

Assembly, Mounting and Template Alignment

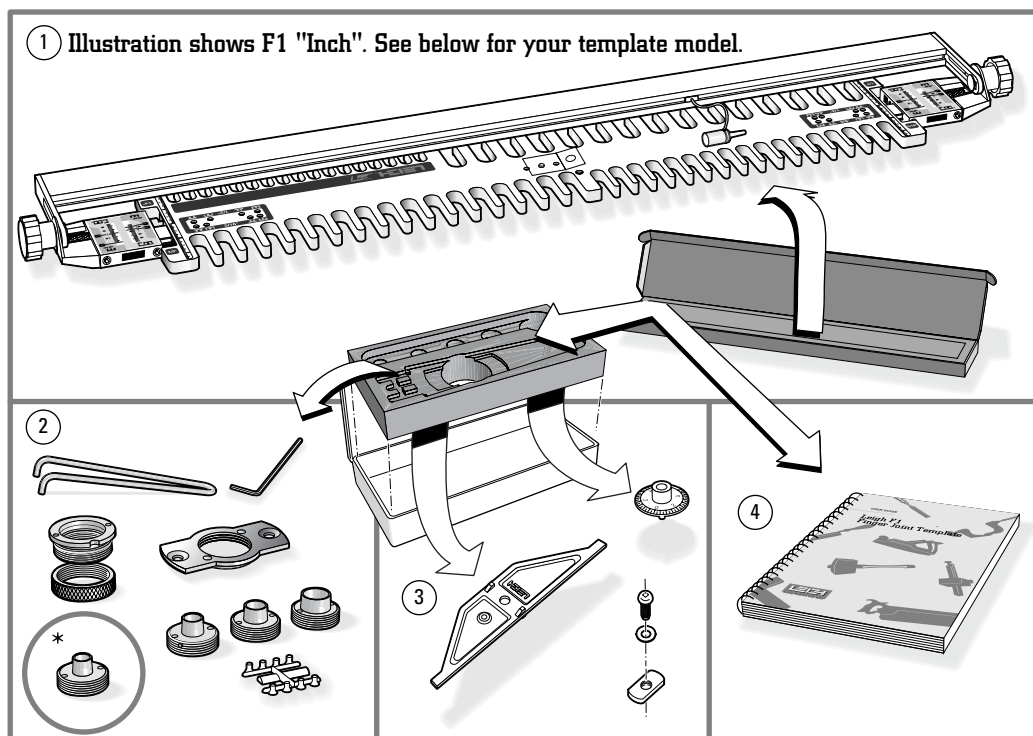
Assembly and Mounting

Before you begin mounting the Leigh F1 finger joint template to your D Series jig, make sure you have received the model ordered (Inch or Metric), and all the necessary parts.

1. 1 complete F1 template “inch” assembly
or
1 complete F1 template “metric” assembly
2. Variable Guidebush System consisting of:
 - 1 storage box
 - 1 pin wrench
 - 1 hex key (Allen wrench)
 - 1 700V holder with lock ring
 - 1 701V holder
 - 1 709V bush* with F1 “inch” only
 - 1 711V bush
 - 1 713V bush
 - 1 716V bush
 - 6 bush nylon plugs (on one tree)
3. 1 locator
 - 1 screw
 - 1 washer
 - 1 nut (for D1258-24 jigs only)
 - 1 dial knob
4. 1 user guide

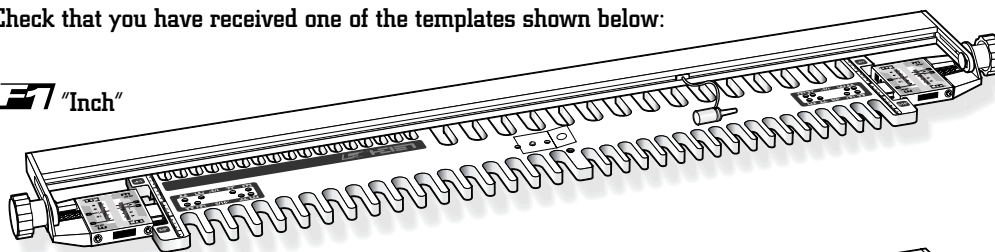
If any of these items are missing, please notify your supplier or Leigh Industries immediately.

