LEIGH FT USER GUIDE

Finger Joint Template

Joining Tradition with Today

Your New Leigh Fingerjoint Template

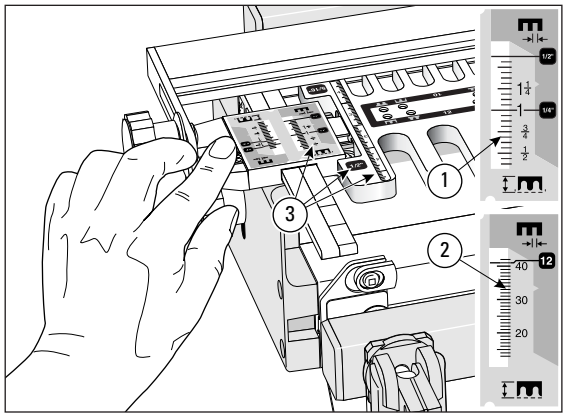
You now own a unique finger jointing system. The Leigh F1 template and Variable Guidebush System (VGS) will help you rout a variety of square and rounded finger or box joints with unique adjustment for precise tightness of fit.
"Finger" and "Box": Both words are used universally to title this simple 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 thoughout this guide.
We recommend that you first mount the F1 on your D Series Leigh Jig carefully following the instructions in the first section of the manual.
Then read the rest of the manual, following along with the basic functions, before you try to do any actual joinery routing. By all means, cut a few practice joints in scrap boards before you use the F1 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

Important: Inches *and* Millimetres

Leigh makes the F1 attachment in two models; inch or metric. Text and illustrations in this Leigh English-language user guide indicate dimensions in both inches and millimetres. Dimensions are indicated in text and illustrations with "inches" first, followed by "millimetres" in square parentheses.
Example:
¾" x 5½" x 8" or longer [20 x 140 x 200mm]
Do not be concerned if the inch/millimetre equivalents are not always exact. Just use the dimensions which apply to your jig.

Where finger assembly or template scales overlay an illustration, the "inches" scale ① will be at the top, the "millimetres" scale ② will be at the bottom. Only the right "active" half of the scales are illustrated. For clarity, setting positions are indicated in the manual with a red line. **On the jig, the lines are black.**
General views of the template will show inch markings ③.



How to Read the Symbols

To help you understand the instructions and illustrations in this manual, 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 quite frequently in the manual, and you will soon get used to them.

Glossary of Symbols

The Leigh F1 template can be in one of only two modes with either the ½"and ¼" [12mm] comb sizes to the front or the ⅜" and 5⁄16" [10 and 8mm] comb sizes to the front.

Scale Icons

This icon on the green scale background indicates the active scale for square box joints.

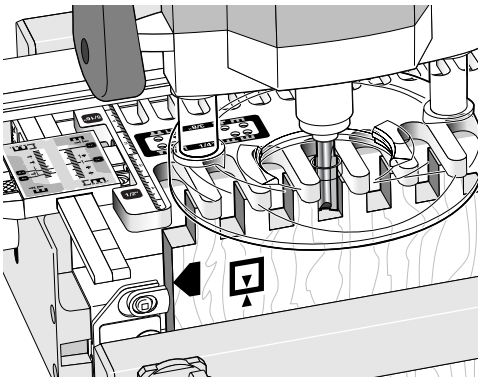
This icon on the gray scale background indicates the active scale for rounded finger joints.

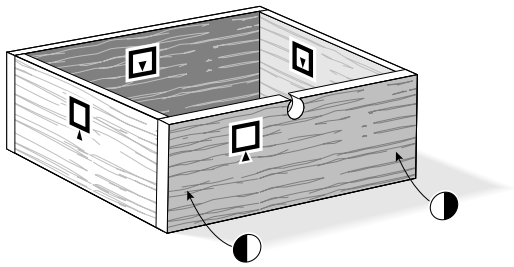
Template Icons

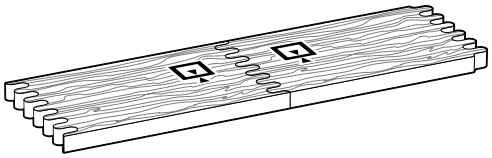
Indicates the two template positions for square box joints

Indicates the two template positions for rounded finger joints

Which Way Round Should the Board Go?
Most joinery done on the Leigh jig is for casework (i.e., boxes, cabinets, drawers, chests and so on) so in nearly all the illustrations we have indicated **which side of the board shows outwards when it is in the jig,** eg. in this figure the inside face ⊡ of the tail board is away from the jig.







This indicates the side of the board that will face outward on the finished project.

This indicates the side of the board that will face inward on the finished project.

This indicates a side that can face either inward or outward on the finished project

Dotted line icons are on the other side of the board.

The following symbols indicate:

Left side of item (drawer, box, case, etc.)

Right side of item

Top of item

Bottom of item

This edge against side stop

This edge against side stop

As above, other side of board

Sawcut allowance

Caution: use special care for this operation

①②③ Reference in text

Diameter

Centreline of board or layout

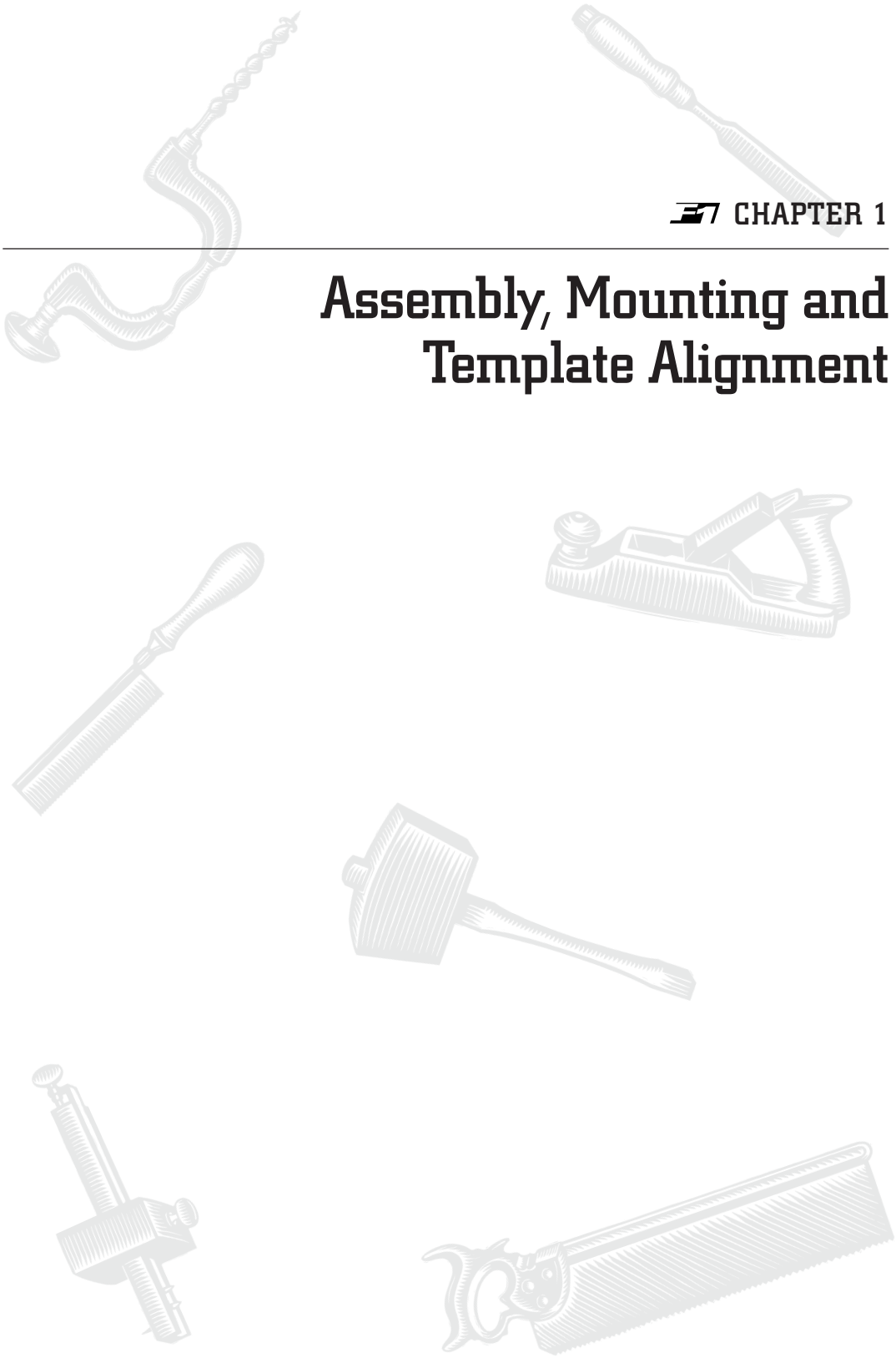
Equals

Does not equal

Approximately

Less than or equal to

Greater than or equal to



CHAPTER 1

Assembly, Mounting and Template Alignment

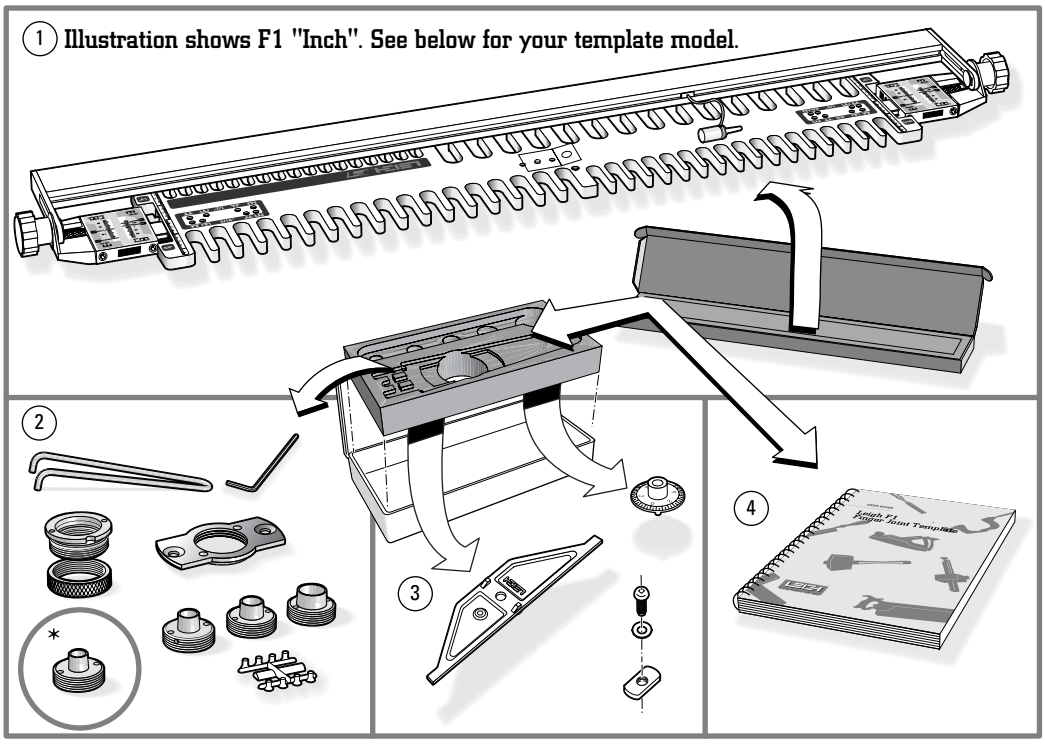
Assembly and Mounting

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.

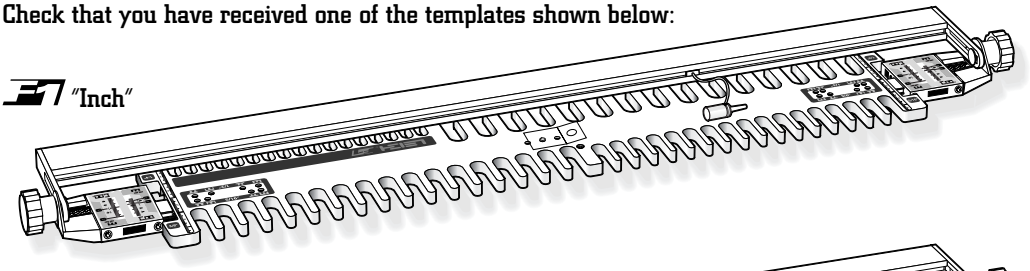
Your Leigh F1 comes fully assembled and requires only mounting and indexing to your Leigh jig. **This procedure is critical to the accuracy of the finished joinery, so please follow the mounting instructions carefully.**



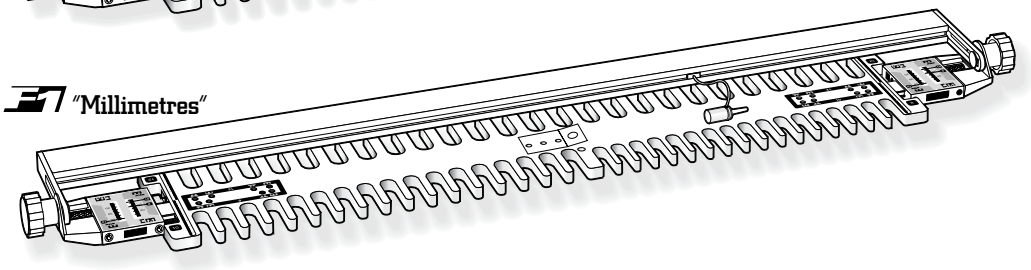
1 Illustration shows F1 "Inch". See below for your template model.

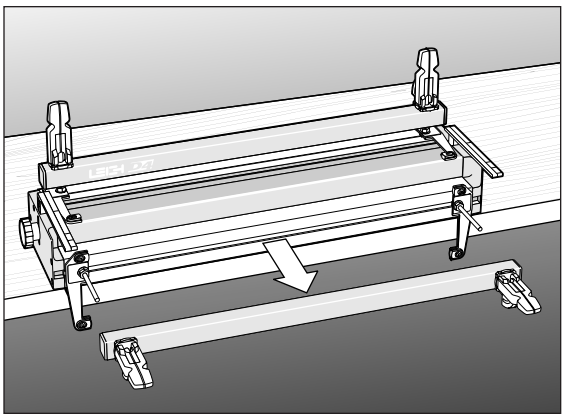
Check that you have received one of the templates shown below:

F1 "Inch"

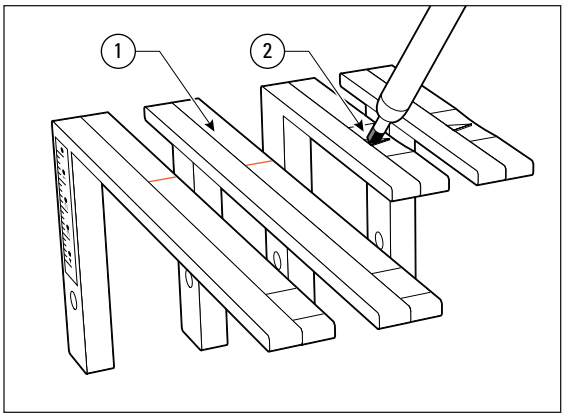


F1 "Millimetres"

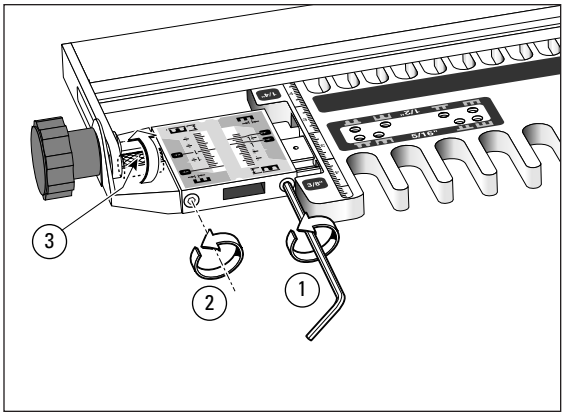




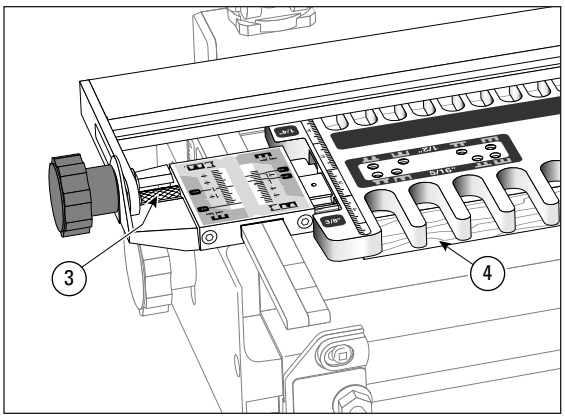
1-1
Mount the 24"[610mm] D Series dovetail jig firmly to a bench as per that jig's instructions. Remove the dovetail finger assembly, front clamp bar and springs.



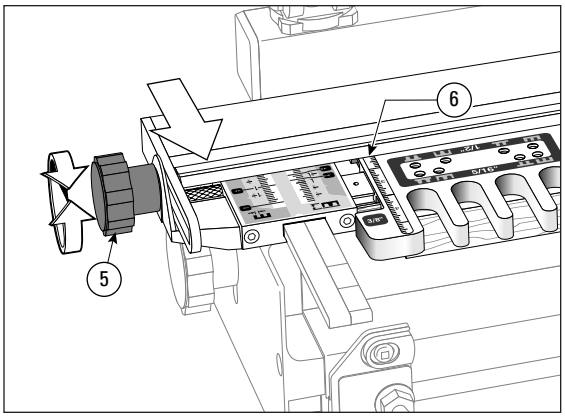
1-2
D1258, D1258R and D3 jig owners:
If you already own the Leigh Mortise and Tenon Attachment, fit the extended support brackets ① of this attachment and use for all finger jointing and dovetailing procedures. If not, mark the tops of the arrow pointers on the standard support brackets ② with a dark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



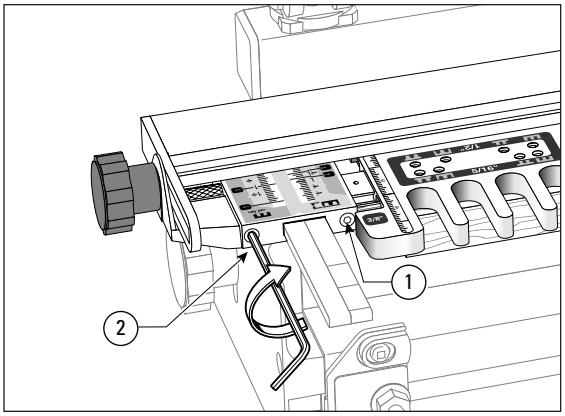
1-3
Loosen the two scale bar set screws ①, the two fence bracket screws ②, and two scale thumb screws ③ at both ends of the template.



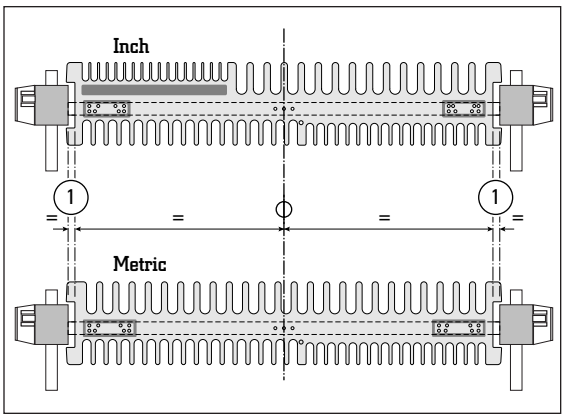
1-4
Slide the template assembly onto the jig support brackets with the ⅜" and 5⁄16" [10 and 8mm] combs toward you and lower it gently onto a ¾"[20mm] thick spacer board ④ (A piece of ¾"x 5½"[20x150mm] about 23"[580mm] long). Make sure the scale reading is the same on both scales, say on the 1"[25mm] mark, then tighten the thumb screws ③.



