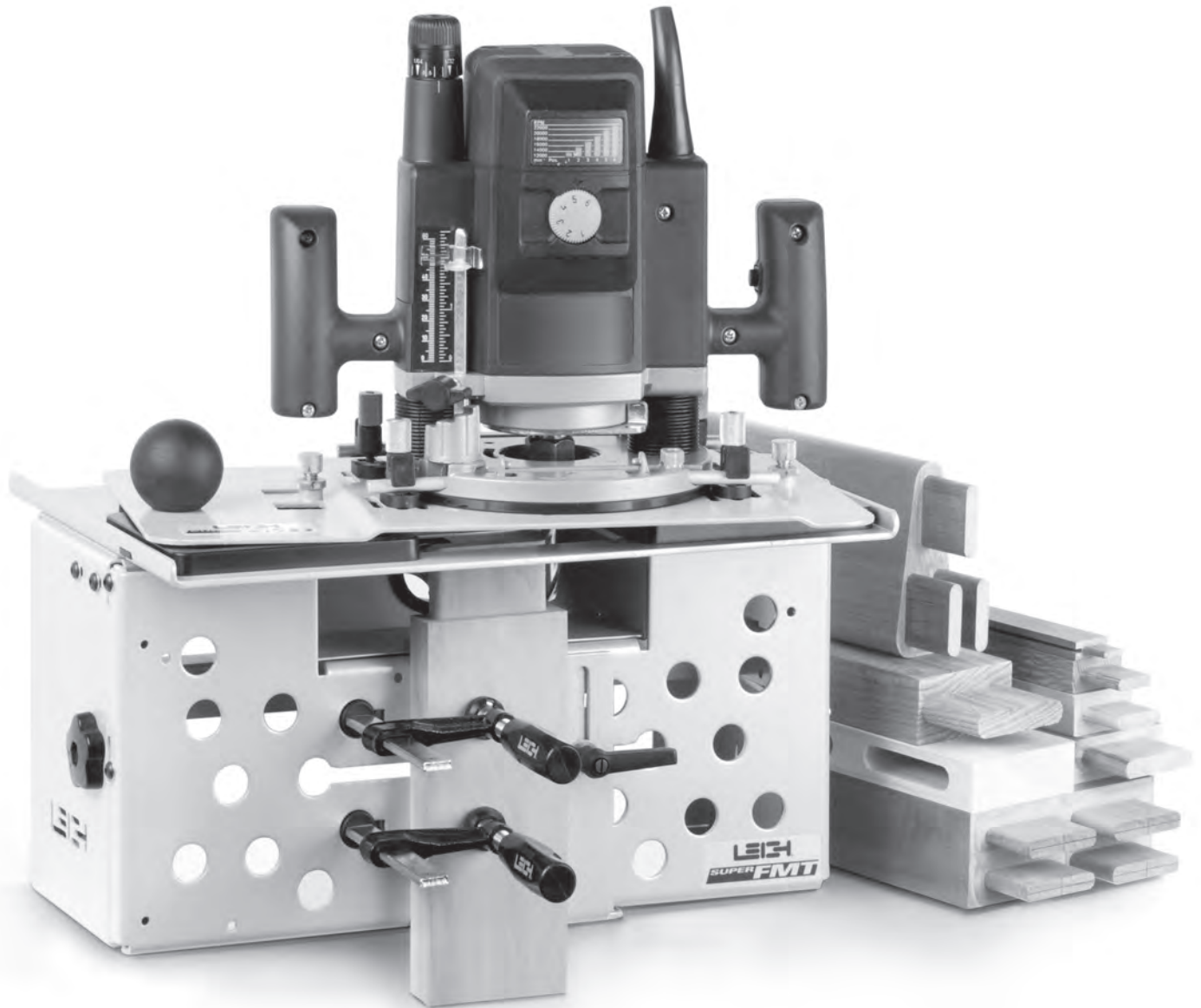


LEIGH SUPER FMT **User Guide**

For the Leigh Super FMT Mortise & Tenon Jig



Dedicated Customer Support
1-800-663-8932

LEIGH
Joining Tradition with Today

Get the Most From Your Super FMT with These Great Accessories

Our Best Value Accessory Kit

Buy the optional 16-piece guide set with matching HSS or Solid Carbide bits and the Vacuum Box to explore the full potential of your new Super FMT. Use the standard guide set with matching bits or bit combinations for 68 joint sizes. Use table limit stops for limitless mortise & tenon sizes. The vacuum box hooks up to a shop vac or built-in dust control system to keep you and your shop clean. Items ACSMTV, ACSMTVC



16-Piece "Completer" Set

This 16-piece set combined with the five guides included with your jig gives you every standard guide available for the Super FMT. With the 8-piece bit set, the standard guide set will produce 68 joint sizes and literally hundreds of additional sizes when using table limit stops. With standard guides and bits you can customize a joint size to fit any project.

Item 6720



Stay Clean and Avoid Breathing Harmful Fine Dust

Routers are among the most challenging tools when it comes to dust and chip collection. That's why the Vacuum Box Attachment is a must-have for all Super FMT users. The box attaches easily to the jig table with just two hex nuts, included in the kit. The large and small adaptors and built-in nozzle allow you to connect to several hose sizes, and shop vac adaptors allow even more connectivity. Item VBSMT



Save Time With an Extra Set of Clamps

Whether you're routing a production run or just a few mortise & tenon joints, an extra set of Leigh F-Clamps will always come in handy. A second set of clamps can hold mortise boards firmly in place without rearranging the clamps used for your tenon boards. Switching from mortise to tenon is fast and easy with these economical Leigh F-Clamps. Each clamp comes complete with clamp pad and powerful rare earth magnet to hold it in place while you position your workpiece. Item 9500PR

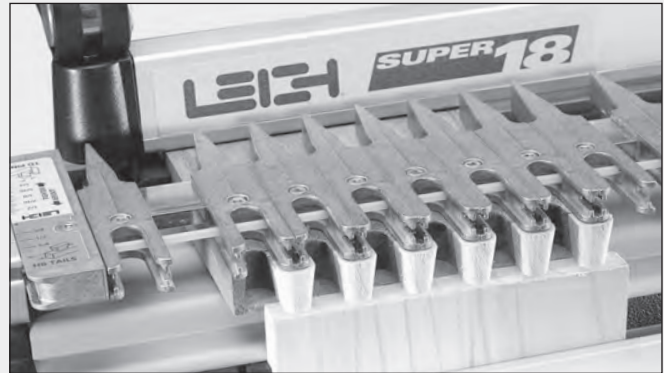


Visit www.leighjigs.com for complete details and dealer information.

