

Finger Joint Template

Your New Leigh Fingerjoint Template

You now own a unique finger jointing system. The Leigh Finger Joint template and Variable Guidebush System (VGS) will help you rout finger or box joints with unique adjustment for precise tightness of fit.

“Finger” and “Box”: Both words are used universally to title this simple but strong joint. As the first machine-made joint, it’s old enough to be called antique, so we have been even-handed in using both terms throughout this guide.

We recommend that you first mount the template on your Leigh Jig, carefully following the instructions in the first section of the manual. Then before you try to do any actual joinery routing, read the rest of the manual, following along with the basic functions. By all means, cut a few practice joints in scrap boards before you use the template to rout a precious hardwood workpiece.

*If you have any questions that are not answered in the manual, please call the most convenient Leigh customer support line *.*

**See Appendix IV – Customer Support*



Joining Tradition with Today

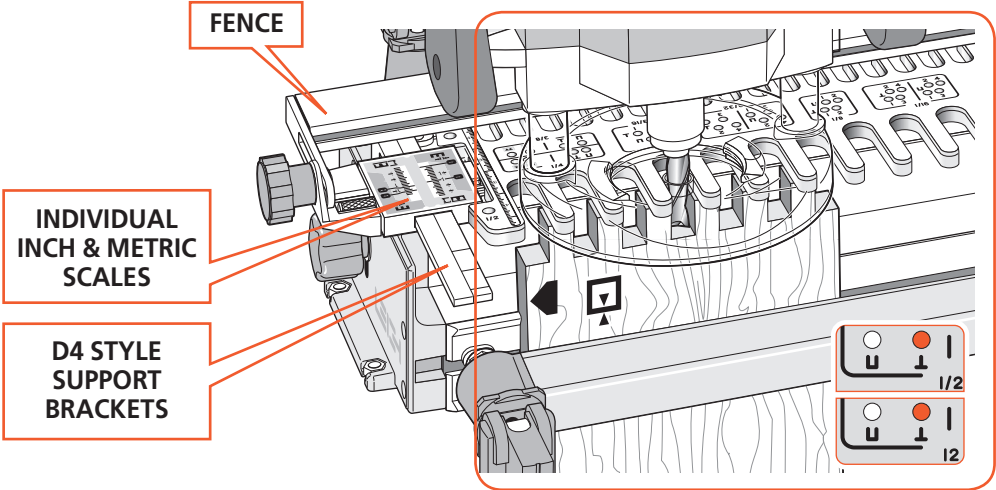
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Are there operational differences between the F2 and F1600?

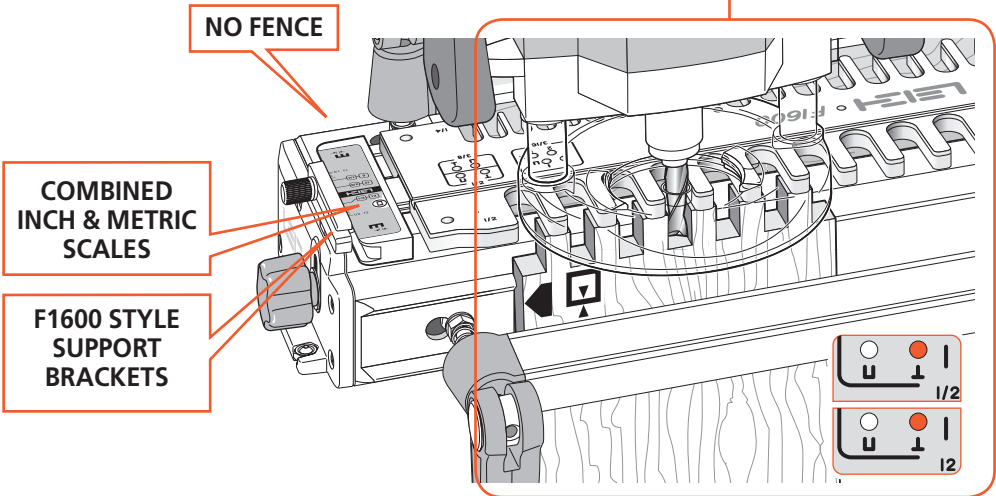
No. While the F2 is illustrated for most of the procedures in this guide, the differences between the F2 and the F1600 do not affect the operational instructions. Movements and settings illustrated in each step are identical whether performed on the F2, F2M, F1600, or F1600M.

Icon types for template pin positions are the same on all templates. The F1600 of course is smaller than the F2 so maximum board width and thickness will differ. See the charts for your particular model in Chapter 5.

F2/F2M



F1600/F1600M



Everything in these frames is operationally identical

Important: Inches and Millimetres

Because Leigh makes F2 and F1600 templates in inch and metric models, measurements in this user guide are shown in both inches and millimetres. Dimensions are indicated with "inches" first, followed by "millimetres" in square parentheses.

Examples: $\frac{1}{2}$ " [12mm], or

$\frac{3}{4}$ "x $5\frac{1}{2}$ "x8" or longer [20x140x200mm].

Do not be concerned if the inch/millimetre equivalents are not always exact. Just use the dimensions which apply to your jig.

Reading the Settings Illustrations

The template scales are illustrated in a panel overlaying the main illustration whenever settings are specified in an instruction. Settings for procedures are shown with a red line on the respective scale.

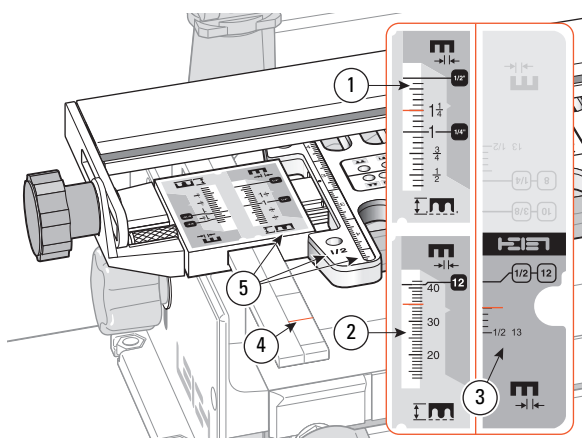
The F2 scales are on the left side of the panel, with the "inches" scales ① at the top, and the "millimetres" scales ② at the bottom.

Only the "active" half of the F2 scales are illustrated.

The F1600 scale is on the right ③ side of the panel. This scale has dual markings for inch and metric. The active portion is on the bottom. The inactive (upside down) portion is shown greyed-out.

When calibration marks on the support brackets ④ are highlighted, they are illustrated in red for clarity. On the jig, the lines are *black*.

General views of the template are illustrated with inch markings ⑤.



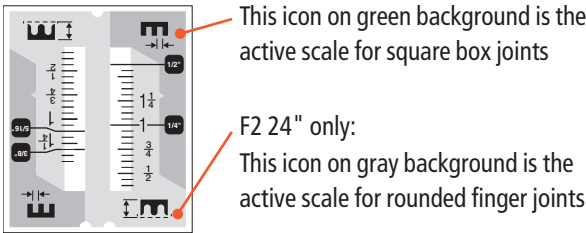
How to Read the Symbols

To help you understand the instructions and illustrations in this user guide, we have used a number of international symbols, plus a few special ones of our own. They are all explained below. You needn't worry about memorizing these symbols now because they are repeated frequently throughout the guide, and you will soon get used to them.

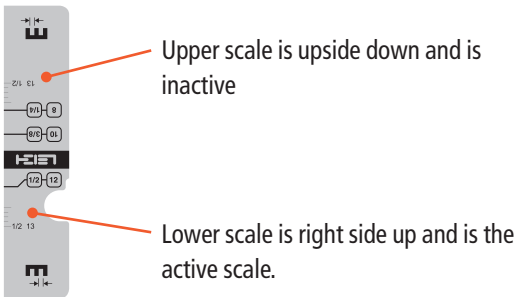
Glossary of Symbols

The Leigh Finger Joint Template can be in one of two modes, with the selected comb to the front (toward you, the operator).

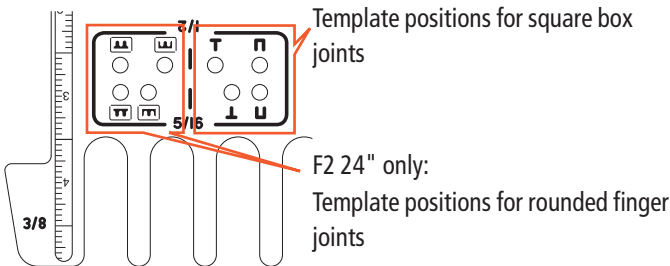
F2 Scale Icons



F1600, Scale Icons

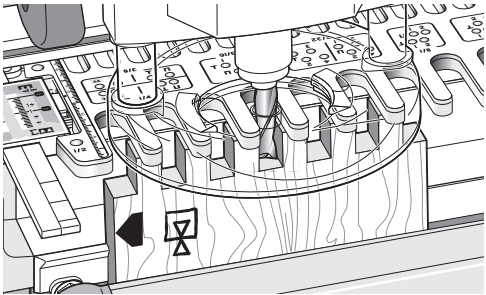


Template Icons and Numbers (engraved)



Which Way Round Should the Board Go?

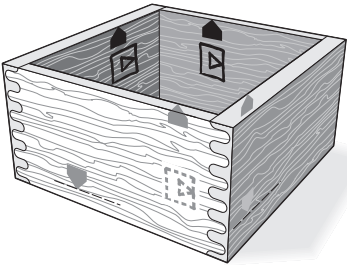
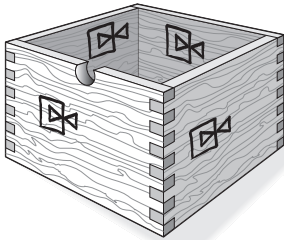
We devised these icons to indicate which side of a board faces out (toward you when it is clamped in the jig), and which faces are in or out when assembled.



 Boards are clamped in the jig both "face in" and "face out" for alternate end cuts; e.g. all regular box joint ends are routed this way

 Inside of board. All rounded half-blind finger joints (F2 24" only), and all "square" half-blind box joints are clamped in the jig with the inside  face away from the jig toward you, the operator.

 Dotted icons are on the other side of the board.



The following symbols indicate:

 This edge against side stop

 This edge against side stop

 As above, other side of board

 Caution: use special care for this operation

①②③ Numbered References in text

 Centreline of board or layout

 Plus/Minus

 Equals

 Does not equal

 Approximately

F2, F1600 **CHAPTER 1**

Assembly, Mounting and Template Alignment



Assembly and Mounting

Before you begin mounting the Leigh Finger Joint Template to your Leigh jig, make sure you have received the model ordered (Inch or Metric), and all the necessary parts.

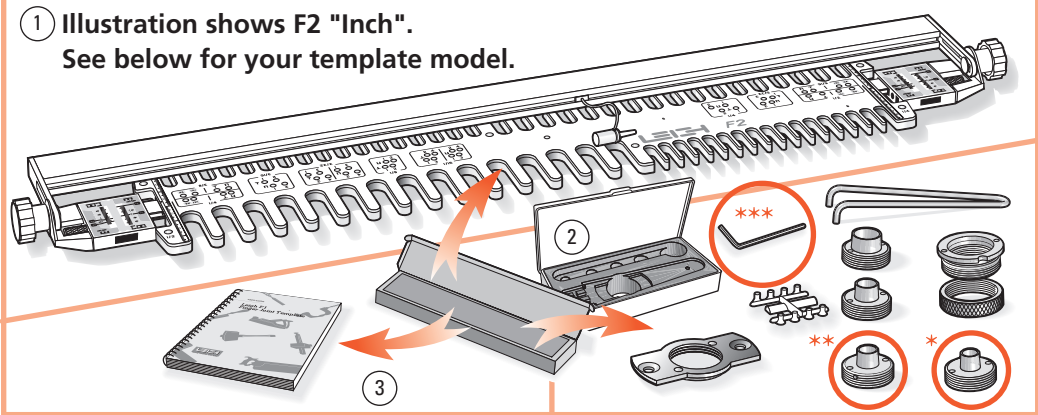
1. 1 complete Template “inch” assembly
or
1 complete Template “metric” assembly
2. Variable Guidebush System consisting of:
 - 1 storage box
 - 1 pin wrench
 - ***1 hex key (F2/F2M only)
 - 1 700V holder with lock nut
 - 1 701V holder
 - *1 709V bush (inch templates only)
 - **1 711V bush (with F2 inch/metric, F1600M)
 - 1 713V bush
 - 1 716V bush
 - 6 bush nylon plugs (on one tree)
3. 1 user guide

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

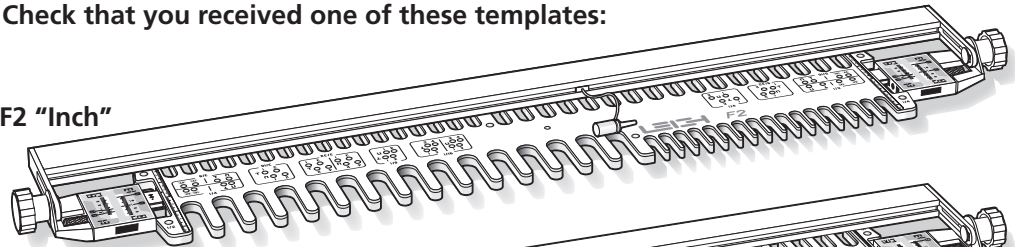
Your Leigh F2 or F1600 comes fully assembled and require only mounting and indexing to your Leigh jig. This procedure is critical to the accuracy of the finished joinery, so please follow the mounting instructions carefully.

Record your template serial number (located on the underside of the scale block) in the space reserved on page 82 or 84.

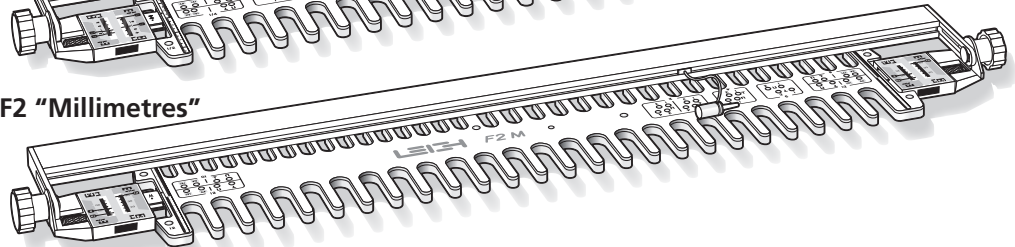
- ① Illustration shows F2 "Inch".
See below for your template model.



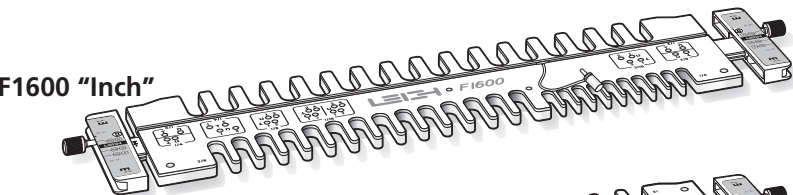
Check that you received one of these templates:



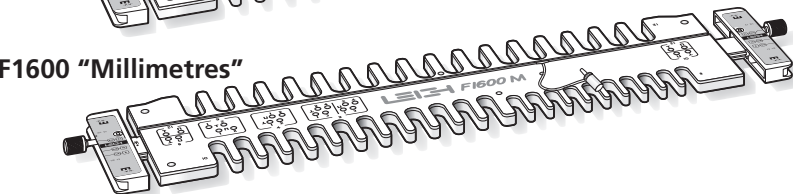
F2 "Millimetres"

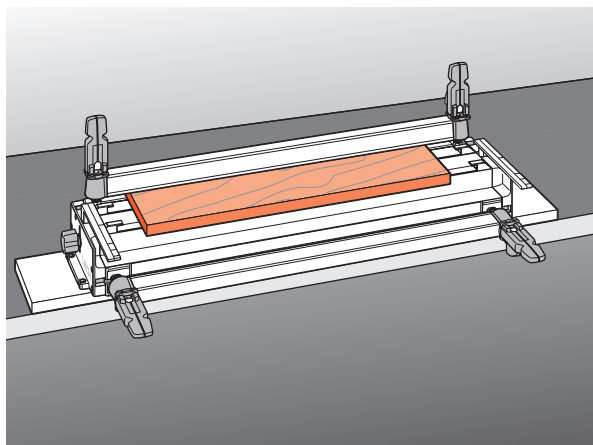


F1600 "Inch"



F1600 "Millimetres"



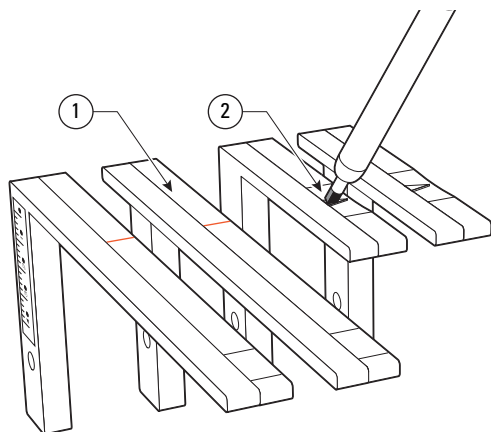


1-1 Mounting F2/F2M to 24" Series Jig

Note: See 1-11 for F1600 setup.

Procedure is the same for Inch and Metric 24" templates.

Make sure your jig is mounted as per its User Guide, and the spacer board is clamped into position.

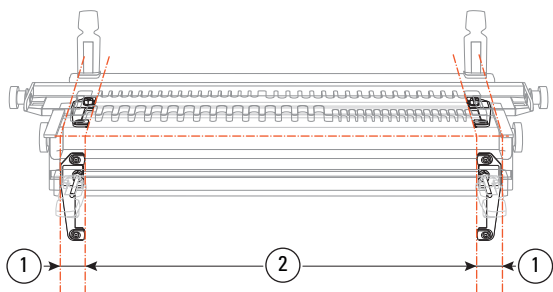


1-2

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 and D4R Jig owners already have the extended brackets.

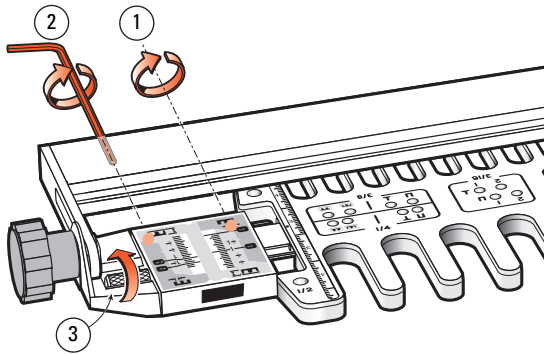


1-3 Centring the Template on the Jig

All 24" D series jigs except D4R

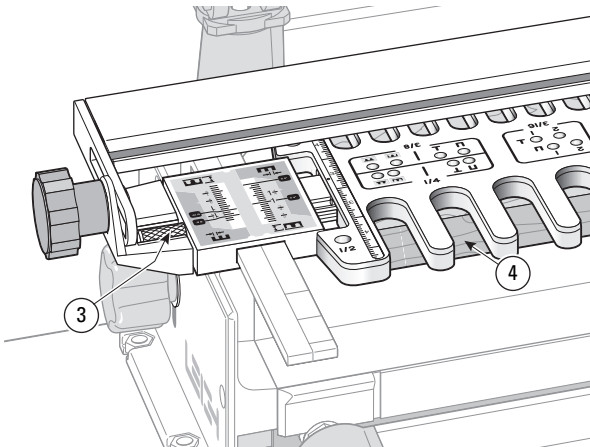
Before installing the F2/F2M on any 24" D series jigs that have adjustable side stops, it is imperative that those stops are correctly set and indexed according to the assembly instructions in the jig's user guide. Are the stops $1\frac{1}{2}$ " [38mm] in from each end of the jig body extrusion ①? Are the stops $24\frac{1}{8}$ " [613mm] apart ②? If not set up correctly, this must be done now.

D4R and D1600 jigs have fixed side stops and do not require setup.



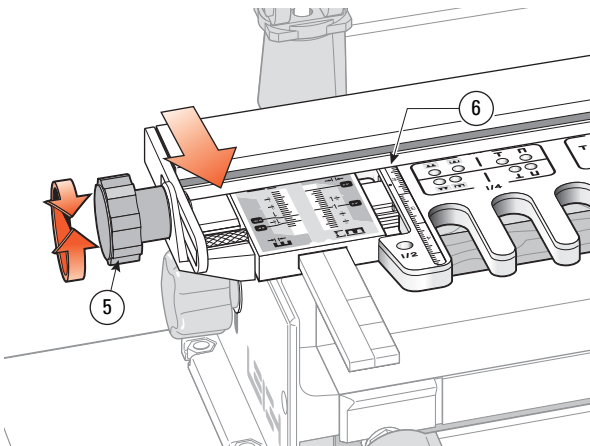
1-4 Attaching the Scales

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.



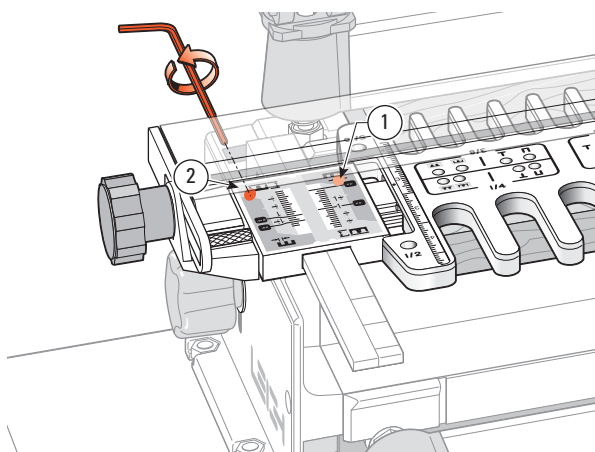
1-5

Slide the template assembly onto the jig support brackets with the 1/2" & 1/4" [12mm] combs toward you and lower it gently onto the jig's spacer board ④. Make sure the scale reading is the same on both scales, say on the 1" [25mm] mark, then tighten the thumb screws ③.

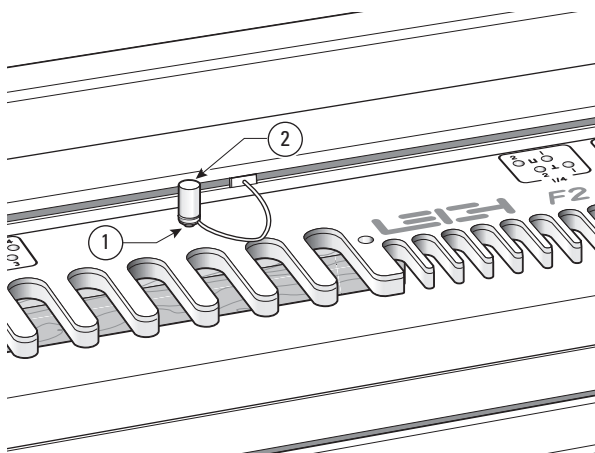


1-6

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.