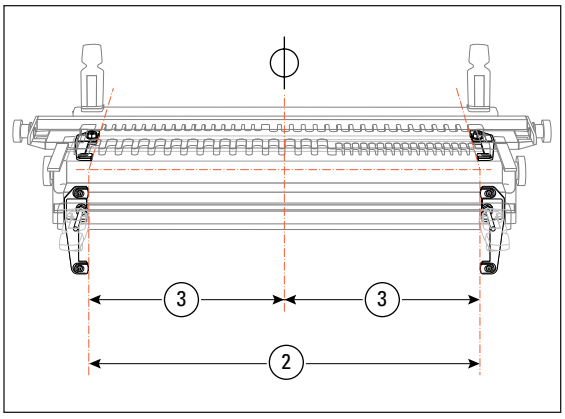
1-5
Loosen the fence knobs ⑤ and move the fence on the template toward you as far forward as possible and with the fence scale reading the same at both ends ⑥. Then tighten the fence knobs ⑤.



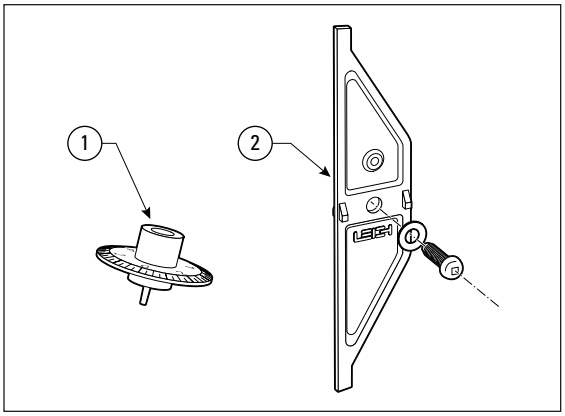
1-6
Tighten the scale bracket screws ②, but **do not tighten the scale bar ① screws yet.**



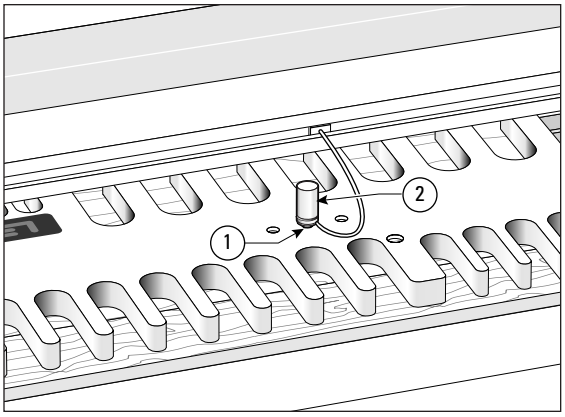
1-7
To ensure that you produce the precise joints the Leigh F1 template was designed to provide, the following procedures must be carefully followed:
First, the template bar and template must be centred exactly between the two scale assemblies ① and…



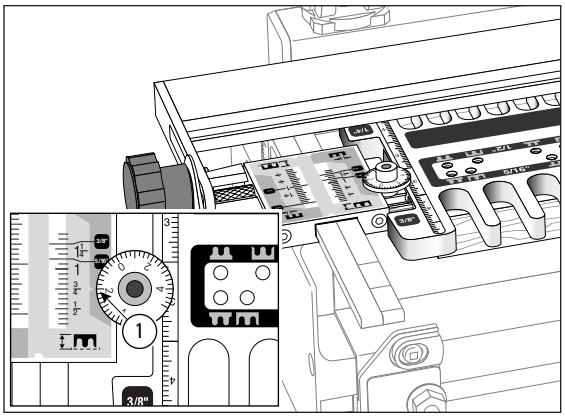
1-8
…then, the side stops must be positioned precisely 24⅛"[613mm] apart ② and equidistant from the centreline ③. Here's how to do it.



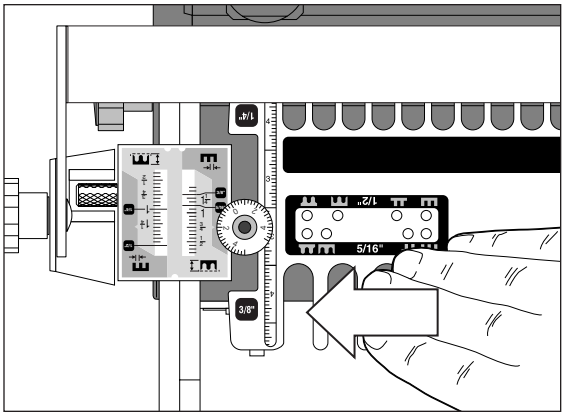
1-9
On the logical assumption that you do not have access to a 25"[650mm] dial calliper, Leigh provides tools that fulfil the same function.
The dial knob ① has a tapered axle and a cam shaped hub, and acts as a micrometer to centre the template bar between the scales. Each minor dial increment equals 0.0015"[0,04mm] of template movement. The part ② is the side stop locator.



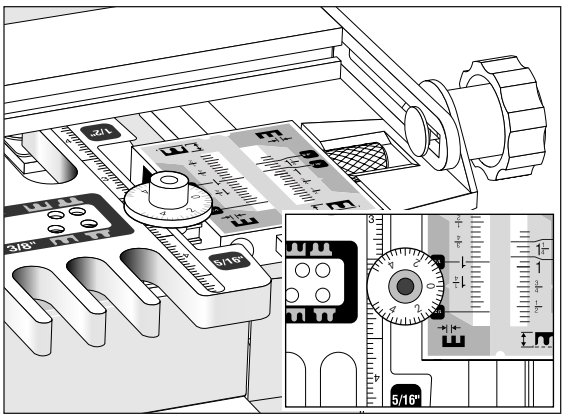
1-10
Align the template so that the template's centre hole ① lines up with the hole in the bar (it will only align with one hole in the bar) and insert the template pin ②. Gently twist and push the tapered pin into the hole until it is fully seated. The template is now perfectly centred on its bar, but now we must centre the bar in the scales.
Note: Discard the shipping plug from the centre hole.



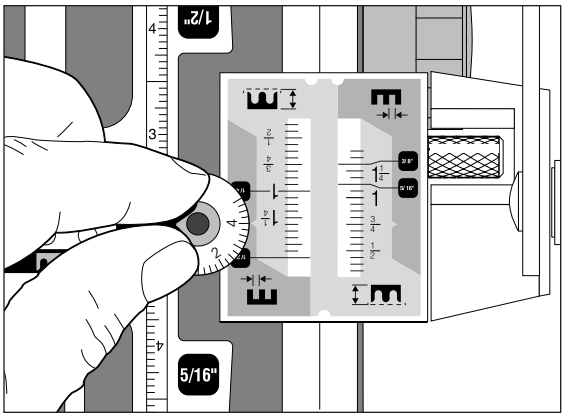
1-11
Place the dial knob in the hole in the left-hand end of the template bar next to the scale. Align the No. 2 mark on the dial with the small pointer on the grey scale ①.



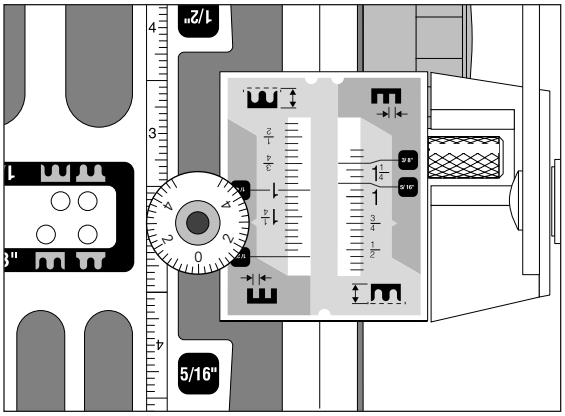
1-12
Gently move the complete template and bar assembly to the left until the (cam) hub of the dial knob stops against the scale body.



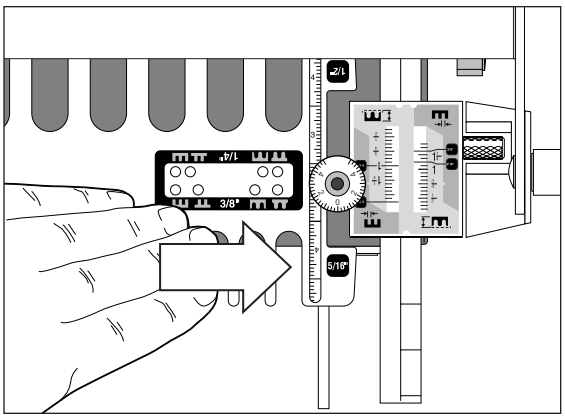
1-13
Taking care not to turn the knob or move the template/bar assembly, carefully pull the dial knob directly out of the bar. Insert the dial knob into the hole in the right-hand end of the bar with the grey scale pointer pointing to the zero mark on the dial knob.



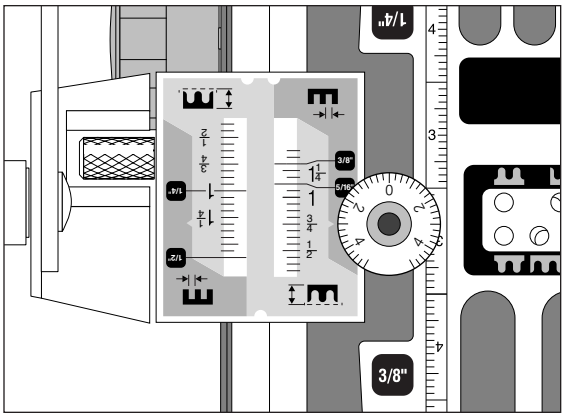
1-14
Slowly turn the dial knob (either way) until you feel the cam surface of the hub lightly touch the scale casting. It should touch before the "5" indicator mark passes the scale pointer. Note the dial reading, e.g. 4 in this illustration. If the dial knob hub does not touch the scale casting, repeat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



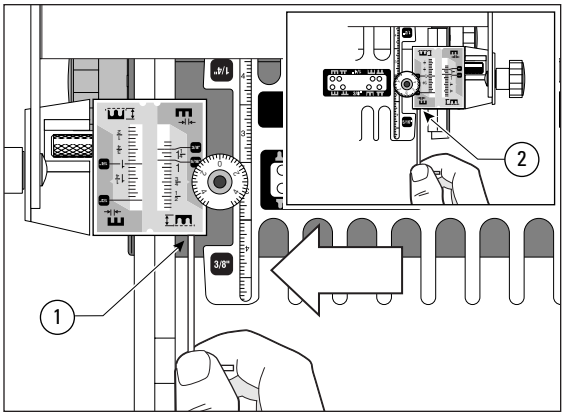
1-15
Turn the dial back to the average of the dial settings at the left and right-hand ends. In this example (2+4)÷2 = 3.



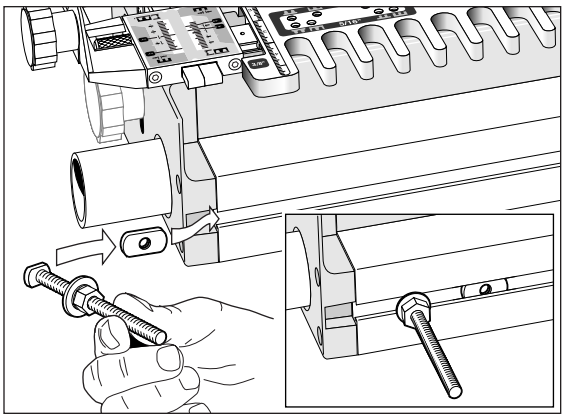
1-16
Push the template/bar assembly to the right until it stops with the dial knob's cam hub against the scale.



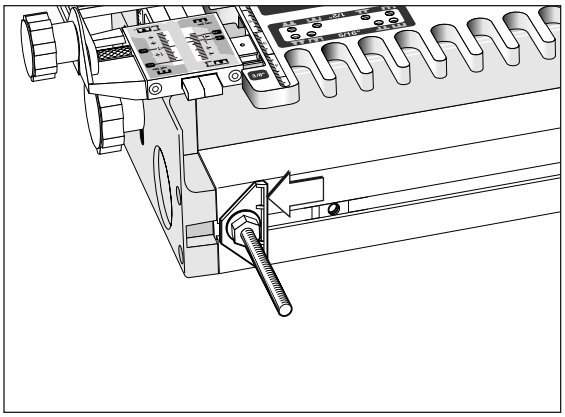
1-17
The template/bar should now be centred on the jig. Double check by pulling the dial knob directly out of the right-hand gap, inserting it back into the left-hand gap with the "0" mark next to the grey scale pointer. Turn the knob and verify that the hub cam touches the scale casting at the same 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.



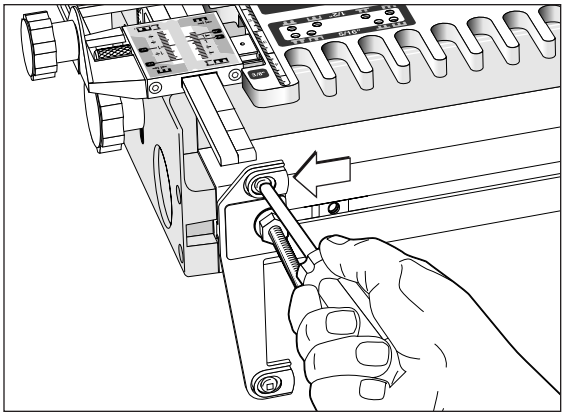
1-18
When the dial knob's hub cam touches the scale casting at the same dial reading at both ends of the template, the template/bar assembly is centred on the jig. With light pressure from the template holding the dial knob against the scale casting at the correct reading, tighten first one scale bar screw ①, then the scale screw at the other end ②.



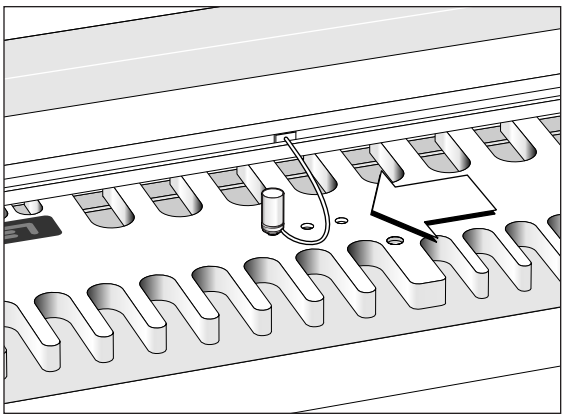
1-19
D1258 jigs only: Loosen both front side stop bolts. Remove the left-hand side stop assembly and slide the small tab nut from the centring kit into the front extrusion. Replace the left-hand side stop assembly, but leave it loose. The tab nut will remain in the extrusion after assembly.



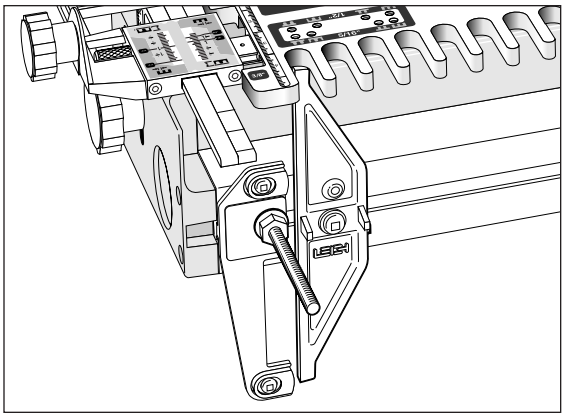
1-20
D1258R and D3 jigs: Loosen both front side stop bolts and move both of the assemblies slightly out from their original positions.



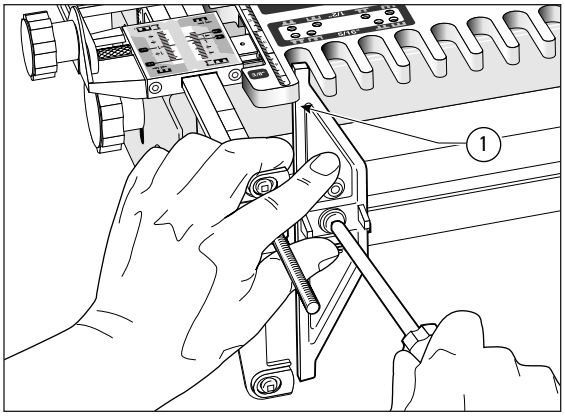
1-21
D4 jig: Loosen the front side stop bumpers, move them outward from the centre of the jig, and leave them loose.



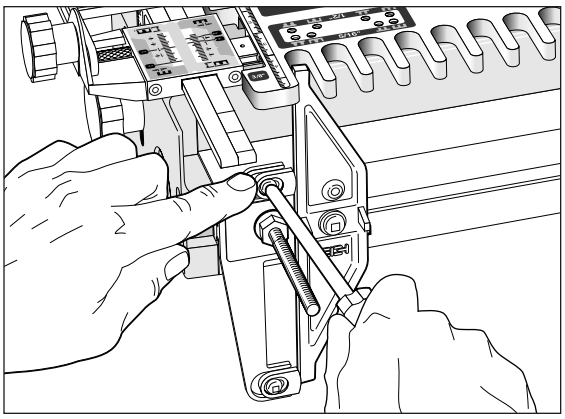
1-22
Remove the template pin from the centre hole, move the template slightly to the left and align the left hand hole with its matching bar hole. Insert the template pin, again gently pushing and twisting until it is fully seated.



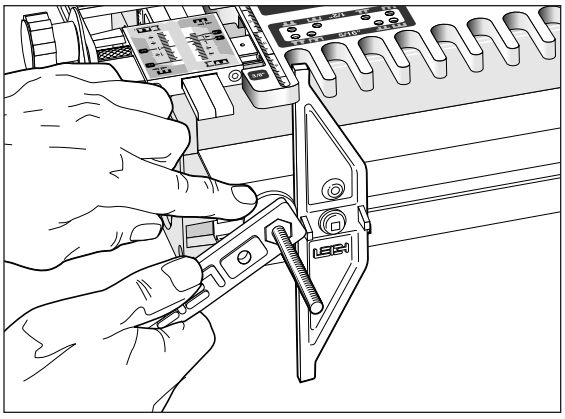
1-23
With the screw and washer from the locator kit, lightly screw the side stop locator to the front extrusion with the Leigh logo below the screw and the upper tip of the locator projecting up through the last opening in the ⅜"[10mm] comb. Do not tighten yet: the locator must be movable. D1258 owners 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.



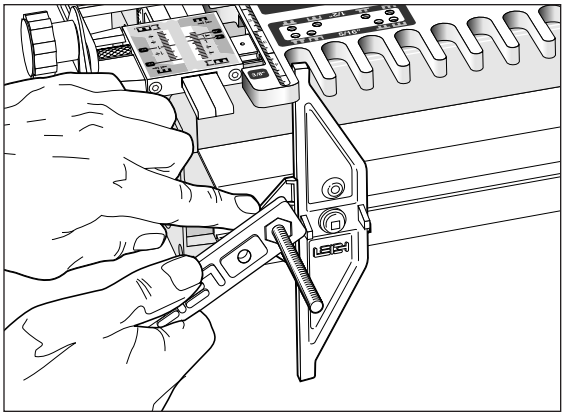
1-24
With the projections on the rear of the locator resting on the bottom edge of the extrusion T slot to act as a try square, slide the locator to the left until the **outside edge** of the upper tip **just touches** the outside of the ⅜"[10mm] comb's leftmost opening ①. Holding the locator square, 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.



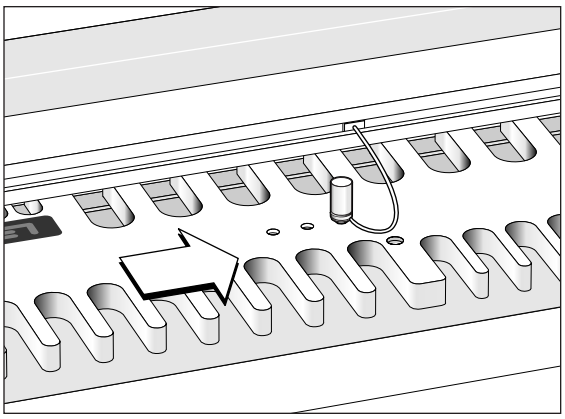
1-25
D4 Jig: Move the side stop bumpers against the locator and tighten them firmly. Remove the locator from the front extrusion.