More Leigh Jigs and Accessories

Make Single Pass Dovetails and More with Leigh Super Jigs

Leigh Super Jigs offer extraordinary joint making capability at exceptional price points. Super Jigs are available in three sizes, 12", 18" and 24" widths, to satisfy the needs of every woodworker and every budget. Items Super12, Super18 and Super24



D4R is now D4R Pro! Same Jig – New Name

The D4R Pro is undoubtedly the most versatile dovetail jig on the market today. No other jig offers the incredible range of joinery options, right out of the box, and no other jig offers the amazing range of optional templates and attachment.

Dust-free routing and exceptional router support are here with the revolutionary patented Leigh **VRS Vacuum & Router Support**. Fits all Leigh dovetail jigs.



Leigh Brand Bit Sets Offer Great Savings...and the Box Is Free!

Save over individual bit prices. Each top quality bit set includes a box with foam insert that accepts all shank sizes, and handy bit chart to list the bit specs. Leigh bit sets are available for all Leigh jigs and templates. See www.leighjigs.com/cutters.php for set details.



Combine the VRS with a Bit Set for Exceptional Savings!

A Leigh Accessory Kit is the best deal going! Enjoy great savings on 7-piece and 12-piece bit sets and even greater savings when you combine a bit set with the VRS Vacuum & Router Support. Accessory Kits are available for all models of Leigh dovetail jigs. See www.leighjigs.com/kits.php for details.

Visit www.leighjigs.com for complete details and dealer information.

Dedicated Customer Support

1-800-663-8932***Your Leigh Super FMT Mortise & Tenon Jig***

Congratulations on selecting the unique Leigh Super FMT. This jig will allow you to rout a large range of sizes of mortise & tenon joints with total control over joint fit.

To gain the most advantage from this unique tool, please read all of this user guide, carefully set up the jig following the simple setup directions, and thoroughly familiarize yourself with the basic functions and principles of operation. Use scrap wood before attempting any actual projects with valuable hardwood.

Customer Support

If you have questions not answered in this user guide, please call the Leigh Customer Support line, **1-800-663-8932** or email Leigh at **help@leighjigs.com**

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

Important! Inches and Millimeters

The Super FMT is available in two models: inch or metric. The only difference is the guides and bits used—otherwise the jig itself is identical. Text and illustrations in this English language user guide indicate dimensions in both inches and millimeters, with “inches” first, followed by “millimeters” in square brackets, i.e. $\frac{1}{2}$ "x 2" [12x50mm].

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

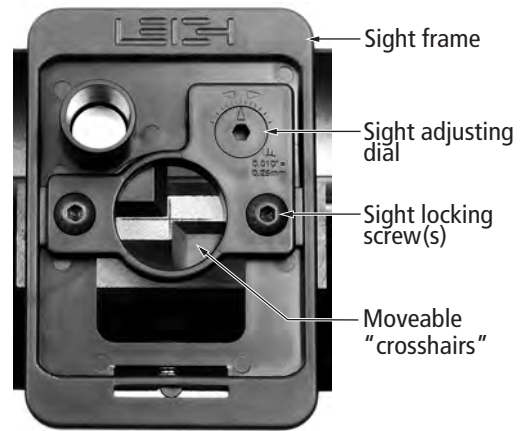
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IMPORTANT UPDATE

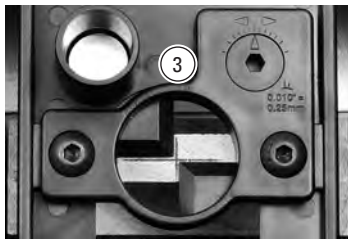
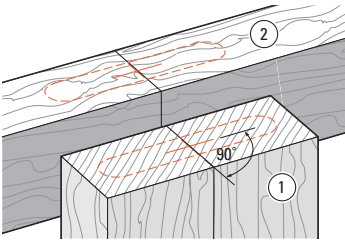
Sight Improvement

All Super FMT steel parts are CNC punched and formed. Although this process is remarkably accurate, it is possible that an accumulation of industry standard dimensional tolerances may result in a slight left/right joint misalignment. To ensure proper joint alignment, we have made the sight adjustable.

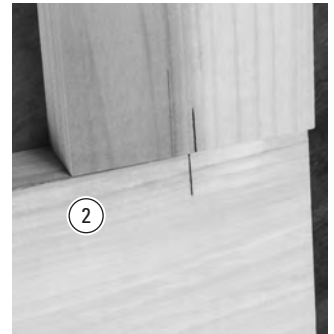
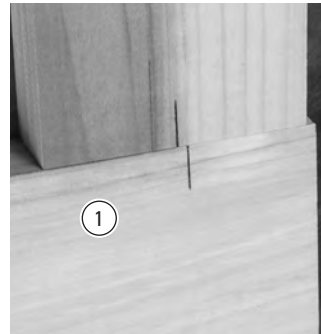
The new sight, included with your jig, is pictured to the right. Although cosmetically different than the sight pictured throughout this guide, the sighting principles are the same. Please use the following procedure for sight adjustment, if required.