Your Leigh F1 comes fully assembled and requires only mounting and indexing to your Leigh jig. **This procedure is critical to the accuracy of the finished joinery, so please follow the mounting instructions carefully.**

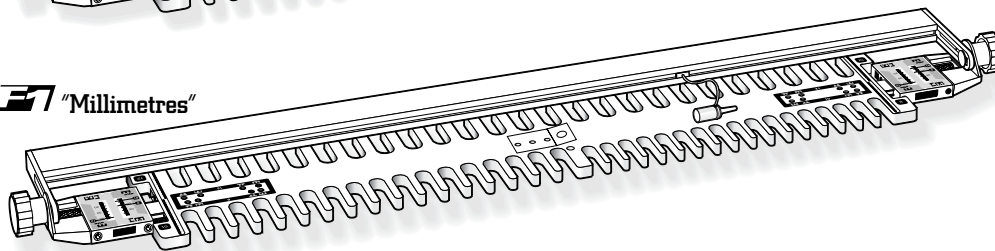


Check that you have received one of the templates shown below:

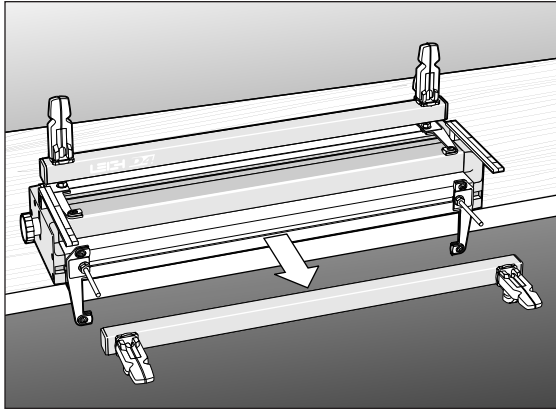
F1 "Inch"



F1 "Millimetres"

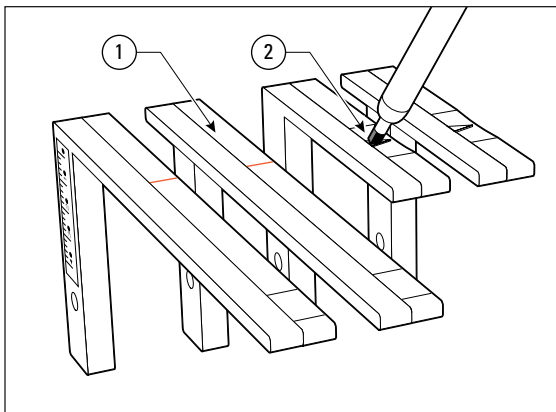


Chapter 1 F1 User Guide



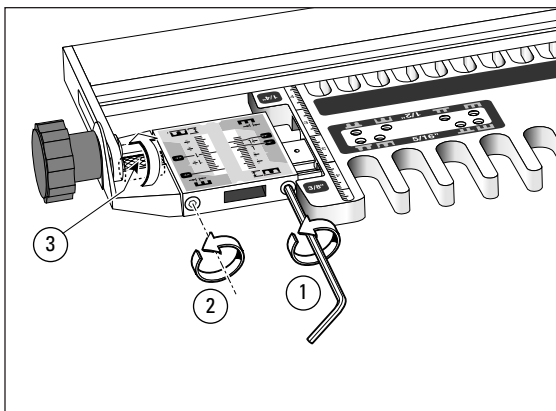
1-1

Mount the 24"[610mm] D Series dovetail jig firmly to a bench as per that jig's instructions. Remove the dovetail finger assembly, front clamp bar and springs.



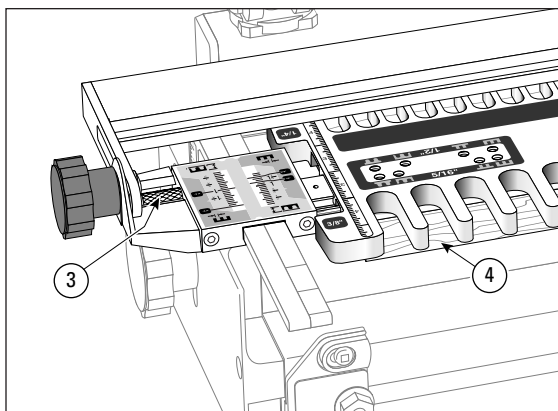
1-2

D1258, D1258R and D3 jig owners:
If you already own the Leigh Mortise and Tenon Attachment, fit the extended support brackets ① of this attachment and use for all finger jointing and dovetailing procedures. If not, mark the tops of the arrow pointers on the standard support brackets ② with a dark felt pen.
D4 Jig owners already have the extended brackets.