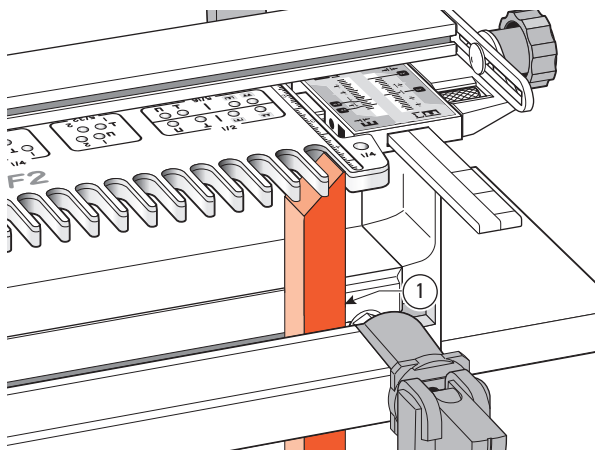
**1-7**

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

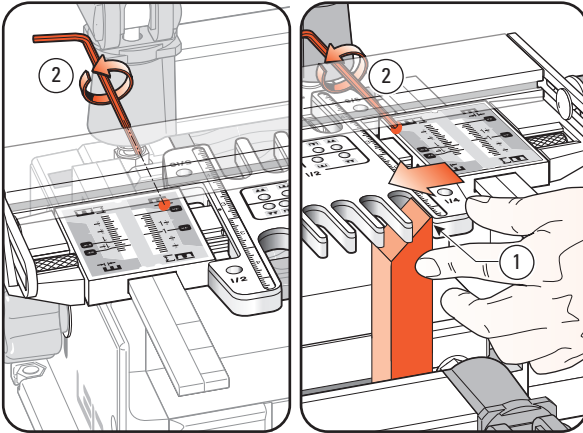
**1-8 Centring the F2**

For F1600 centring, see 1-11

Align the template so that the template's centre hole ① lines up with the hole in the bar and insert the template pin ②. *Discard the shipping plug from the hole.* 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.

**1-9**

Angle trim the end of a perfectly straight block. Slide the combined bar/template to allow the block to protrude into the last socket of the 1/4" [8mm] comb. Clamp with its vertical edge tight against the right hand side stop ①.



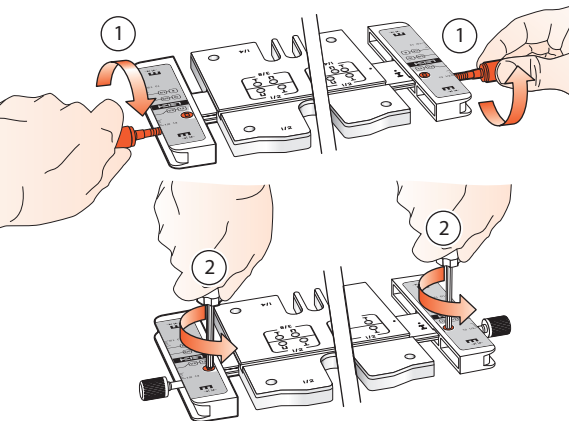
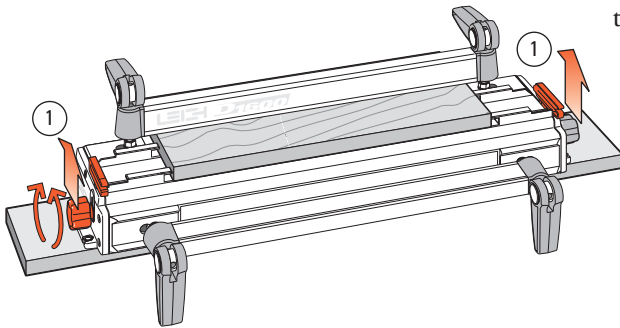
1-10

Move the combined template and bar to the left until the right side of the outer $\frac{1}{4}$ " [8mm] opening touches the block ①. Taking care to not move the template assembly, tighten the scale screws at both ends of the template ②. Remove the wood block and your Leigh F2 is ready for use.



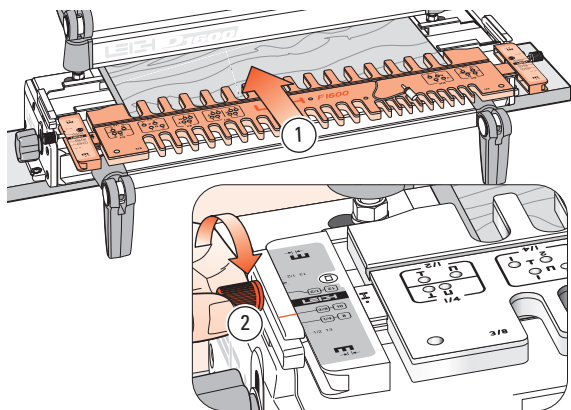
1-11 D1600 Jig Owners

Raise both end support brackets and tighten the support bracket knobs ①.



1-12

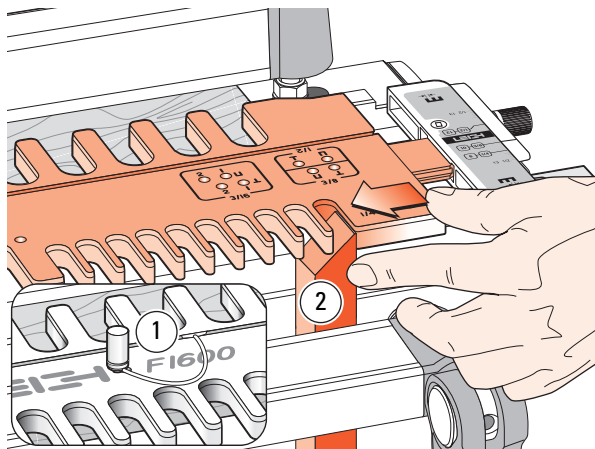
Install the two thumbscrews a few turns into the scales ①. Loosen the scale lock screw ② at **both** ends (by one turn only).

**1-13**

Slide the template onto the support brackets, with the $\frac{3}{8}$ " [10mm] comb toward you ① and set on the $\frac{3}{8}$ " [10mm] setting.

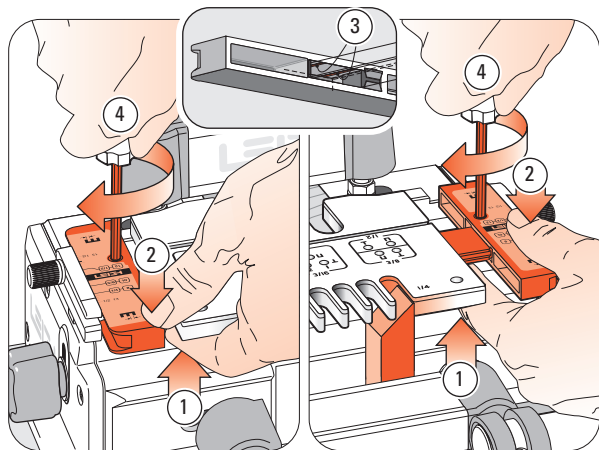
Tighten both thumbscrews ②.

Do not lower the assembly onto the finger support board.

**1-14**

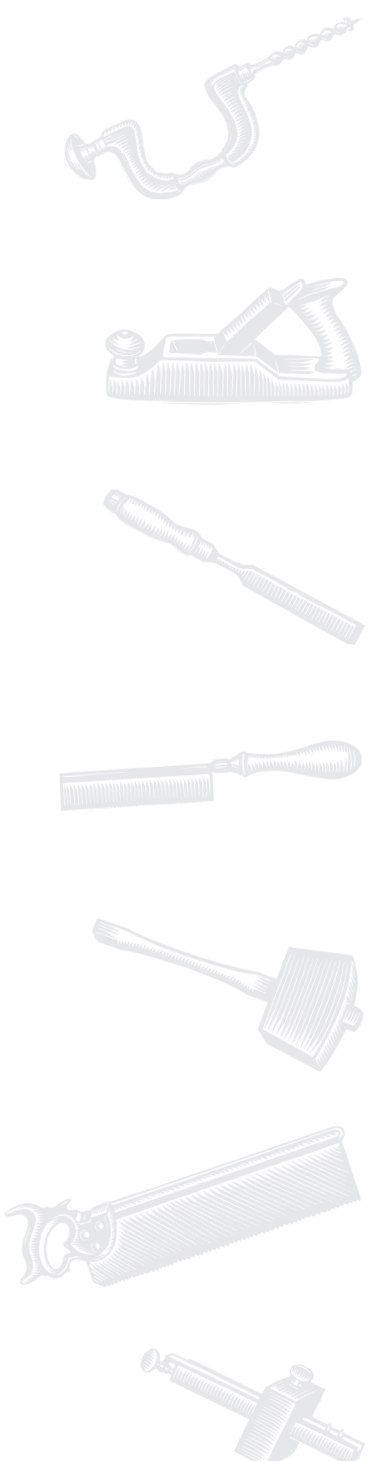
Remove and discard the shipping plug from the template centre hole. Align the centre hole with the hole in the bar and firmly insert the Template Pin ①.

Move the combined template and bar to the left until the right side of the outer $\frac{1}{4}$ " [8mm] opening touches the block ②. Taking care to not move the template assembly...

**1-15**

...pull up on the template bar ① while pushing down on the scale ② to ensure the bar is touching the two registration pads ③ inside the scale. Maintain pressure and tighten the scale lock-screw ④. Repeat at the other end. Remove the block and your template is ready to use.

To maintain correct template alignment, follow this procedure whenever you remove the scales from the finger assembly. ■

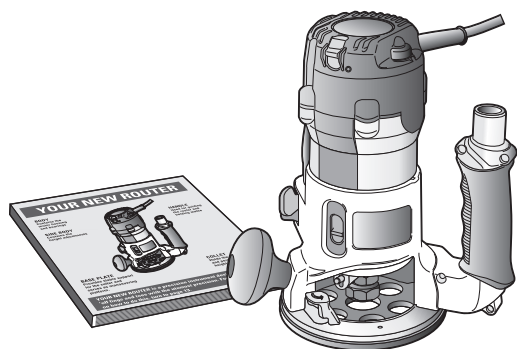


F2, F1600 **CHAPTER 2**

Using Your Template Safely

Safety is not optional.

Read and follow the recommendations in this chapter.



2-1

Read the owner's manual that came with your router. It is essential to understand the router manufacturer's instructions completely.

2-2



Most importantly, always wear approved safety glasses when using a router.

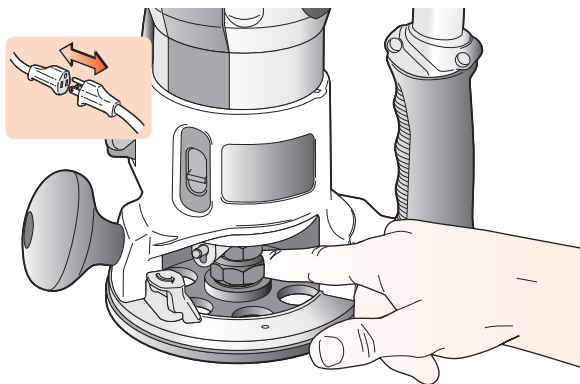
Always wear hearing protection when using a router.

Protect yourself from harmful dust by wearing a face mask.

2-3

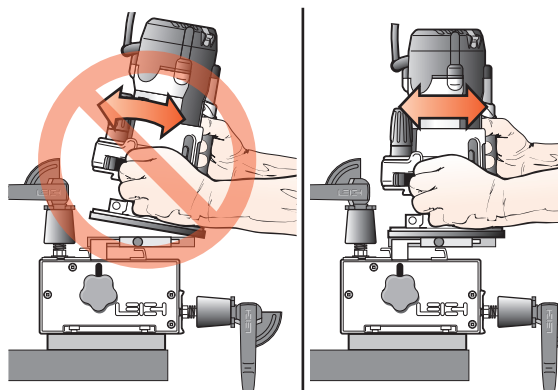
 **Never drink alcohol or take medications** that may cause drowsiness when you will be operating a router.



**2-4**

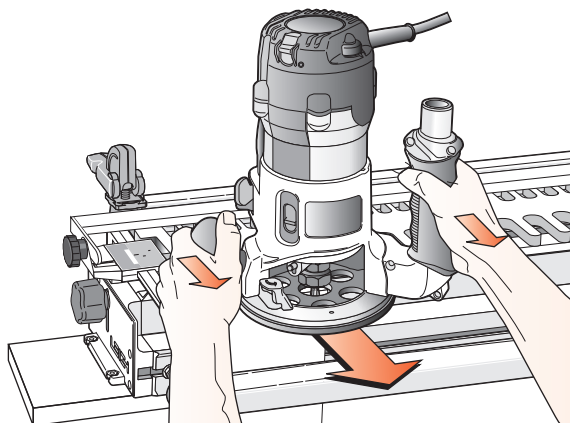
Always disconnect the power source from the router when fitting cutters or guidebushes, or making adjustments.

Before connecting the router to the power source, make sure the cutter and collet revolve freely in all the areas you plan to rout, and the cutter does not touch the guidebush or jig.

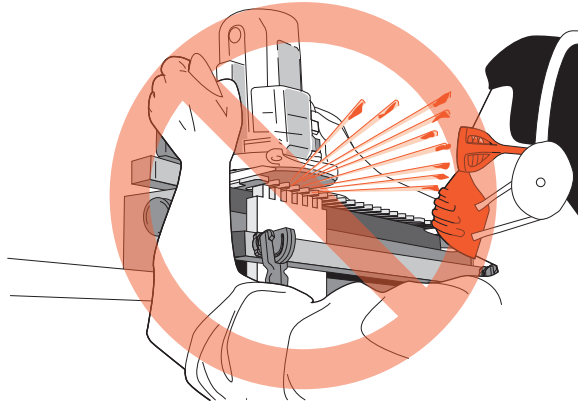
**2-5**

Do not tilt the router on the jig.

Keep the router flat on the jig assembly.

**2-6**

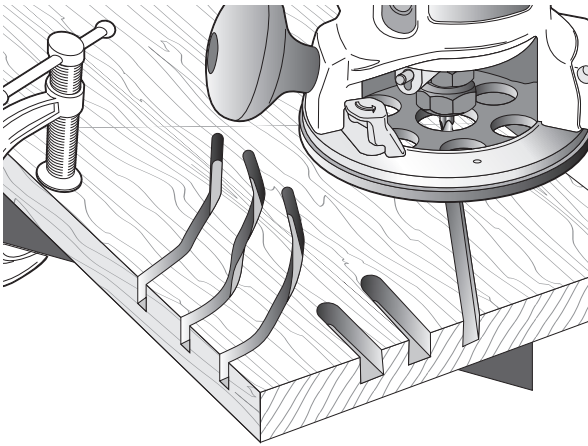
 If you insist on removing the router from the jig while it is still revolving, always pull it straight off the jig horizontally, and do not raise or lower the router until it is completely clear of the jig.



2-7



Do not rout at face level.



2-8

If you have never used your router before, be sure to follow the router manufacturer's instructions for its use. Make plenty of simple open-face practice cuts *without a guidebush* before you try to use the router on the Leigh jig. You must, of course, **always use a guidebush when routing on the Leigh Template.** ■

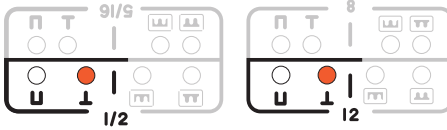
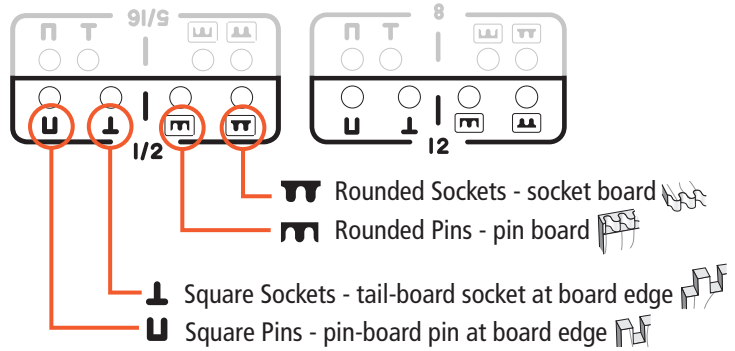
F2, F1600 **CHAPTER 3**

Operation Concepts and Basic Template Functions



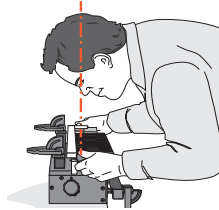
Template Modes F2

Template pin hole icons denote the type of joint and edge finish from each position.



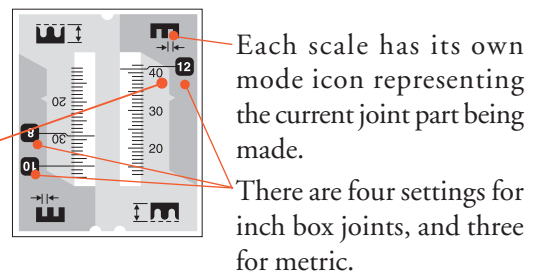
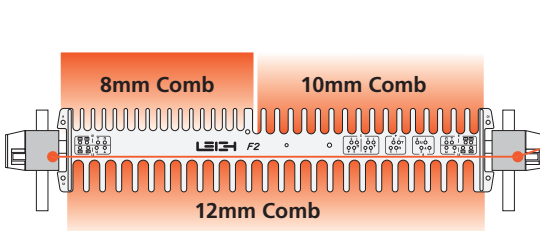
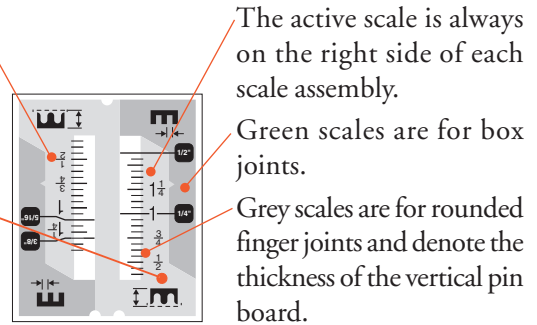
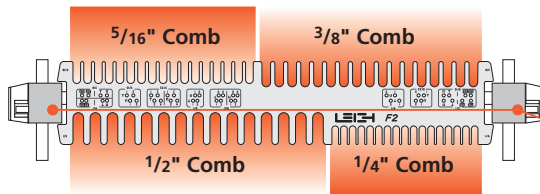
Throughout the manual, the proper pin location for each step is highlighted with red in an inset. Only the front (active) pinholes will be shown.

Scale Modes F2



Always read scales from directly overhead to avoid parallax problems.

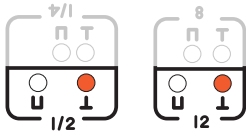
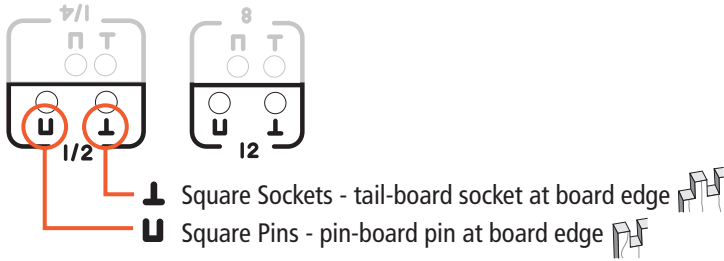
The inactive scale is always on the left side of each scale assembly and is upside down.



The specific settings for each scale are fully described in the appropriate chapters.

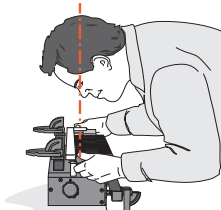
Template Modes F1600

Template pin hole icons denote the type of joint and edge finish from each position.

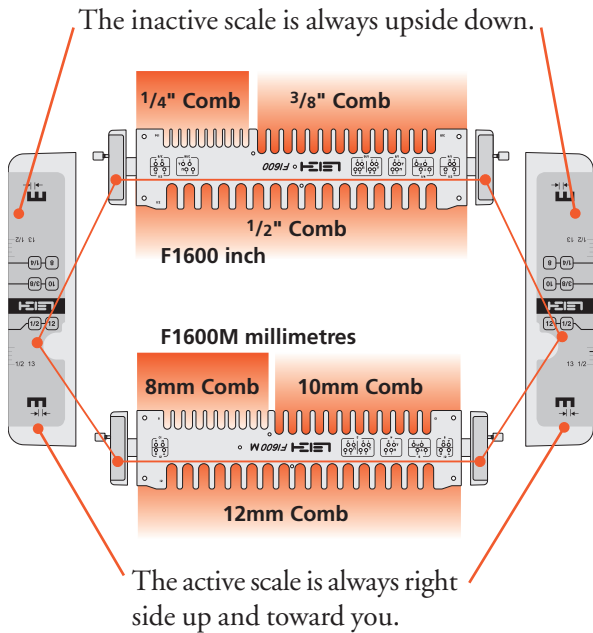


Throughout the manual, the proper pin location for each step is highlighted with red in an inset. Only the front (active) pinholes will be shown.

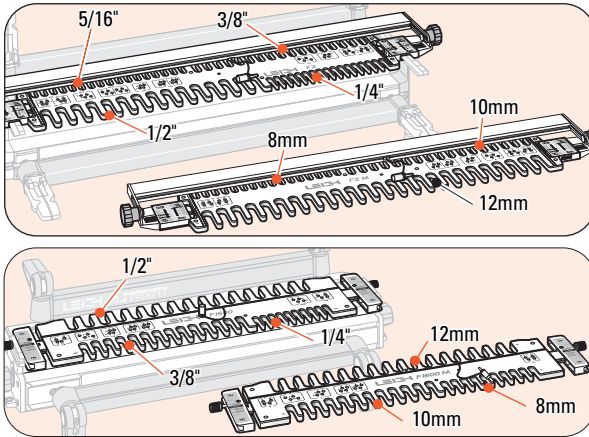
Scale Modes F1600



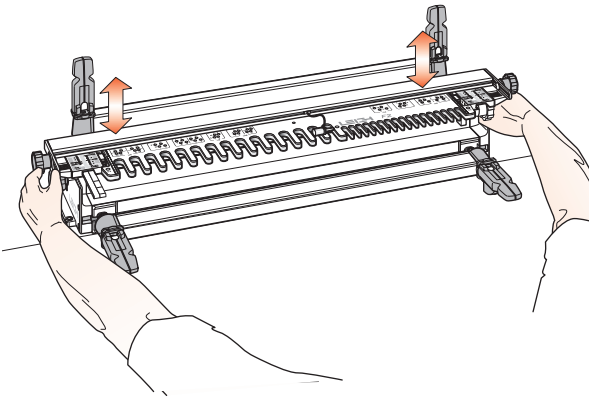
Reading scales from directly overhead improves setting accuracy.



The specific settings for each scale are fully described in the appropriate chapters.