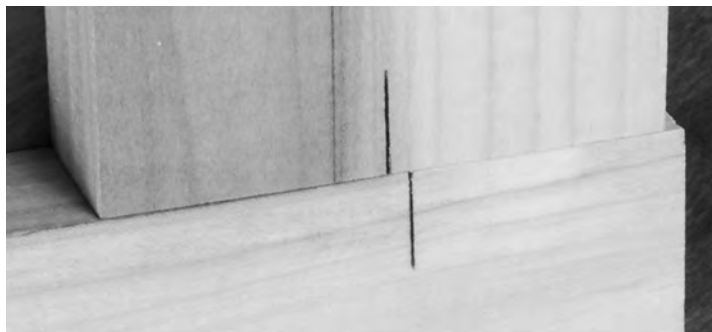
Sight Adjustment Procedure



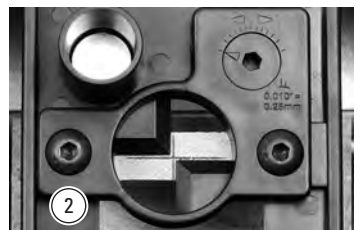
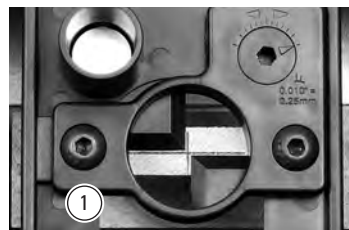
A Mark layout lines on the tenon piece ① and mortise piece ②. Carefully sight the tenon piece in the jig ③. Be sure the layout marks are not touching either side of the cross hairs. Rout the mortise and tenon, assemble the joint and check the layout marks.



B If your joints are misaligned like this ① or this ② (exaggerated) first **double check** that the router collet is perfectly centered on the sub-base as in figures 2-11 to 2-31. When the router is perfectly centered, proceed to C.



C In this example, the mortise board was clamped on the left side of the jig and the tenon piece is offset to the left. The sight needs to be adjusted by **half** the amount of the offset **because changes to the sight position affect the mortise and the tenon**.



D Here's How Note: Each division on the dial equals an adjustment of 0.010". If the tenon piece is off **left of center** (B ①), loosen the sight locking screws and using the hex driver in the sight adjusting dial, move the sight **left, by half of the joint offset** ①. If the tenon piece is off **right of center** (B ②), using the hex driver in the sight adjusting dial, move the sight **right by half of the joint offset** ②. ■

Mounting the Super FMT

Jig Assembly and Mounting

The Leigh Super FMT comes almost fully assembled with all adjustments factory set, however, before you start to set up your jig, make sure you have received all the required parts.

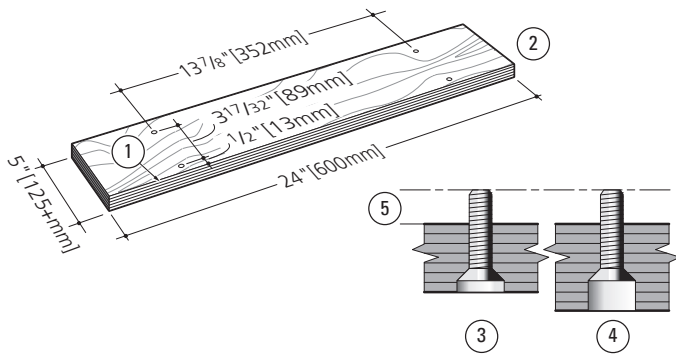
SUPER FMT CARTON CONTENTS

1. Jig Body
2. Router Sub-base
3. Parts Carton including:
 - A 1 User Guide
 - B 4 Jig Hold-down Nuts and Bolts 1/4"-20
 - B 4 Rod Clamps
 - B 4 Brass Rod Clamp Knobs
 - B 4 1 3/4" Button Head Hex Socket Screws
 - B 4 Square Nuts
 - B 4 Hex Drive Button Head Screws
 - B 4 Sliding Washers
 - B 3 Hex Socket Button Head Screws 10x24 x 3/8"
 - B 2 Hex Socket Button Head Screws M6
 - B 2 Router Hold-down Rods
 - C 1 1/4" - 1/2" Centering Mandrel
 - C 1 8-12mm Centering Mandrel
 - D 1 5/16" HSS Spiral Upcut 1/2" Shank (not included with FMT-M)
 - E 1 Sub-base Knob
 - F 1 1/8" Hex Driver
 - G 1 Sight
 - H 5 5/16" Guides (or 6x8mm with FMT-M) and 1 Guide Stand
 - I 1 Sidestop Fence
 - J 2 F-Clamps

Note: Any optional accessories you ordered may be included in the main carton or parts carton.

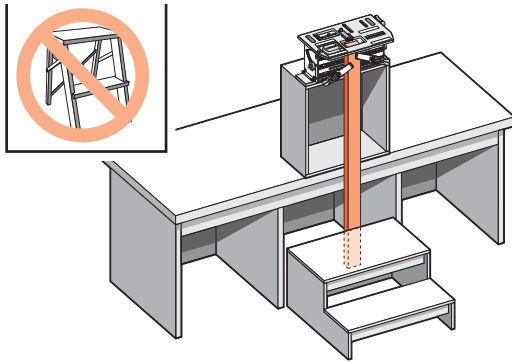
If any of these items are missing from your order, please notify your supplier or Leigh Industries immediately.





1-1 Mounting: Prepare a flat board at least $\frac{3}{4}$ " [20mm] thick, a minimum of 24"x5" [600x125mm]. Center the jig on the board **with the front edge of the base frame flush with the edge** ①. Mark and drill four $\frac{9}{32}$ " [7mm] holes ②. Countersink ③, or counterbore ④ if board is thicker, the underside so that the four $\frac{1}{4}$ -20 x 1" long machine screws will project above the top surface by $\frac{3}{8}$ " [9,5mm] ⑤.

1-2 Turn the jig upside down on a smooth surface and place the mounting board on the base of the jig. Using the four screws and hex nuts, secure the mounting board to the jig. ①. Now you can clamp your jig to any bench.