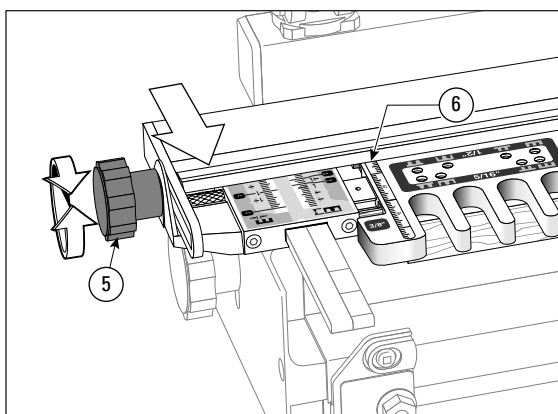


1-3

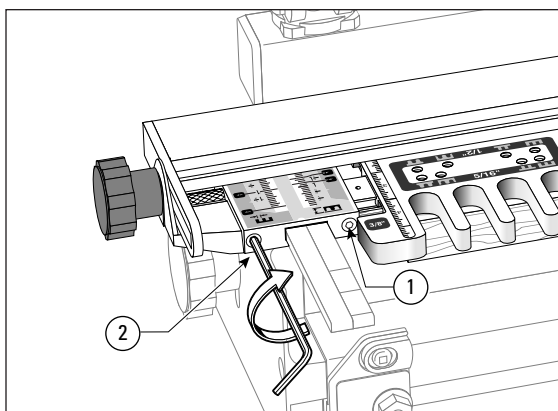
Loosen the two scale bar set screws ①, the two fence bracket screws ②, and two scale thumb screws ③ at both ends of the template.

**1-4**

Slide the template assembly onto the jig support brackets with the $\frac{3}{8}$ " and $\frac{5}{16}$ " [10 and 8mm] combs toward you and lower it gently onto a $\frac{3}{4}$ " [20mm] thick spacer board ④ (A piece of $\frac{3}{4}$ " x $5\frac{1}{2}$ " [20x150mm] about 23" [580mm] long). Make sure the scale reading is the same on both scales, say on the 1" [25mm] mark, then tighten the thumb screws ③.

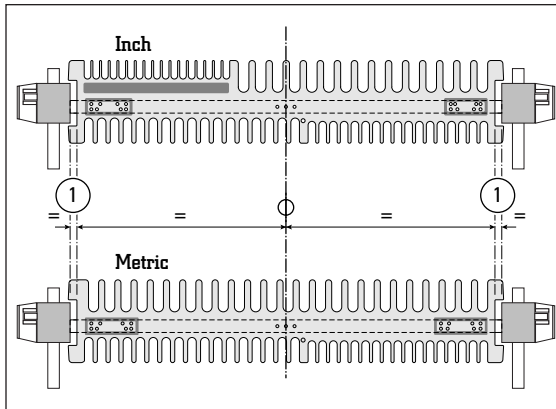
**1-5**

Loosen the fence knobs ⑤ and move the fence on the template toward you as far forward as possible and with the fence scale reading the same at both ends ⑥. Then tighten the fence knobs ⑤.

**1-6**

Tighten the scale bracket screws ②, but do not tighten the scale bar ① screws yet.

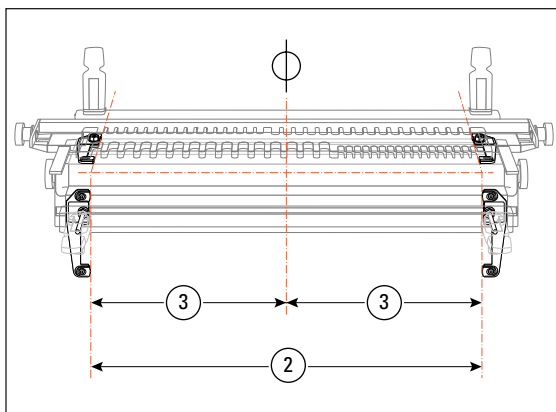
Chapter 1 F1 User Guide



1-7

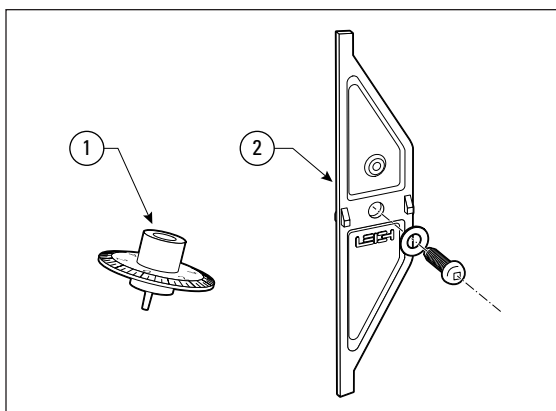
To ensure that you produce the precise joints the Leigh F1 template was designed to provide, the following procedures must be carefully followed:

First, the template bar and template must be centred exactly between the two scale assemblies ① and...