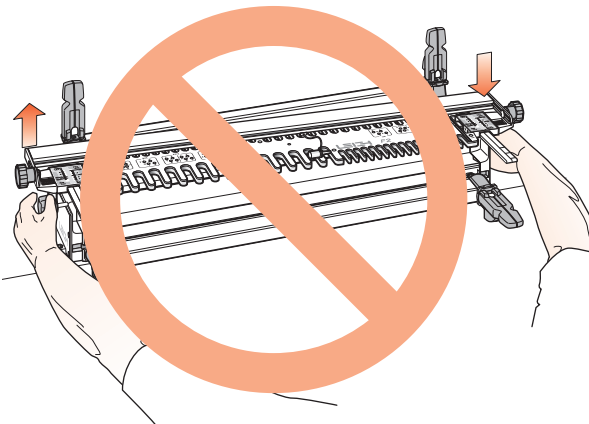
**3-1**

The *active* comb (the one you wish to use) is positioned toward you at the front of the jig. Depending on the Template model and comb size selected, the active comb may start at either the right, or left-hand side of the jig. Combs that are the full width of the template always start at the left side.

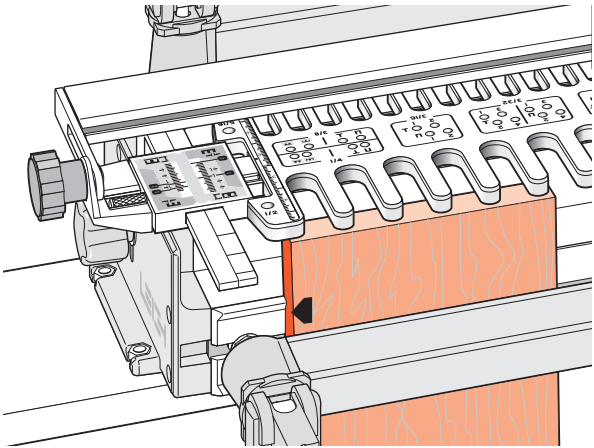
**3-2**

The template is raised or lowered using the support brackets to suit different thicknesses of horizontal boards.

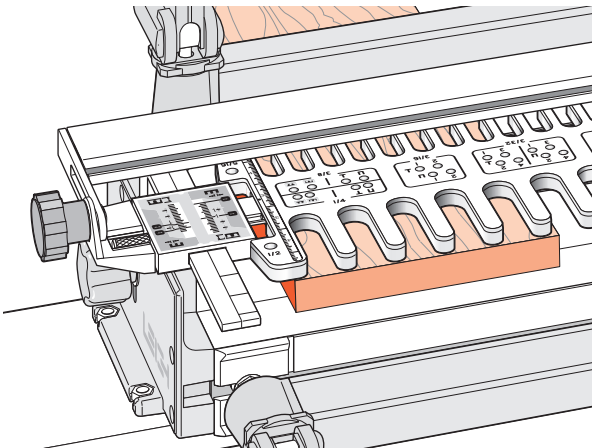
Remember, this sequence of "operation concepts" shows the F2 template, but the same procedures apply to the F1600.

**3-3**

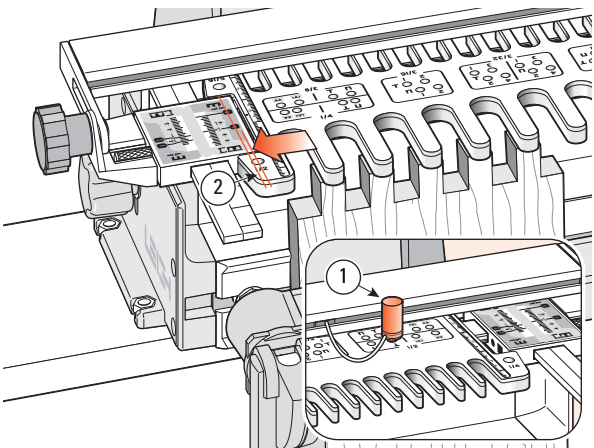
Do not raise or lower one end of the template at a time.



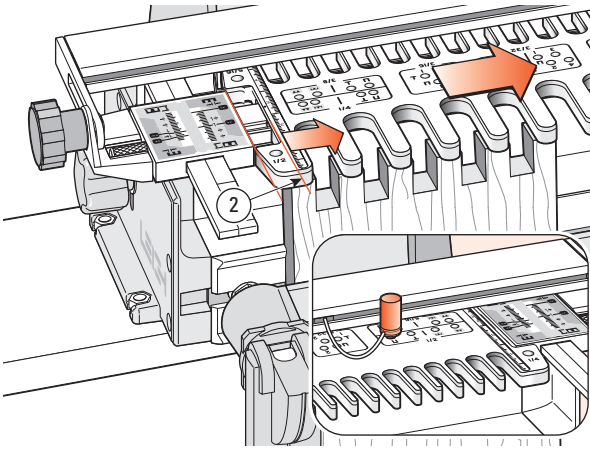
3-4
You will clamp your work pieces against the front side stop or...



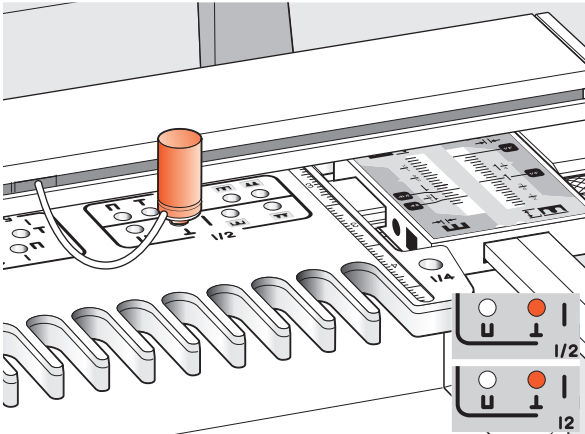
3-5
...the mating rear side stop, depending on which procedure is to be used.



3-6
Mating joints routed under the same comb have to be offset to achieve correct joint alignment. On Leigh templates the offset is achieved by moving the template left or right by half the pitch of the comb. This movement is controlled by the template pin, at the other end of the template ①. *Note that the template is close to the scale ②.*

**3-7**

In this illustration, the template is moved to the right by half the comb pitch and positioned by the template pin to rout the mating half of the joint in 3-6 above. *Note the increased gap between the scale and template ②.*

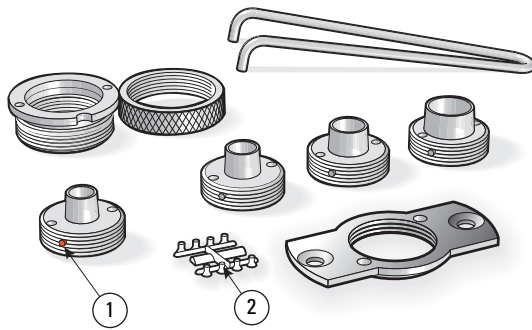
**3-8**

The template control pin engages the template to the template bar using precisely positioned holes. The active template pin holes are always at the opposite end of the template from the active comb, out of the way of the router. Most illustrations will have an inset ① showing the correct template pin hole position for the procedure. ■

F2, F1600 **CHAPTER 4**

The Variable Guidebush System (VGS)





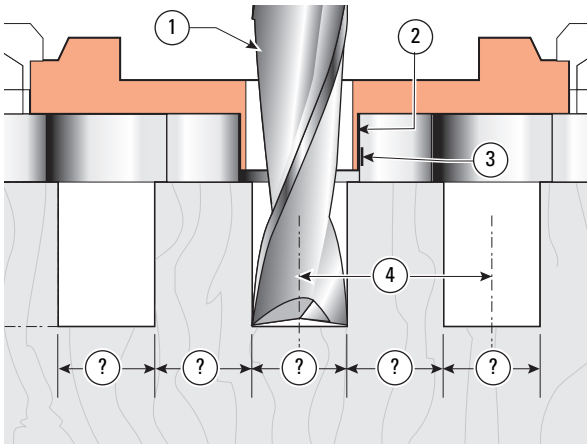
4-1

The F series Templates come complete with the Variable Guidebush System (VGS), with one bush for each comb size of your chosen template, i.e. either three or four bushes. Each of the tapered bushes is drilled ① to accept a nylon thread-insert ② (eight of them on a “tree”). See 4-7 to fit.



Do not use the VGS on Leigh Dovetail Jigs or M2 Mortise Guide Finger accessories; they are only for templates.

Here’s why the VGS is necessary...

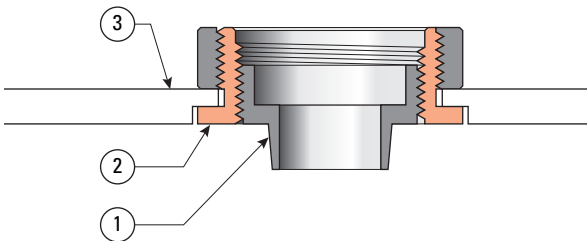


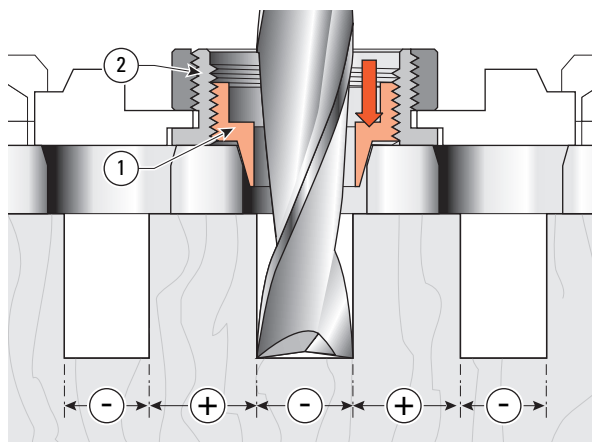
4-2 Joint Fit and Joint Pitch

Box joints routed with standard sized straight cutters ① and standard sized guidebushes ② against straight guide surfaces ③ and on pitch centres exactly two times the cutter diameter ④ can be guaranteed to result in a loose fitting joint. Cutters, guidebushes and templates are all manufactured with necessary plus/minus tolerances and the router will have some degree of run-out, or “wobble”.

4-3

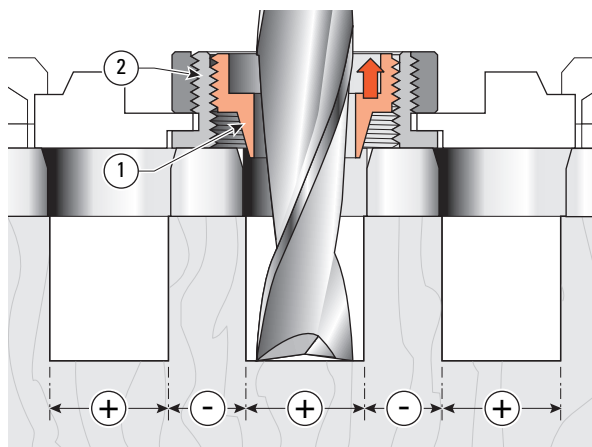
However, the Leigh VGS bush has a tapered barrel ① threaded into a holder ② which in turn attaches to an adaptor or directly to the router ③.





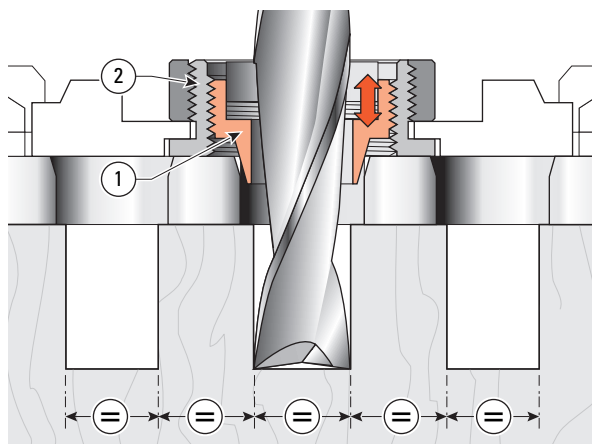
4-4

With the VGS tapered bush ① screwed down in the holder (away from the router) ② the active bush diameter is increased, allowing less side-to-side movement, and resulting in smaller sockets and larger pins. A tight fit! *Guidebush angle, scale and movement are exaggerated in this sequence of illustrations.*



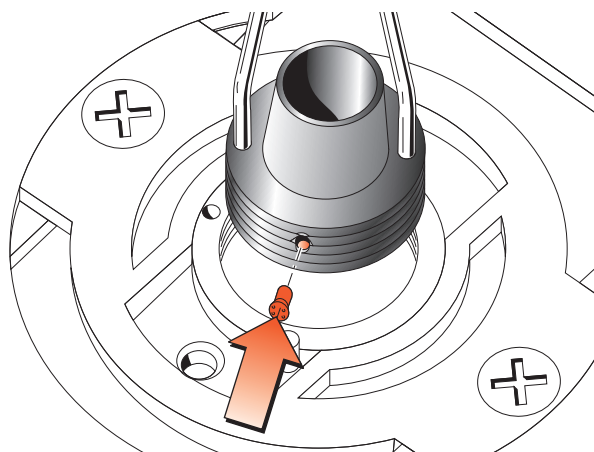
4-5

Raising the bush (screwing the bush into the holder) allows more side-to-side router/cutter movement, and more wood removal, producing larger sockets and smaller pins, and thus a loose fit.

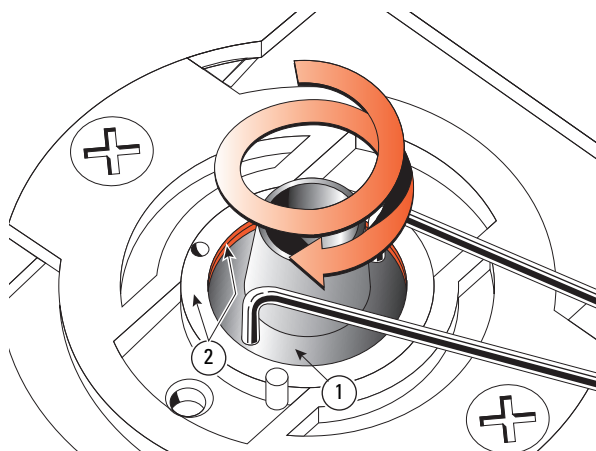


4-6

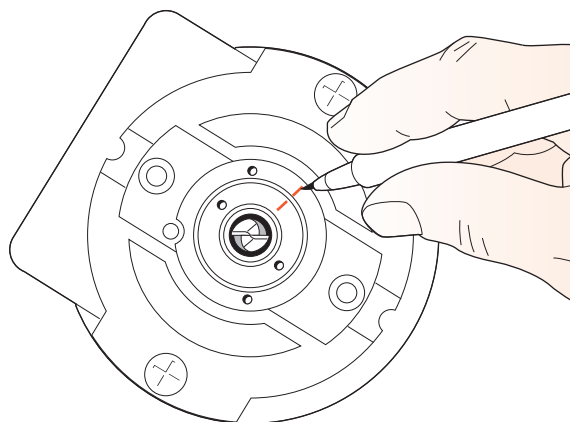
A few trial-and-error test cuts and VGS adjustments will allow you to establish the right pin and socket sizes for a perfect fit. **Note:** One eighth of a turn of the variable bush changes the joint glue-line interface by one thousandth of an inch, that is, 0.001" or 0,025mm.

**4-7**

Fit the holder to the router first. Before fitting a variable bush to a holder, fit one of the small nylon thread inserts to the hole in the side of the thread. Leave the insert on its “tree” and push into the hole. Then snap off the “tree”. Once threaded into a holder, the insert will become trapped and should not fall out when the bush is removed. However, wrap some scotch tape around the bush whenever it is removed to prevent this. The four inserts and four spares will last a long time.

**4-8**

Always start test routing with the bush flange ① turned one to one-and-a-half turns farther into the router than the holder flange ②.

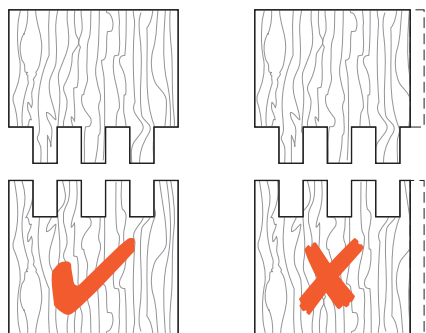
**4-9**

When you have the best joint fit, mark the bush and holder with permanent ink for future reference. Use the same cutter next time. ■

F2, F1600 **CHAPTER 5**

Board Width Selection



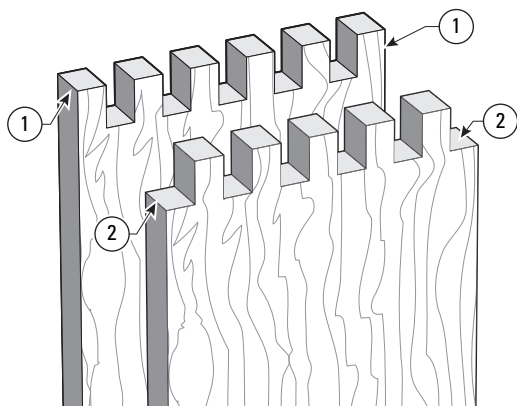


5-1 Board Widths and Joint Symmetry

Unlike the infinitely variable Leigh Dovetail Jig, a fixed template cannot accommodate any width of board and still produce a neat and even finish on both side edges of a joint. The boards must be cut to specific widths, depending on the pitch of the comb.

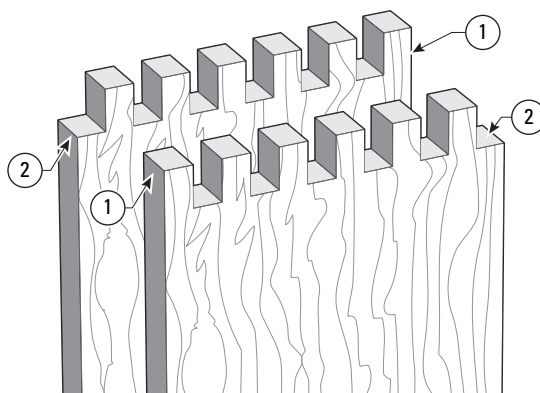


The comb pitches on the Leigh Finger Joint Templates are all 2 times the cutter diameter plus 0.016" [0,40mm], so you cannot simply use the cutter diameter to calculate board widths; you must use the board width charts on P 32-33.



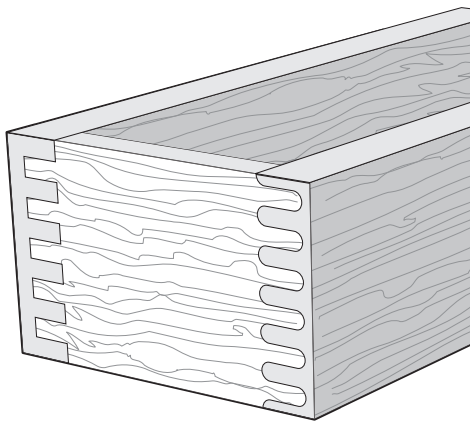
5-2

Symmetrical joints have fingers ① on both side edges of one board and sockets ② on both side edges of the mating board.

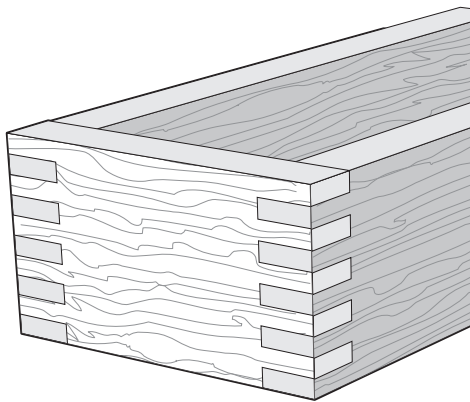


5-3

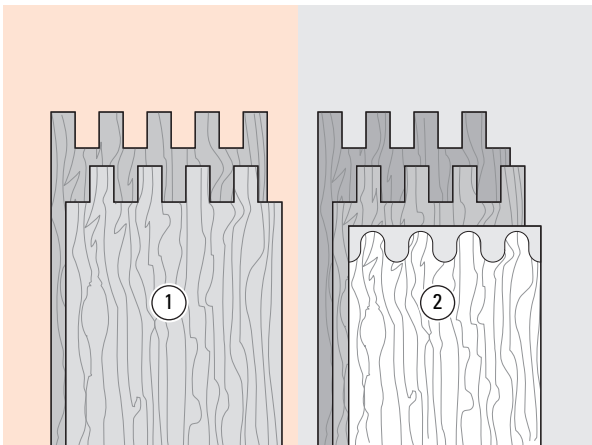
Asymmetrical joints have a finger ① on one side edge and a socket ② on the other side edge of each board.



5-4
Symmetrical joints are essential for half-blind corners (and rounded finger joints on the F2 or F2M).



5-5
However, ordinary box joints may be asymmetrical and look okay.



5-6
Note: Because the Leigh VGS allows for fit adjustment on template size, the pitch widths have been made slightly greater than the nominal pitch, i.e. slightly more than two times the cutter diameter. To make symmetrical square joints ①, use the board widths in red. For asymmetrical square joints and symmetrical round joints ②, use the board widths in black. Inch board widths are on page 32. Millimetre board widths are on page 33. ■

BOARD WIDTH CHART (INCHES)

Note: Rounded Joints cannot be made with F1600

1/2"		3/8"		5/16"		1/4"	
							
							
F1600 Template F2 Template	1		1		1		1
	2		2		2		2
	3	▼ 1 15/32	▼ 1 3/32	▼ 0 7/8	▼ 1 7/32	▼ 0 23/32	▼ 0 31/32
	4	▼ 2 15/32	▼ 1 7/8	▼ 1 17/32	▼ 2 3/16	▼ 1 7/32	▼ 1 1/2
	5	▼ 3 1/2	▼ 2 5/8	▼ 2 3/16	▼ 2 1/2	▼ 1 3/4	▼ 2
	6	▼ 4 1/2	▼ 3 3/8	▼ 2 13/16	▼ 3 5/32	▼ 2 1/4	▼ 2 17/32
	7	▼ 5 17/32	▼ 4 5/32	▼ 3 15/32	▼ 3 25/32	▼ 2 25/32	▼ 3 1/32
	8	▼ 6 17/32	▼ 4 29/32	▼ 4 3/32	▼ 4 7/16	▼ 3 9/32	▼ 3 9/16
	9	▼ 7 9/16	▼ 5 11/16	▼ 4 3/4	▼ 5 1/16	▼ 3 13/16	▼ 4 1/16
	10	▼ 8 9/16	▼ 6 7/16	▼ 5 3/8	▼ 5 23/32	▼ 4 11/32	▼ 4 19/32
	11	▼ 9 19/32	▼ 7 7/32	▼ 6 1/32	▼ 6 11/32	▼ 4 27/32	▼ 5 3/32
	12	▼ 10 19/32	▼ 7 31/32	▼ 6 21/32	▼ 7	▼ 5 11/32	▼ 5 5/8
	13	▼ 11 5/8	▼ 8 3/4	▼ 7 5/16	▼ 7 5/8	▼ 5 7/8	▼ 6 1/8
	14	▼ 12 5/8	▼ 9 1/2	▼ 7 15/16	▼ 8 9/32	▼ 6 3/8	▼ 6 21/32
	15	▼ 13 21/32	▼ 10 9/32	▼ 8 19/32	▼ 8 29/32	▼ 6 29/32	▼ 7 5/32
	16	▼ 14 21/32	▼ 11 1/32	▼ 9 7/32	▼ 9 9/16	▼ 7 13/32	▼ 7 11/16
	17	▼ 15 11/16	▼ 11 13/16	▼ 9 7/8	▼ 10 3/16	▼ 7 15/16	▼ 8 3/16
	18		▼ 12 3/16	▼ 10 1/2		▼ 8 7/16	
	19						
	20						
	21						
	22						
	23						
	24						
	25						
	26						
	27						
	28						
	29						
	30						
	31						
	32						
	33						

Numbers in white column are number of sockets and pins

Note: Use to the nearest 1/32" for width selection.