1-3 For routing long vertical rails it may be necessary to build a jig stand to mount securely on your bench. Make the stand and bench height combination sufficient to accept the board length you have in mind. The jig stand should be bolted securely to the bench. Make up a stable platform as shown here to stand on. **Do not use a collapsible step stool, it is unstable and unsafe.** ■

Mounting the Router

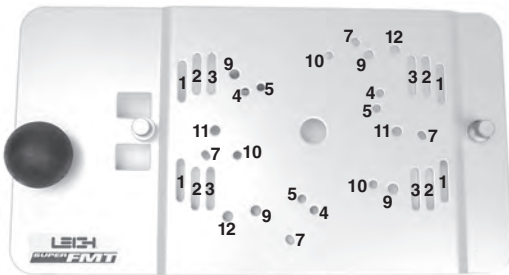
Foreword

The Super FMT universal sub-base mounting system provides great attachment strength and stability for almost any plunge router. Fitting the sub-base to your router may take up to a half hour...**the first time only**. The router can be removed in seconds for use elsewhere, and re-attached in about a minute for Super FMT use. Mounting the sub-base correctly this first time is critical to the accuracy of the jig, so take your time and get it right. Here's how...

NOTE If your router is not listed in the chart below, please check www.leighjigs.com for the latest updates or call us at 1-800-663-8932.



⚠ The Super FMT must only be used with a plunge router. Never, ever use a fixed base router!

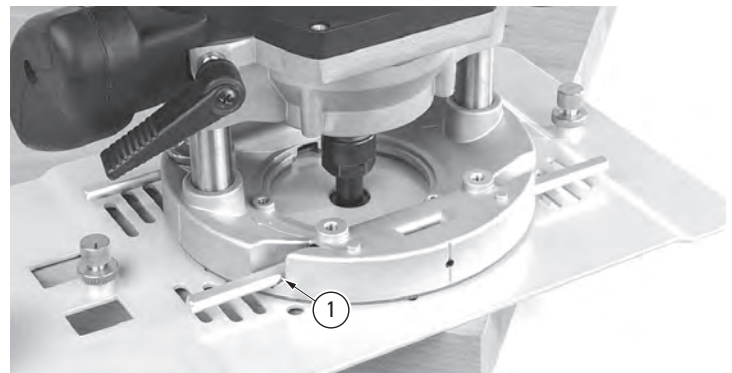


ROUTER MAKE	HOLES				NOTES
	LR	RR	LF	RF	
AEG OFS 50			2		
BOSCH 1450, 1611EVS, 1613EVS, 1617EVS			2		
BOSCH 1619 EVS	1		*1	1	*File notch in U-Post if req'd to avoid Turret.
CRAFTSMAN			2		
DEWALT 616/618			3		
DEWALT 621	1	3	1	3	
DEWALT 625			2		Requires 1/16" packing shim. See 2-7
ELU 97	1	3	1	3	
ELU MOF 131			2		
ELU MOF 177/02			2		
ELU 3304			3		
ELU 3338			2		
FESTOOL OF900E			7		
FESTOOL OF1400			11		Use 2 #5130 screws provided. See 2-26
FESTOOL OF2000			2		
FESTOOL OF2200			12		Use 2 #5130 screws provided. See 2-26
FLEX OFT2926VV			5		Use 3 #6410 screws provided. See 2-26
FREUD FT2000E			2		
HITACHI M12V			2		
HITACHI M12VC			4		
HITACHI TR12	2	**8	2		**To avoid Turret
MAKITA 3600B			1		
MAKITA 3612BR	3		**6		**To avoid Turret
MAKITA 3612C			3		
MAKITA RP 0910			4		
MAKITA RP 1100 Series			4		
METABO OFE728			3		
METABO OFE1028			3		
METABO OFE1229			3		
MILWAUKEE 5616			4		
RYOBI R-150			3		
RYOBI RE180PL			2		
RYOBI R-500			2		
RYOBI R-E600			2		
PORTER CABLE 693			4		
PORTER CABLE 890			10		Use 3 #6410 screws provided. See 2-26
PORTER CABLE 890 Type 2			4		Use screws from router base. See 2-26
PORTER CABLE 7529, 8529			5		Use 3 #6410 screws provided. See 2-26
PORTER CABLE 7539			*2		*Reverse U-Post to put screws outside rods
TRITON, TRC001 31/4hp			9		Call Leigh or your national distributor for Attachment Screws
TRITON, MOF 001 21/4hp			9		



2-1 The Leigh Super FMT Sub-base First, install the black knob ① and guide pins ②. Then, place your router, the sub-base and all mounting parts on a clear bench. From the sub-base diagram and chart opposite, find the make and model of your router and mark the appropriate mounting holes in the sub-base, then see 2-4. If the chart at left indicates your router is a "Direct Screw" mount (shaded routers), then see 2-26.

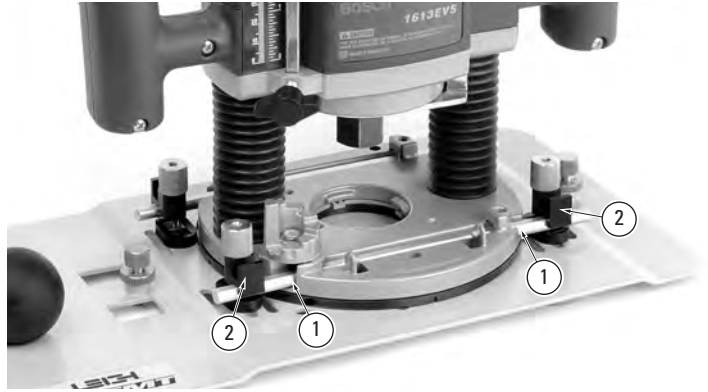
If your router is not listed but has two fence rod holes going through the base, see 2-2 and 2-3.