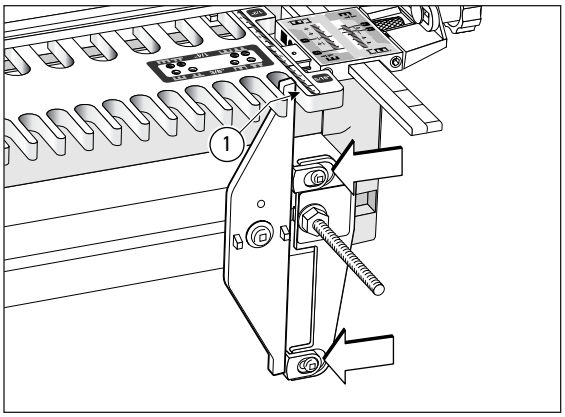
1-26
D1258 Jig: Move the washer type side stop to touch the locator, then tighten the nut. Remove the locator from the front extrusion.



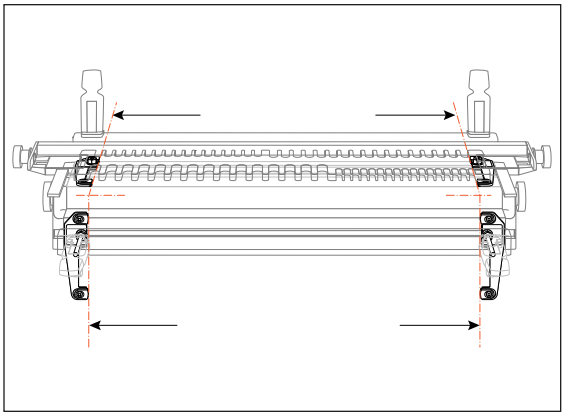
1-27
D1258R and D3 Jigs: Move the plastic side stop to touch the locator and hold firmly square while tightening the nut. Remove the locator from the front extrusion.



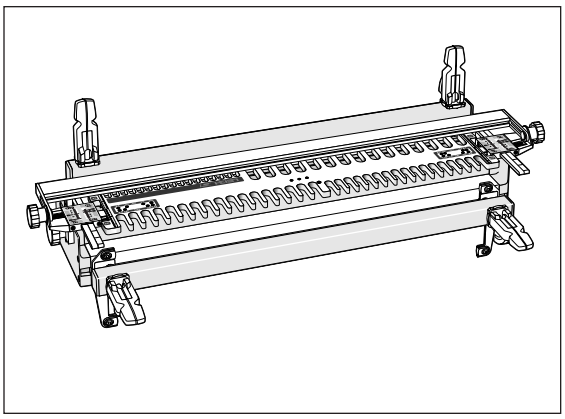
1-28
Remove the template pin, slide the template a little to the right, and align the right-hand alignment hole with the matching hole in the bar. Place the template pin in this hole, gently turning it until it is fully seated.



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 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.

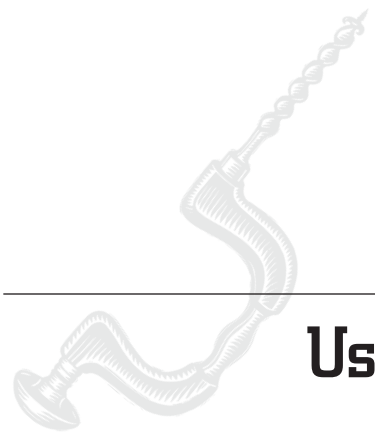


1-30
Align the rear side stops to the front stops using the method described in your dovetail jig body assembly instructions. Now that this side stop indexing is complete, your jig is set up for all Leigh attachments.



1-31

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



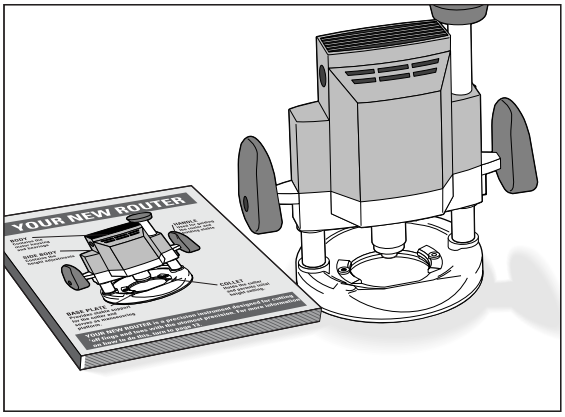

CHAPTER 2

Using Your Template Safely

Chapter Foreword

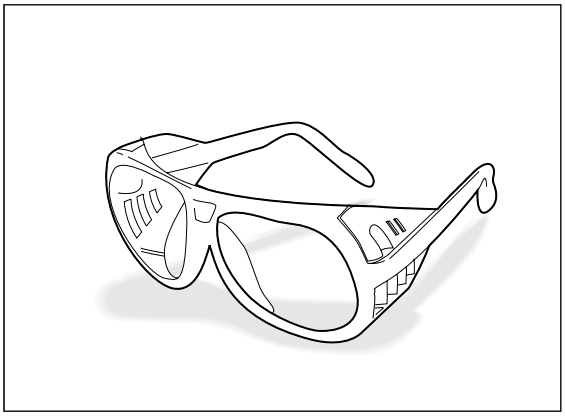
Safety is not optional.

Read and follow the recommendations in this chapter.

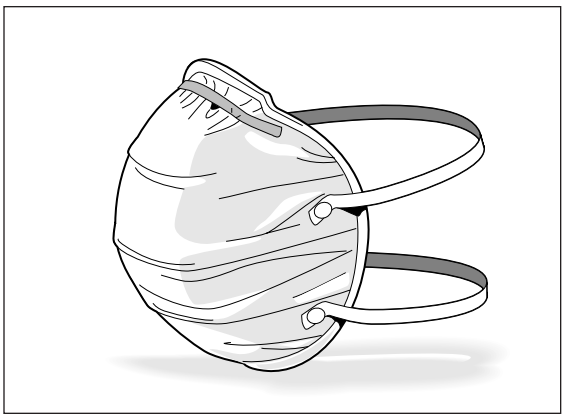


2-1
Read the owner's manual that came with your router. It is essential to understand the router manufacturer's instructions completely.

2-2
Always wear hearing protection when using a router.

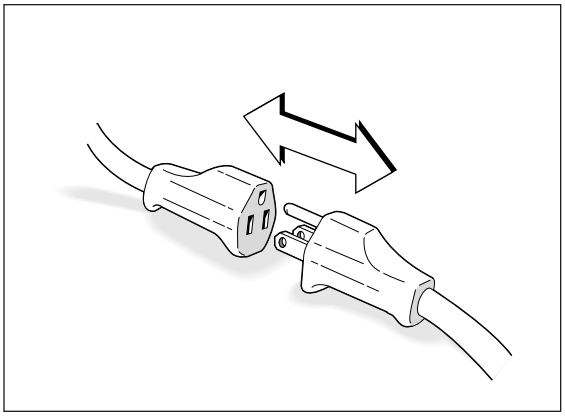


2-3
Always wear approved safety glasses when using a router.

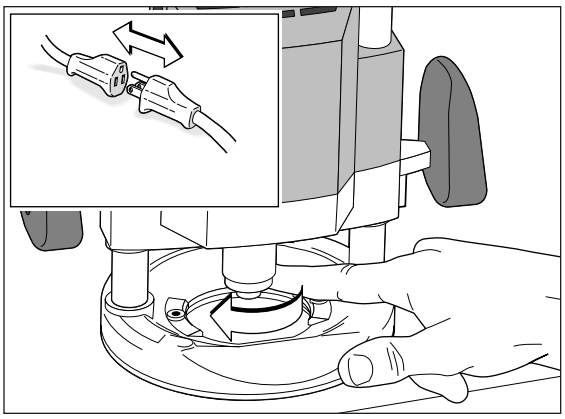


2-4
Protect yourself from harmful dust by wearing a face mask.

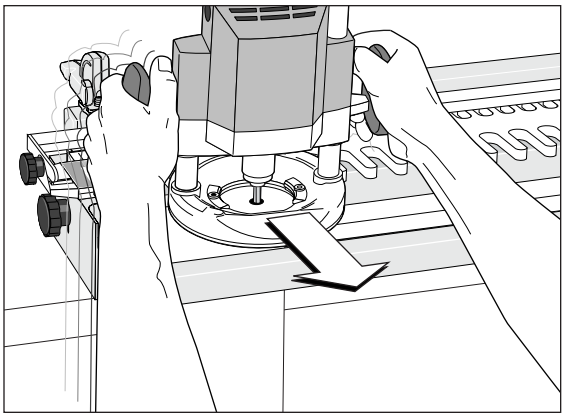
2-5
Never drink alcohol or take medications that may cause drowsiness when you will be operating a router.



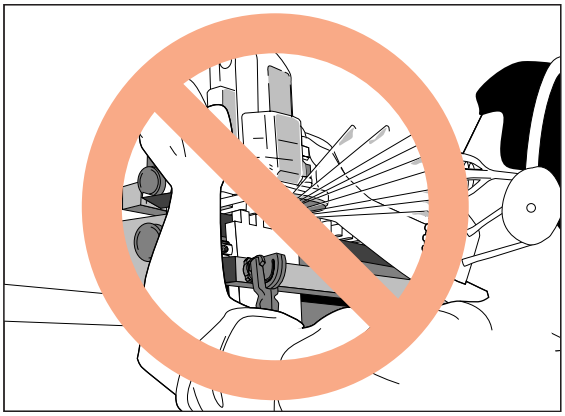
2-6
Always disconnect the power source from the router when fitting cutters or guidebushes, or making adjustments.



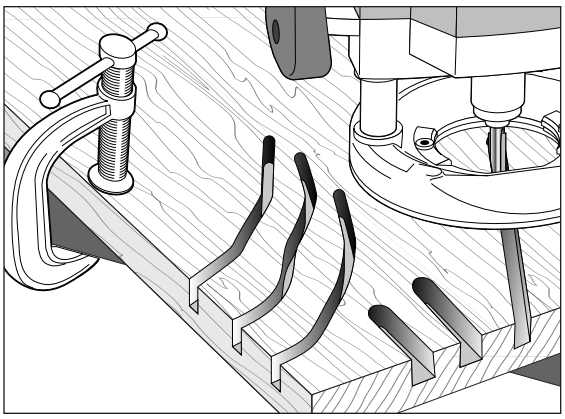
2-7
Before connecting the router to the power source, make sure the cutter and collet revolve freely in all the areas you plan to rout, and the cutter does not touch the guidebush or jig.



2-8
If you insist on removing the router from the template 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 template.**

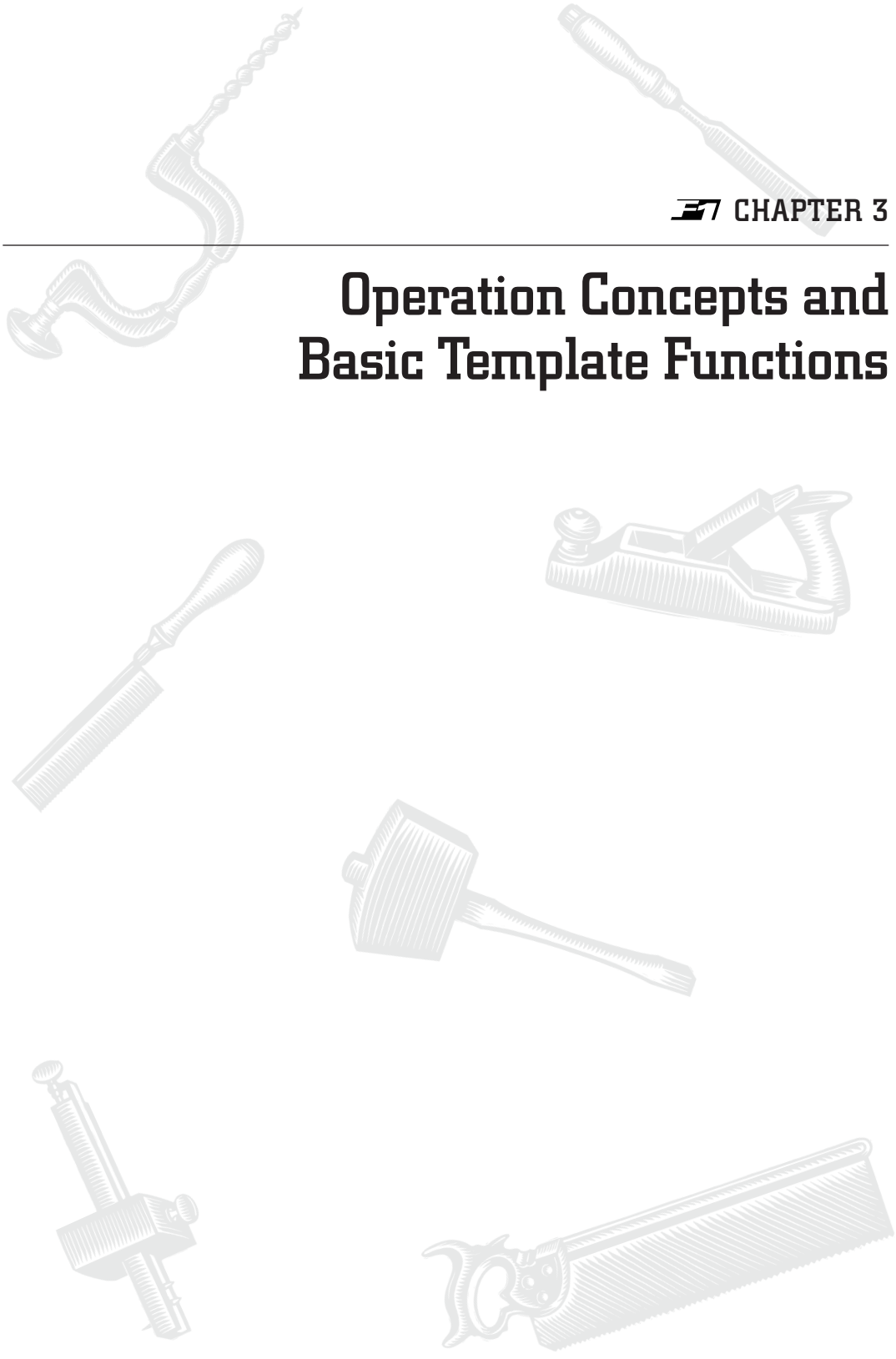


2-9
Do not rout at face level.



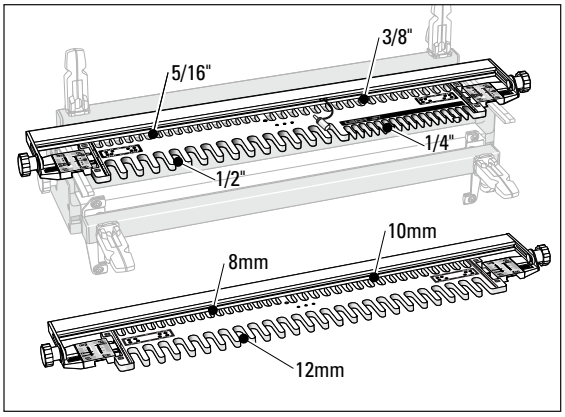
2-10

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 Template. You must, of course, **always use a guidebush when routing on the Leigh Template.**

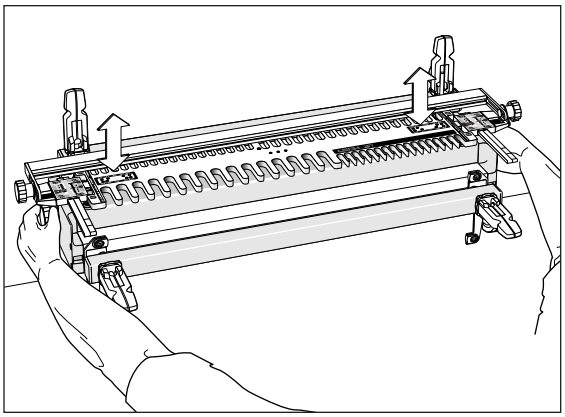


CHAPTER 3

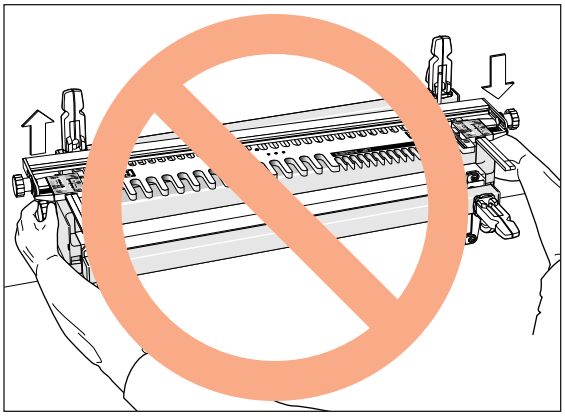
Operation Concepts and Basic Template Functions



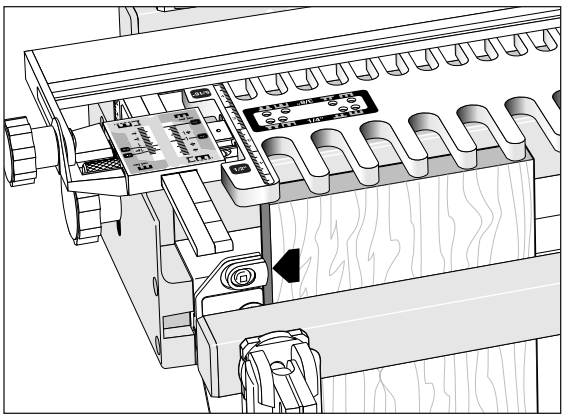
3-1
The inch template has four different comb sizes: ¼", 5⁄16", ⅜", and ½". The millimetres template has three: 8, 10, and 12mm. The *active* comb (the one you wish to use) is positioned toward you at the front of the jig. Depending on the size selected, the active comb may be at either the right, or left-hand side of the jig, or in the case of the 12mm, across the front, starting at the left end.



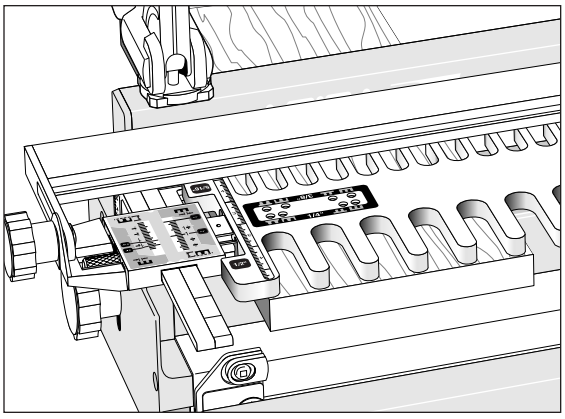
3-2
The template is raised or lowered using the support brackets to suit different thicknesses of horizontal boards.



3-3
Do not raise or lower one end of the template at a time.

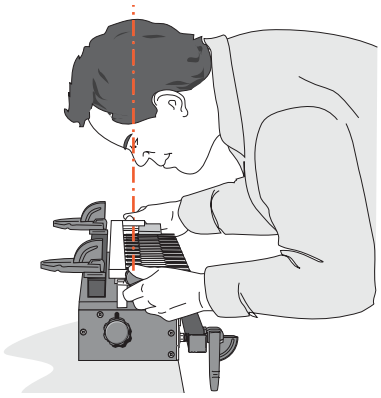


3-4
You will clamp your work pieces against the front side stop or...



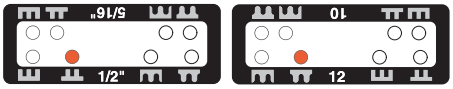
3-5
...the mating rear side stop, depending on which procedure is to be used.