1-8

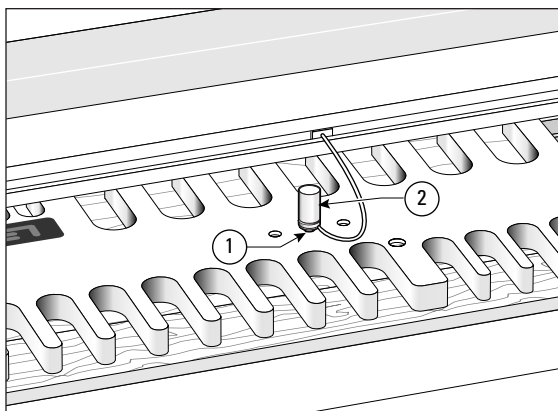
...then, the side stops must be positioned precisely $24\frac{1}{8}$ " [613mm] apart ② and equidistant from the centreline ③. Here's how to do it.



1-9

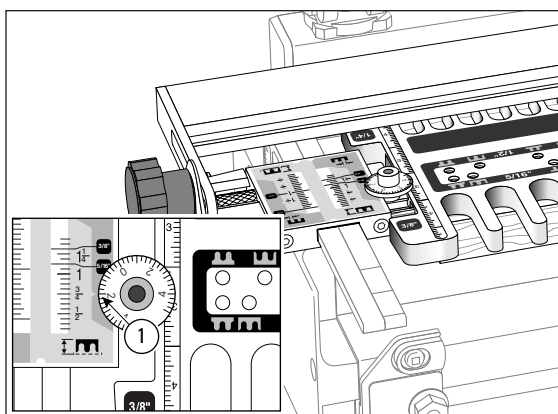
On the logical assumption that you do not have access to a 25" [650mm] dial calliper, Leigh provides tools that fulfil the same function.

The dial knob ① has a tapered axle and a cam shaped hub, and acts as a micrometer to centre the template bar between the scales. Each minor dial increment equals 0.0015" [0,04mm] of template movement. The part ② is the side stop locator.

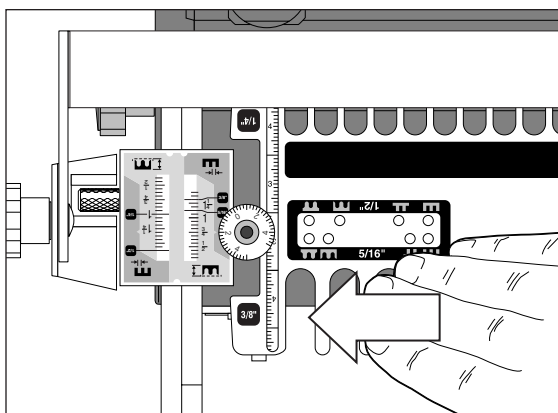
**1-10**

Align the template so that the template's centre hole ① lines up with the hole in the bar (it will only align with one hole in the bar) and insert the template pin ②. Gently twist and push the tapered pin into the hole until it is fully seated. The template is now perfectly centred on its bar, but now we must centre the bar in the scales.

Note: Discard the shipping plug from the centre hole.

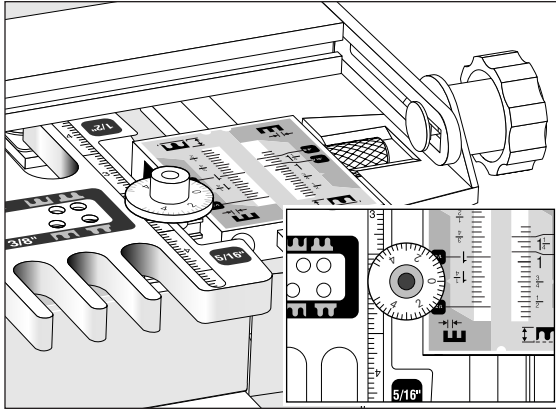
**1-11**

Place the dial knob in the hole in the left-hand end of the template bar next to the scale. Align the No. 2 mark on the dial with the small pointer on the grey scale ①.