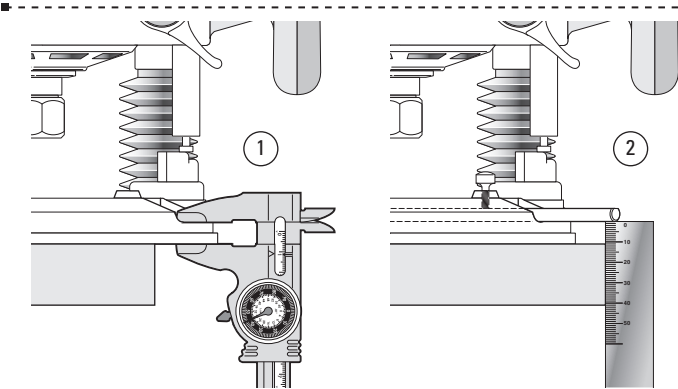
2-2 If you have a plunge router not listed in the sub-base diagrams, it is essential that your router have two parallel fence rod holes through the router base. These must be at least 5/16" [8mm] in diameter ①. Fit the centering mandrel to your router, place it on the sub-base and plunge the mandrel into the base hole. Place the fence rods through the rod holes with an equal amount protruding at each end.



2-3 Take the rod clamps and by trial, establish which four sub-base slots or holes will serve to attach the rod clamps.



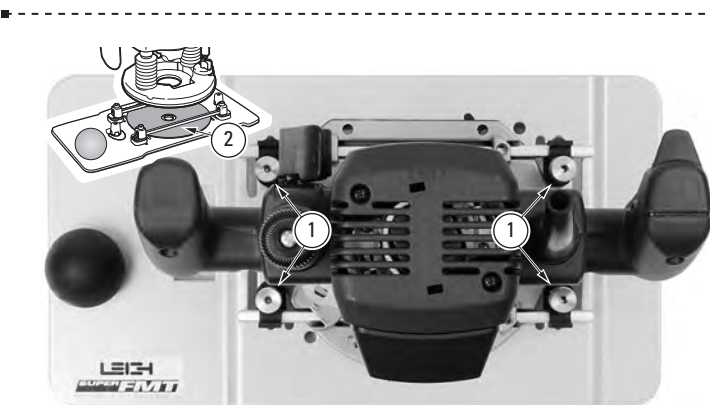
2-4 Most plunge routers will be mounted to the sub-base like this, with rods through the fence rod holes ① and clamped down with the rod-clamps ②.



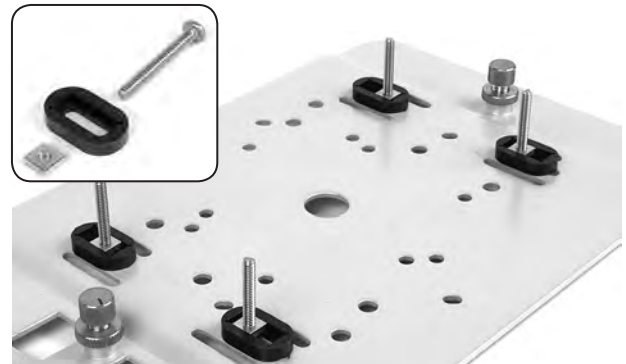
2-5 Depending on the make or model of your router, the height between the underside of your router and bottom of rod hole will vary. This dimension will determine which way up the rod-clamps are applied. To measure the “rod height”, place router on a bench. Use a calliper ①, or insert a rod (flat side up) and use a good rule to measure between bench top and bottom of rod ②.



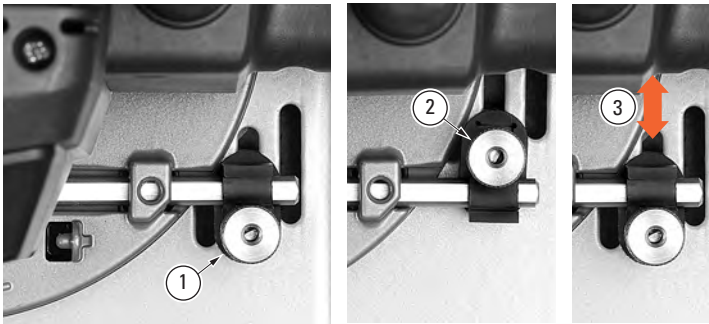
2-6 If rod height is between $\frac{1}{4}$ " [4,5mm] and $\frac{3}{8}$ " [9,5mm], use the rod clamp this way up ①. If rod height is between $\frac{3}{8}$ " [9,5mm] and $\frac{17}{32}$ " [13,5mm], use rod clamp this way up ②. Note: If the rod height is less than $\frac{1}{4}$ " [4,5mm]. See 2-7.



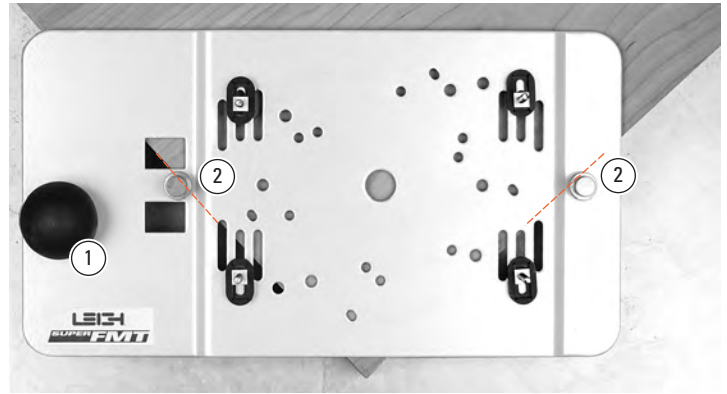
2-7 **Note:** Use of the sliding washers is essential to act as side-to-side stops for the router ①. If the rod height of your router is less than $\frac{1}{4}$ " [4,5mm] you must provide a shop-made packing shim between the router and sub-base. We suggest one or more sheets of sandpaper ②, rough side up.



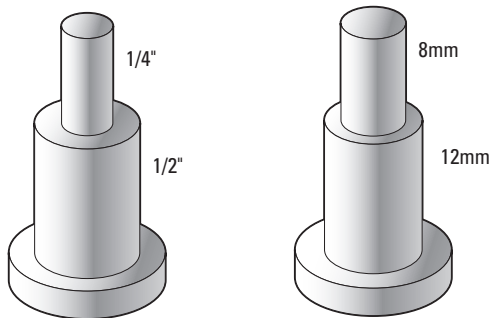
2-8 Using the four #10-24 $1\frac{3}{4}$ " screws, insert each through the previously marked slots or holes in the sub-base. Fit a square nut in each sliding washer. The screws must enter from below. Fit the plastic sliding washers and four nuts and tighten *very lightly*—you will need to move the sliding stops during setup.