Template Modes



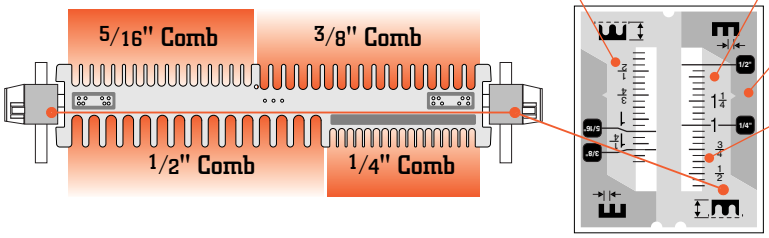
Always read scales from directly overhead to avoid parallax problems.

Template pin hole icons denote the type of joint and edge finish from each position. *See notes on symmetry and board widths, chapter 5 page 33.*



Throughout the manual, the proper pin location for each step is highlighted with red in an inset. Only the active parts of the inch and millimetre decals will be shown.

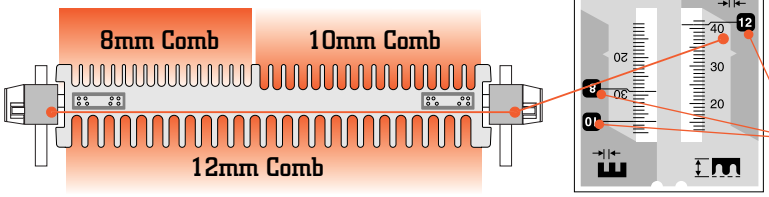
The inactive scale is always on the left side of each scale assembly and is upside down.



The active scale is always on the right side of each scale assembly.

Green scales are for box joints.

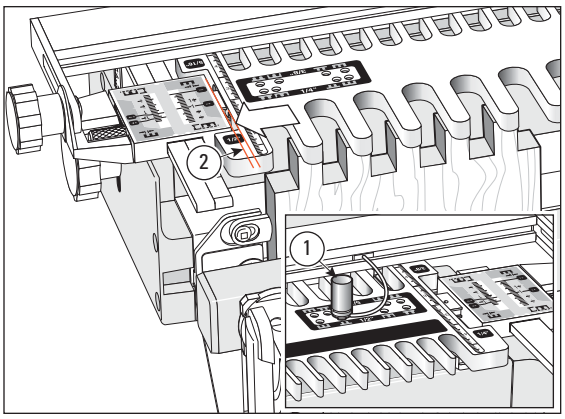
Grey scales are for rounded finger joints and denote the thickness of the vertical pin board.



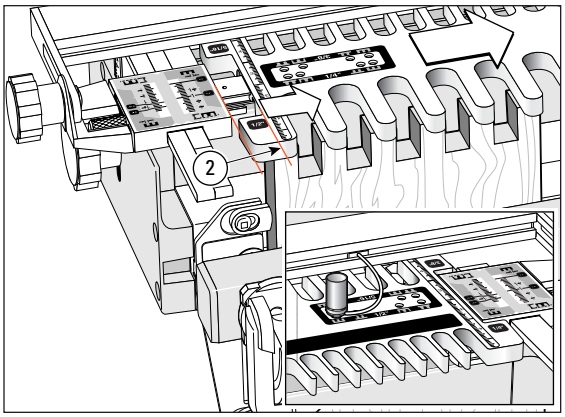
Each scale has its own mode icon representing the current joint part being made.

There are four settings for inch box joints, and three for metric.

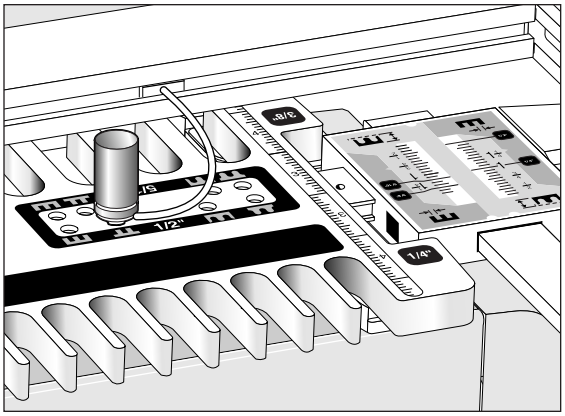
The specific settings for each scale are fully described in the appropriate chapters.



3-6
Mating joints routed under the same comb have to be offset to achieve correct joint alignment. On the Leigh F1 template 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 template①. *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.

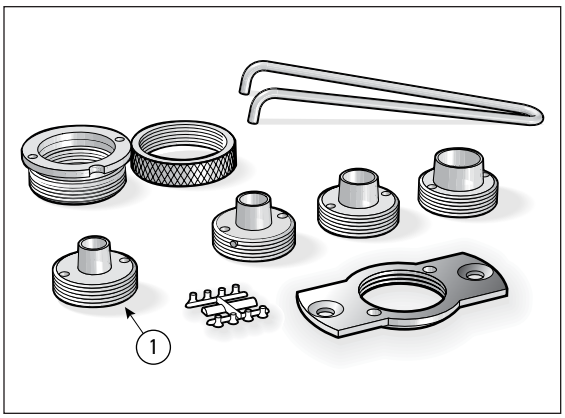


3-8
The template control pin engages the template to the template bar using precisely positioned holes. The active template pin holes are always at the opposite end of the template from the active comb, out of the way of the router. Most illustrations will have an inset showing the correct template pin hole position for the procedure.

CHAPTER 4

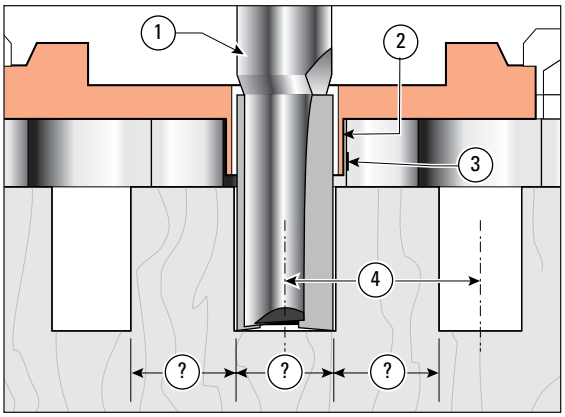
The Variable Guidebush System (VGS)

Chapter 4 F1 User Guide

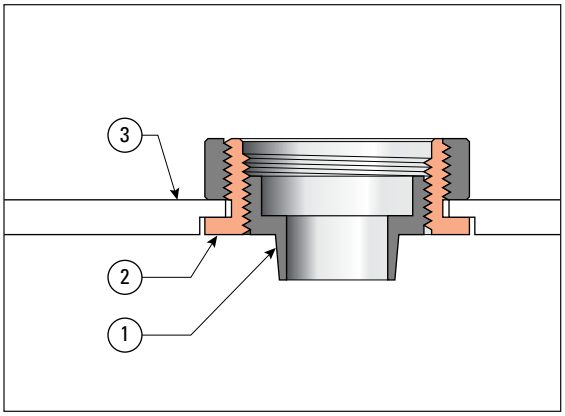


4-1
The F1 Template comes complete with the Variable Guidebush System (VGS).
Note: One bush ① 709V is not in the metric set. Each of the tapered bushes is drilled to accept one of the nylon thread-inserts (eight of them on a "tree"). See 4-7 to fit.

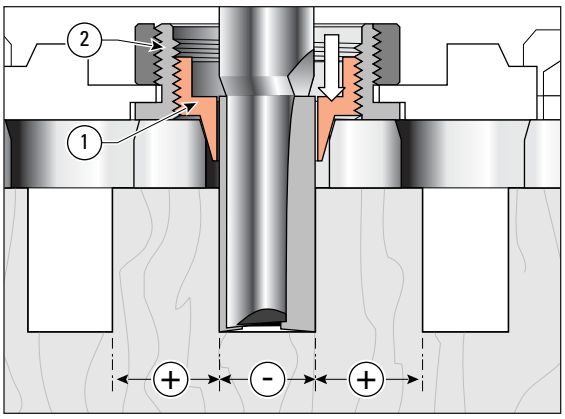
Do not use the VGS on Leigh Dovetail Jigs or M2 Mortise Guide Finger accessories; they are only for templates.
Here's why the VGS is necessary...



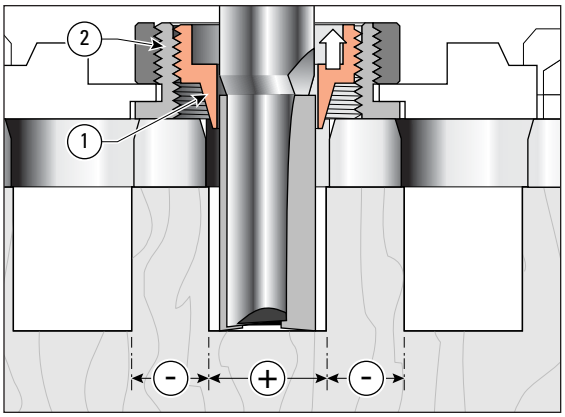
4-2
Generally box joints or finger joints are routed with nominal-size straight cutters ① and nominal-size guidebushes ② against straight guide surfaces ③ on nominal pitch centres ④. There are no angles to use for fit adjustment as there are with dovetails, so manufacturing tolerances for cutters, guidebushes, templates and routers give an "average" fit which is rarely correct.



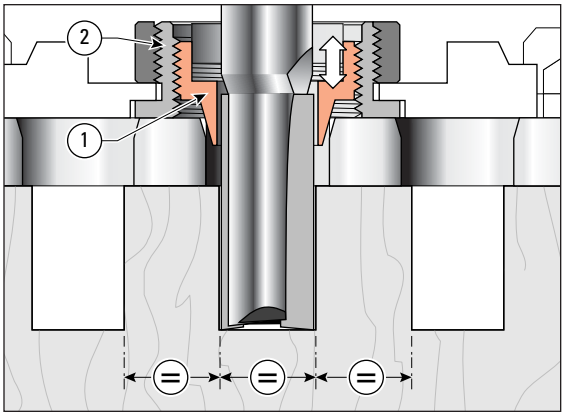
4-3
However, the Leigh VGS bush has a tapered barrel ① threaded into a holder ② which in turn attaches to an adaptor or directly to the router ③.



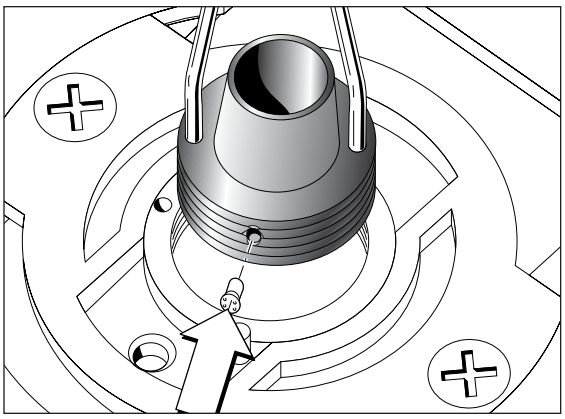
4-4
With the VGS tapered bush ① screwed down in the holder (away from the router)② the active bush diameter is increased, allowing no side-to-side movement, and resulting in smaller sockets and larger pins. A tight fit! *Guidebush angle, scale and movement are exaggerated in this sequence of illustrations.*



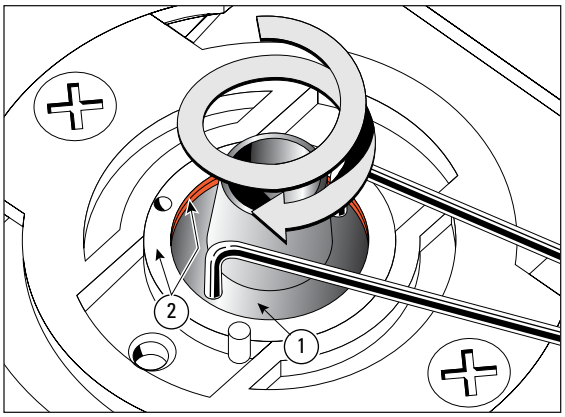
4-5
Raising the bush (screwing the bush into the holder) allows more side-to-side router/cutter movement, producing larger sockets and smaller pins, and thus a loose fit.



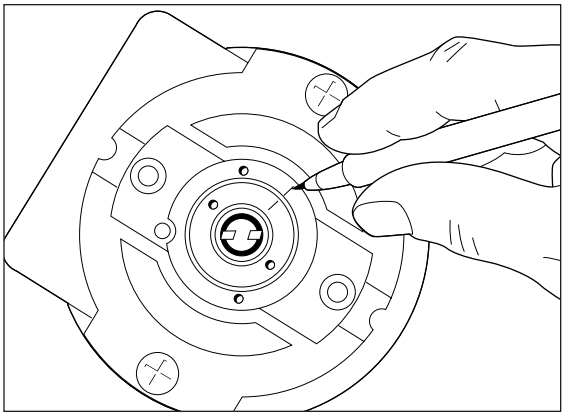
4-6
A few trial-and-error test cuts and VGS adjustments will allow you to establish the right pin and socket sizes for a perfect fit. **Note: One eighth of a turn of the variable bush changes the joint glue–line interface by one thousandth of an inch, that is, 0.001" or 0,025mm.**



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 removed. However, wrap some scotch tape around the bush to prevent this. The four inserts and two spares will last a long time.



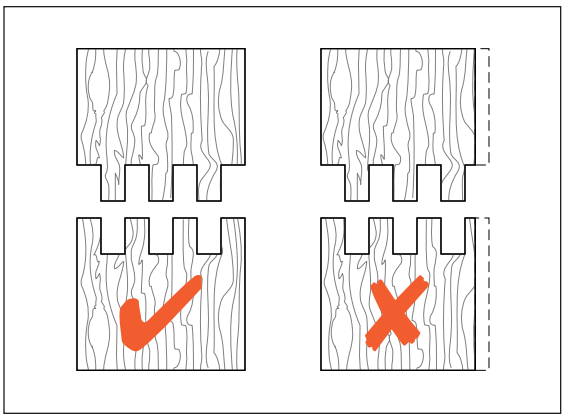
4-8
Always start test routing with the bush flange ① turned one to one-and-a-half turns farther into the router than the holder flange②.



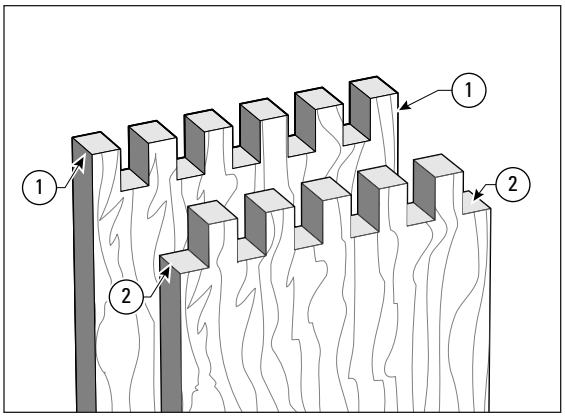
4-9
When you have the best joint fit, mark the bush and holder with permanent ink for future reference. Use the same cutter next time.

CHAPTER 5

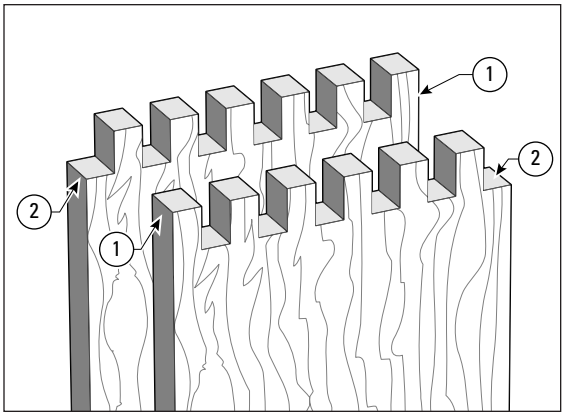
Board Width Selection



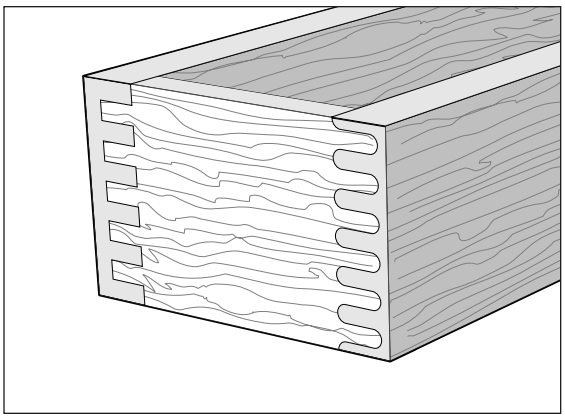
5-1 Board Widths and Joint Symmetry
Unlike the infinitely variable Leigh Dovetail Jig, a fixed template cannot accommodate any width of board and still produce a neat and even finish on both side edges of a joint. The boards must be cut to specific widths, depending on the pitch of the comb.



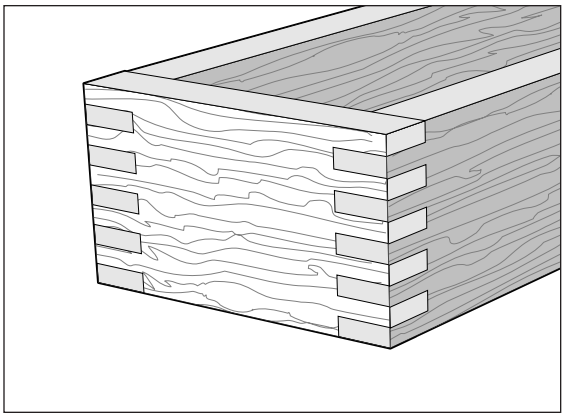
5-2
Symmetrical joints have fingers ① on both side edges of one board and sockets ② on both side edges of the mating board.



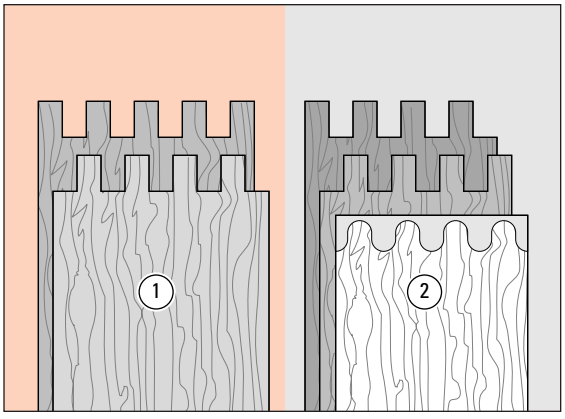
5-3
Asymmetrical joints have a finger ① on one side edge and a socket ② on the other side edge of each board.



5-4
Symmetrical joints are essential for half-blind corners and rounded finger joints.