**1-12**

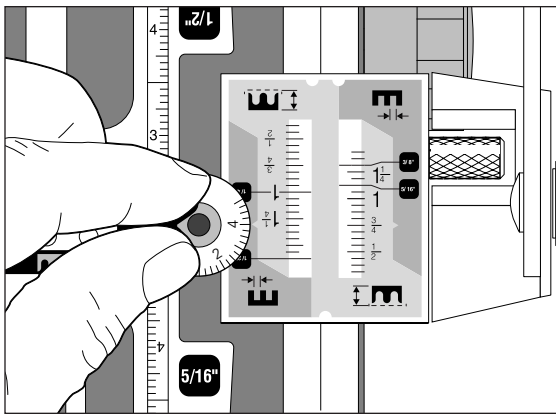
Gently move the complete template and bar assembly to the left until the (cam) hub of the dial knob stops against the scale body.

Chapter 1 F1 User Guide



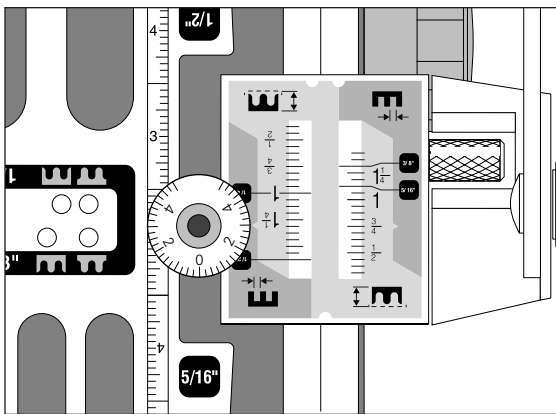
1-13

Taking care not to turn the knob or move the template/bar assembly, carefully pull the dial knob directly out of the bar. Insert the dial knob into the hole in the right-hand end of the bar with the grey scale pointer pointing to the zero mark on the dial knob.



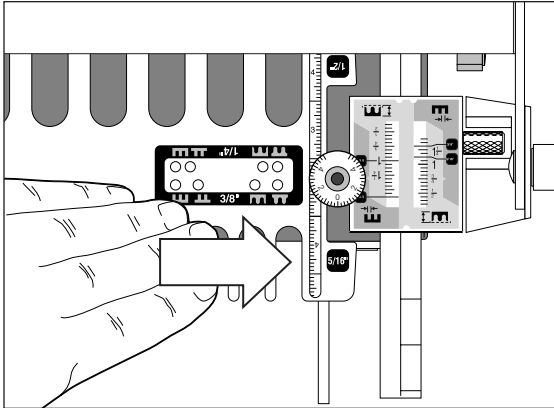
1-14

Slowly turn the dial knob (either way) until you feel the cam surface of the hub lightly touch the scale casting. It should touch before the “5” indicator mark passes the scale pointer. Note the dial reading, e.g. 4 in this illustration. If the dial knob does not touch the scale casting, repeat steps 1-11 to 1-14 but start at a higher dial number in step 1-11.

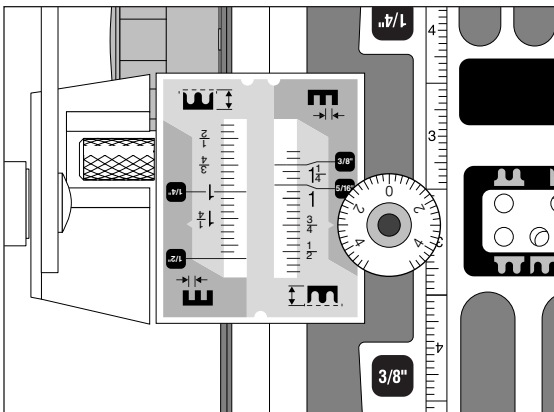


1-15

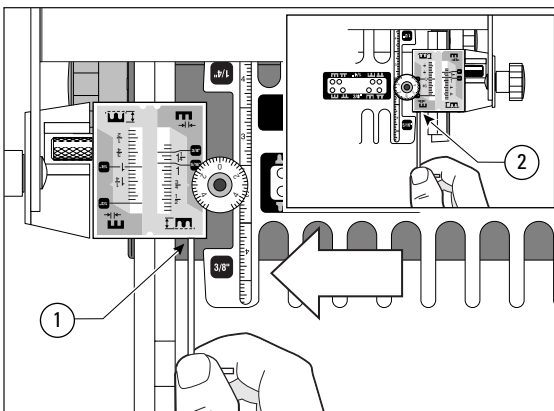
Turn the dial back to the average of the dial settings at the left and right-hand ends. In this example $(2+4) \div 2 = 3$.