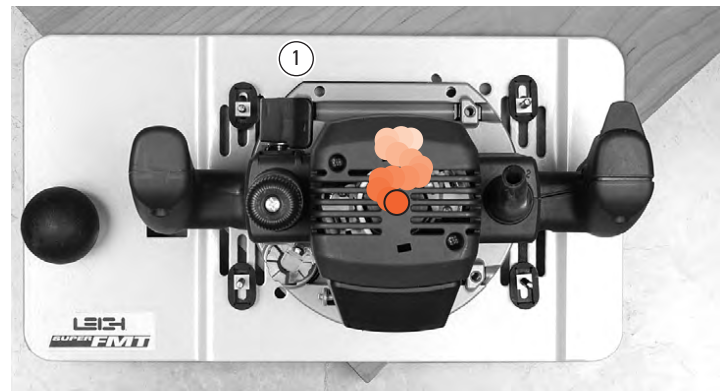
2-9 In most cases, position the clamp screws to the outside of the rod ① or depending on the size and shape of the router base, to the inside ②. Slide the sliding stops away from the router ③. These will be repositioned against the router later.



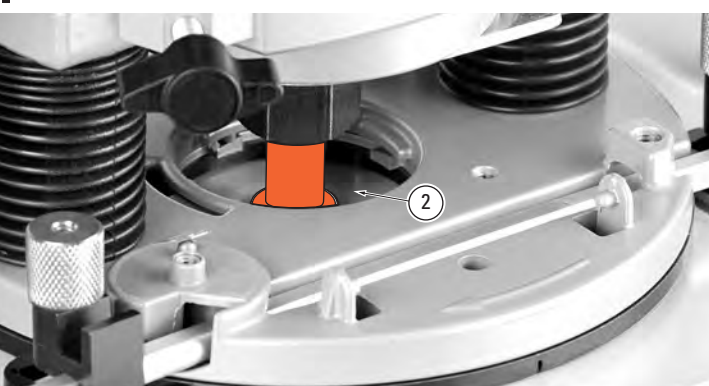
2-10 Place the sub-base flat down on the corner of a smooth bench, **the knob to your near left** ① and the guide pins touching the adjacent edges of the bench ②.



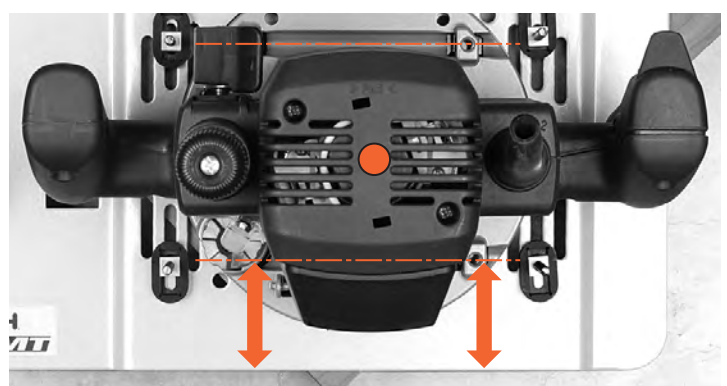
2-11 Unplug the router. Note the collet size of the router. Choose the matching size centering mandrel and fit it into the router collet.



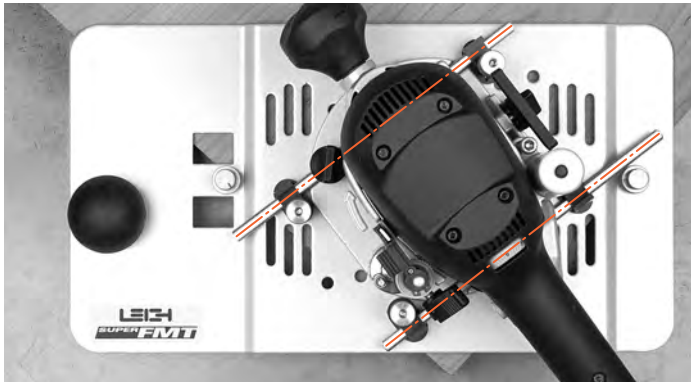
2-12 Holding the router as you would in normal use, place it base down onto the sub-base; the rear of the router toward the rear of the sub-base ①. Plunge and move the router so that the centering mandrel fits through the sub-base center hole...



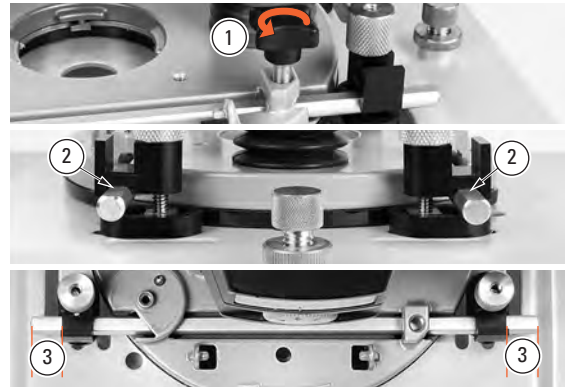
2-13 ...and touches flush to the top of the sub-base ②. Lock the plunge. ⚠ Concentricity of bit to sub-base bit hole is essential to Super FMT accuracy, so never mount the router without using the centering mandrel.



2-14 Align the router so that the fence rod holes are parallel to the front edge of the sub-base **except Festool 900, 1000 and 1010 Series** (see 2-15).



