Chapter 9	<b>Half-Blind Dovetails</b>	35
	Rabbeted Half-Blind Dovetails	40
Chapter 10	<b>3/8" Box (Finger) Joints</b>	43
	3/8" Half-Blind Box Joints	48
Chapter 11	<b>3/4" Box (Finger) Joints</b>	53
Chapter 12	<b>3/16" Box (Finger) Joints</b>	59
Chapter 13	<b>3/32" Box (Finger) Joints</b>	65
Chapter 14	<b>Jig Parts</b>	71
Chapter 15	<b>Customer Support</b>	73
Chapter 16	<b>Quick Reference</b>	74
	Board Width Selection	74

### IMPORTANT Jig Design Update

The drawings in this user guide show an earlier version of the jig handles (A). The handles now have two protrusions to protect the pin (B). The functionality remains the same.



Overhead view of old and new handles.



## RTJ400 Jig Features and Parts

See complete list of jig parts in Chapter 14.

**If any of these parts are missing from your jig, please notify your supplier or Leigh immediately. See Chapter 15, Customer Support.**

- Ⓐ **Jig Template**, CNC machined, with holes and slots to position the frame, and precision guides for routing tails, pins & sockets
- Ⓑ **Jig Frame**, CNC machined, with pins that fit into template holes & slots
- Ⓒ **Frame Latches**, 2, to secure jig frame to jig template
- Ⓓ **Hex Key**, 1/8" Ball End
- Ⓔ **Cam-Action Speed-Clamps**, 4, for mounting workpieces to jig
- Ⓕ **Blockers**, 10, inserted in template guide openings to prevent routing
- Ⓖ **Stop Rod**, inserted in template holes to limit cutting depth
- Ⓗ **Side stops**, 2, for mounting workpieces; adjustable for all joint types
- Ⓘ **Bit Depth Gauge**, for setting cutting depth on half-blind dovetails
- Ⓙ **Instruction Strips**, 5, for quick reference; inserted in jig top
- Ⓚ **Dovetail Bit 120-500**, 1/2" x 1/2" x 14°
- Ⓛ **Dovetail Bit 80-500**, 1/2" x 13/16" x 8°
- Ⓜ **Straight Bit 143-500**, 3/8" x 1-1/4"
- Ⓝ **Straight Bit 160**, 1/2" x 1-1/4"
- Ⓞ **Guide Bushing**, e10 Elliptical eBush, for perfect joint fit
- Ⓟ **Pin Wrench**, to adjust e10 eBush
- Ⓠ **User Guide**, Fully Illustrated. **Note:** PDF of User Guide included on DVD
- Ⓡ **DVD Video**, Instructional

### You will need:

- A router table that accepts standard size (1-3/8" OD) guide bushings

**Note:** See page 6 for instructions on fitting the Leigh eBush to your router table.