To make symmetrical square joints, use the board widths in the red column. For asymmetrical square joints and symmetrical round joints, use the board widths in the grey column.

BOARD WIDTH CHART (MILLIMETRES)

Note: Rounded Joints cannot be made with F1600



Numbers in white column are number of sockets and pins

Note: Use to the nearest millimetre for width selection.
To make symmetrical square joints, use the board widths in the red column. For asymmetrical square joints and symmetrical round joints, use the board widths in the grey column.

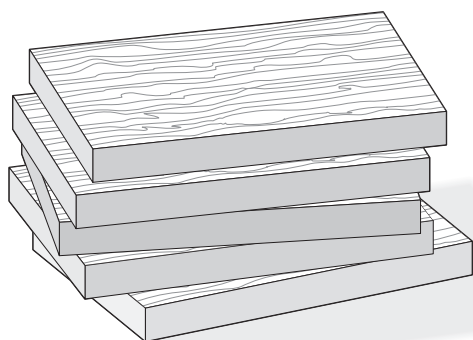
Box Joint Procedures

Throughout this user guide, jointing procedures are illustrated with the F2 template mounted on the D4R jig.

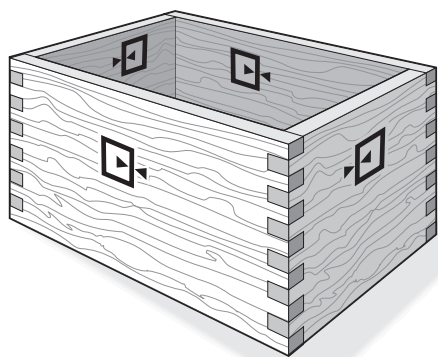
The procedures for using the F1600 are the same. Movements and settings illustrated in each step are identical, whether performed on the F2, F2M, F1600, or F1600M.

See page 4 for the physical differences between the F2 and F1600 series' jigs.

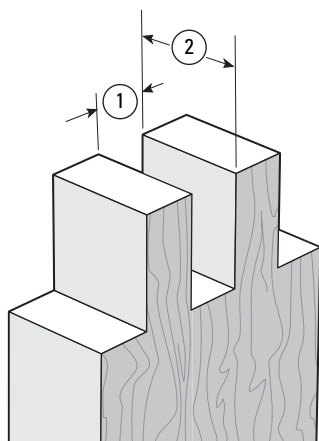


**6-1**

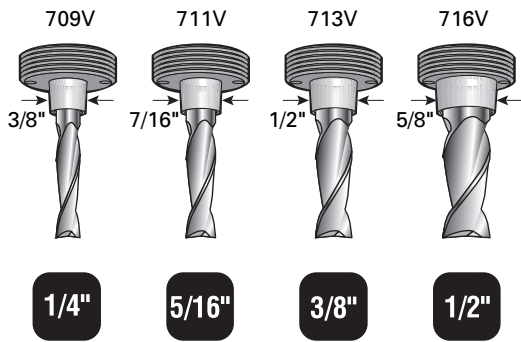
Always use scrap boards to test for fit. Width and thickness of the scrap boards is not critical.

**6-2**

Let's rout some simple box joints. These general instructions are the same for any of the four comb sizes. Because the templates fit two types of Leigh jig, the illustrations show the left-hand side of a "generic" Leigh jig; you could be working on the right-hand side. Rout only single corners to adjust the joint fit. *Note: This chapter combines instruction for joint procedures and joint fit. Follow through step by step the first time, but there is also a "quick fit test" method; see 11-3.*

**6-3 Cutter and Guidebush Selection**

There are no hard and fast rules for sizing of pins and sockets for box joints; but typically the sockets ① are one half to one quarter of the board thickness ②. Generally, the smaller the cutter, the greater the strength because of the greater gluing area.

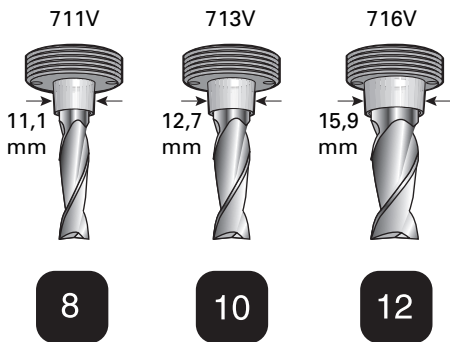


6-4

Select the correct variable bush and cutter combination for the comb size to be used. The cutter size is the same as the designated comb size.

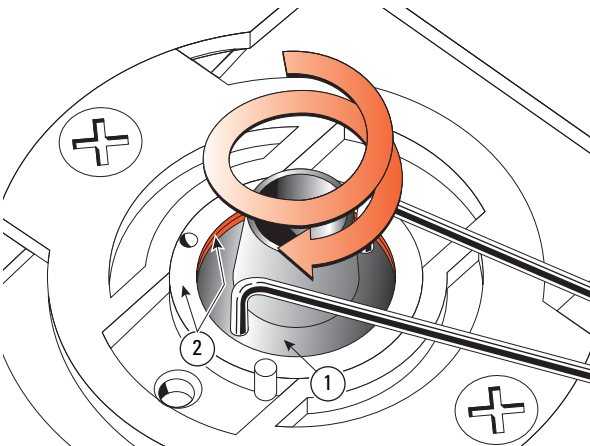
For smaller size box joints see chapter 10. Depending on the model, the inch template can use up to four sizes of cutter and guidebush.

The nominal (mean) diameter of each bush is shown for reference.



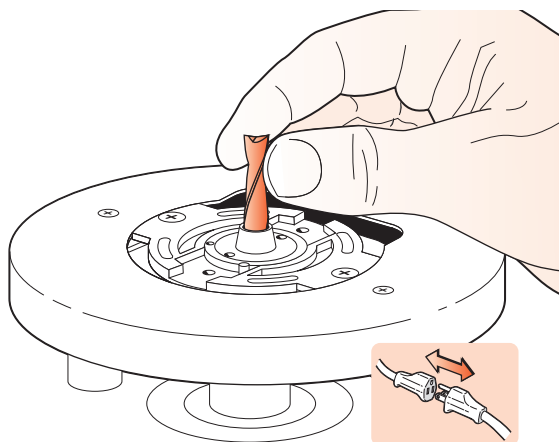
6-5

The millimetre template can use three sizes of cutter and comes with three guidebushes.

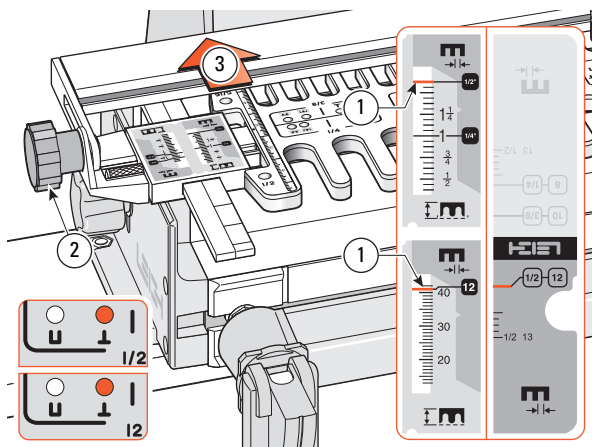


6-6

Always start test routing with the bush flange ① turned one to one-and-a-half turns farther in than the holder flange ②.

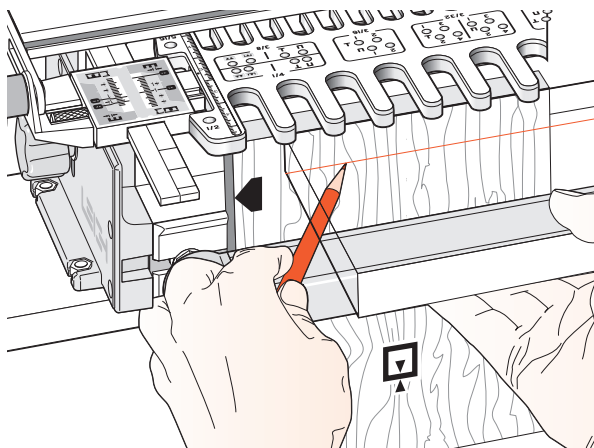
**6-7**

Fit the selected cutter (that matches the bush) to the router and tighten securely.

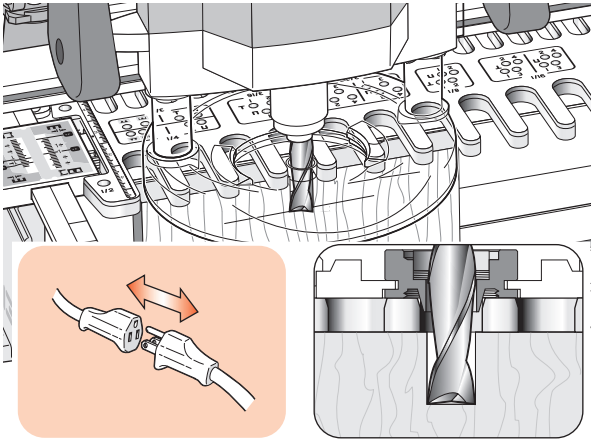
**6-8**

F2: Loosen fence knobs ② and move fence ③ to rear and re-tighten knobs ②. Note: The fence is only used for rounded finger joints. If the fence is in the way of a large router base, simply lift and lock the fence so the router base can slide under it.

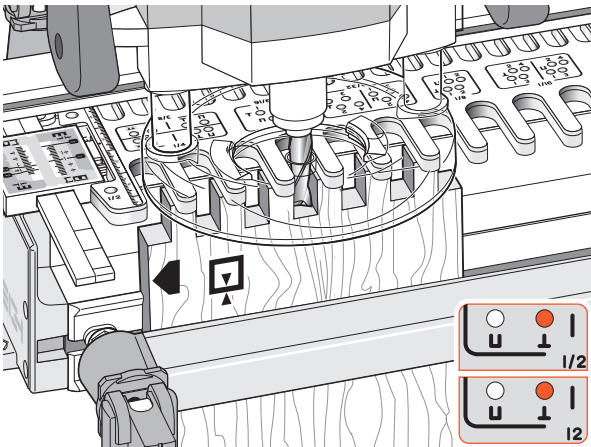
F2/F1600: Set the scale on the comb size to be used (example here; 1/2" [12mm] comb ①). Position the template with the template pin in the $\perp$ position. *Remember, the template pin is always positioned at the opposite end of the template.*

**6-9**

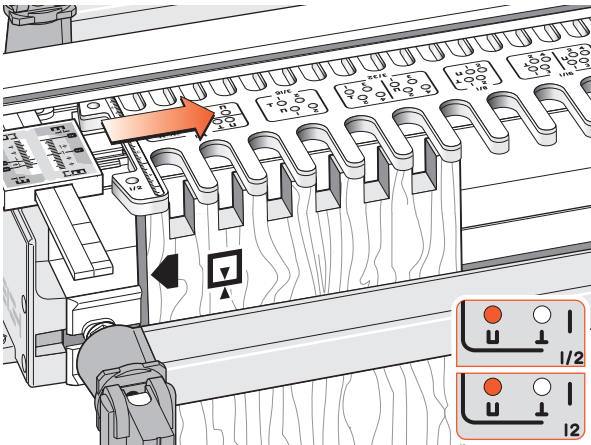
Clamp the workpiece against the side stop, with the end edge flush under the template. The board may be clamped face side in or out $\square$. Mark and adjust the depth of cut to suit the thickness of the boards. Use the board to be joined to mark the depth of cut.



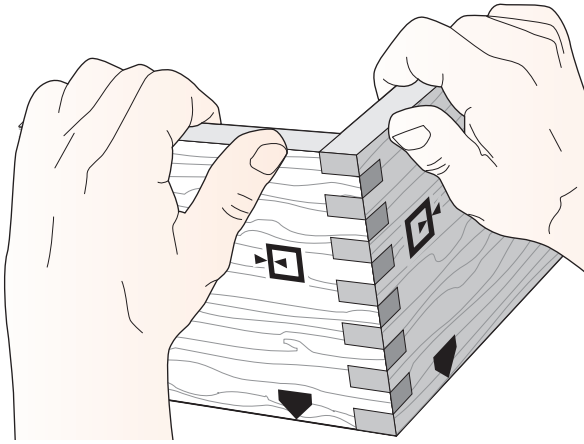
6-10
Adjust the cutter to cut down to the centre of the pencil line. Make sure the collet will not rub on the guidebush.



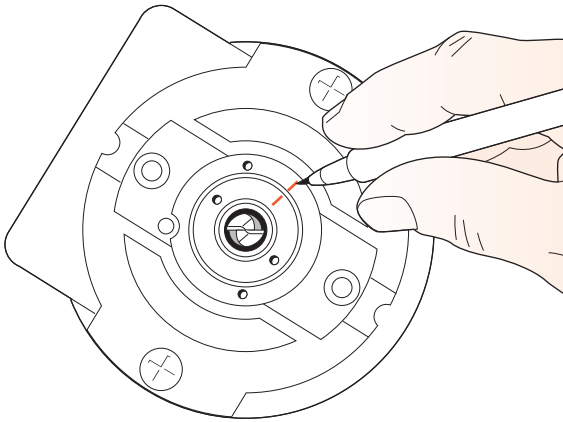
6-11
Route one end of a scrap board. Make sure to touch the guidebush on both sides of each template opening.



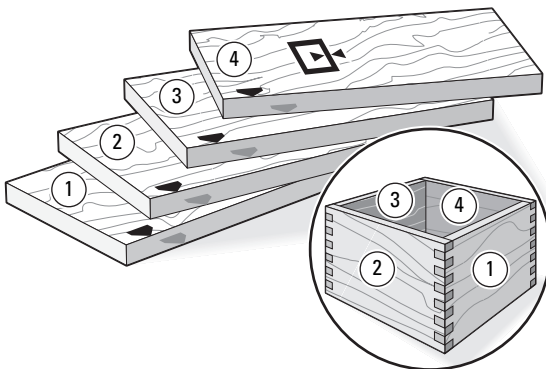
6-12
Remove the template pin and move the template to the **U** position, then refit the pin. Route the mating board.

**6-13**

Test the two boards for fit. Adjust the height of the variable guidebush by trial and error and rout more pairs of test boards to achieve the desired fit. Remember, turn the variable bush out for a tighter joint and turn it in for a looser joint.

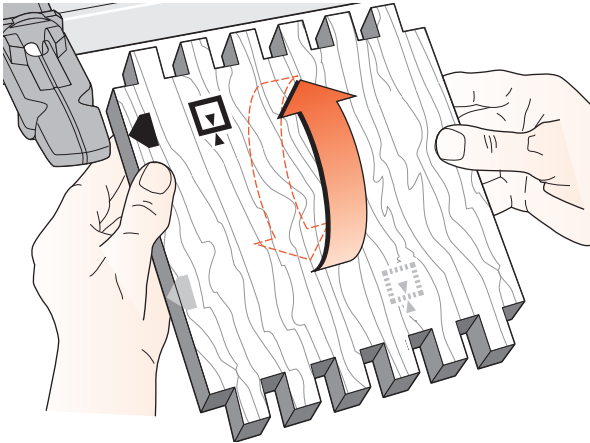
**6-14**

When the fit is just right, mark the bush and holder with permanent ink for future reference.

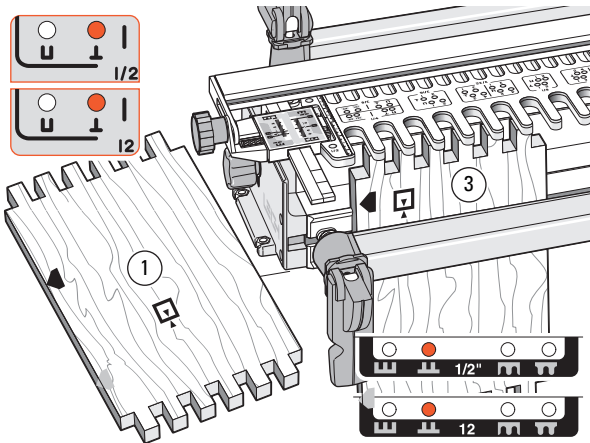
**6-15**

Let's make a box.

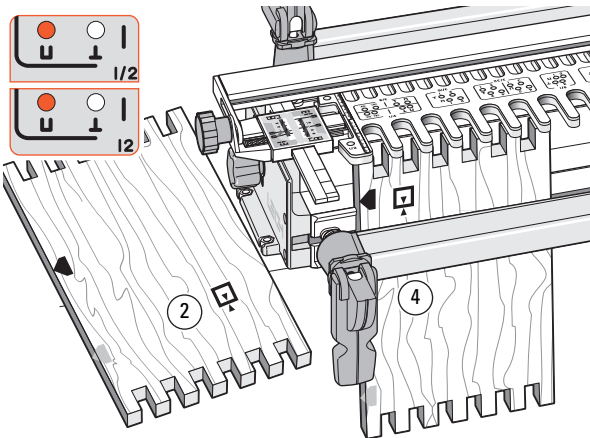
Prepare four boards and mark them 1, 2, 3, and 4. Then select the grain alignment and mark the common top (or bottom) edge. Don't worry about face side selection, this can be done after routing.



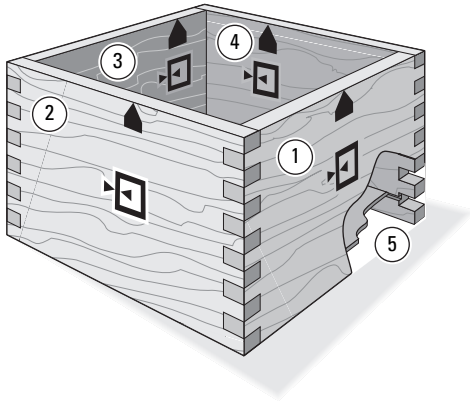
6-16
All square box joint boards (for boxes or end-on-end joints) are clamped alternately face in and face out , always with the same side edge against the side stop.



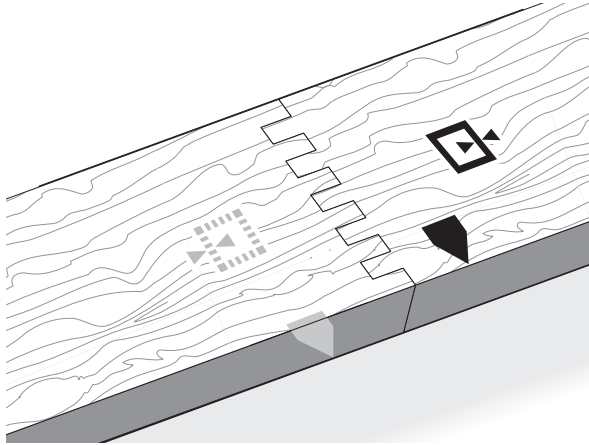
6-17
Route both ends of boards 1 and 3 in position . Be sure to keep the same edges to the side stop.



6-18
Route both ends of boards 2 and 4 in position . Keep the same edges to the side stop.

**6-19**

Keeping the marked side stop edges of all boards toward the top (or bottom) of the box, select the preferred outside faces before marking and routing the grooves ⑤ for the box bottom. Remember, box joint corners need clamping from both directions, or use strap clamps and blocks.

**6-20**

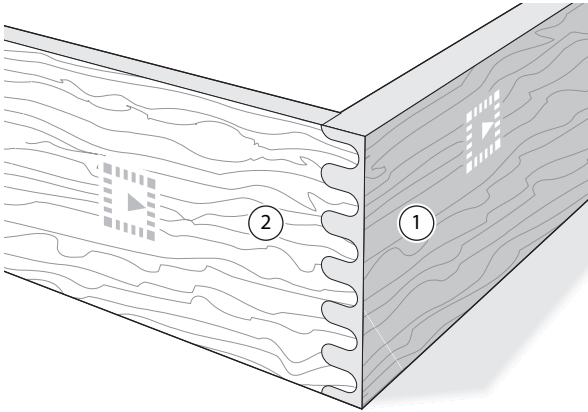
The same method will produce square end-on-end joints. ■

F2, F1600 **CHAPTER 7**

Rounded Half-Blind Finger Joint Procedures

*Rounded Finger Joints can only be created using
the 24" [600mm) F2 and F2M.*

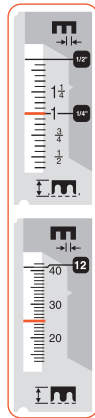
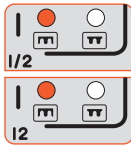




7-1 F2-24" and F2M(600mm) Only

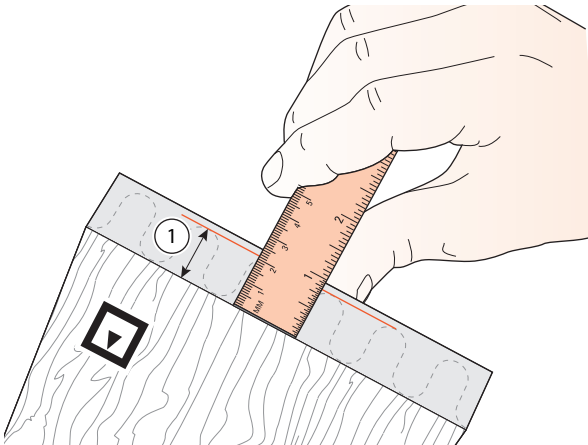
Rounded half-blind finger joints make an attractive drawer front ① to side ② connection.

Before starting, check the board width charts on pages 32-33 and see Appendix II for cutter selection.



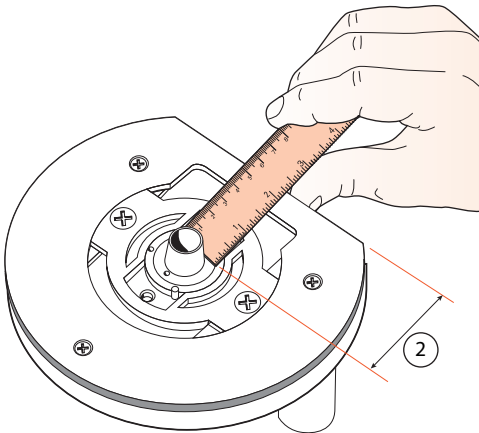
7-2 Routing Half-Blind Joints

Set the template scale to the thickness of the pin board on the grey scale, e.g. 1" [25mm] shown here. Set the template pin in the  hole.