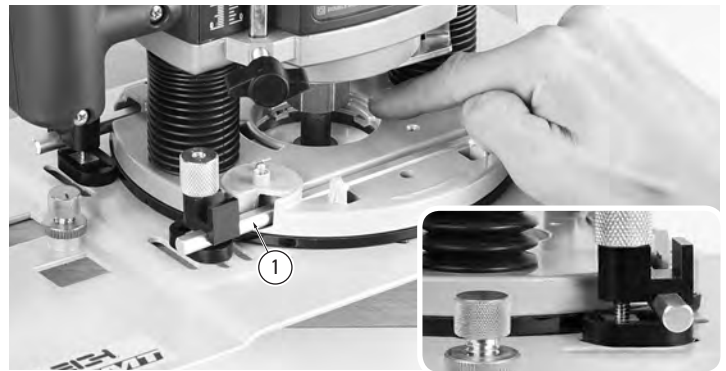
2-15 Festool 900, 1000 and 1010 Series:
Align the fence rod holes to the previously positioned screws.



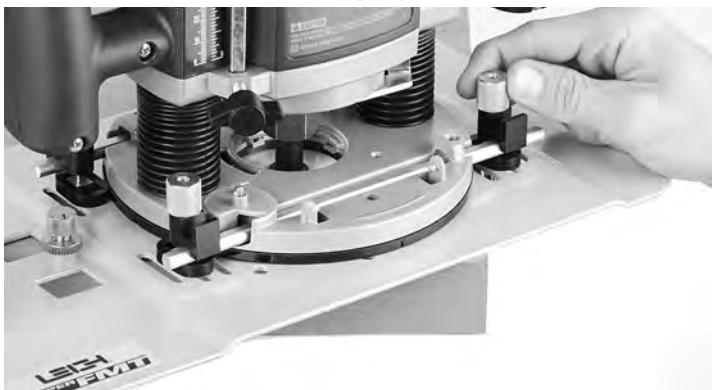
2-16 Loosen and raise any router fence rod knobs ①. Loosen the clamp screws and adjust as necessary to slide the two hold-down rods through the router fence rod holes, **flat side of rods on top** ②. Leave an equal amount of rod projecting through each rod clamp ③.
⚠ Never use the router's fence rod knob ① to "help" secure the router. This places uneven pressure and could damage the router base.



2-17 Turn down the four brass knobs **until there is only very slight and even pressure** on each end of both rods. Leave the sliding stops in the outer position.



2-18 Check that the rods are still centered in the rod holes ① and that the router collet can rotate without binding in the sub-base hole. The mandrel touching the side of the hole is OK; mandrel binding is not! Move the router if required to allow mandrel to rotate.



2-19 Tighten the brass knobs a little more securely to hold the rods and router.



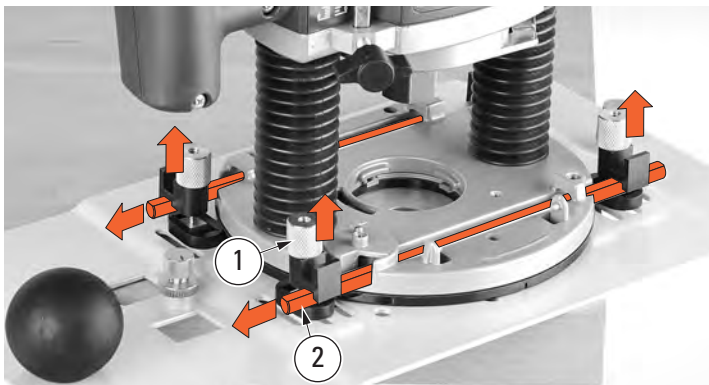
2-20 Slide the router/sub-base assembly on the corner of the bench so that one clamp screw is overhanging the edge. Loosen this screw just slightly. Push the sliding washer in to touch the router base, and holding it in position against the router base, tighten the screw firmly.



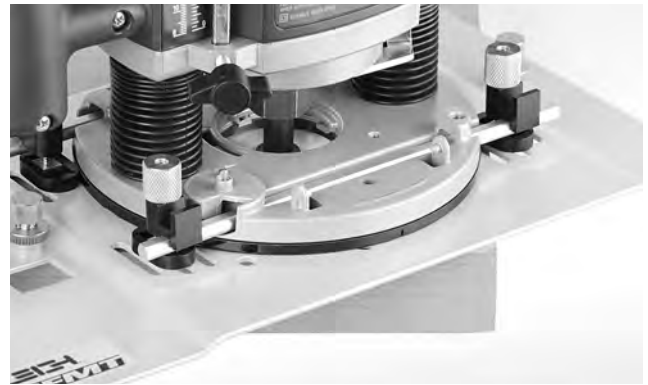
2-21 Repeat this procedure at the other end of the same rod. Recheck the collet/mandrel for relatively free rotation. Turn the router around on the corner of the bench and repeat this procedure on the two assemblies on the second rod.



2-22 Tighten the four brass knobs to the rod clamps. Use common sense when tightening. The rods will bow slightly. Objective: have the collet concentric to the bit hole; four sliding stops provide secure side thrust security, and clamps securing the rods hold the router against the Leigh sub-base. Router and sub-base is now a unit. Release the plunge; remove and store the mandrel. You're set to go.



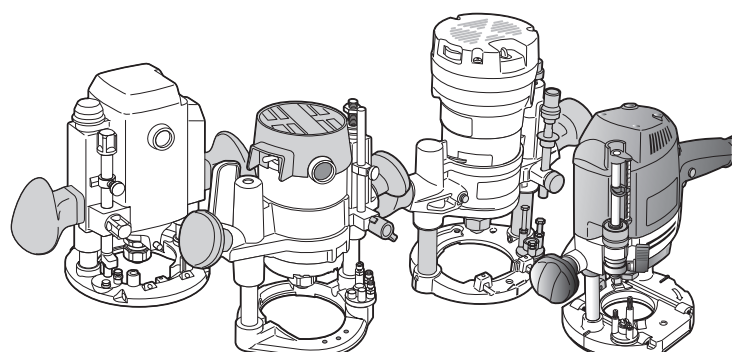
2-23 Here's how to remove the router for use elsewhere: Loosen the four top brass knobs ①, slide out the two rods ② and lift the router up. Do not remove the knobs and clamps. In about a minute, the router is free to be used for other tasks.