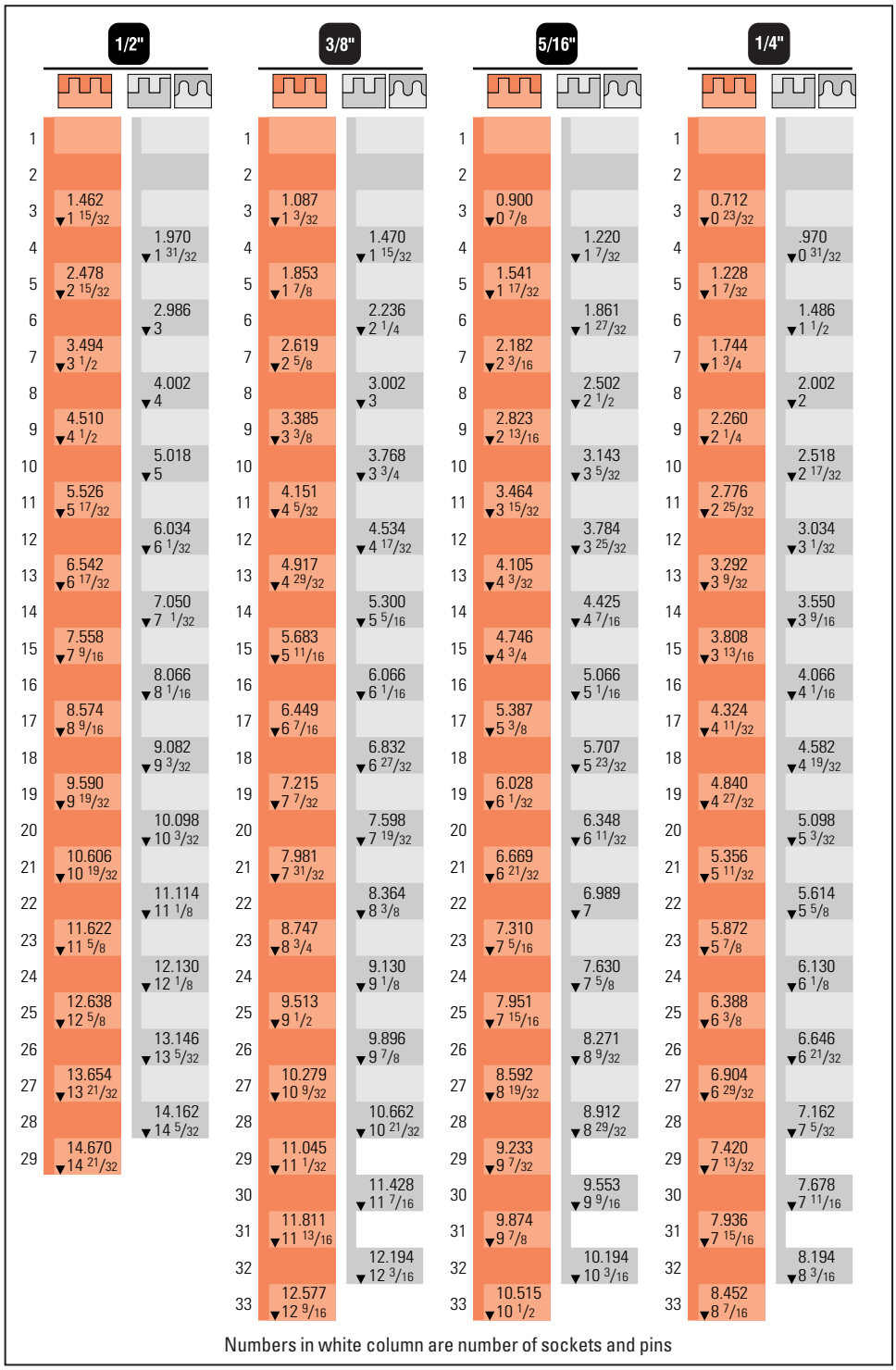


5-5
However, ordinary box joints may be asymmetrical and look okay.



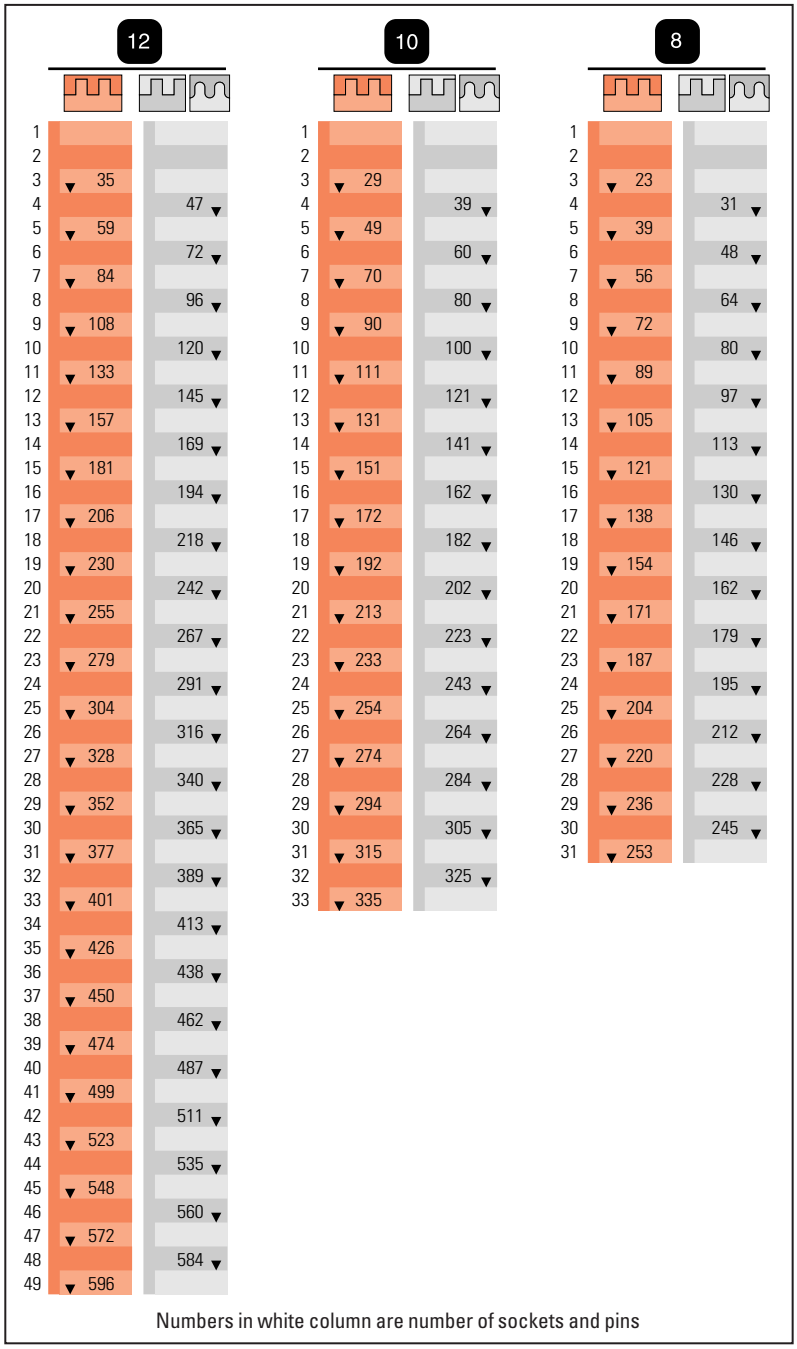
5-6
Note: Because the Leigh VGS allows for fit adjustment on template size, the pitch widths have been made slightly greater than the nominal pitch, i.e. slightly more than two times the cutter diameter. To make symmetrical square joints ①, use the board widths in red. For asymmetrical square joints and symmetrical round joints ②, use the board widths in black. Inch board widths are on page 37. Millimetre board widths are on page 38. **For wider box joints see chapter 11 page 79.**

BOARD WIDTH CHART (INCHES)



Note: Decimals show exact board width. Use to the nearest 1/32" for width selection. To make symmetrical square joints, use the board widths in red. For asymmetrical square joints and symmetrical round joints, use the board widths in black.

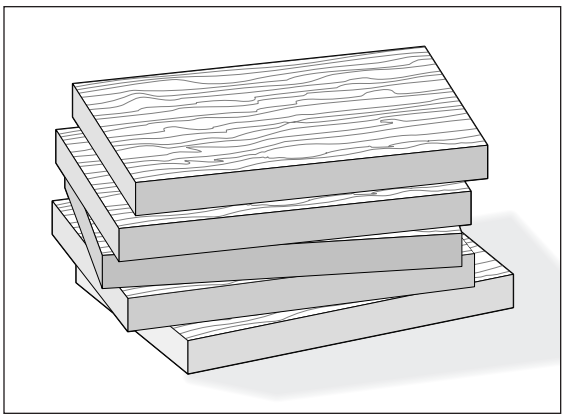
BOARD WIDTH CHART (MILLIMETRES)



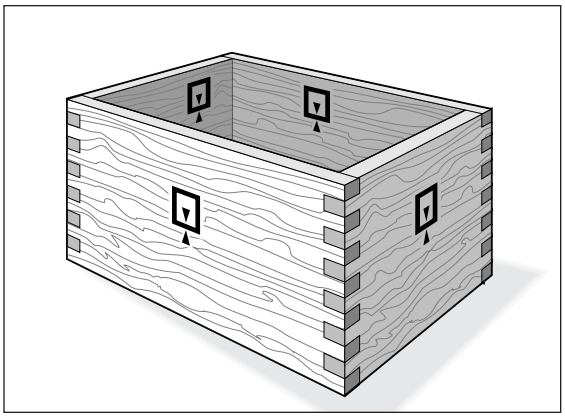
Note: Use to the nearest millimetre for width selection. To make symmetrical square joints, use the board widths in red. For asymmetrical square joints and symmetrical round joints, use the board widths in black.

CHAPTER 6

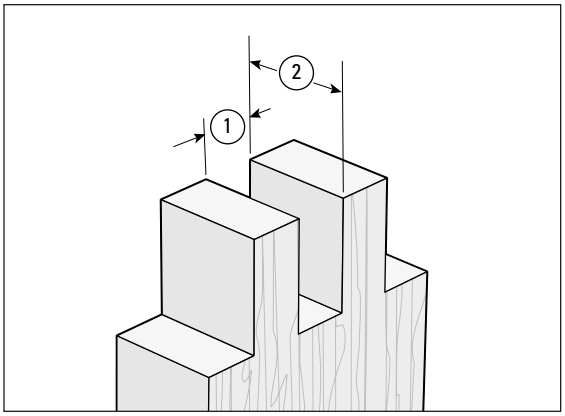
Box Joint Procedures



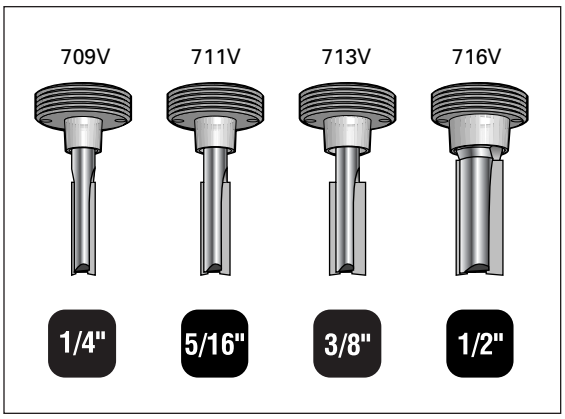
6-1
Always use scrap boards to test for fit. Width and thickness of the scrap boards is not critical.



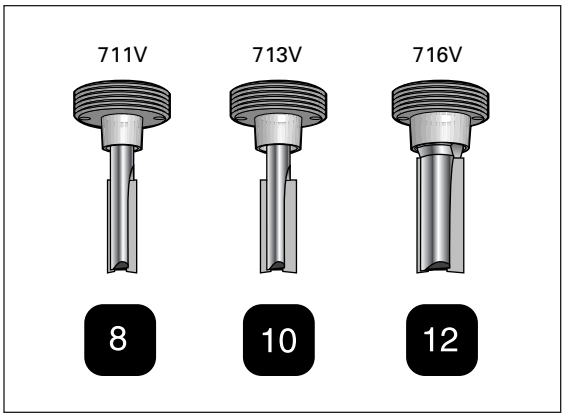
6-2
Let's rout some simple box joints. These general instructions are the same for any of the four comb sizes. The illustrations show the left-hand side of the jig; you could be working on the right-hand side. Rout only single corners to adjust the joint fit.
Note: This chapter combines instruction for joint procedures and joint fit. Follow this through step by step the first time, but there is also a "quick fit test" method in Chapter 12, Figs. 12-7 to 12-9.



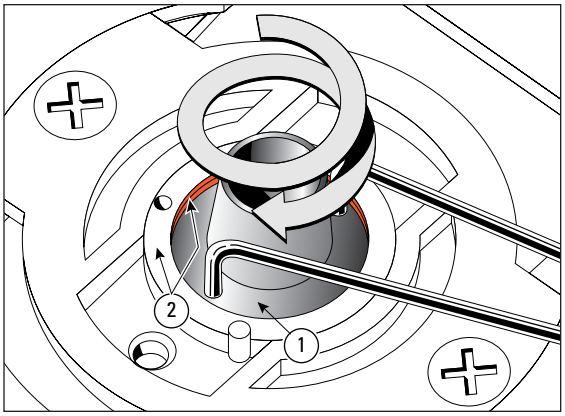
6-3 Cutter and Guidebush Selection
There are no hard and fast rules for sizing of pins and sockets for box joints; but typically the sockets ① are one half to one quarter of the board thickness ②. Generally, the smaller the cutter, the greater the strength because of the greater gluing area.



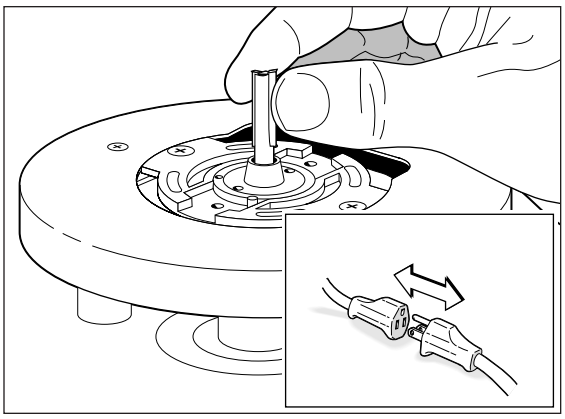
6-4
Select the correct variable bush and cutter combination for the comb size to be used. The cutter size is the same as the designated comb size. *For smaller size box joints see chapter 10 page 67.*
The inch template can use four sizes of cutter and comes with four guidebushes.



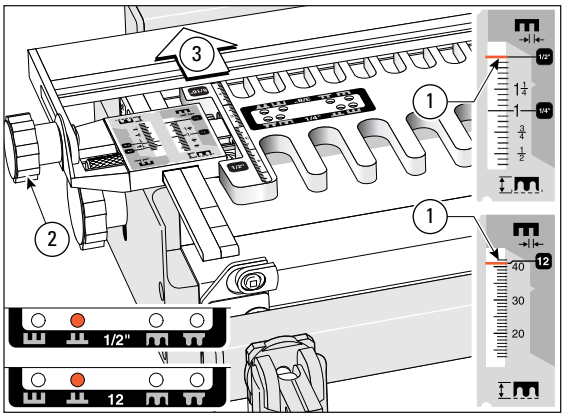
6-5
The millimetre template can use three sizes of cutter and comes with three guidebushes.



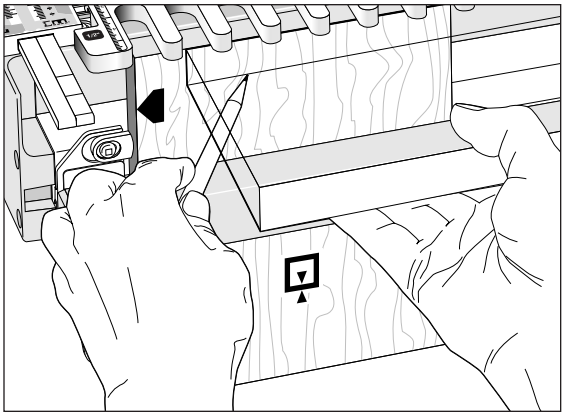
6-6
Always start test routing with the bush flange ① turned one to one-and-a-half turns farther in than the holder flange ②.



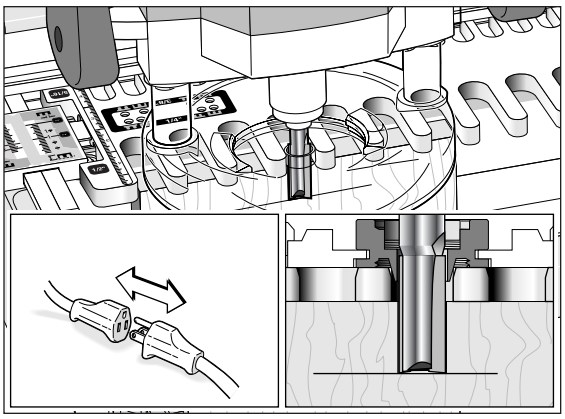
6-7
Fit the selected cutter (that matches the bush) to the router and tighten securely.



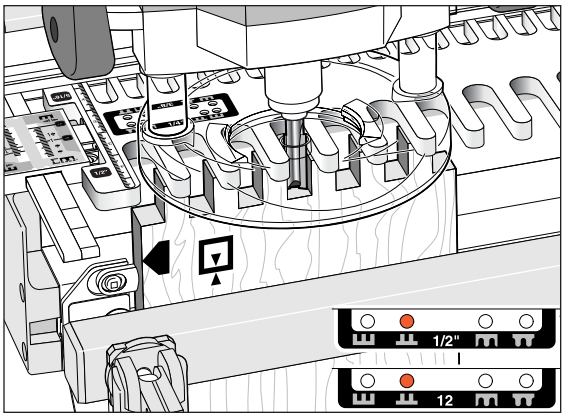
6-8
Set the scale on the comb size to be used (example here; ½"[12mm] comb ①). Loosen fence knobs ② and move fence ③ to rear and re-tighten knobs ②. Note: The fence is only used for rounded finger joints. **If the fence is in the way of a large router base, simply lift and lock the fence so the router base can slide under it.** Position the template with the template pin in the position. *Remember, the template pin is always positioned at the opposite end of the template.*



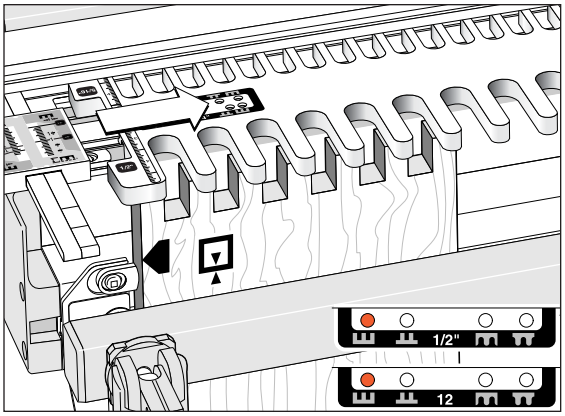
6-9
Clamp the workpiece against the side stop, with the end edge flush under the template. The board may be clamped face side in or out . Mark and adjust the depth of cut to suit the thickness of the boards. Use the board to be joined to mark the depth of cut.



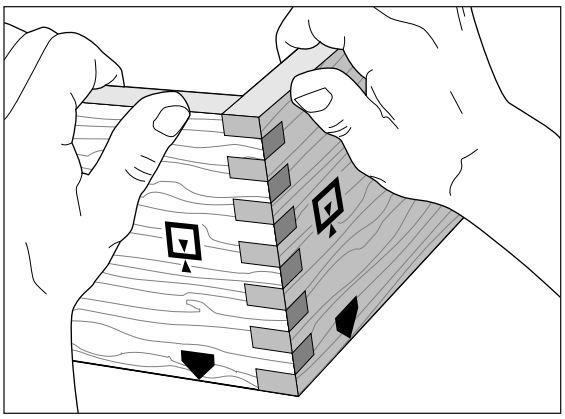
6-10
Adjust the cutter to cut down to the centre of the pencil line. Make sure the collet will not rub on the guidebush.



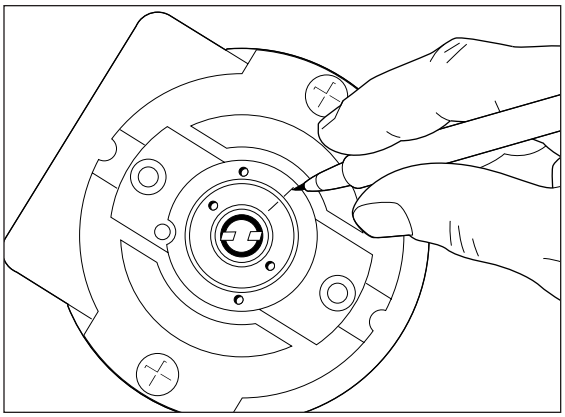
6-11
Rout one end of a scrap board. Make sure to touch the guidebush on both sides of each template opening.