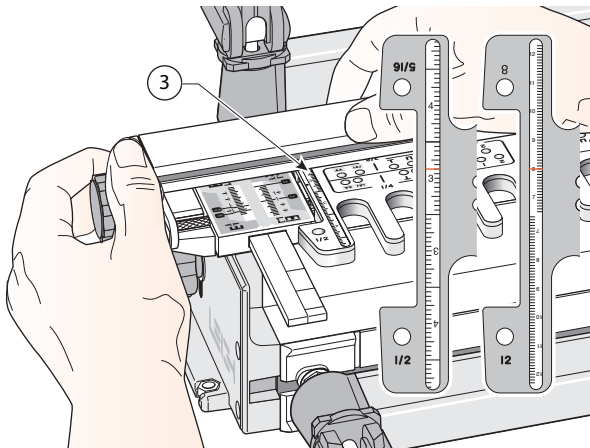


7-3

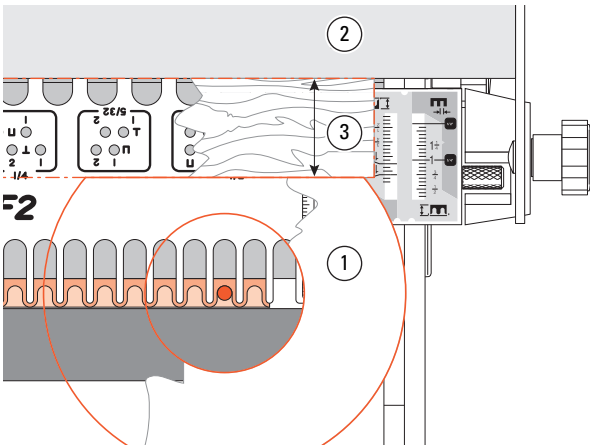
Measure the required depth of horizontal cut into the pin board ①, usually $\frac{1}{8}$ " [3mm] less than the board thickness.



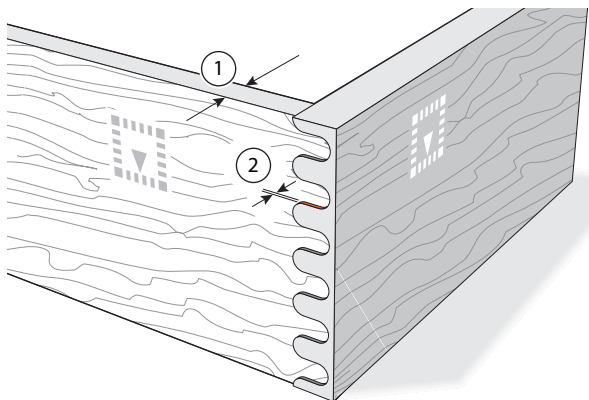
7-4
Measure the distance from the guidebush to the rear edge of the router base ②.



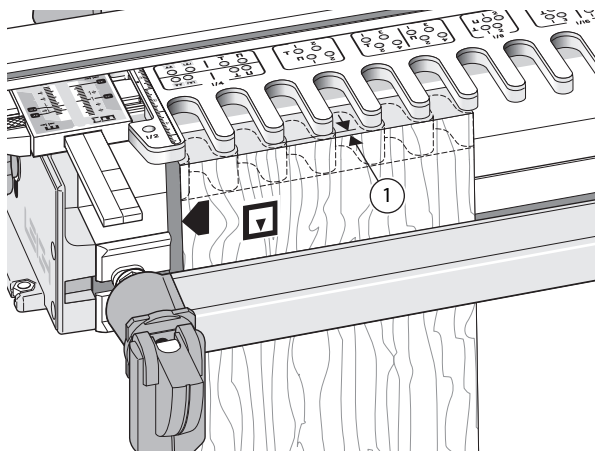
7-5
Add dimensions ① and ②. Set the router stop fence to this total on the fence scale ③ at both ends of the template. Tighten the fence knobs. If your router base is small, see 7-6 below.



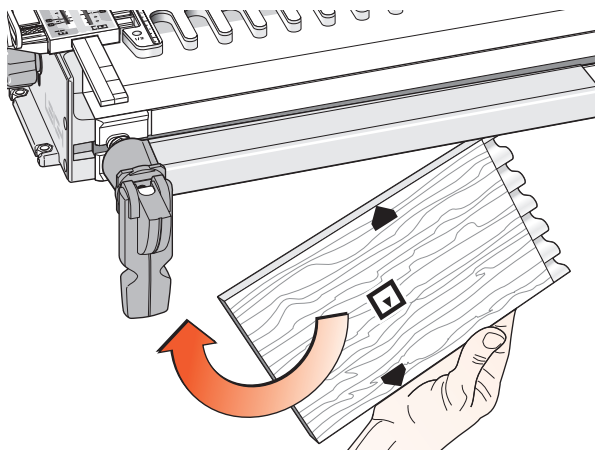
7-6
Some router bases ① are quite small and it may not be possible to get the router fence ② far enough forward to be effective. Use a parallel-sided block ③ between the router and fence. Offset the fence setting by the width of the block.

**7-7**

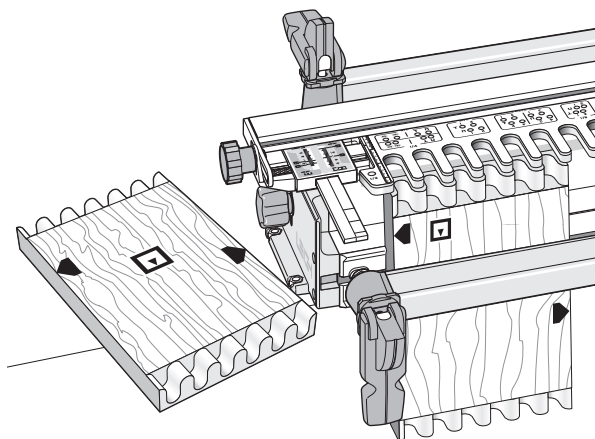
Set the depth of cut to slightly greater than the thickness of the side board ①. You want the drawer front fingers to come through the side sockets by no more than $\frac{1}{64}$ " [0,25mm] ② for cleanup later, just like half-blind dovetails.

**7-8**

Clamp the pin board vertically against the side stop with the end edge flush under the template. The inside face ⊞ of the finished boards face away from the jig body. With the scale set on the pin board thickness, the board should project $\frac{1}{8}$ " [3mm] in front of the guide tips ①.

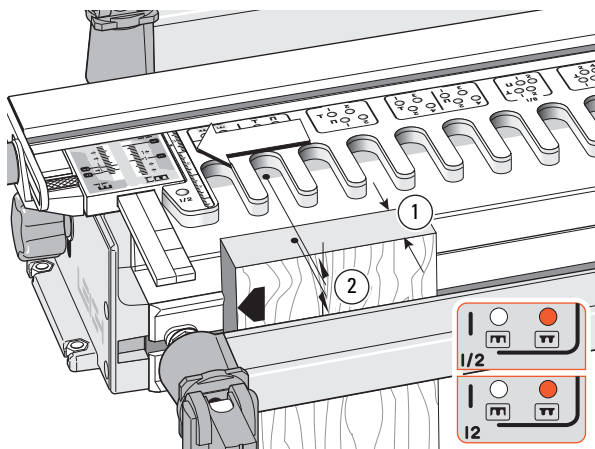
**7-9**

The inside face ⊞ of all boards used for making rounded half-blind joints always face away from the jig body just like half-blind dovetail boards on the dovetail jig. So alternate side edges go against the side stop and **boards must all be exactly the same width.**



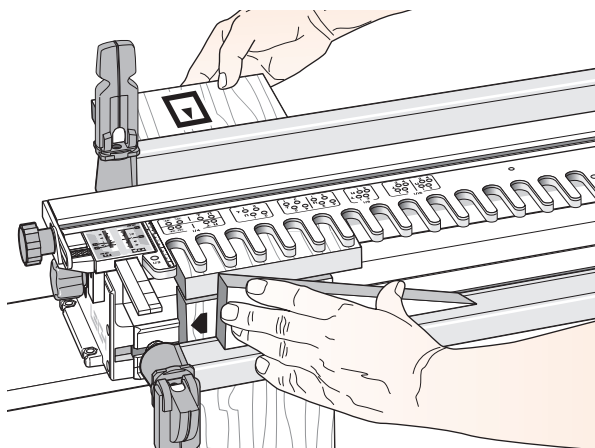
7-10

Route the rounded pins. Do not push against the router fence. The router should just touch the fence. Rout both ends of both pin boards at this setting. Do not change the fence setting.



7-11

Insert the template pin in the  hole. Do not change any other setting. Clamp a scrap board ① of exactly the same thickness as the pin board in the front clamp, with the top end edge slightly below the top surface of the jig body ②.

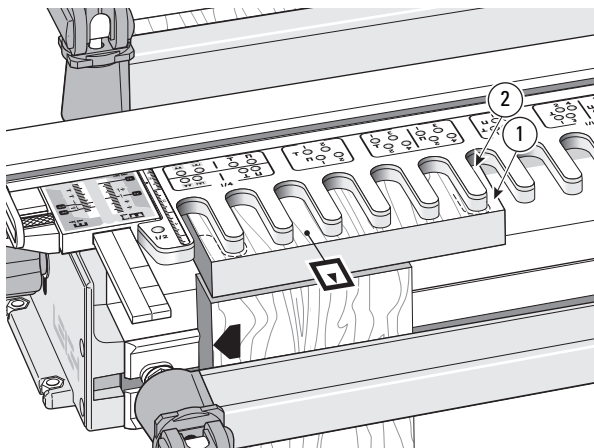


7-12

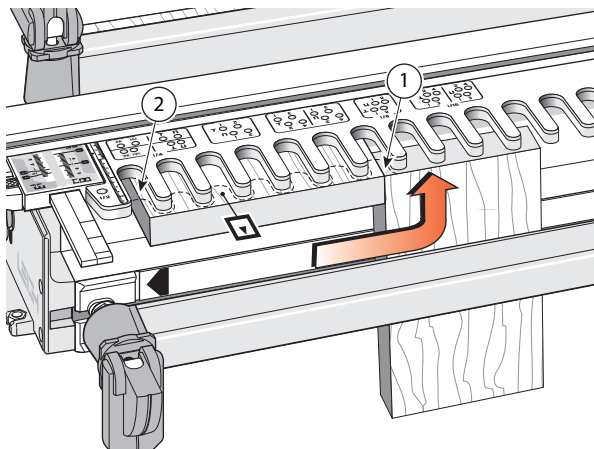
Clamp one of the box side boards horizontally in the rear clamp, with the inside face  of the board facing away from the jig body and the end edge flush with the outer edge of the vertical scrap board.



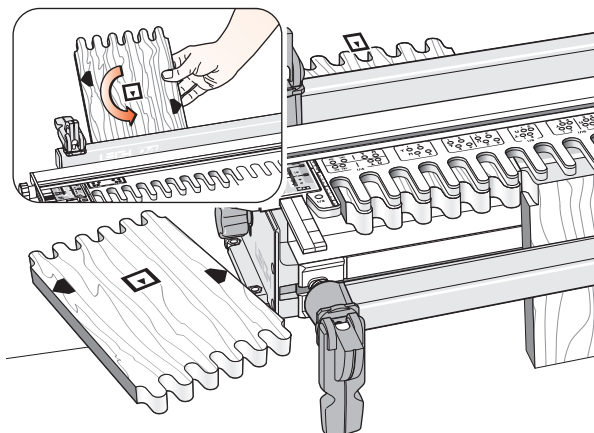
Tear-out Warning! Do not rout this board before reading the following:

**7-13**

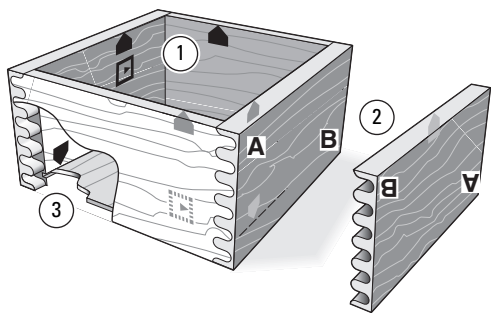
If you rout this horizontal board in the conventional way you may tear away the right hand board edge ①, although some woods will rout quite cleanly. If a plunge router is used, gently plunge down at the rear of the socket ② and rout out toward you.

**7-14**

When using combs at the left end of the jig, the best way to avoid the right-edge tearout problem is to clamp the front scrap ① against the right side edge of the board. Simply clamp it under the front clamp bar, making sure it's firmly against the edge of the board. By rotating and flipping its position, one scrap will be good for 4 cuts. The edge at ② may cause the router to pull itself quickly into the template comb, so good router control is important.

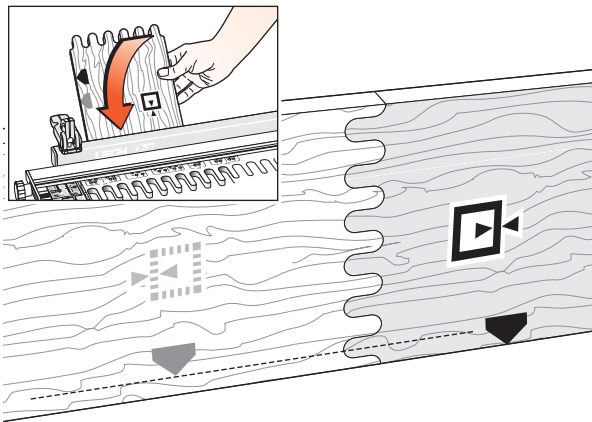
**7-15**

Rout both ends of both side boards, with inside faces  away from the jig body.



7-16

Rounded finger joint boards must be assembled with the inside faces inwards ① but unlike square box joints, the sides edges may be up or down ②. So you can decide on the preferred board orientation before marking and routing the box bottom grooves ③. You will probably need to clamp in both directions when gluing-up.



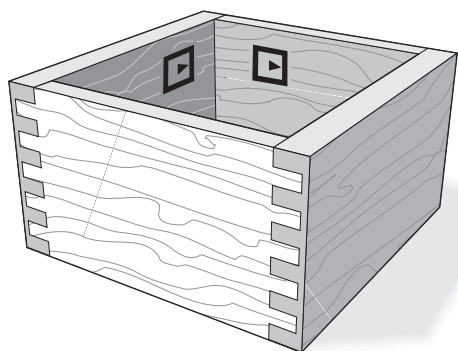
7-17 Rounded End-on-End Joints

These are routed exactly the same way as the box-side boards in the previous instruction, except that you must keep the same side edges against the side stop and alternate face side up/face side down ☐. Rout half the boards at the ☐ setting and the other half at the ☐ setting. ■

F2, F1600 **CHAPTER 8**

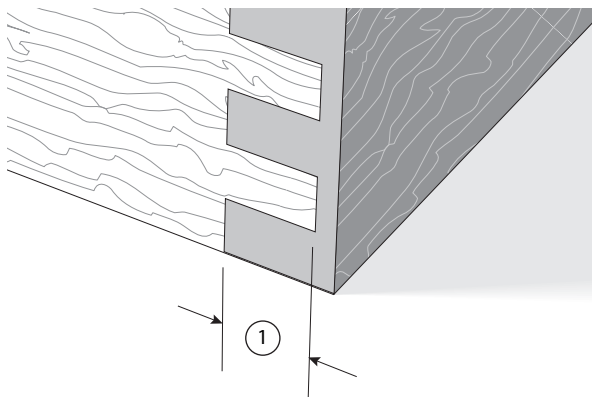
Square Half-Blind Box Joint Procedures





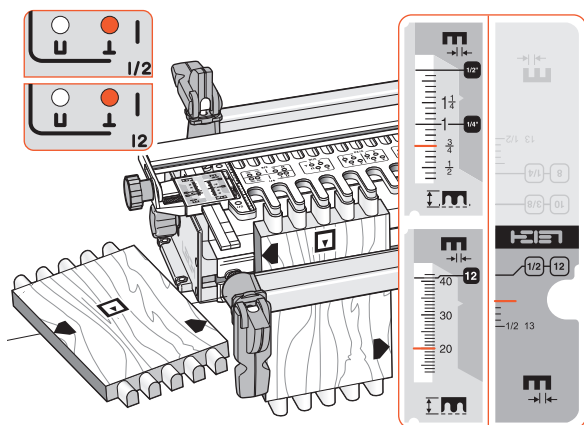
8-1 Square Half-Blind Joints

Just like the rounded half-blind joints: boards must be exactly the same width, inside faces  always face away from the jig body, and alternate edges are placed against the side stop. Even though part of this joint is rounded, we use the square pitch pin settings to rout it.



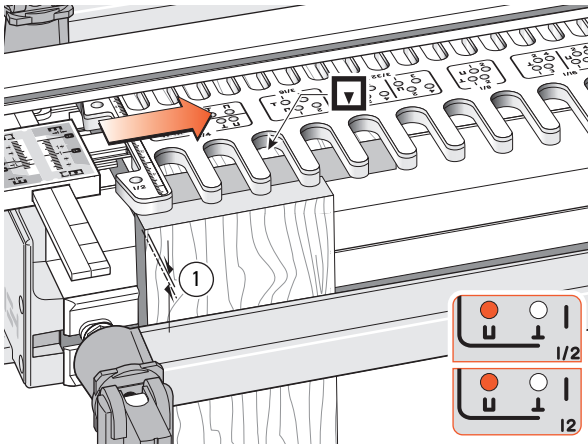
8-2

Set the depth of cut ① to about $\frac{1}{8}$ " [3mm] less than the drawer-front thickness.



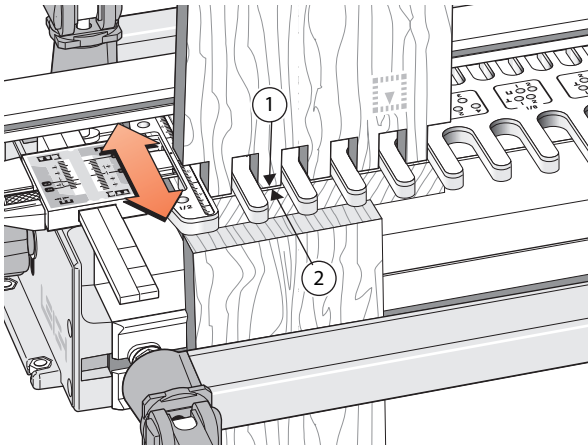
8-3

Set the template pin on the  setting and the scales to the thickness of the box sides, e.g. $\frac{3}{4}$ " [20mm] shown here. Move the F2 router fence to the rear, it is not used in this procedure. Rout the box side ends vertically in the front clamp.



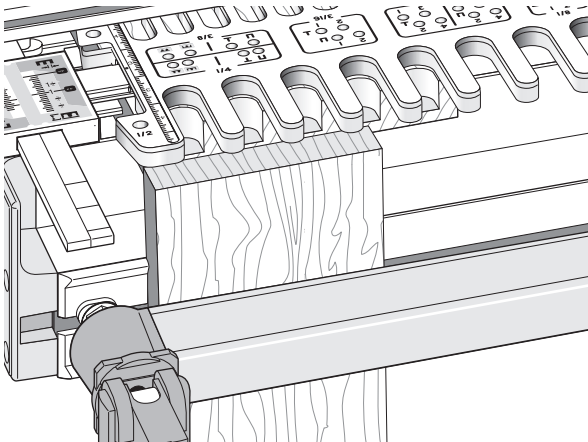
8-4

Set the template pin on **U**. Clamp a scrap piece vertically in the jig front with its top end slightly above the jig body ①. Clamp a box front horizontally with the inside face **U** away from the jig body, and the front end edge against the scrap board.



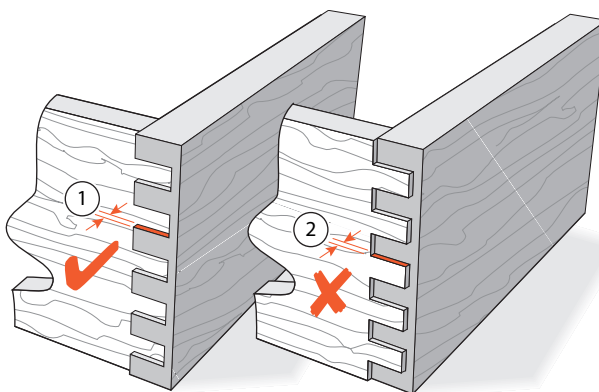
8-5

Place one of the routed box sides vertically through the template with the rounded part of the fingers in the rounded guide crotches. Adjust the template so the front face of the side board ① is $\frac{1}{16}$ " [1,5mm] **in from the end** edge of the box front ②. Lock the scales on the same setting at both ends.

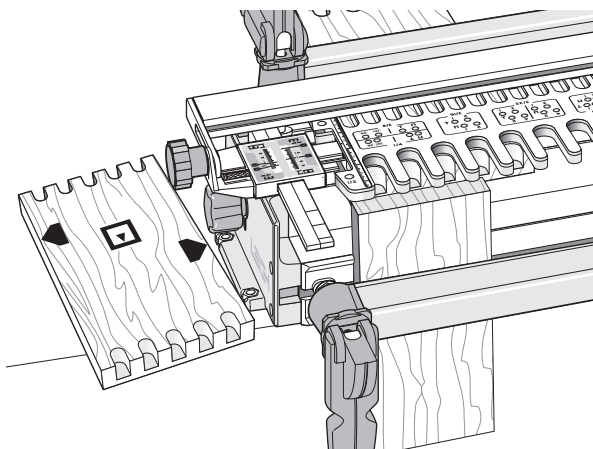


8-6

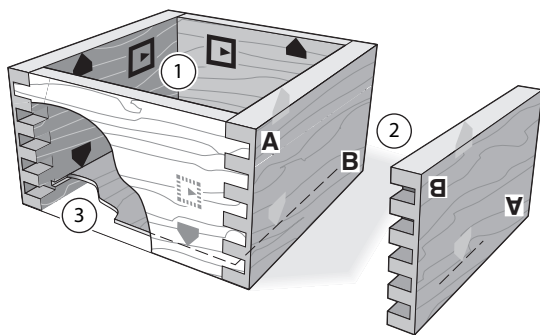
Route a test piece to test the scale setting for joint flushness and adjust the template in or out to produce the required flush fit.

**8-7**

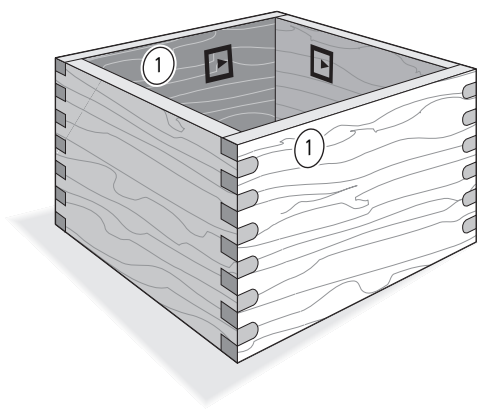
The drawer front pins should project through the side sockets by no more than $\frac{1}{64}$ " [0,25mm] for clean-up ①. If the sides project ②, adjust the template inward to suit.

**8-8**

When satisfied with the flushness fit, rout all the ends of the box fronts and backs in this mode.

**8-9**

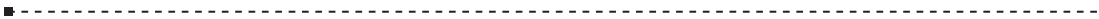
Square half-blind box joint boards must be assembled with the inside faces inwards ① but unlike box joints, the sides edges may be up or down ②. So you can decide on the preferred board orientation before marking and routing the box bottom grooves ③. You will probably need to clamp in both directions when gluing-up.