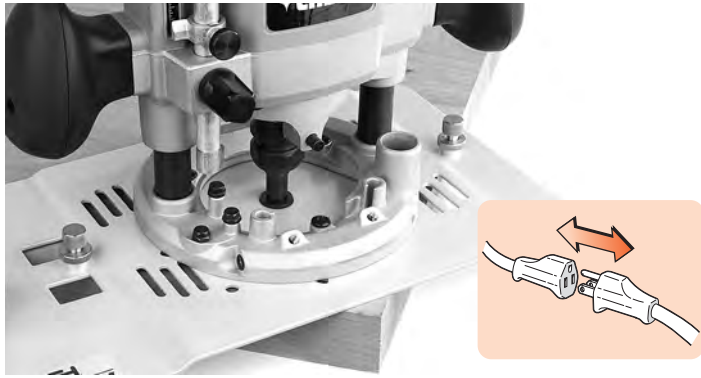
2-24 To remount the router: Place the sub-base over the corner of the bench. Make sure surfaces are clean. Place the router on the sub-base, insert the two rods and tighten the four brass knobs. Check that the mandrel rotates freely. In about two minutes the router/sub-base assembly is ready for making mortises and tenons.



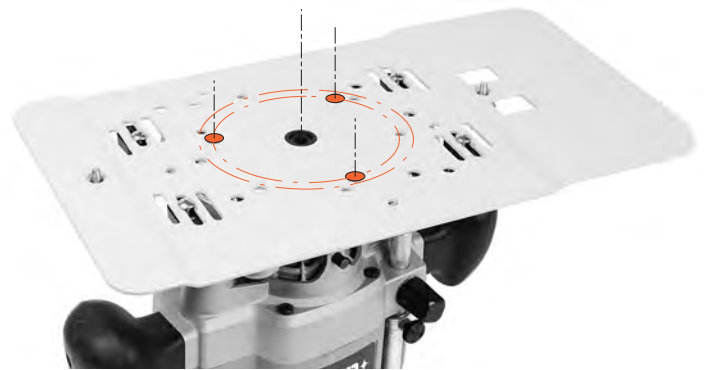
2-25 Hint: If you plan to fit a different make/model router and later use the current one again, you can greatly speed up the re-installation of the first router by marking around the original four clamp screw positions.



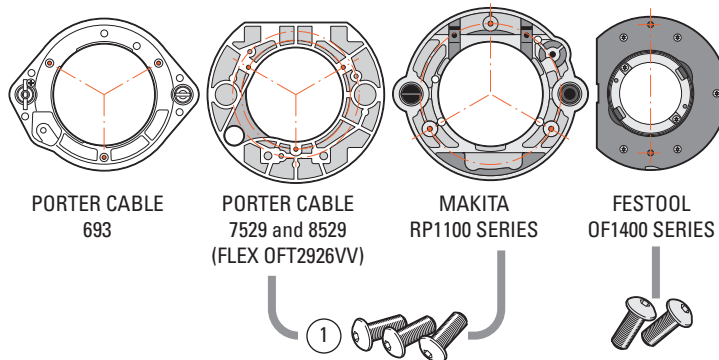
2-26 These routers have unsuitable through fence rod holes: Porter Cable 693, 890, 7529, 8529; Flex OFT 2926VV; Festool OF1400, OF2200; Makita RP1100, RP1101, RP0910, RP1110C; Triton TRC001, MOF001. We've provided sub-base holes and screws* to mount these directly to the sub-base. Using Porter Cable 7529 and 8529 as examples, here's how. **Note: Triton owners use 1/4 x 20 flat bottom pan head screws.*



2-27 Unplug the router. Remove router's plastic sub-base base (except Festool 1400 and 2200) and template guidebush adapter from the 7529 or 8529. Remove clear plastic dust cover from the top of 8529 router base (screw holes are used to attach the Super FMT sub-base). Fit mandrel to the collet. With sub-base on a flat bench corner, place router on top, plunge mandrel through to the bench and lock the plunge.



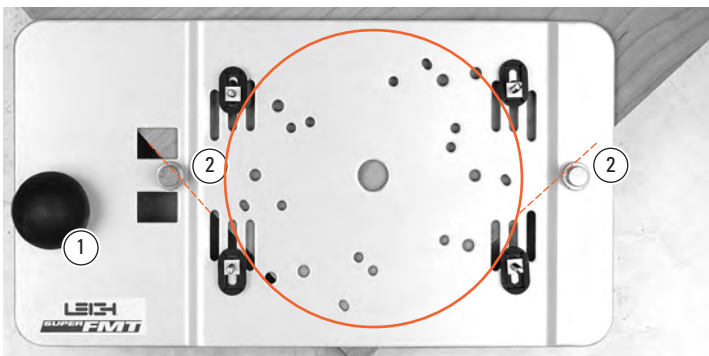
2-28 Remove router and stand it upside down on bench. Depending on the router design, you may need to support it in a soft-padded vise. Place sub-base upside down onto router's metal base with the mandrel centering the router to the base through the bit hole. Rotate sub-base until the correct threaded screw holes in the router base align with the counterbored holes in sub-base. See 2-29 before fitting screws.



2-29 Notes: Porter Cable 7529 & 8529 (Flex OFT2926VV) have two sets of 3 threaded holes. Use the inner circle of the Leigh sub-base holes. The outer circle holes align with threaded holes, but are not deep enough for the screws. For Porter Cable (Flex) 693 & Makita RP1100 series routers use the outer circle of sub-base holes. Firmly attach the sub-base using the three 6410 hex socket button head screws provided ①. Do not use the router's sub-base screws. **Important: See 2-31!**



2-30 Festool 1400 and 2200 routers attach using the two 5130 (M6) screws provided, through base holes No.11 and 12 respectively.



2-31 ⚠ In addition to the base screws it is vital to attach the four clamp screws and the four sliding stops. Position and tighten these against the edge of the router base to prevent lateral router movement. For correct positioning, see 2-8 through 2-10 and 2-20 through 2-21. Note: Porter Cable 7529 and 8529 handles will be slightly angled (not parallel) to the Super FMT sub-base. ■