**1-16**

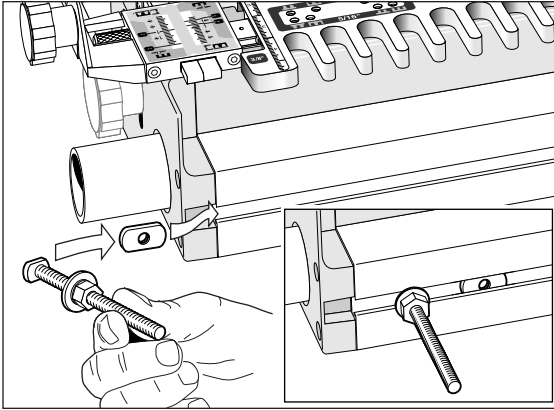
Push the template/bar assembly to the right until it stops with the dial knob's cam hub against the scale.

**1-17**

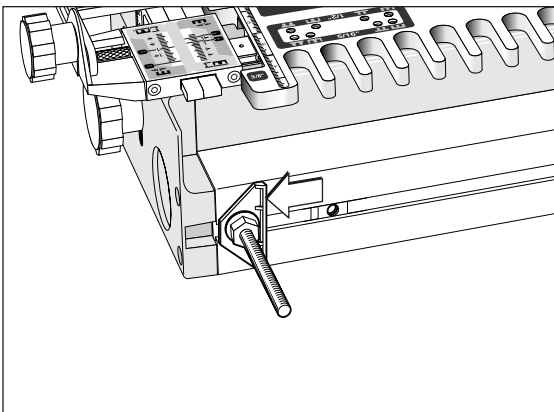
The template/bar should now be centred on the jig. Double check by pulling the dial knob directly out of the right-hand gap, inserting it back into the left-hand gap with the "0" mark next to the grey scale pointer. Turn the knob and verify that the hub cam touches the scale casting at the same reading as on the right-hand end (i.e., at "3" in this example). Don't fret over an odd increment; remember, each is only 0.0015" [0,04mm] of template movement.

**1-18**

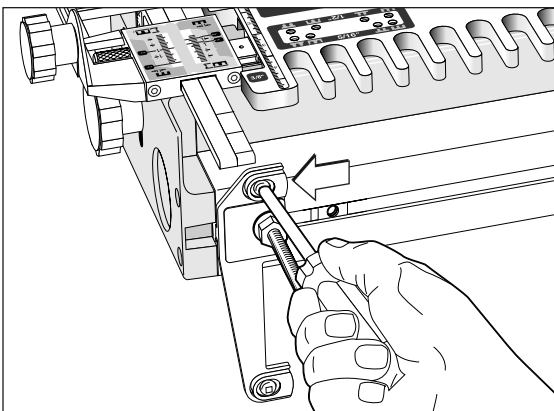
When the dial knob's hub cam touches the scale casting at the same dial reading at both ends of the template, the template/bar assembly is centred on the jig. With light pressure from the template holding the dial knob against the scale casting at the correct reading, tighten first one scale bar screw ①, then the scale screw at the other end ②.

Chapter 1 F1 User Guide**1-19**

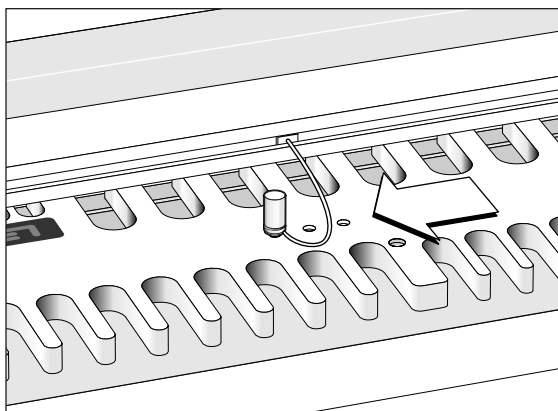
D1258 jigs only: Loosen both front side stop bolts. Remove the left-hand side stop assembly and slide the small tab nut from the centring kit into the front extrusion. Replace the left-hand side stop assembly, but leave it loose. The tab nut will remain in the extrusion after assembly.

**1-20**

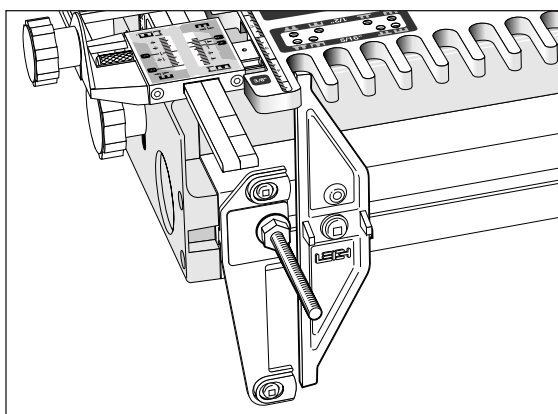
D1258R and D3 jigs: Loosen both front side stop bolts and move both of the assemblies slightly out from their original positions.