8-10 Rounded Square Box Joints*

These are routed the same way as square half-blind box joints, but the depth of cut is slightly greater than the thickness of the front and rear boards ①. ■

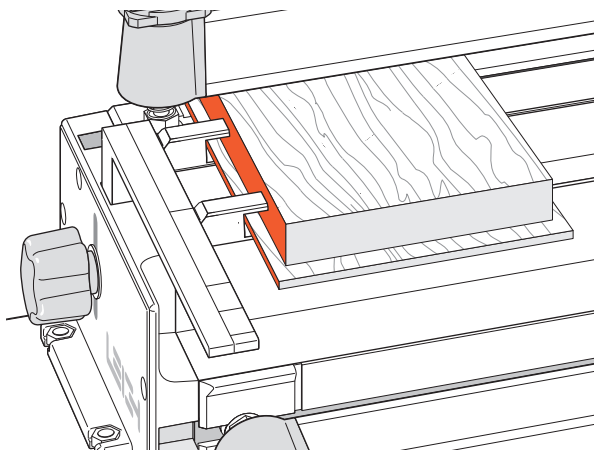
** Cannot be routed on the
F1600 1/2"[F1600M 12mm] combs.*



F2, F1600 **CHAPTER 9**

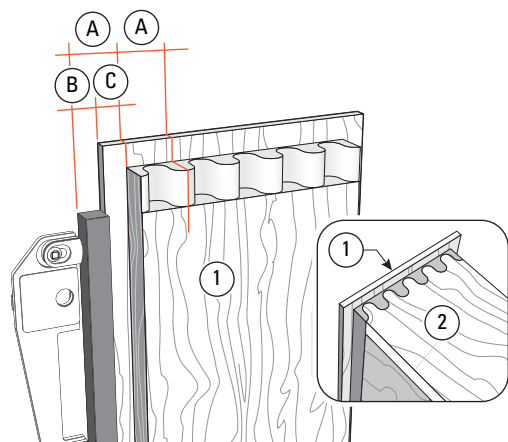
Rabbeted Half-Blind Finger Joints





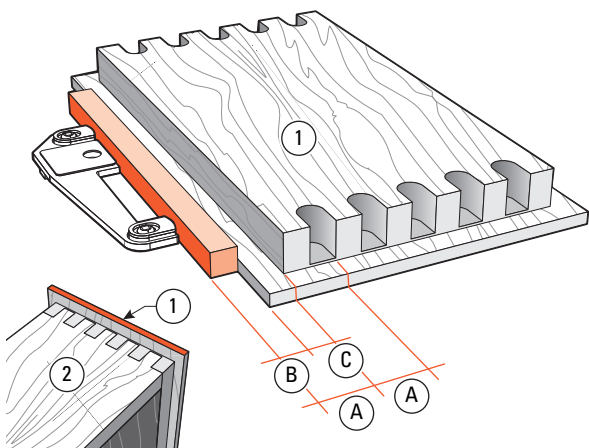
9-1 Rabbetted Round Half-Blind Finger Joints

On the D4R and D1600 jigs, rabbetted square half-blind workpieces do not require blocking if the rabbet is $\frac{3}{8}$ " or less.



9-2

On all other Leigh jigs, rabbetted drawer fronts ① and the mating sides ② have to be blocked away from the side stops. Block drawer sides ② away from the side stops by one complete comb pitch (A). Block the drawer front ① away by (B) which is comb pitch (A) minus rabbet width (C).



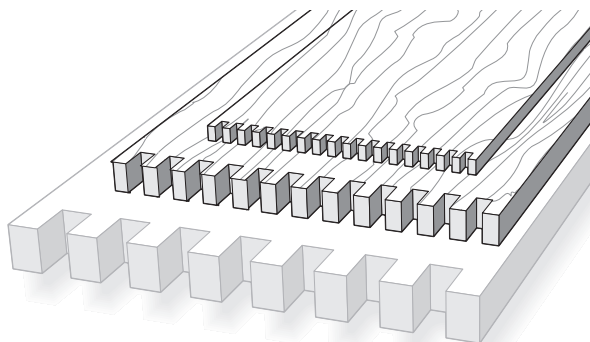
9-3

The same rule applies to rabbetted square box joints. ■

Small Box Joints

These instructions are based on the assumption that you have mastered the routing of the basic box joint, and are thoroughly familiar with those procedures, and that you have read the Hints and Tips Chapter 11.

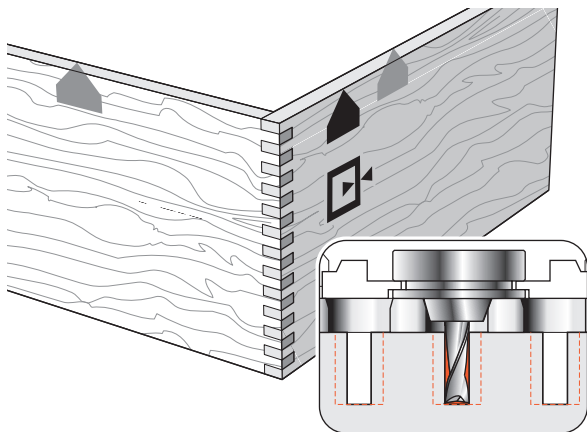




10-1 About Small Box Joints

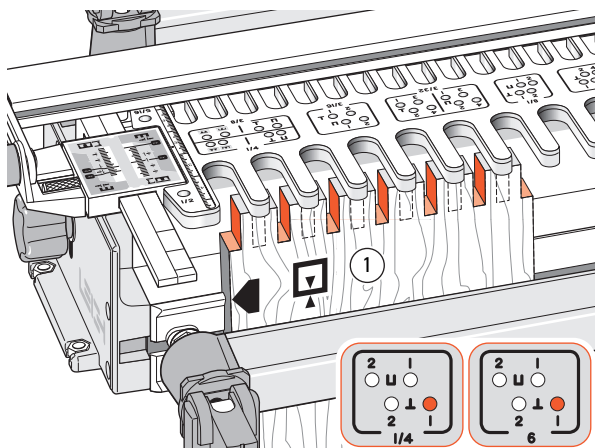
The template pin positions for half and quarter size joints are clearly marked on the template. These allow routing of half-size, and even quarter-size box joints (but not rounded joints). You get the advantage of routing thicker, wider boards with for example, $\frac{1}{4}$ "[6mm] box joints on the $\frac{1}{2}$ "[12mm] template ...or as small as $\frac{1}{16}$ "[2mm] joints on the $\frac{1}{4}$ "[6mm] template.

To calculate board widths for small box joints, see page 68.



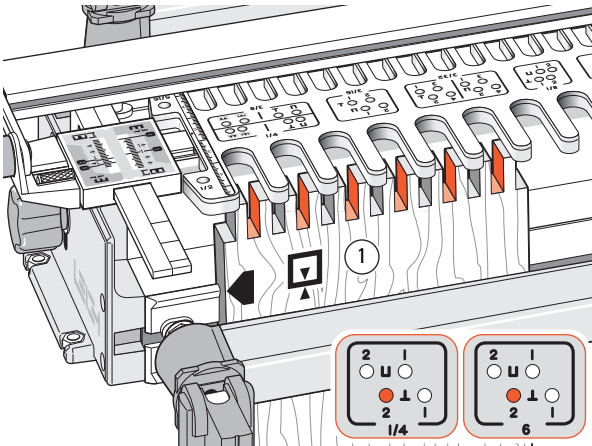
10-2 Routing Half-Size Joints

An example half size joint layout is $\frac{1}{4}$ "[6mm] joints on the $\frac{1}{2}$ "[12mm] comb. Use the same size guidebush for the selected comb, but use a cutter of half the nominal size. In this example, use the 716V bush with a $\frac{1}{4}$ "[6mm] cutter.



10-3

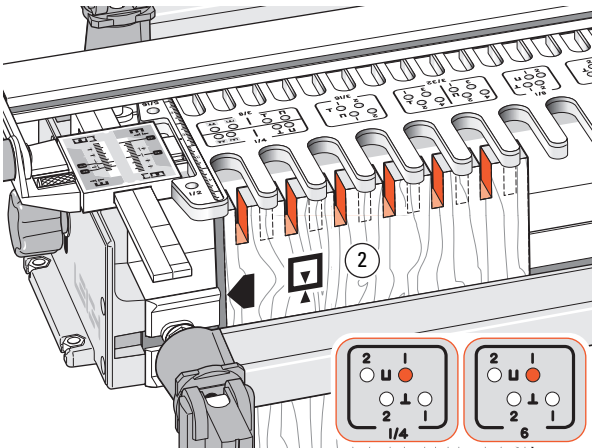
Clamp board ① in the jig against the side stop. Using the $\frac{1}{4}$ "[6mm] pin-hole panel (on the right-hand side of the template), place the template pin in the $\blacktriangledown$ No.1 hole. Rout the half size $\frac{1}{4}$ "[6mm] sockets and leave the board ① in the clamp.



10-4

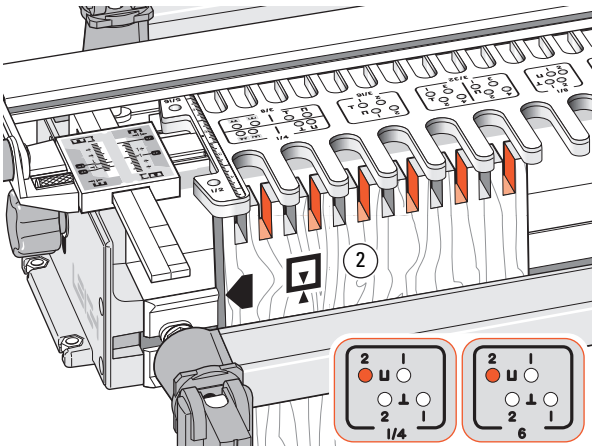
Move the template and put the template pin in the **⬇** No.2 hole. Rout the rest of the half size sockets and remove the board. This board ① will now have fingers and sockets half the nominal size.

Repeat instructions 3 and 4 on the other end of board ①, and on both ends of board ③, making sure at each step to keep the same side edge against the side stop.



10-5

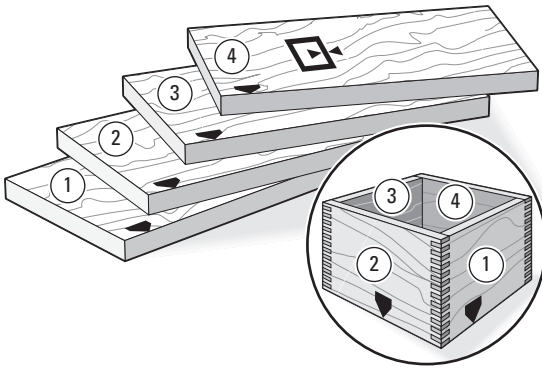
Mount the mating board ②. Put the template pin in the **⬆** No.1 hole. Rout the first set of sockets and leave the board in the clamp.



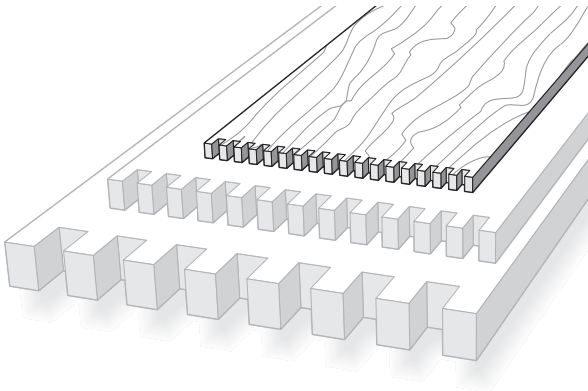
10-6

Move the template and put the template pin in the **⬆** No.2 hole. Rout the remaining half size sockets and remove the board.

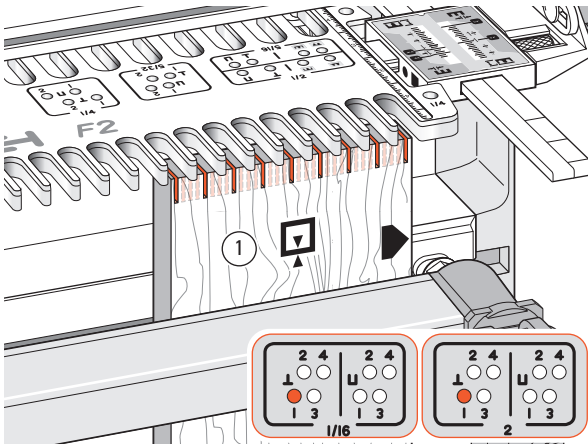
Repeat instructions 5 and 6 on the other end of board ②, and on both ends of board ④, again making sure to keep the same board side edge against the side stop.

**10-7**

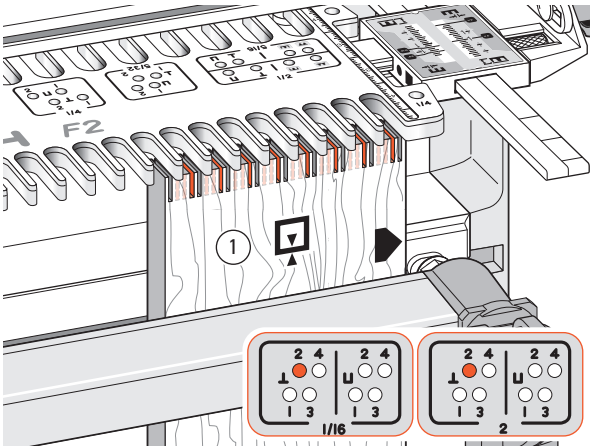
During assembly of the box, always keep the side stop edges of the boards either to the top, or bottom of the box.

**10-8 Quarter Size Joints**

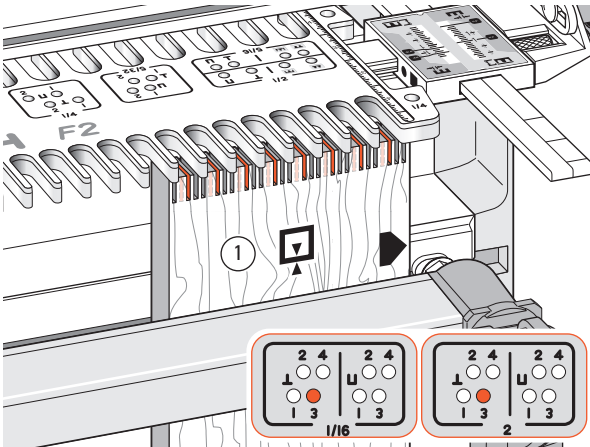
An example quarter size joint layout is $\frac{1}{16}$ "[2mm] joints on the $\frac{1}{4}$ "[8mm] comb.

**10-9**

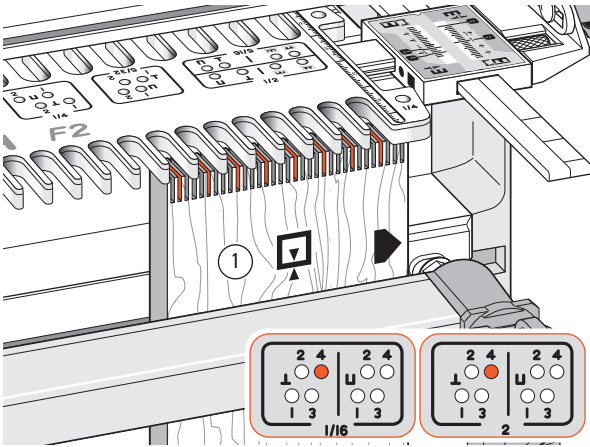
Clamp board ① in the jig against the right-hand side stop. Using the $\frac{1}{16}$ "[2mm] pin-hole panel, place the template pin in the $\blacktriangledown$ No.1 hole and rout the quarter size $\frac{1}{16}$ "[2mm] sockets. Leave the board in the clamp.



10-10
Move the template and put the template pin in the  No.2 hole and rout again.

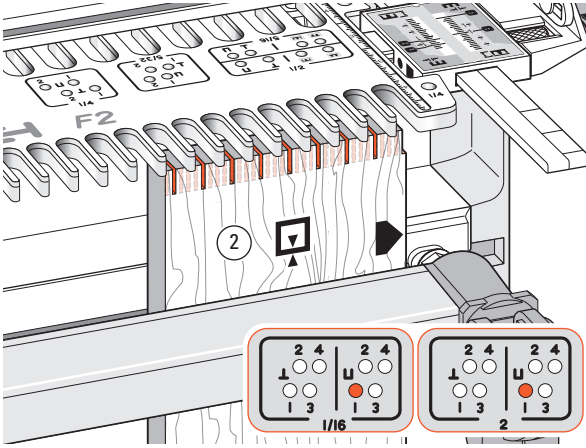


10-11
Move the template and put the template pin in the  No.3 hole and rout again.



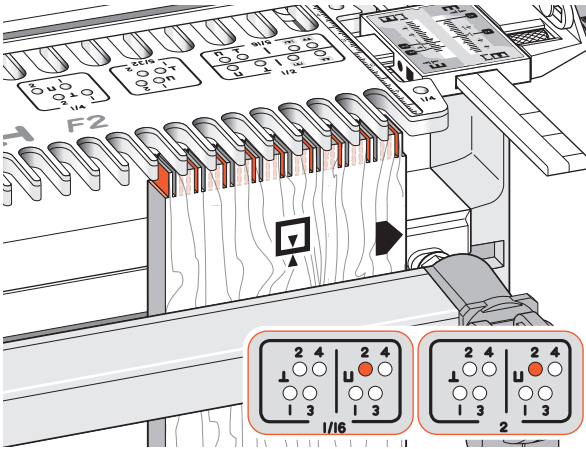
10-12
Last, move the template and put the template pin in the  No.4 hole. Rout the last sockets and **remove the board**.

Repeat instructions 9 through 12 on the other end of board ①, and on both ends of board ③, making sure at each step to keep the same side edge against the side stop.



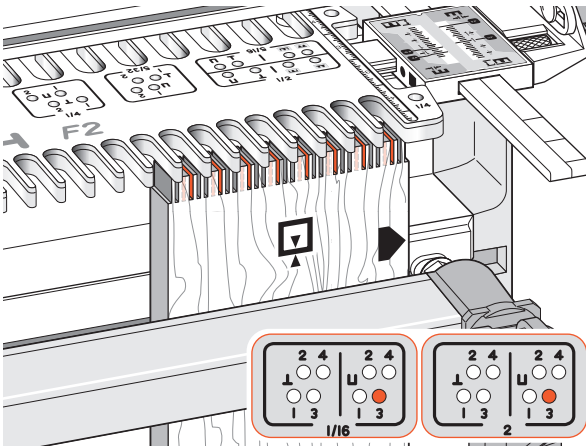
10-13

Mount the mating board ②. Put the template pin in the **U** No.1 hole and rout the first set of sockets. Leave the board in the clamp.



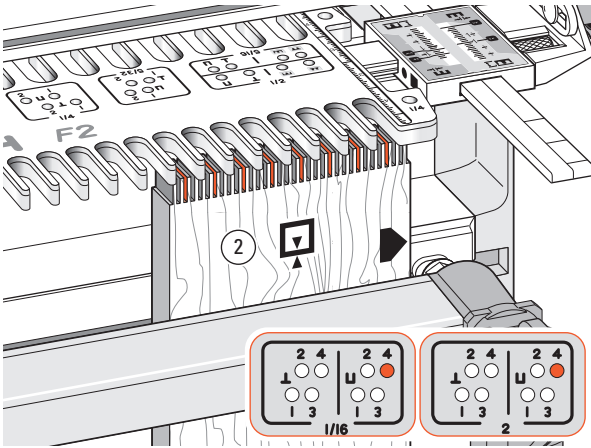
10-14

Move the template and put the pin in the **U** No.2 hole. Rout the second set of sockets.



10-15

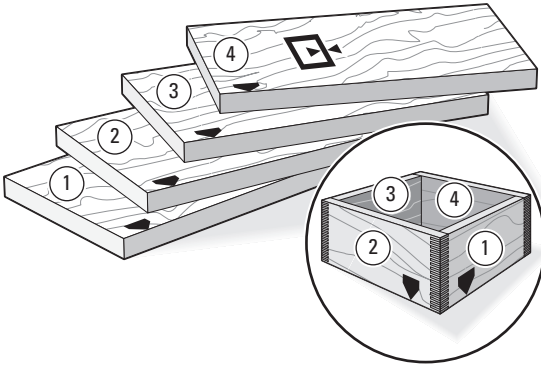
Rout again in pin position **U** No.3.



10-16

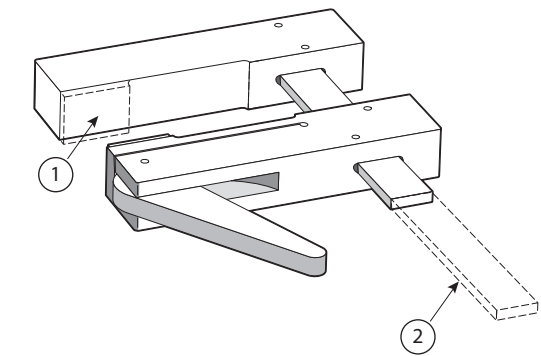
Then rout in pin position **U** No.4.

Repeat instructions 13 through 16 on the other end of board ②, and on both ends of board ④ making sure at each step to keep the same side edge against the side stop.



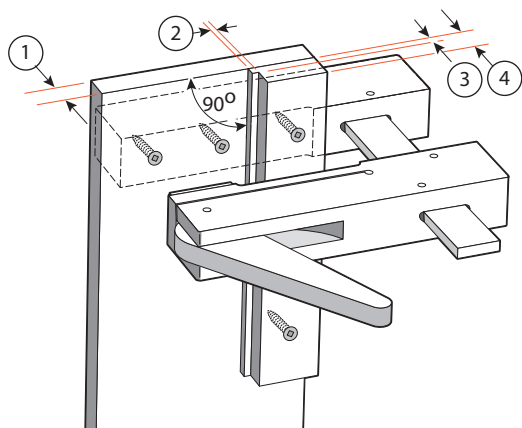
10-17

During assembly of the box, always keep the side stop edges of the boards either to the top or bottom of the box.

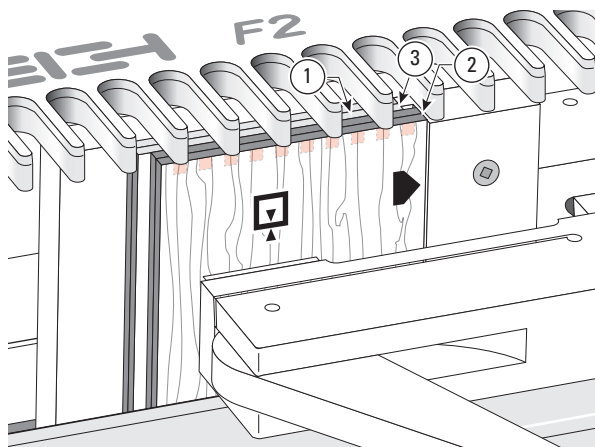


10-18 A Fixture for Routing Multiple Pieces

For very thin or short boards, make up an auxiliary clamp with its own *stepped* side stop by adapting a stock clamp. Remove the grip pad ① flush to the fixed jaw face. Remove the excess metal bar ②. These useful wooden clamps are generally available from most good woodworking tool stores.