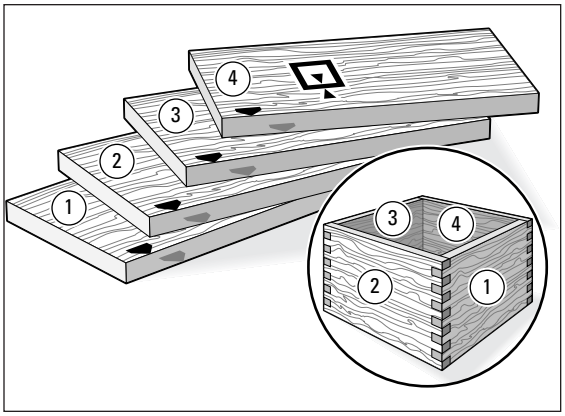
6-12
Remove the template pin and move the template to the position, then refit the pin. Rout the mating board.



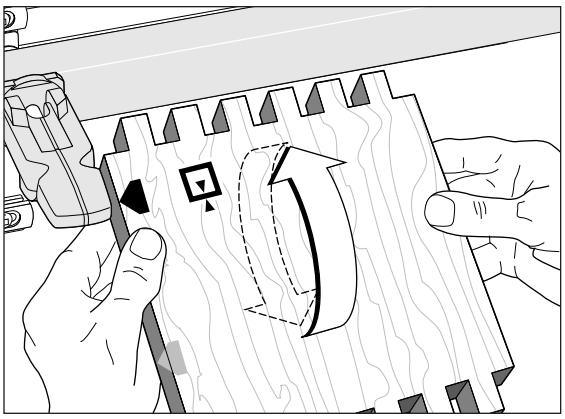
6-13
Test the two boards for fit. Adjust the height of the variable guidebush by trial and error and rout more pairs of test boards to achieve the desired fit. Remember, lower the variable bush for a tighter joint and raise the variable bush for a looser joint.



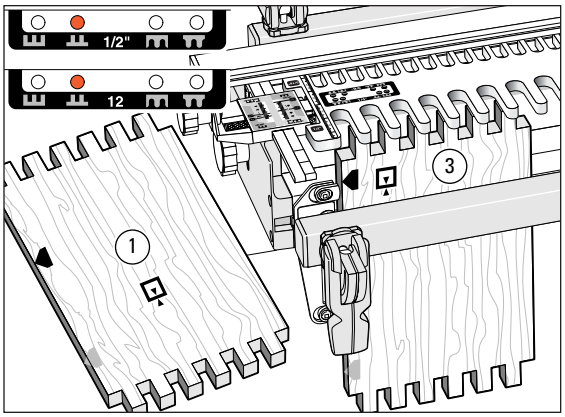
6-14
When the fit is just right, mark the bush and holder with permanent ink for future reference.



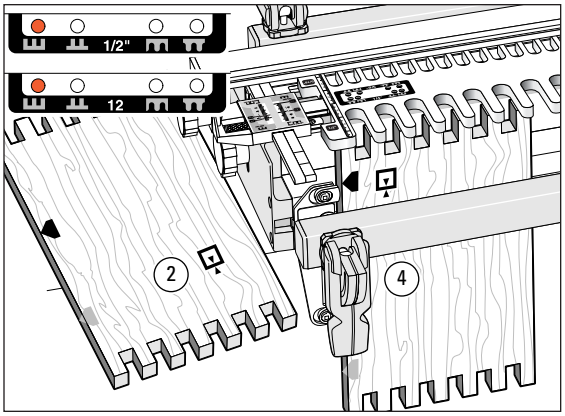
6-15
Let's make a box.
Prepare four boards and mark them 1, 2, 3, and 4 . Then select the grain alignment and mark the common top (or bottom) edge. Don't worry about face side selection, this can be done after routing.



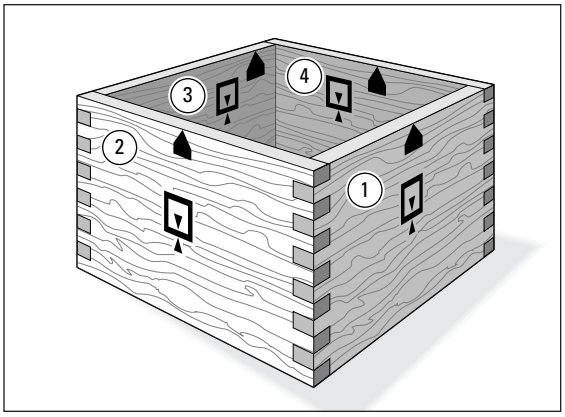
6-16
All square box joint boards (for boxes or end-on-end joints) are clamped alternately face in and face out, always with the same side edge against the side stop.



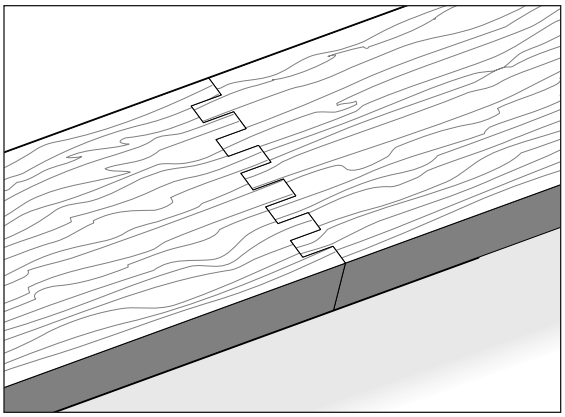
6-17
Rout both ends of boards 1 and 3 in position. Be sure to keep the same edges to the side stop.



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



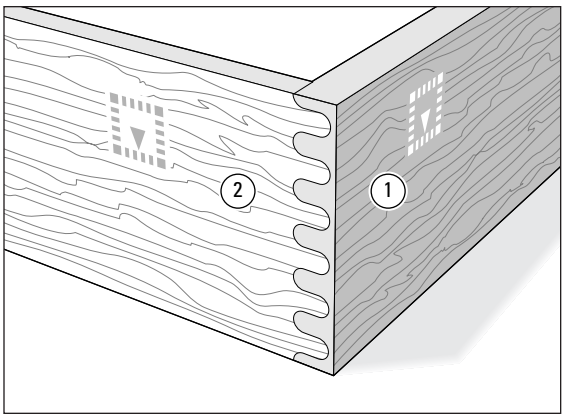
6-19
Keeping the marked side stop edges of all boards toward the top (or bottom) of the box, select the preferred outside faces of the boards and assemble the box. Remember; box joint corners need clamping from both directions, or use strap clamps and blocks.



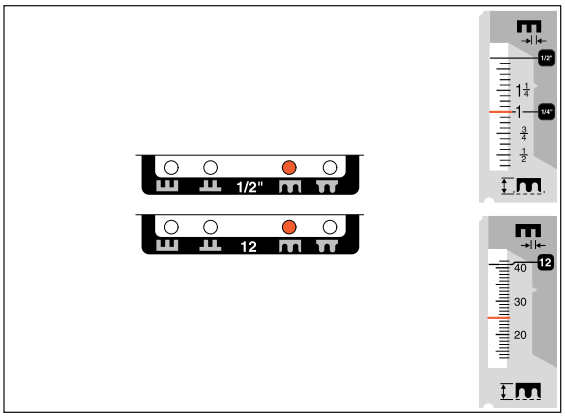
6–20
The same method will produce square end-on-end joints.

CHAPTER 7

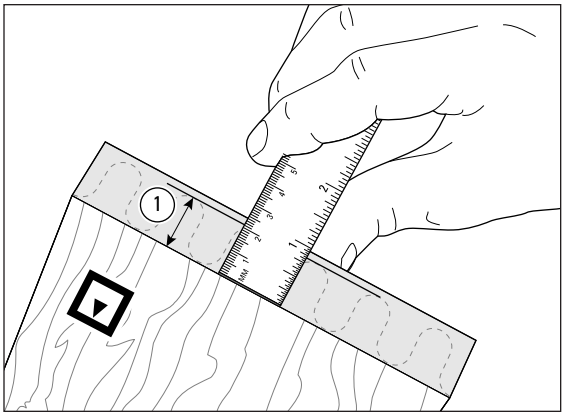
Rounded Half-Blind Finger Joint Procedures



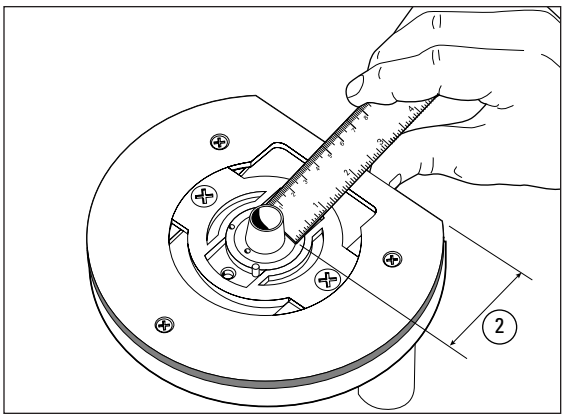
7-1
Rounded half-blind finger joints make an attractive drawer front ① to side ② connection. *See page 97, appendix II for cutter selection.*



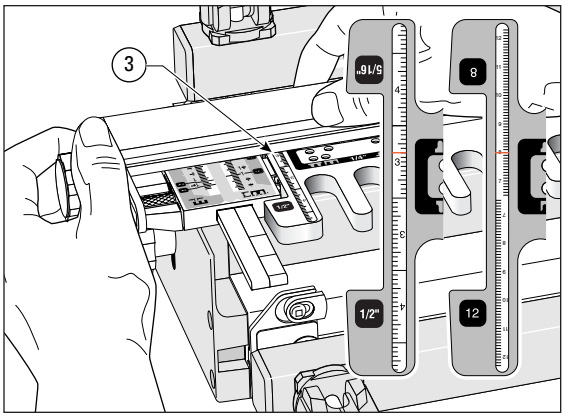
7-2 Routing Half-Blind Joints
Set the template scale to the thickness of the pin board on the grey scale, e.g. 1"[25mm] shown here. Set the template pin in the hole.



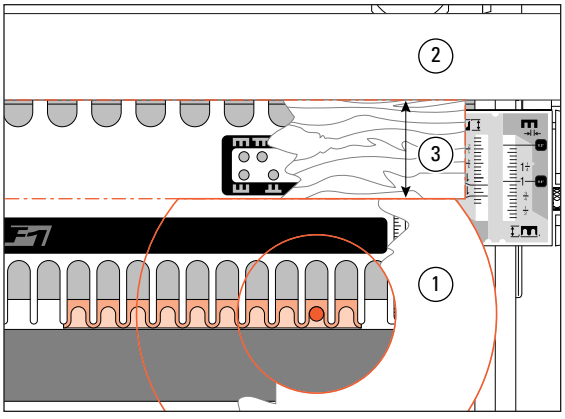
7-3
Measure the required depth of horizontal cut into the pin board ①, usually ⅛"[3mm] less than the board thickness.



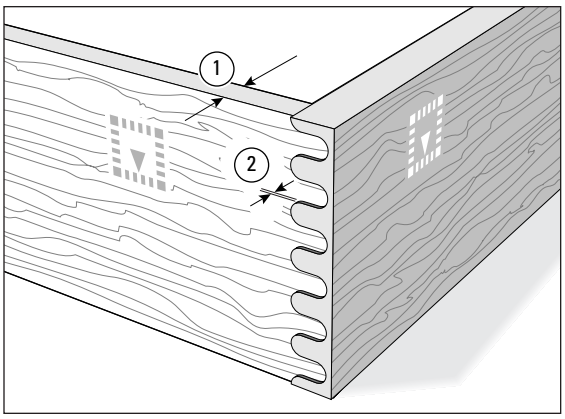
7-4
Measure the distance from the guidebush to the rear edge of the router base ②.



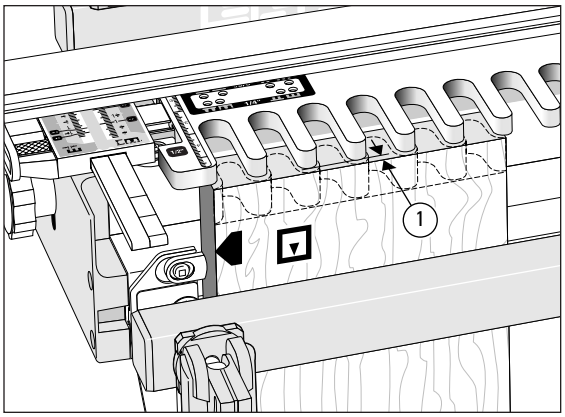
7-5
Add dimensions ① and ②. Set the router stop fence to this total on the fence scale ③ at both ends of the template. Tighten the fence knobs. If your router base is small, see 7-6 below.



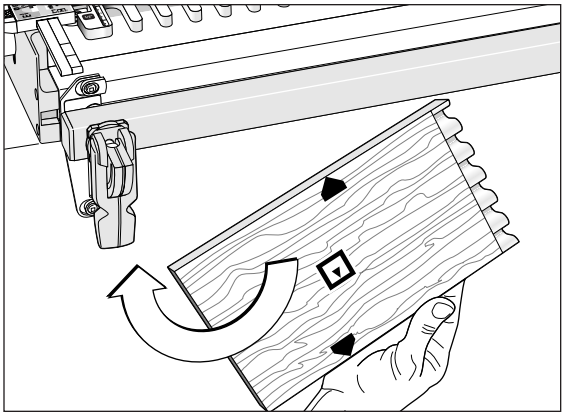
7-6
Some router bases ① are quite small and it may not be possible to get the router fence ② far enough forward to be effective. Use a parallel-sided block ③ between the router and fence. Offset the fence setting by the width of the block.



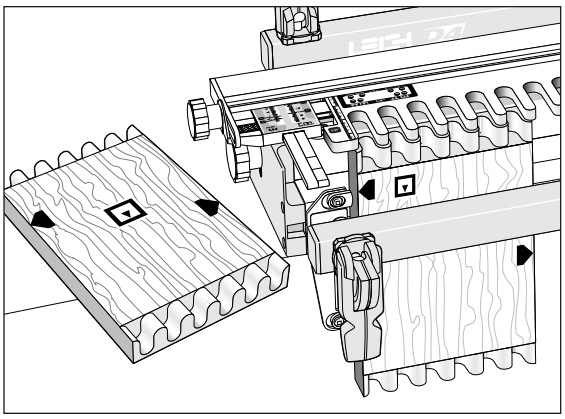
7-7
Set the depth of cut to slightly greater than the thickness of the side board ①. You want the drawer front fingers to come through the side sockets by no more than 1/64"[0,25mm] ② for cleanup later, just like half-blind dovetails.



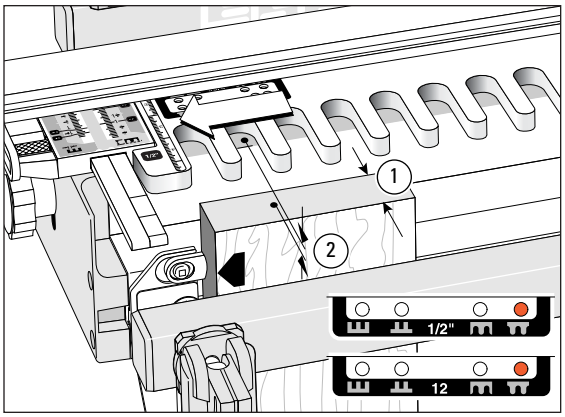
7-8
Clamp the pin board vertically against the side stop with the end edge flush under the template. The inside face ◘ of the finished boards face away from the jig body. With the scale set on the pin board thickness, the board should project 1/8"[3mm] in front of the guide tips ①.



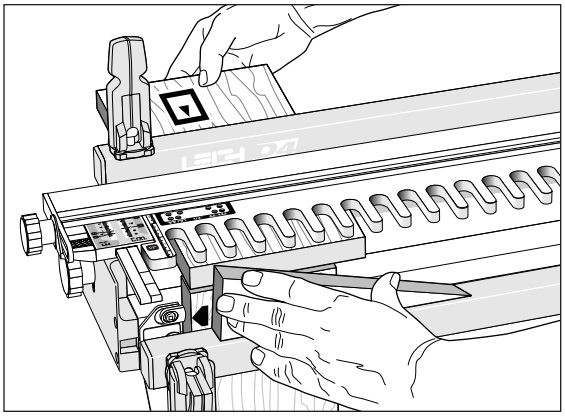
7-9
The inside face ◘ of all boards used for making rounded half-blind joints always face away from the jig body just like half-blind dovetail boards on the dovetail jig. So alternate side edges go against the side stop and boards must all be exactly the same width.



7-10
Rout 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.

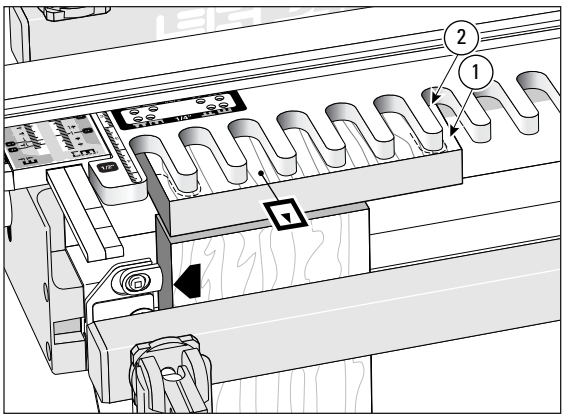


7-11
Insert the template pin in the ▼▼ hole. Do not change any other setting. Clamp a scrap board ① of exactly the same thickness as the pin board in the front clamp, with the top end edge slightly below the top surface of the jig body ②.

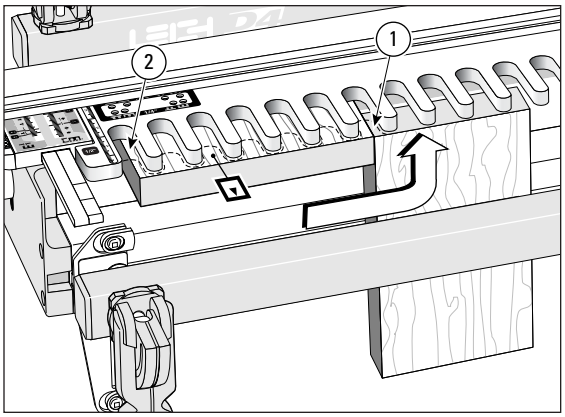


7-12
Clamp one of the box side boards horizontally in the rear clamp, with the inside face ◘ of the board facing away from the jig body and the end edge flush with the outer edge of the vertical scrap board.

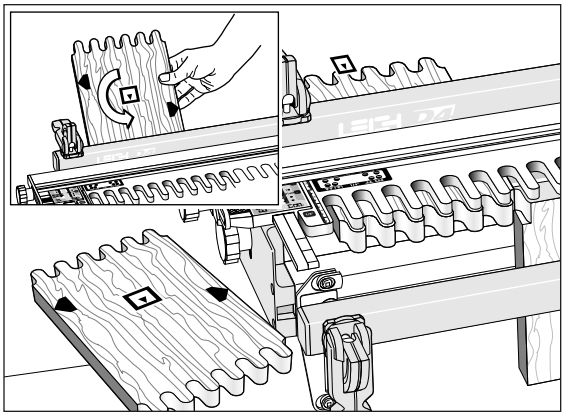
⚠ *Tear-out Warning! Do not rout this board before reading the following:*



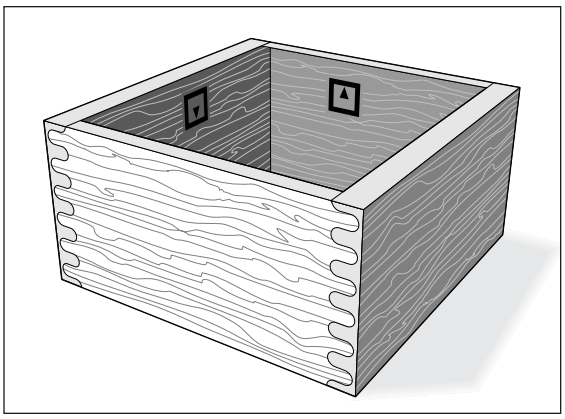
7-13
If you rout this horizontal board in the conventional way you may tear away the right hand board edge ①, although some woods will rout quite cleanly. If a plunge router is used, gently plunge down at the rear of the socket② and rout out toward you.