**1-21**

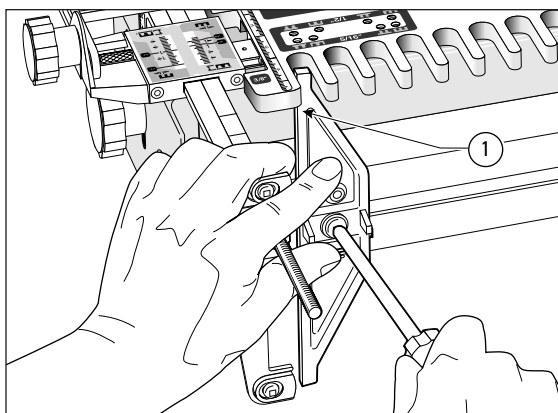
D4 jig: Loosen the front side stop bumpers, move them outward from the centre of the jig, and leave them loose.

**1-22**

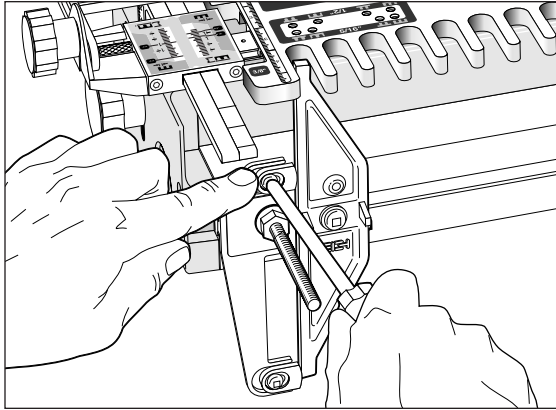
Remove the template pin from the centre hole, move the template slightly to the left and align the left hand hole with its matching bar hole. Insert the template pin, again gently pushing and twisting until it is fully seated.

**1-23**

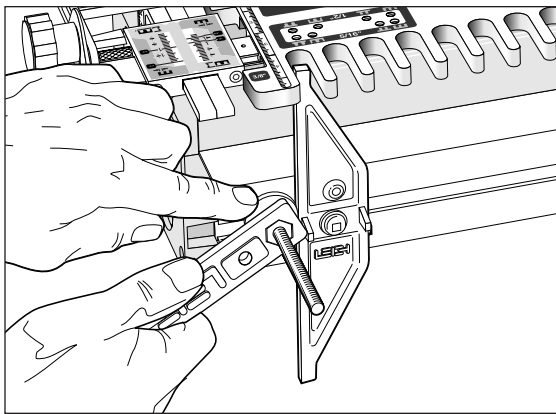
With the screw and washer from the locator kit, lightly screw the side stop locator to the front extrusion with the Leigh logo below the screw and the upper tip of the locator projecting up through the last opening in the $\frac{3}{8}$ " [10mm] comb. Do not tighten yet: the locator must be movable. D1258 owners will use the tab nut, D1258R, D3 and D4 jig owners will use the angled side stop square nuts already in the extrusion slot to attach the screw.

**1-24**

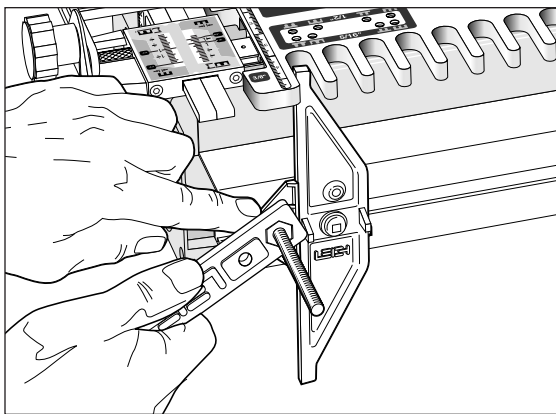
With the projections on the rear of the locator resting on the bottom edge of the extrusion T slot to act as a try square, slide the locator to the left until the **outside edge** of the upper tip **just touches** the outside of the $\frac{3}{8}$ " [10mm] comb's leftmost opening ①. Holding the locator square, tighten the screw snugly using your Leigh square drive screwdriver. Note: Your Leigh square drive screwdriver is one size too small for this screw but it's okay for this one time use.