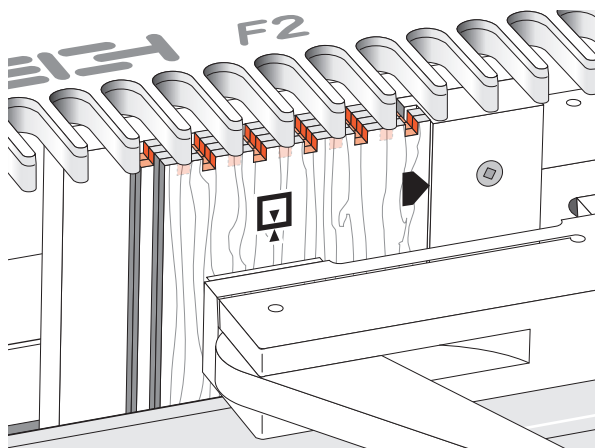
**10-19**

With this shop made fixture you can rout up to four pieces at once and speed up small box joint production. You will need to adjust the scale settings to allow for the backboard thickness, e.g. a $\frac{1}{2}$ " [12mm] backboard ① will require moving the template $\frac{1}{2}$ " [12mm] further toward you. Number ② is a step, equal in width to the small cutter diameter used. The step depth ③ is slightly less than one, or two board thicknesses, depending on whether two or four pieces are being routed at one time. The overall side stop depth ④ is greater than all board thicknesses combined.

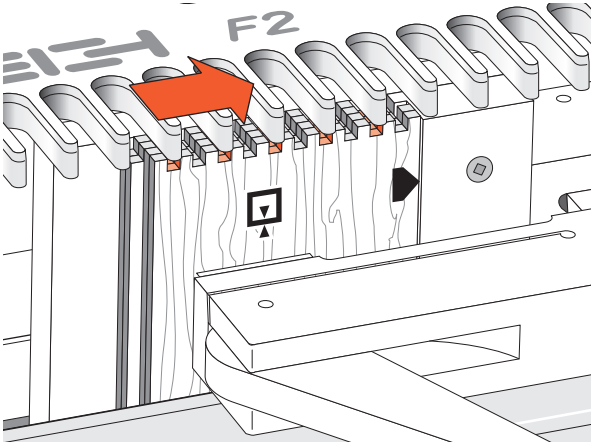
**10-20**

The front jig clamp holds the auxiliary clamp by its stepped side stop. The small boards may slide behind the jig front clamp bar if necessary. The rear two boards ① are offset from the front two boards ② by the stepped side stop ③, at an amount equal to the **small cutter diameter used**.

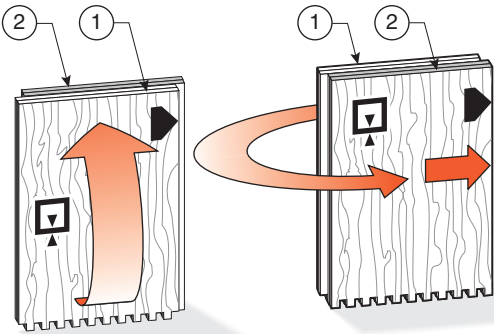
Adjust the auxiliary clamp left and right in the jigs front clamp to allow for the correct side edge finish.

**10-21**

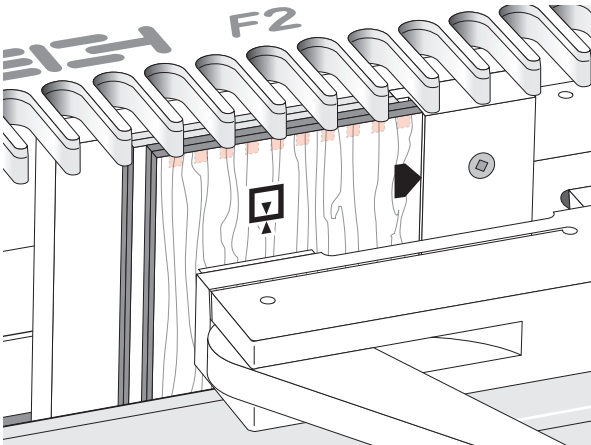
In this example, a half-size joint is being simultaneously routed in all four box board ends. First in one pin position...



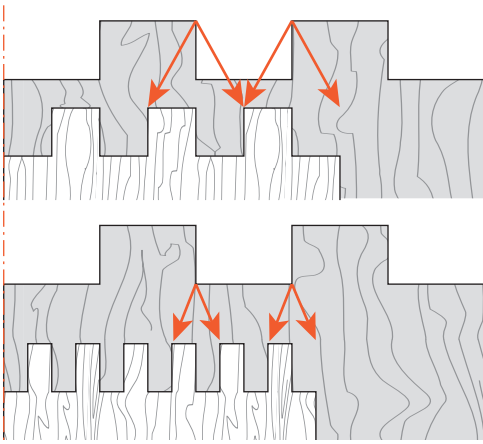
10-22
...then in the next.



10-23
Remove all four boards together, and turn end for end, keeping the same edges to the side stop. Move boards ② back to the front before re-clamping.



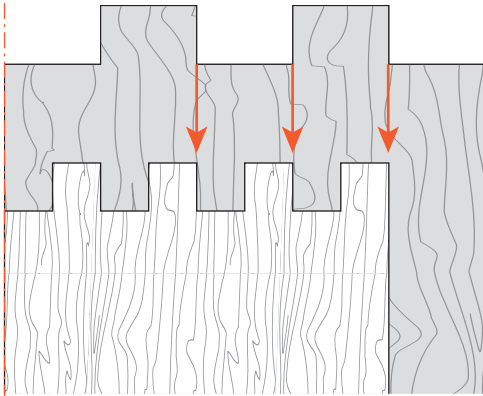
10-24
Now rout these four ends in the same two template pin positions as before.

**10-25 Board Widths for Small Box Joints**

Small joint board widths are calculated from the board width charts on pages 32 and 33.

All Symmetrical Joints

Use chart width plus or minus the diameter of the small cutter used.

**10-26****Asymmetrical Joints, Half Size**

Width as per chart.

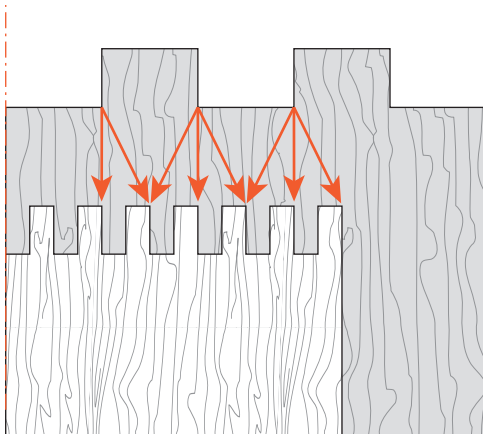
**10-27****Asymmetrical Joints, Quarter Size**

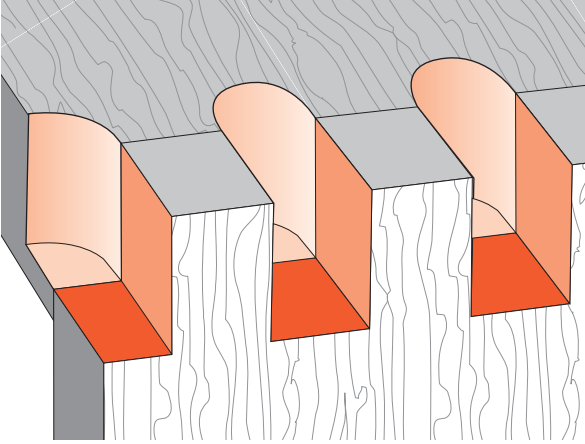
Chart width plus or minus 2 diameters of the small cutter used. ■



F2, F1600 **CHAPTER 11**

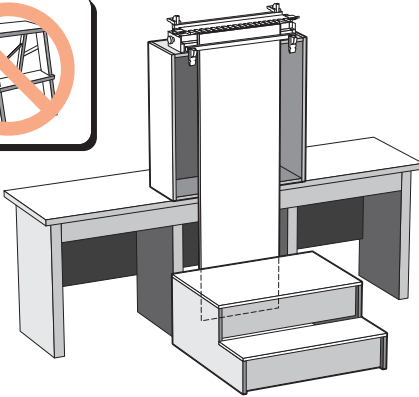
Hints and Tips

Here are some special techniques and ideas to help you get the most out of your Leigh Finger Joint Template.

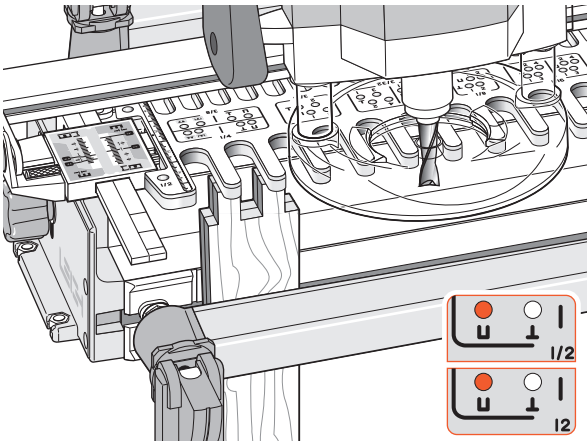
**11-1**

To help prevent tear-out on the sides and bottom of the exit cut, back up the cut with a horizontal board end-grain pushed against the back of the workpiece and held in the rear clamp.

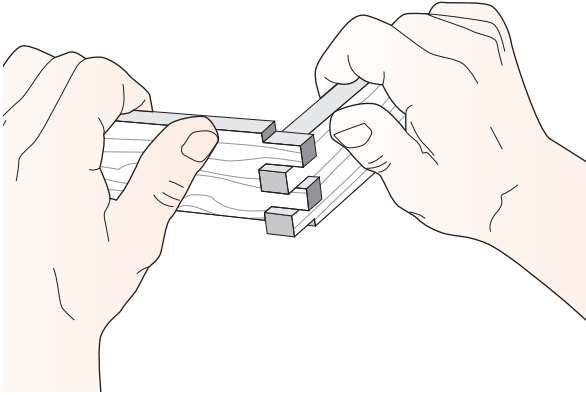
This same scrap piece can remain in place for successive cuts.

**11-2**

For routing long vertical boards 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 to stand on as in the illustration. Do not use a set of steps. Steps are not stable enough.

**11-3 Quick Fit Test**

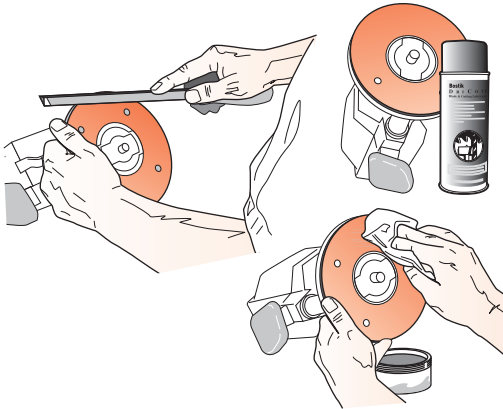
Rather than routing test pieces separately, here is a quick way to get 99% of the way there. Simply rout two thinner boards of scrap stock simultaneously. Any single pin position will do, unless you intend to rout small box joints, in which case, use the matching pin positions described in chapter 10. If you prefer, use one piece and saw in half after routing.



11-4

Test for fit. Don't worry about board alignment, it's only the fit you're testing. Adjust the VGS by trial and error and rout more pairs of scrap board ends as required.

Once you have a good fit, rout a complete pair of separate test pieces in the same species wood as the actual workpieces, to test for final fit.



11-5

Some router bases have sharp edges on the outside and inside corners. A slight chamfer of the edges with a fine file or sandpaper block will ease router movement on the jig.

An occasional light spray of TopCote® or application of soft wax to the router base makes for smooth, easy router movement on the jig. ■

F2, F1600 **APPENDIX I**

Variable Guidebush Selection

VGS:

The Leigh Variable Guidebush System

The VGS is included with the F Finger Joint Templates, but you may need an optional adaptor for your router (see next pages).

Do not use the VGS on D Series dovetail jigs or the M2(MMTA) as the tapered VGS bushes will not index properly on the guidefingers and guide rails.

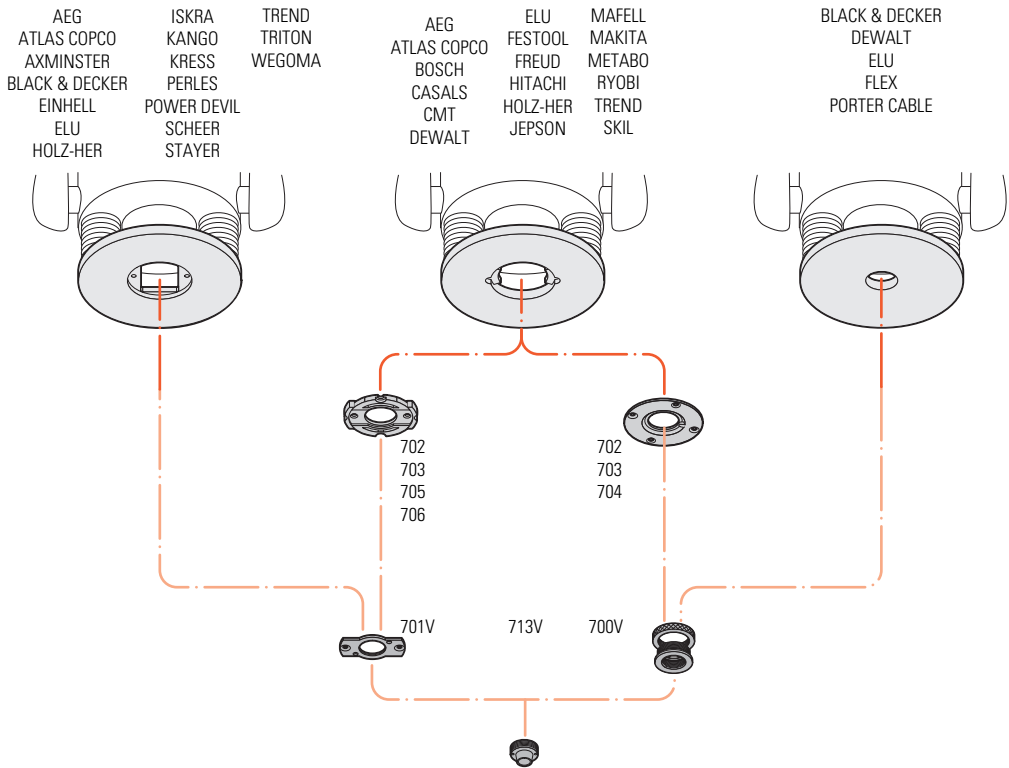


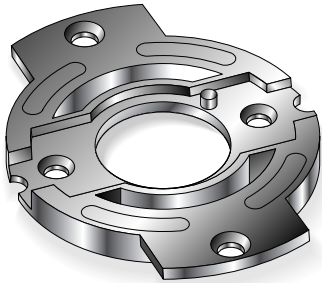
The Variable Guidebush System

The Vital Link Between Your Router and the Leigh F Template

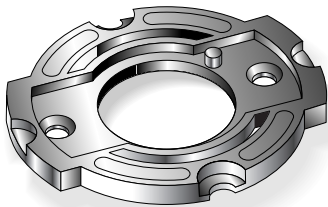
Because there is little or no standardization in the router industry, Leigh has developed a comprehensive guidebush and adaptor system to match your router to Leigh jigs and attachments. The diagram below shows how the VGS parts relate to each other and to different makes and types of routers.

Do not use this diagram for part selection.
See pages 75-76.

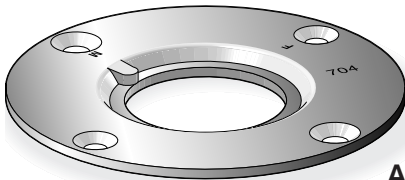




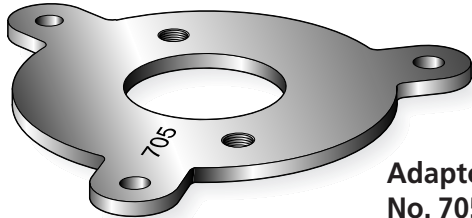
Adaptor
No. 702



Adaptor
No. 703



Adaptor
No. 704



Adaptor
No. 705

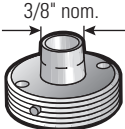
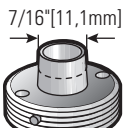
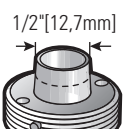
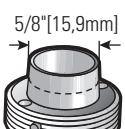
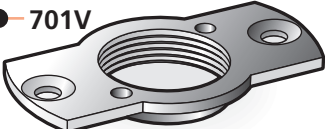


Adaptor
No. 706

How to Select the Adaptor for the
Leigh F Template
and Variable Guidebush System

1. Go to the Selection Chart on the facing page.
2. Find the make and model of your router from columns 1 and 2.
3. See which standard variable guidebush holder works with your router in column 4. This holder is included with your F2.
4. Select the Adaptor for your router (if required) from column 3. *NA means not available for those model routers. Leigh does not stock router manufacturers' adaptors.*

ACCESSORIES INCLUDED WITH TEMPLATES

F2	F2M	F1600	F1600M	
●		●		709V 
●	●		●	711V 
●	●	●	●	713V 
●	●	●	●	716V 
●	●	●	●	700V 
●	●	●	●	701V 

Nominal (mean) diameter of each bush is shown for reference

Find the make and model of your router in columns 1 and 2. See which Leigh holder works with your router in column 4. Select the correct adaptor plate for your router (if required) from column 3. *Leigh adaptors are in red.* Other adaptors must be purchased from the router manufacturers distributor. The VGS holders are included with your F Template.

1 ROUTER MAKER	2 ROUTER MODEL	3 (optional) LEIGH OR ROUTER MAKER'S ADAPTOR NO.	4 (included) LEIGH VGS HOLDER
AEG	OFE 710 in plunge base	No adaptor required	701V
	OFSE 2000	703	
ATLAS COPCO	OFSE 710 in Plunge Base, OFE 1000	No adaptor required	701V
	OFSE 2000	703	
AXMINSTER WHITE	AW635R	No adaptor required	701V
	AW127R	Adaptor supplied w/router	
BLACK & DECKER	All Professional HD 1250, RP400K	No adaptor required	700V
	6200	720673-00	
	SR100, 7AEE, KW780 Series	No adaptor required	701V
BOSCH	90140, 90098, 90088	No adaptor available	NA
	90085, 90150, 90300, 90303, 90305, 91264		
	1600, 1601, 1602, 1603, 1604, 1606, B1350	2 610 906 290	
	1613, 1613EVS, 1613AEVS, 1614, 1614EVS, 1614EVS,		700V
	1617, 1617EVS, 1618EVS, 1619EVS, B1450,	RA1100	
	POF800ACE, GOF900ACE, GOF1300ACE, GOF2000CE		
	1611, 1611 EVS, 1615, 1615 EVS, B1550, GOF1600, GOF1700 ACE	702	701V
CASALS	FT750, FT1000E, FT2000E	703	701V
CMT	1E	702R	701V
CRAFTSMAN (SEARS)	All non-plunge models	No adaptor required	NA
	135275070 Plunge	See Skil 1823 or 1835	See Skil 1823 or 1835
	Other plunge models	702	701V
DEWALT	DW610, DW616, DW618	No adaptor required	700V
	DW 613	No adaptor required	701V
	DW614, DW615, DW618, DW621,	North America only;	700V
	DW624, DW625, DW626	Adaptor supplied w/router	
	DW621K & DW626 Outside North America	706	
	DW625 Type 1, 2 and 3 Outside North America	702	701V
	DW625 Type 4, Outside North America, DW625EK	702R	
EINHELL	EOF850SP, OF-G 1100E	No adaptor required	701V
ELU	2720, 2721, 3328	No adaptor required	700V
	3303, 3304	E09600 or 761 270-00	
	3337, 3338, 3339, MOF131, MOF177, Type 1,2 and 3	702	
	MOF68, MOF69, MOF96, MOF96E	No adaptor required	701V
	OF15, OF15E, OF97, OF97E	706	
	MOF 177 Type 4, MOF177EK	702R	
FEIN	RT1800	Adaptor supplied w/router	700V
FESTOOL	OF1E, OF2E, OF650, OF900E, OF1000, OF1010E	704	700V
	OF2000, OF2000E	705	701V
FLEX	ALL MODELS	No Adaptor required	700V
FREUD	F12000	703	701V
HITACHI	TR8, TR12, FM8, M8, M12 Series	703	701V
	M12VC	No adaptor required	700V
HOLZ-HER	2355, 2356	No adaptor required	701V
	2365	702	
ISKRA	MR808A Series	No adaptor required	701V
JEPSON	7412	703	701V
KANGO	OF808	No adaptor required	701V
KRESS	OF690 IE Series	No adaptor required	701V
MAFELL	LO65E	702	701V
	3601B	321 493-1	
MAKITA	RF1100, RF1101, RD1100, RD1101, RP1101	No adaptor required	700V
	RP0910, RP1110C	706	
	3600, 3606, 3608, 3612, 3612B, 3612BR,	703	701V
	3612C N. America, 3620, 3621		
	3612C Europe Qk. Fit Base	Contact your National Leigh distributor	
METABO	OF1612, OFE1812	704	700V
MILWAUKEE	5615, 5619	49-54-1040	700V
	5625	Adaptor supplied w/router	
PERLES	OF808 Series, OFE6990	No adaptor required	701V
PORTER CABLE (ROCKWELL)	All	No adaptor req'd, or supplied w/router	700V
POWER DEVIL	All	No adaptor required	701V
RYOBI	R30, R50, R150, R151, R155, RE155, R500, R501, R502	703	
	R600, R601, RE600, RE601	702	701V
	R160, R161, R162, R165, R170, R175, RE175, R180, R180PL, R185	706	
SCHEER	HM9, HM14, HM14-12, HM18, HM18-E	No adaptor required	701V
SKIL	1823 or 1835	91803	700V
	All others	See Bosch Distributor	NA
STANLEY	All	No adaptor available	NA
STAYER	PR50 Series	No adaptor required	701V
TREND (Fellisati)	T5	No adaptor required	701V
	T9	Adaptor supplied w/router	
TRITON	TRC001	TGA002	700V
WEGOMA	OF850 Series	No adaptor required	701V

■ MAFELL – Rework the adaptor slightly.