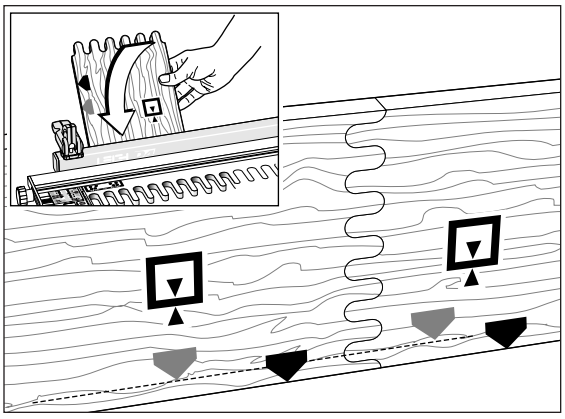
7-14
When using combs at the left end of the jig, the best way to avoid the right-edge tearout problem is to clamp the front scrap① against the right side edge of the board. Simply clamp it under the front clamp bar, making sure it's firmly against the edge of the board. By rotating and flipping its 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.



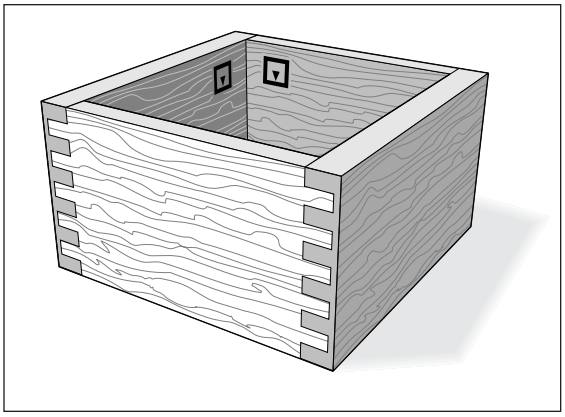
7-16
Assemble in the usual way. You will probably need to clamp in both directions when gluing up.



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.

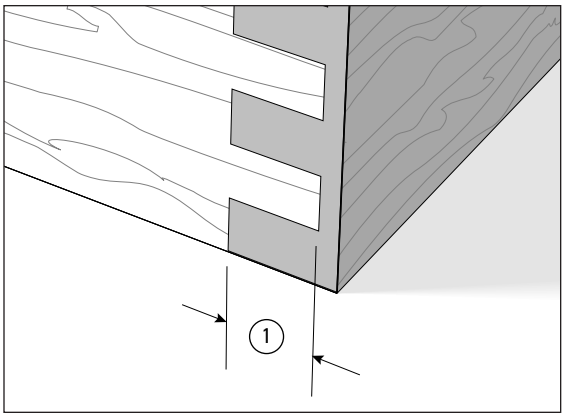
CHAPTER 8

Square Half-Blind Box Joint Procedures



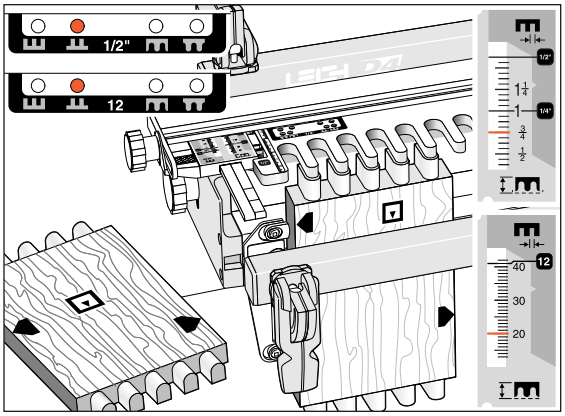
8-1 Square Half-Blind Joints

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. Because part of this joint is rounded, only the nominal size cutters may be used: ¼", 5⁄16", ⅜", and ½" for inch joints; or 8,10, and 12mm for metric joints. *See page 97, appendix II for cutter selection.*



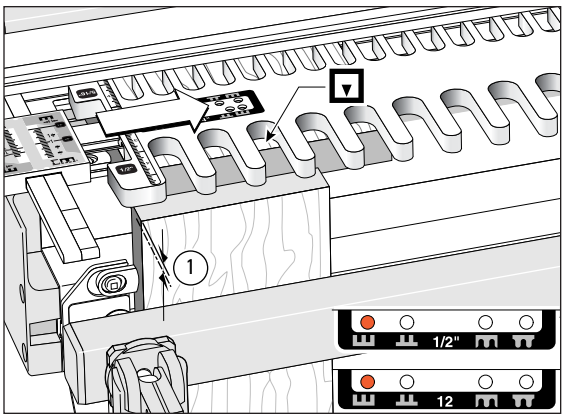
8-2

Set the depth of cut ① to about ⅛"[3mm] less than the drawer-front thickness.

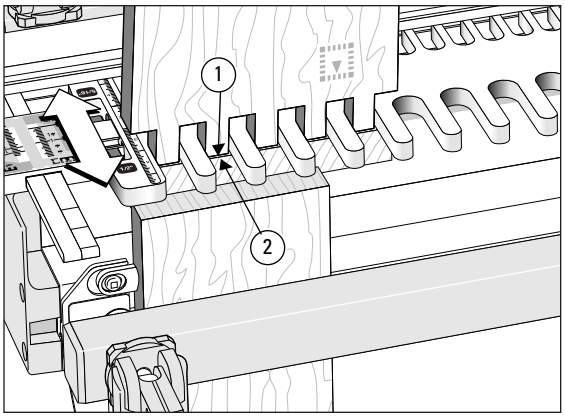


8-3

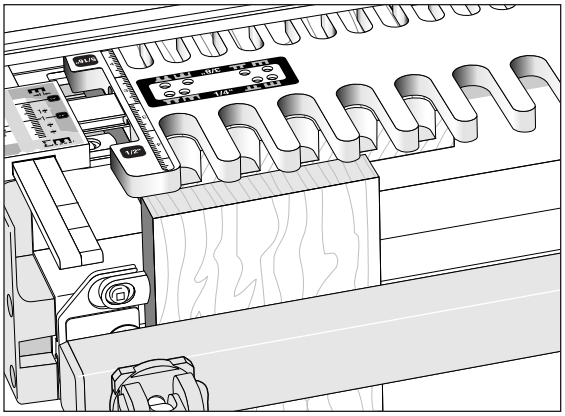
Set the template pin on the ▟▙ setting and the grey scales to the thickness of the box sides, e.g. 3/4" [20mm] shown here. Move the router fence to the rear, it is not used in this procedure. Rout the box side ends vertically in the front clamp.



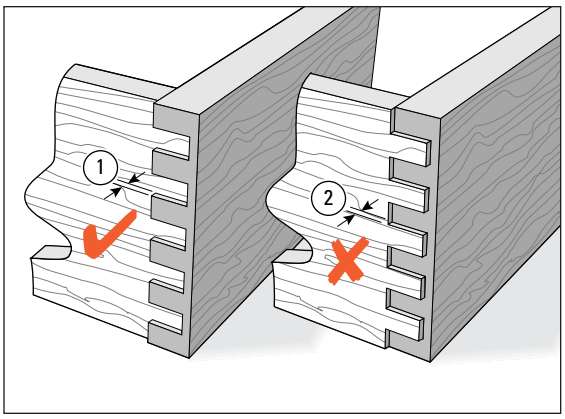
8-4
Set the template pin on . Clamp a scrap piece vertically in the jig front with its top end slightly above the jig body ①. Clamp a box front horizontally with the inside face away from the jig body, and the front end edge against the scrap board.



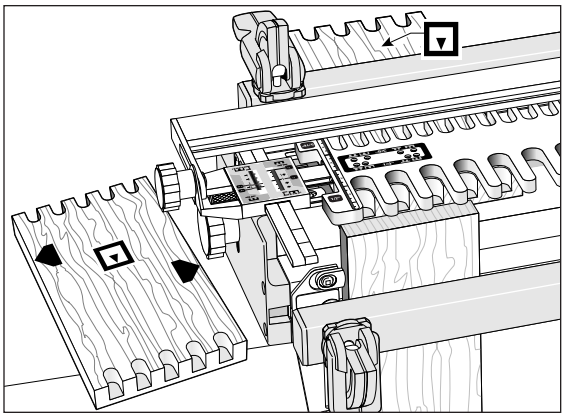
8-5
Place one of the routed box sides vertically through the template with the rounded part of the fingers in the rounded guide crotches. Adjust the template so the front face of the side board ① is 1/16"[1,5mm] in from the end edge of the box front ②. Lock the scales on the same setting at both ends.



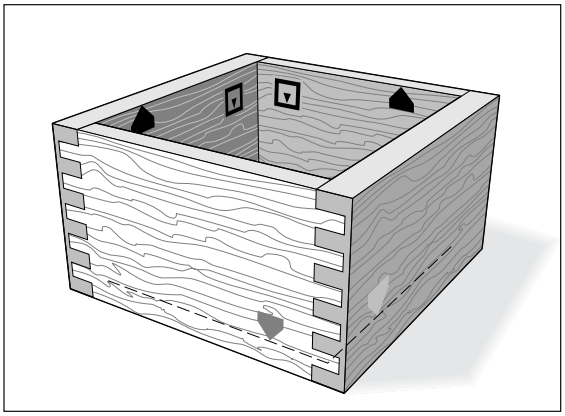
8-6
Rout a test piece to test the grey scale setting and adjust the template in or out to produce the required flush fit.



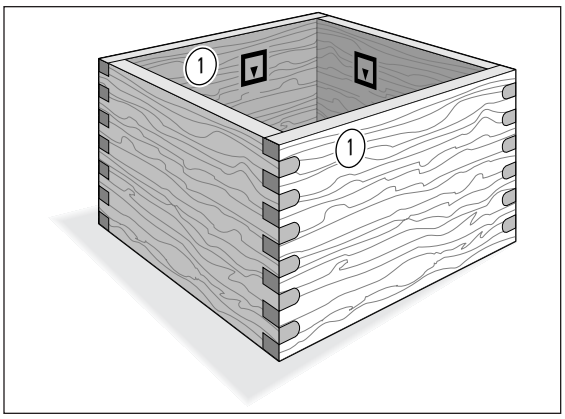
8-7
The drawer front pins should project through the side sockets by no more than 1/64"[0,25mm] for clean-up ①. If the sides project ②, adjust the template inward to suit.



8-8
When satisfied with the fit, rout all the ends of the box fronts and backs in this mode.



8-9
Assemble and glue in the usual way.



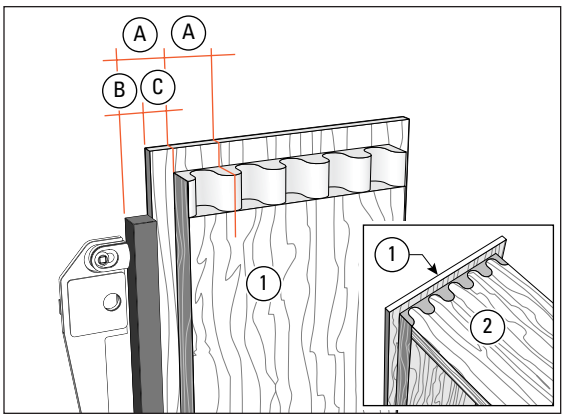
8-10 Rounded Square Box Joints

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.

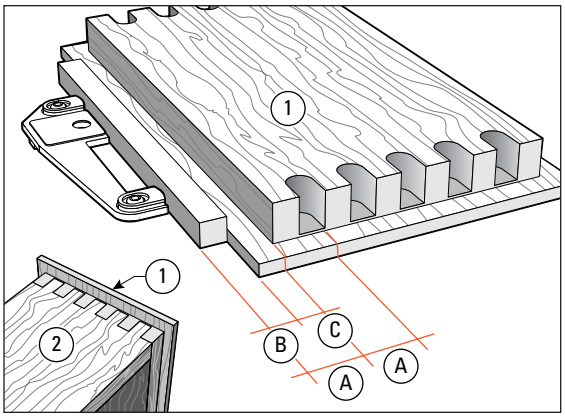
CHAPTER 9

Rabbetted Half-Blind Finger Joints

Chapter 9 F1 User Guide



9-1 Rabetted Half-Blind Finger Joints
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).



9-2
The same rule applies to rabbetted square box joints.

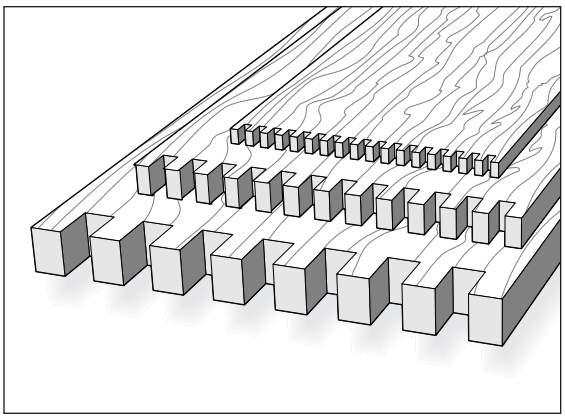
Chapter 9 F1 User Guide

CHAPTER 10

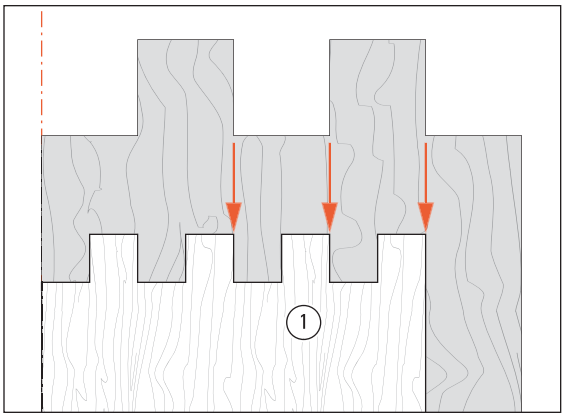
Small Box Joints

Chapter Foreword

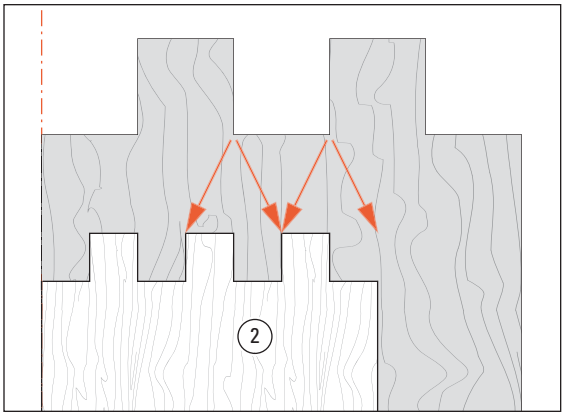
These instructions are based on the assumption that you have mastered the routing of the basic box joint, and are thoroughly familiar with those procedures. Also that you have read the Hints and Tips Chapter 12.



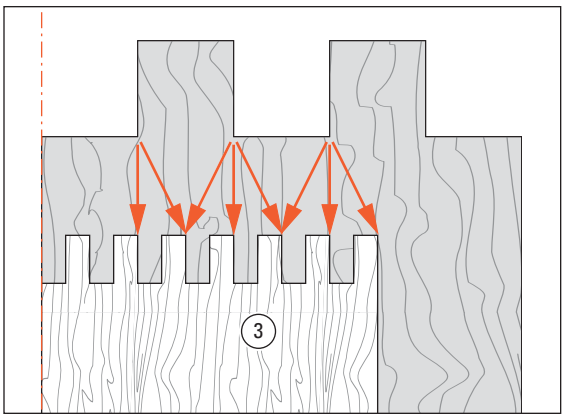
10-1 Small Box Joints
The template pin positions for square and rounded finger joints are a quarter pitch apart. This allows routing of half-size, even quarter-size box joints (it does not work on rounded finger joints). You get the advantage of routing thicker, wider boards with ¼"[6mm] box joints on the ½"[12mm] template; or as small as 1/16"[2mm] on the ¼"[8mm] template. *There are some specific rules for routing small box joints; see figures 10-2 to 10-7 starting below.*



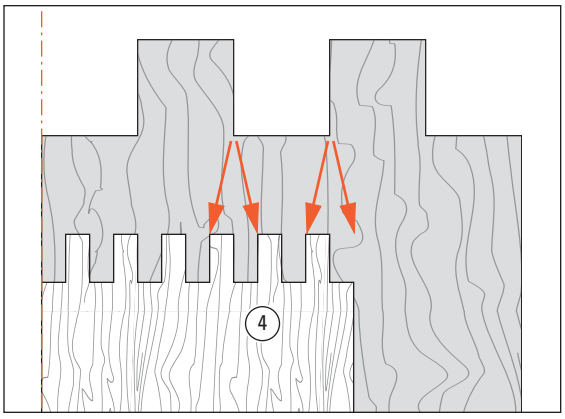
10-2 Board Widths For Small Box Joints
These widths have to be calculated (by simple addition or subtraction) from the board width charts on pages 37 and 38. The simple calculation rules are:
Use any one of the board widths listed under the selected comb size, with the following additions or subtractions.
Half-size asymmetrical ①: width as per chart.
Note: The grey background in these four illustrations represents the chart width.



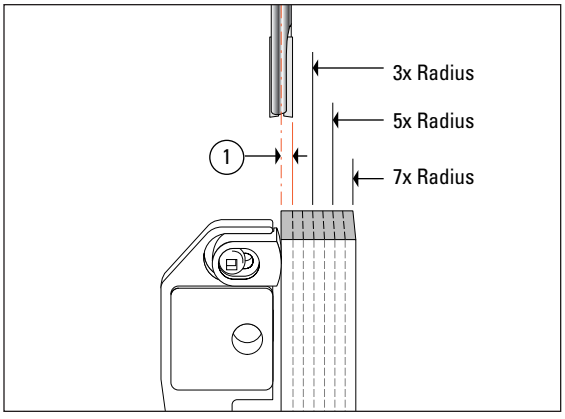
10-3
Half-size symmetrical ②:
Chart width plus or minus diameter of small cutter.



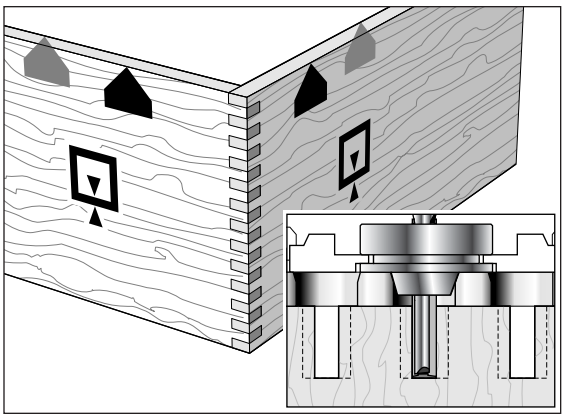
10-4
Quarter-size asymmetrical ③:
Chart width, or chart width plus or minus two diameters of small cutter.



10-5
Quarter-size symmetrical ④:
Chart width plus or minus diameter of small cutter.

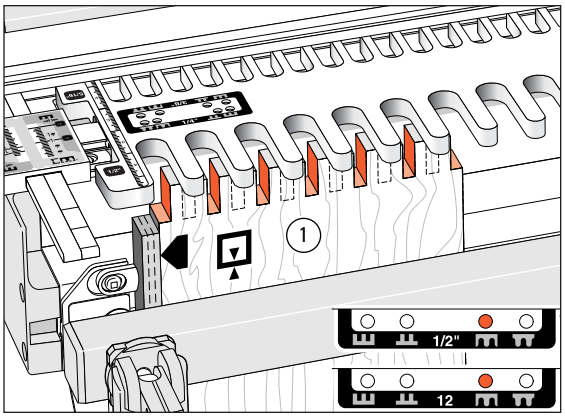


10-6
Block away from side stops. If you used the standard side stop positions for small box joints, the side sockets or side fingers would not be cutter sized. To ensure the correct edge finish, it is necessary to block the board away from the side stop by the radius of the small cutter ①. Obviously this "block" (strip) could be so small as to be difficult to make and attach. So make up a block that is an odd multiple (3x, 5x, 7x, etc.) of the cutter radius.