Chapter 1 F1 User Guide**1-25**

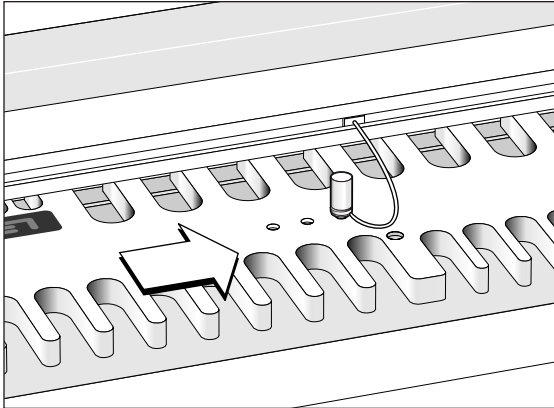
D4 Jig: Move the side stop bumpers against the locator and tighten them firmly. Remove the locator from the front extrusion.

**1-26**

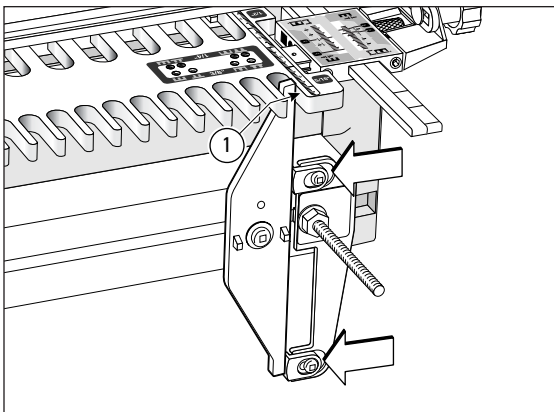
D1258 Jig: Move the washer type side stop to touch the locator, then tighten the nut. Remove the locator from the front extrusion.

**1-27**

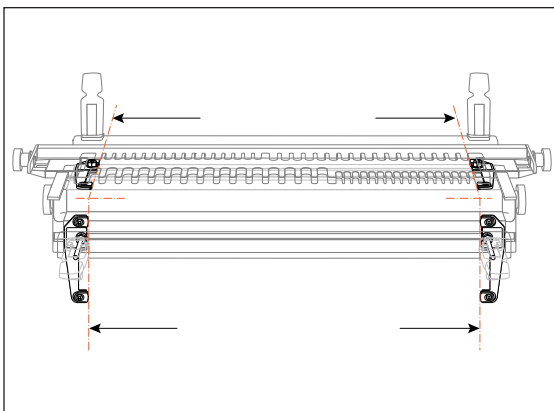
D1258R and D3 Jigs: Move the plastic side stop to touch the locator and hold firmly square while tightening the nut. Remove the locator from the front extrusion.

**1-28**

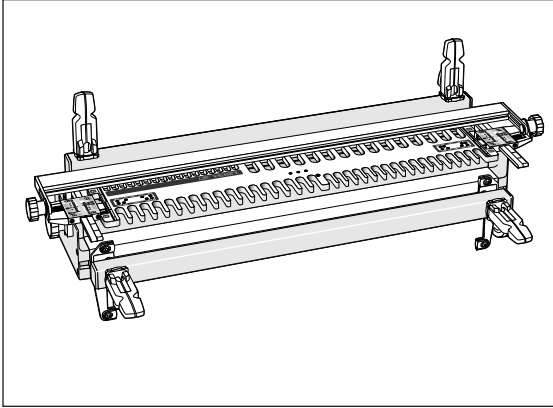
Remove the template pin, slide the template a little to the right, and align the right-hand alignment hole with the matching hole in the bar. Place the template pin in this hole, gently turning it until it is fully seated.

**1-29**

Reverse the locator to the right-hand end of the jig, with the Leigh logo below the screw, facing toward the jig. Lightly screw it onto the extrusion. The locator's upper tip projects up through the last opening in the $\frac{5}{16}$ " [8mm] comb, with the outside edge of the upper tip just touching the outside of the comb's opening①. Repeat steps 1-24 to 1-27 but mirrored for this right-hand end of the jig. Store the dial knob and locator kit in the VGS box liner for future use.

**1-30**

Align the rear side stops to the front stops using the method described in your dovetail jig body assembly instructions. Now that this side stop indexing is complete, your jig is set up for all Leigh attachments.

**1-31**

Replace the front clamp bar and knobs or cam clamps. Your Leigh F1 Template is now ready for use.