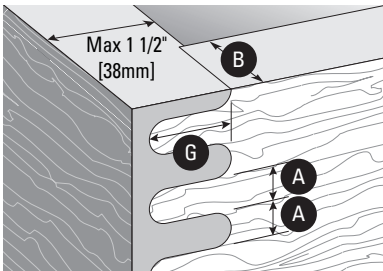
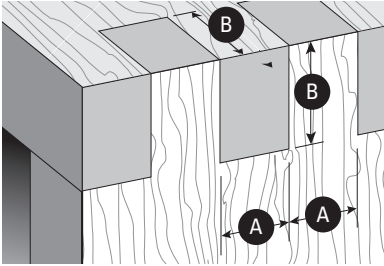
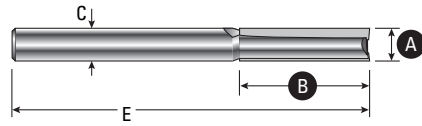
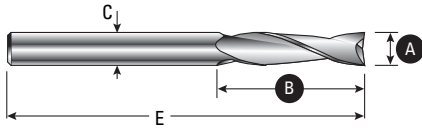
● SCHEER – Rework the router base slightly

F2, F1600 APPENDIX II

Cutter Selection and Joint Specification

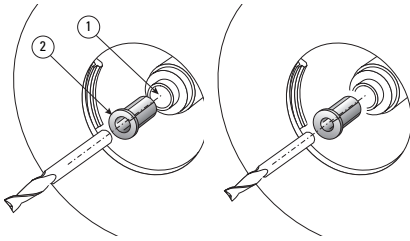


Cutter Selection and Joint Specification



Virtually any straight router bit may be used for routing box joints or finger joints. There are two types which each have their own advantages and disadvantages. Generally, the high-speed steel (HSS) spiral upcut bits cut cleaner and have less tendency to cause tear-out. They also tend to pull the waste chips up to and around the guidebush, necessitating the occasional cleaning of the guide surfaces. Straight-flute carbide tipped bits spray the waste out horizontally, but they do not cut quite as cleanly. The smallest cutters in both categories are usually single flute straight bits.

"A" is the cutter diameter and equals the nominal size of the finger or socket. "B" is the cutting depth or board thickness, whichever is less.



Check the shank size of each cutter selected, then use the appropriate collet ① or collet reducer ②. $\frac{1}{4}$ " collet reducers come standard with most $\frac{1}{2}$ " collet routers, but **if $\frac{5}{16}$ ", 8mm or $\frac{3}{8}$ " collets are not available, use one of the following:**

For all $\frac{3}{8}$ " shank bits use the Leigh No. 172-375, $\frac{1}{2}$ " to $\frac{3}{8}$ " collet reducer.

For all $\frac{5}{16}$ " and 8mm shank bits (*these are almost the same diameter*), use Leigh No. 172-8, $\frac{1}{2}$ " to 8mm collet reducer.

F2 and F2M Cutter Selection and Joint Specification

Leigh does not stock metric sized cutters or reducers. Please contact your national distributor for Leigh.

F2 SPECIFICATIONS

LEIGH		Solid Carbide Spiral	A Cutter Dia. Finger Size	B Cutting Depth Range up to Max. Board Thickness	C Shank Diameter	E Overall Length	F Maximum Board Width	G Max. Rounded Finger Length
Cutter Item No.	Carbide Tipped HSS Spiral							
132	162	—	1/16"	3/16"	1/4"	2"	8 7/16"	—
133	163	—	3/32"	3/8"	1/4"	2"	12 9/16"	—
134	164	164C	1/8"	3/8"	1/4"	2 5/8"	8 7/16"	—
135	165	165C	5/32"	5/8"	1/4"	2 7/8"	10 1/2"	—
136	166	166C	3/16"	5/8"	1/4"	2 7/8"	12 9/16"	—
138	168	168C	1/4"	3/4"	1/4"	3"	8 7/16"	1 1/8"
140-8	170	170C	5/16"	7/8"	8mm & 5/16"	2 3/4"	10 1/2"	1 1/4"
143	173	173C	3/8"	1"	3/8"	3"	12 9/16" to 22 29/32" *	1 3/8"
160	180	180C	1/2"	1 - 1/4"	1/2"	3 1/2"	14 21/32" to 23 13/16" *	1 3/8"

* See "www.leighjigs.com", click on support/technical bulletins/wider box joints

F2M SPECIFICATIONS

A Cutter Dia. Finger Size	B Cutting Depth Range up to Max. Board Thickness	C Shank Diameter	E Overall Length	F Maximum Board Width F124	G Max. Rounded Finger Length
2	6	8	60	253	—
4	12	8	70	253	—
6	19	8	70	596	—
8	22	8	75	253 to 499*	32
10	25	8	75	335 to 580*	35
12	32	8	75	596	35

Leigh does not stock metric sized cutters or reducers. Please contact your national distributor for Leigh.

*See "www.leighjigs.com", click on support/technical bulletins/wider box joints.

F1600 and F1600M Cutter Selection and Joint Specification

Leigh does not stock metric sized cutters or reducers. Please contact your national distributor for Leigh.

F1600 SPECIFICATIONS

LEIGH Cutter Item No. Carbide HSS Tipped Spiral		Solid Carbide Spiral	A Cutter Dia. Finger Size	B Cutting Depth Range up to Max. Board Thickness	C Shank Diameter	E Overall Length	F Maximum Board Width F2400
132	162	—	1/16"	3/16"	1/4"	2"	8 7/16"
133	163	—	3/32"	3/8"	1/4"	2"	12 9/16"
134	164	164C	1/8"	3/8"	1/4"	2 5/8"	8 7/16"
136	166	166C	3/16"	5/8"	1/4"	2 7/8"	12 9/16"
138	168	168C	1/4"	3/4"	1/4"	3"	8 7/16"
143	173	173C	3/8"	1"	3/8"	3"	12 9/16" to 22 29/32"*
160	180	180C	1/2"	1 - 1/4"	1/2"	3 1/2"	14 21/32" to 23 13/16"*

Leigh does not stock metric sized cutters or reducers. Please contact your national distributor for Leigh.

*See "www.leighjigs.com", click on support/technical bulletins/wider box joints.

F1600M SPECIFICATIONS

A Cutter Dia. Finger Size	B Cutting Depth Range up to Max. Board Thickness	C Shank Diameter	E Overall Length	F Maximum Board Width
2	6	8	60	162
4	12	8	70	162
6	19	8	70	389
8	22	8	75	162 to 300*
10	25	8	75	264 to 500*
12	32	8	75	389

Leigh does not stock metric sized cutters or reducers. Please contact your national distributor for Leigh.

*See "www.leighjigs.com", click on support/technical bulletins/wider box joints.



F2, F1600 **APPENDIX III**

Template Parts List

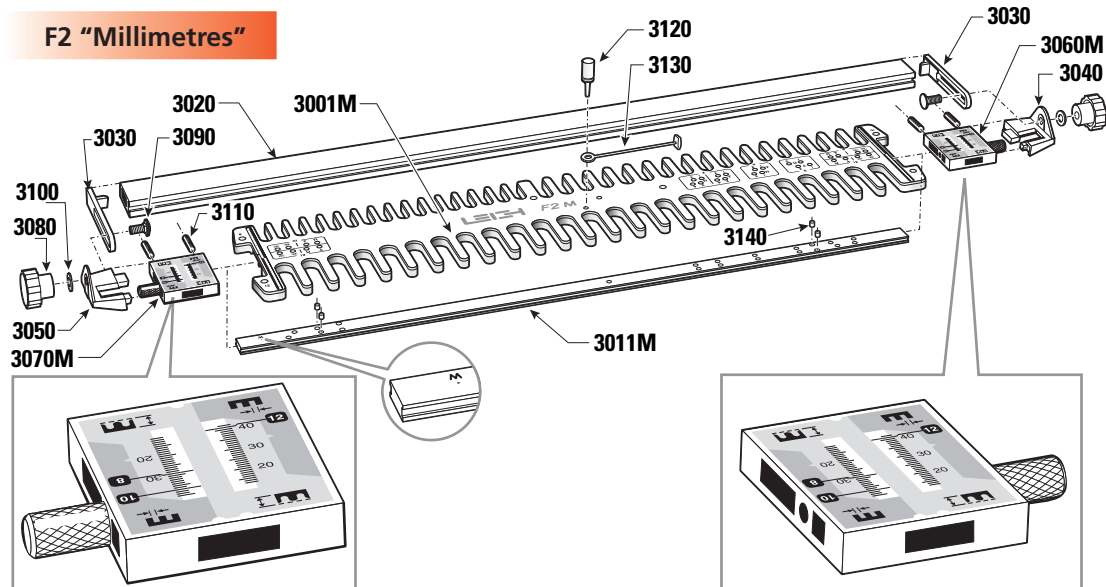
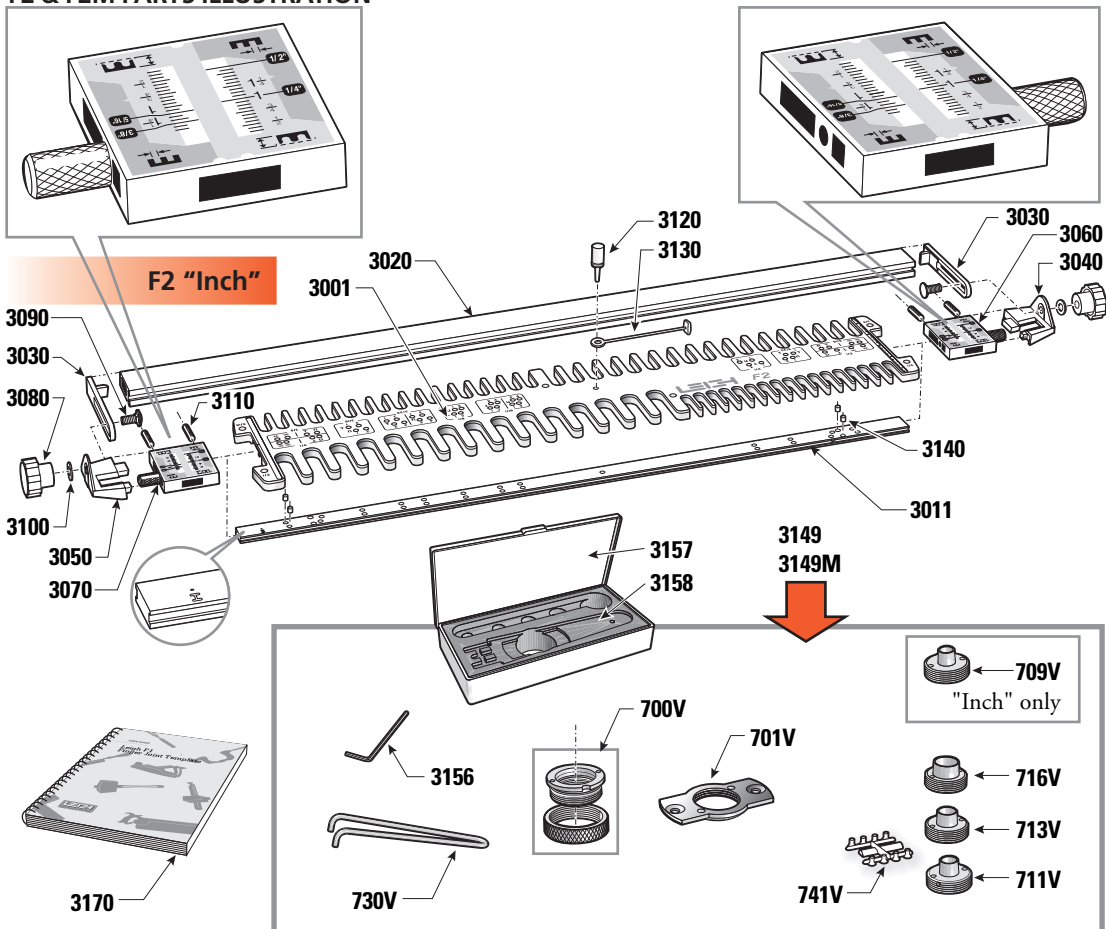
F2 & F2M PARTS LIST

For quick reference, record your
template's serial number here.

When ordering parts, please quote the Template model (inch or metric), serial number, part number, part description and quantity required.

PART NUMBER	QUANTITY PER TEMPLATE	PART DESCRIPTION
3001	1	"Inch" Template with decals
3001M	1	"Metric" Template with decals
3011	1	"Inch" Template Bar with glides (3140)
3011M	1	"Metric" Template Bar with glides (3140)
3020	1	Fence with brackets (3030)
3030	2	Fence Brackets
3040	1	RH Scale Bracket (RH in 1/2" & 1/4" mode) with screws (3110)
3050	1	LH Scale Bracket (LH in 1/2" & 1/4" mode) with screws (3110)
3060	1	RH Scale Assembly (RH in 1/2" & 1/4" mode) with screws (3110)
3060M	1	RH Scale Assembly (RH in 12mm mode) with screws (3110)
3070	1	LH Scale Assembly (LH in 1/2" & 1/4" mode) with screws (3110)
3070M	1	LH Scale Assembly (LH in 12mm mode) with screws (3110)
3080	2	Fence Knobs
3090	2	Fence Knob Bolts
3100	2	Fence Knob Wavy Washer
3110	4	Set Screws for Scale Bar and Bracket
3120	1	Template Pin with Tie (3130)
3130	1	Template Pin Tie
3140	4	Template Bar Glides
3149	1	F2 VGS Set complete, inch (contains 709V, 711V, 713V, 716V)
3149M	1	F2M VGS Set complete, metric (contains 711V, 713V, 716V)
3156	1	Allen Wrench for Set Screws
3157	1	VGS Box
3158	1	VGS Box Liner
3170	1	User Guide, combined inch & metric
700V	1	VGS Holder (2 pieces)
701V	1	VGS Holder
709V	1	VGS Bush for 1/4" Comb - for "Inch" template only
711V	1	VGS Bush for 5/16"[8mm] Comb
713V	1	VGS Bush for 3/8"[10mm] Comb
716V	1	VGS Bush for 1/2"[12mm] Comb
730V	1	Pin Wrench for VGS
741V	8	Nylon Thread-Inserts for VGS (on tree)

F2 & F2M PARTS ILLUSTRATION



F1600 & F1600M PARTS LIST

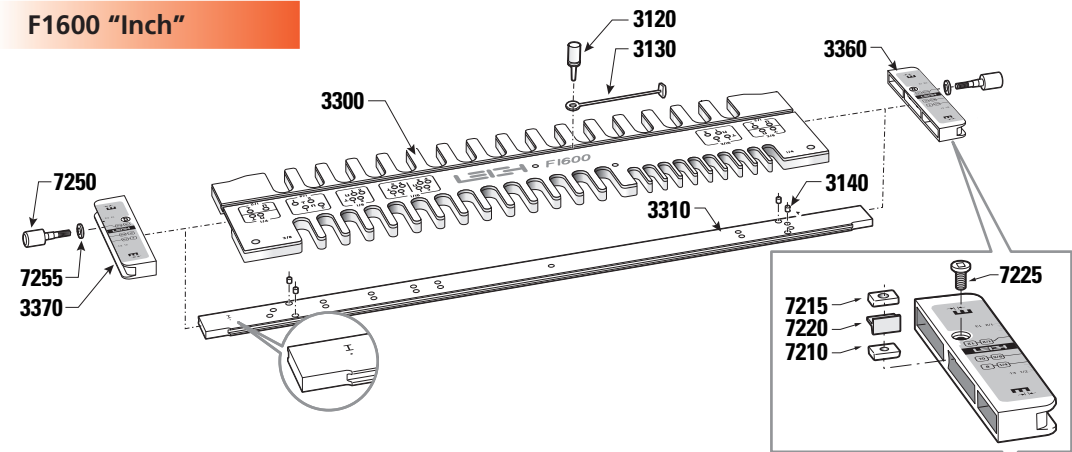
For quick reference, record your
template's serial number here.

When ordering parts, please quote the Template model (inch or metric), serial number, part number, part description and quantity required.

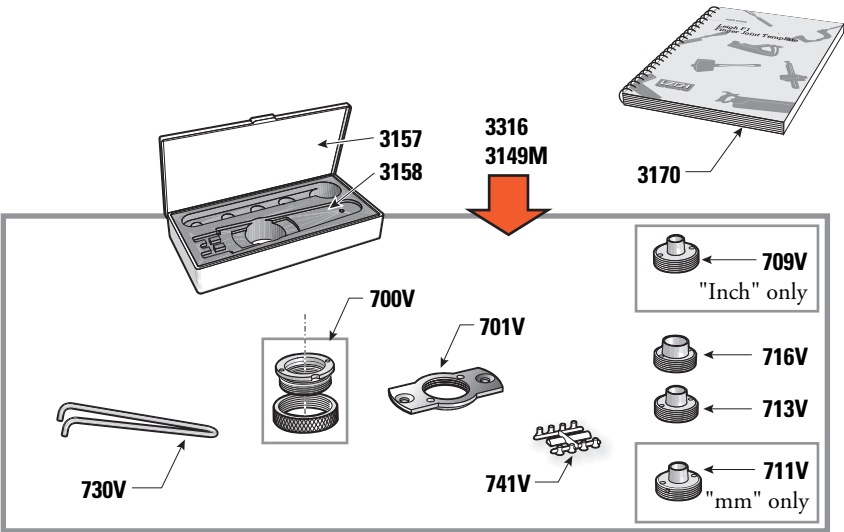
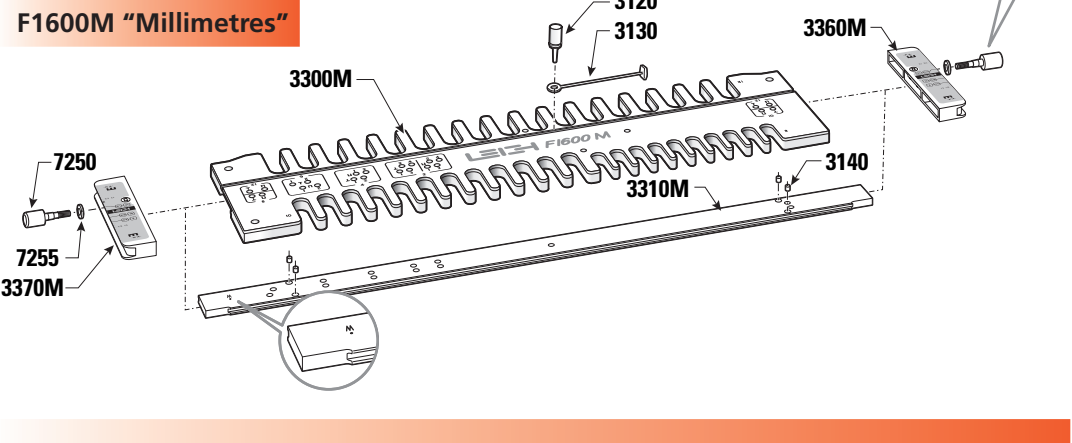
PART NUMBER	QUANTITY PER TEMPLATE	PART DESCRIPTION
3300	1	"Inch" Template with decals
3300M	1	"Metric" Template with decals
3310	1	"Inch" Template Bar with glides (3140)
3310M	1	"Metric" Template Bar with glides (3140)
3360	1	RH Scale Assembly (RH in 1/4" & 8mm mode)
3370	1	LH Scale Assembly (LH in 1/4" & 8mm mode)
3120	1	Template Pin with Tie (3130)
3130	1	Template Pin Tie
3140	4	Template Bar Glides
3316	1	F1600 VGS Set complete, inch (contains 709V, 713V, 716V)
3149M	1	F1600M VGS Set complete, metric (contains 711V, 713V, 716V)
3157	1	VGS Box
3158	1	VGS Box Liner
3170	1	User Guide, combined inch & metric
7210	2	Scale Nut
7215	2	Scale Washer
7220	2	Scale Wedge
7225	2	Scale Lock Screw #8-32
7250	2	Scale Thumbscrew
7255	2	Nylon Flat Washer 1 ³ / ₆₄ " x 7/ ₁₆ " x .062"
700V	1	VGS Holder (2 pieces)
701V	1	VGS Holder
709V	1	VGS Bush for 1/4" Comb - for "Inch" template only
711V	1	VGS Bush for 8mm Comb - for "metric" template only
713V	1	VGS Bush for 3/8"[10mm] Comb
716V	1	VGS Bush for 1/2"[12mm] Comb
730V	1	Pin Wrench for VGS
741V	8	Nylon Thread-Inserts for VGS (on tree)

F1600 & F1600M PARTS ILLUSTRATION

F1600 "Inch"



F1600M "Millimetres"



Appendix IV

Customer Support

Our Commitment to You Leigh Industries takes pride in its commitment to providing excellence in customer service and support. This user guide is designed to provide you with the answers to any questions you have. However, if you require assistance, please feel free to contact our technical support staff or a distributor listed below.

Manufacturer: Canada/USA

TEL/FAX

Customer Service and Technical Support

1-800-267-8761 (Canada)

1-800-267-8735 (USA)

EMAIL/WEB

Customer Service

customerservice@leevalley.com

NOTE: Email can be useful, but technical queries usually raise queries from us. A phone call is the quickest and most convenient way to get queries answered, either directly to Lee Valley (toll free in N. America) or to your national distributor. –Thanks!

MAILING ADDRESS

Lee Valley Tools Ltd.
P.O. Box 6295, Station J
Ottawa, ON
K2A 1T4

LOCATION

Lee Valley Tools Ltd.
1090 Morrison Dr,
Ottawa, ON
K2H 1C2

Distributors

AUSTRALIA & NEW ZEALAND

Carbatec - The Home of Woodworking
Unit 2, 364 New Cleveland Road
Tingalpa, QLD 4173 Australia
Tel: 07 3569 3205
Tel (Int.): +61 7 3292 0392
Email: Purchasing@carbatec.com.au
Web: carbatec.com.au

CHINA

Nanjing Haiwei Machinery Co., Ltd.
Harvey Woodworking Technology(Nanjing) Co., Ltd.
68-10 Suyuan Avenue, Jiangning District,
Nanjing, 211100 China
Tel: 86-(0)25-8666-8172 / 5792 8021
Fax: 86-(0)25-5792-8826
Email: cassie@harvey.cn
Web: www.harveymachinery.com
Web: www.harveyworks.cn

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Email: info@bordet.fr
Web: www.bordet.fr

GERMANY

Hacker GmbH
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Traberhofstraße 103 D-83026 Rosenheim,
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Fax: 08031 68221
Email: hacker.rosenheim@t-online.de
Web: www.hacker-rosenheim.de

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Via Gallarate 76 Settimo,
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Fax: 39 02 335 005 27
Email: info@ferrarimacchine.com
Web: www.ferrarimacchine.com

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Shizuoka Ken, 424-0102 Japan
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Fax: 81-54-367-6515
Email: info@off.co.jp
Web: www.off.co.jp/category/LEIGH/

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Gyeonggi Republic of Korea ,
16972 South-Korea
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Fax: +82-0504-192-0629
Email: maengha@leighkorea.com
Web: www.leighkorea.com

SOUTH AFRICA

Hardware Centre, Handico PTY Ltd/A Hardware
Centre
Shop 8 Homeworld Centre
CNR. Malibongwe & Rocky ST.
Randburg, Ferndale
South Africa
Tel: +27 011 791-0844/46
Fax: +27 011 791-0850
Email: info@hardwarecentre.co.za
Web: www.hardwarecentre.co.za

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Atvidaberg, 59730
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Fax: 46 120 854 69
Email: info@toolbox.se
Web: www.toolbox.se

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Axminster, EX13 5PH, United Kingdom
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Tel: 01297 630813
Fax: 011 44-870 432-7622
Fax: 01-297-631-224
Email: procurement@axminstertools.com
Web: www.axminster.co.uk/leigh

USA

Rockler
Woodcraft
Infinity Cutting Tools
Highland Hardware