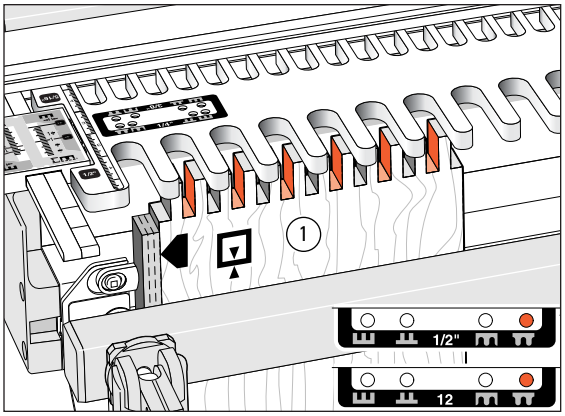
10-7 Box Joints Half the Nominal Size

E.g., ¼"[6mm] box joints on the ½"[12mm] comb. Use the same size guide bush for the selected comb, but **use a cutter of half the nominal size**.



10-8

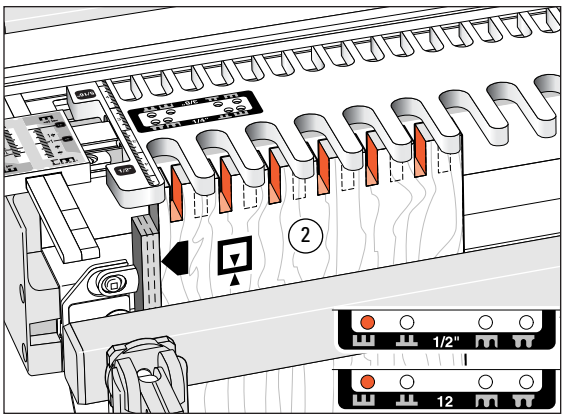
Put the template pin in setting , rout the half-size sockets but leave the board ① in the clamp. Note: this example is a symmetrical joint, yours can be asymmetrical. Also, depending on the actual size of the side stop block, your number ① board edge at the side stop may start with a pin instead of a socket. It doesn't matter, the mating board will automatically match.



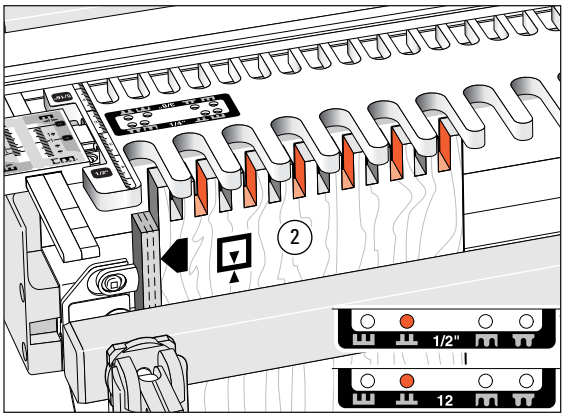
10-9

Move the template and put the template pin in the setting . Rout the other half-size sockets and remove the board. This board ① will now have fingers and sockets half the nominal size.

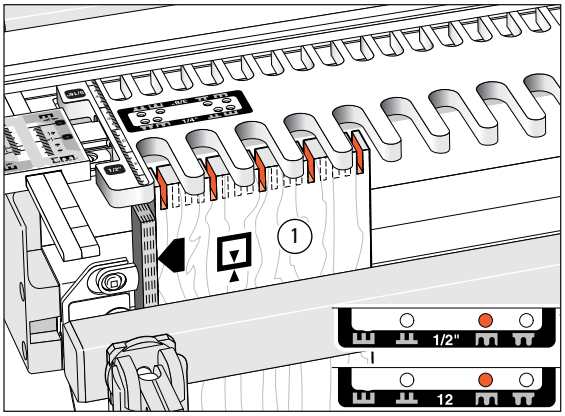
Repeat 10-8 and 10-9 on the other end of the board ① and both ends of board ③.



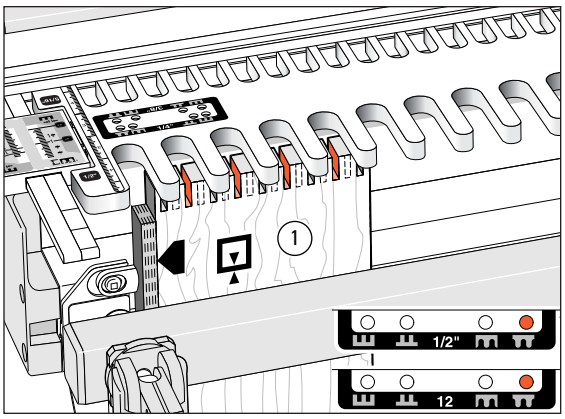
10-10
Mount the mating board ②. Put the template pin in setting and rout the sockets. Leave the board in place.



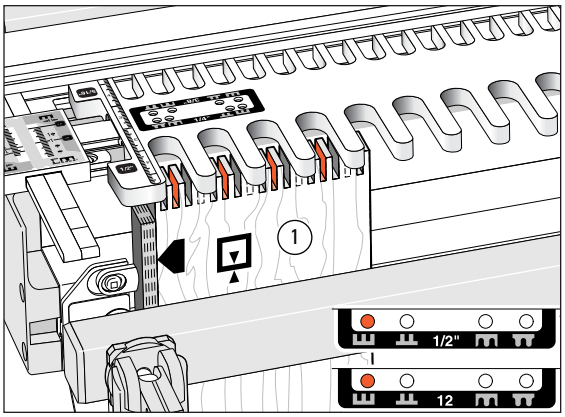
10-11
Move the template and template pin to setting and rout the sockets. Fit the boards together. You may need to adjust the VGS to get the right fit.
Repeat 10-10 and 10-11 on the other end of board ② and on both ends of board ④.



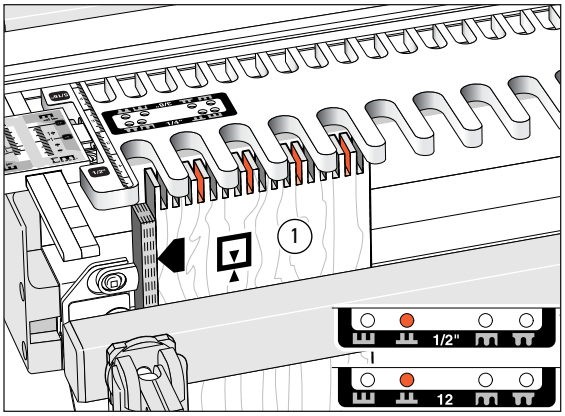
10-12 Box Joints a Quarter the Nominal Size
Mount board ①. Use a guidebush of the nominal size for the chosen comb, but **use a cutter one-quarter the nominal cutter size**. Rout board ① in the pitch setting (as shown here) and in each of the other pitch settings as follows **without unclamping the board**.



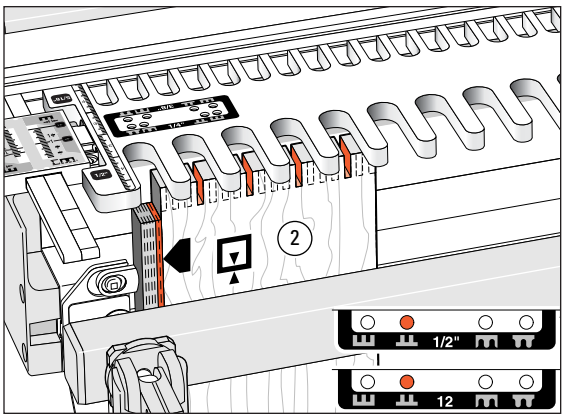
10-13
Pin position .



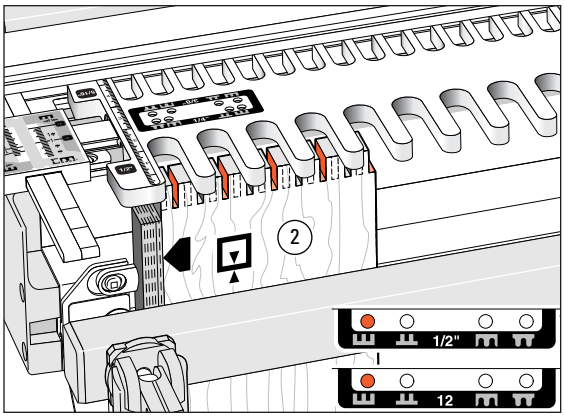
10-14
Pin position .



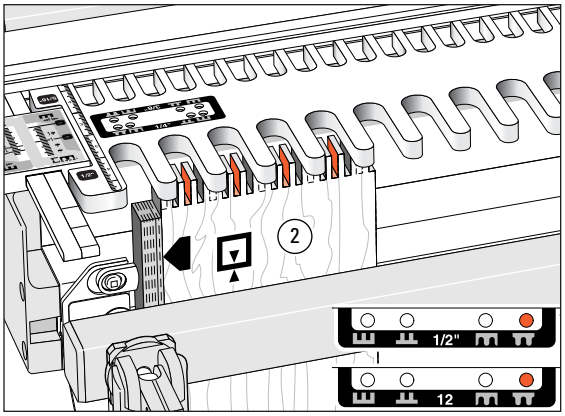
10-15
Pin position .
Repeat 10-12 through 10-15 on the other end of board ① and on both ends of board ③.



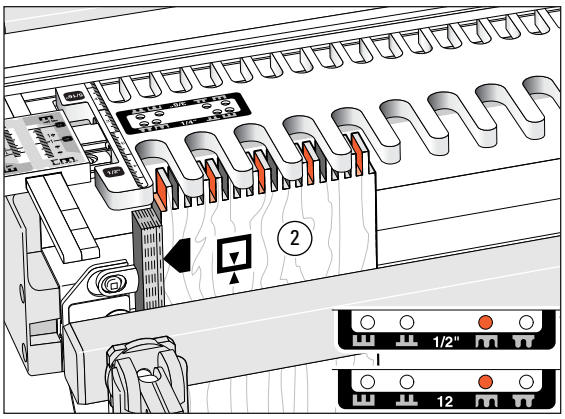
10-16
We have now run out of template offsets, so to make the two boards mate flush at the side edges we need to offset board ② by one diameter of the small cutter, shown here as a red block (See 10-20 for very small joints). Rout board in all four pin positions, here in , then in...



10-17
...pin position .



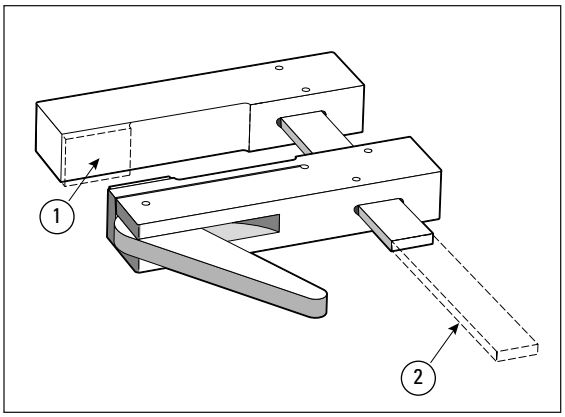
10-18
Pin position .



10-19

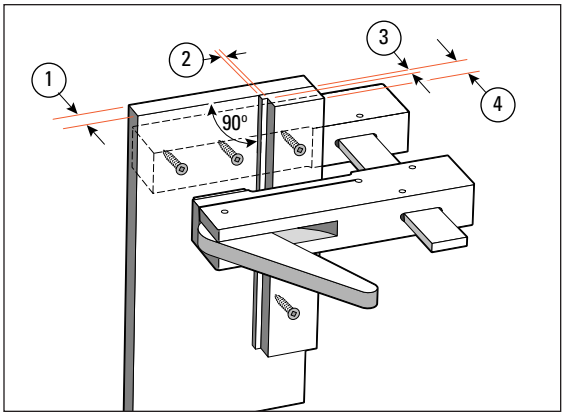
Pin position .

Repeat 10-16 through 10-19 on the other end of board ② and on both ends of board ④.



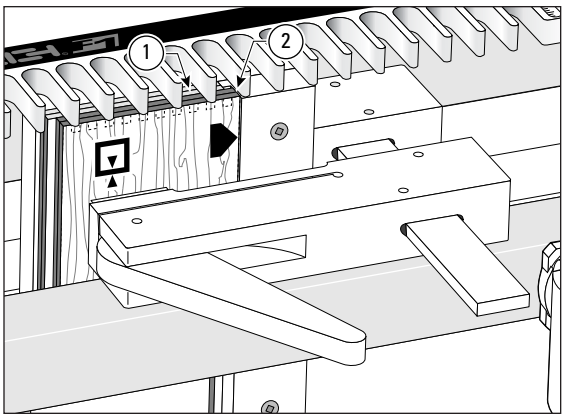
10-20

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.

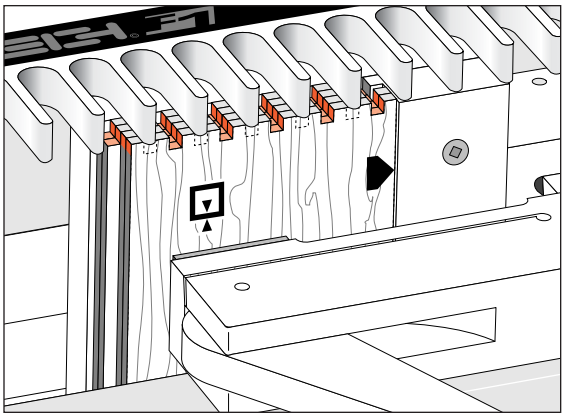


10-21

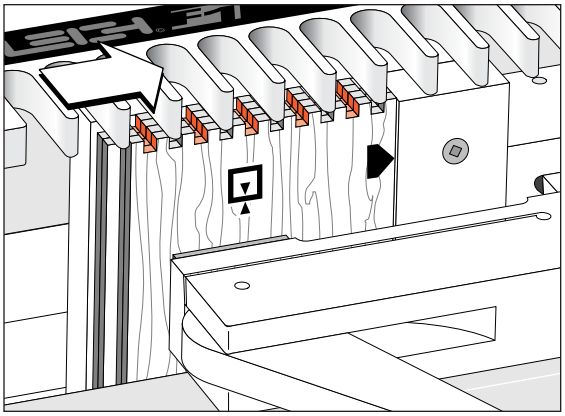
Rout up to four pieces at once, and speed up small box joint routing. Adjust the scale settings to allow for the backboard thickness, e.g., a ½"[12mm] backboard ①; move the template ½"[12mm] further toward you. ② is a step, equal to the small cutter diameter used. ③ is slightly less than one or two board thicknesses. ④ is greater than all board thicknesses combined.



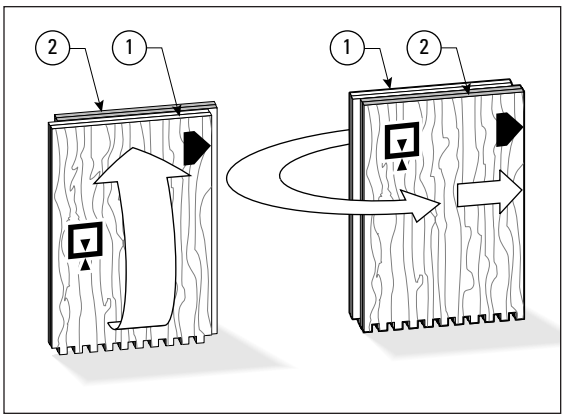
10-22
The front jig clamp holds the auxiliary clamp by its stepped side stop. The small boards may slide behind the jig front clamp bar if necessary. The rear two boards ① are offset from the front two boards ② by the stepped side stop, at an amount equal to the small cutter diameter used.
Adjust the auxiliary clamp left and right in the jigs front clamp to allow for the correct side edge finish.



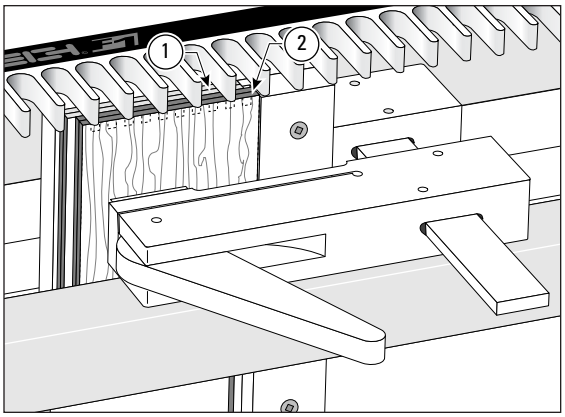
10-23
In this example, a half-size joint is being simultaneously routed in all four box board ends. First in one pin position...



10-24
...then in the next.



10-25
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.



10-26
Now rout these four ends in the same two template pin positions as before.

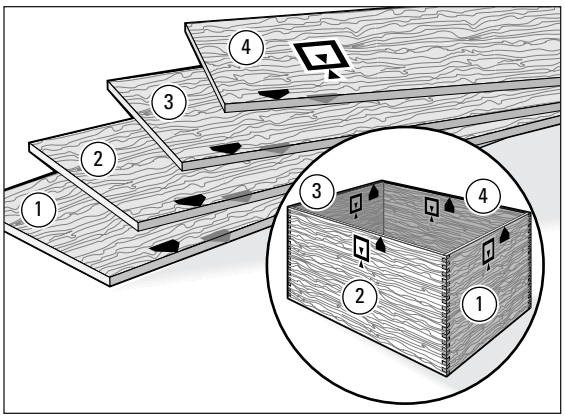
CHAPTER 11

Wider Box Joints

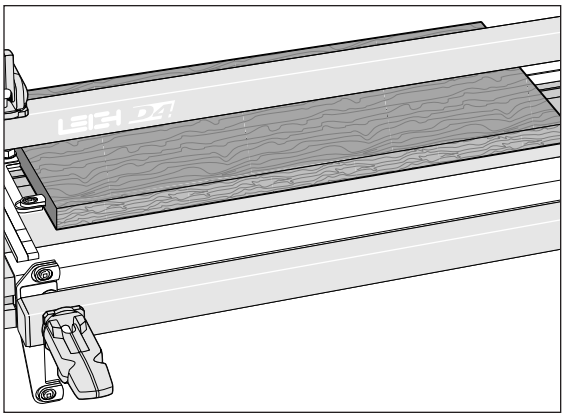
Chapter Foreword

Occasionally, you may need box joints that are wider than the combs on the F1 Template. Woodworker and Leigh Jig user Donald Brown of Havana, Florida, sent us this good idea on routing procedures for wide box joints on the Leigh F1.

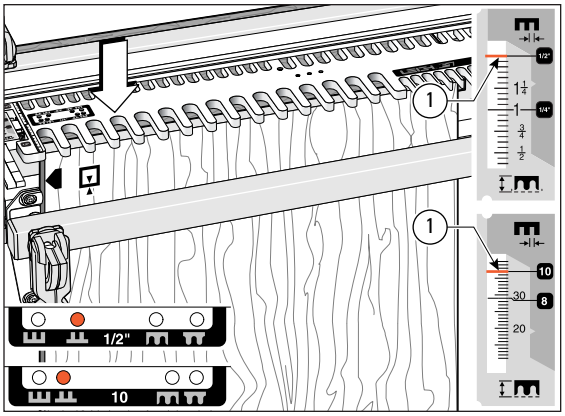
These instructions are based on the assumption that you are fully conversant with the use of the F1 Template and the instructions in this User Guide. Do not attempt the following procedures until you are. Practice with scrap boards before attempting to make a finished project.



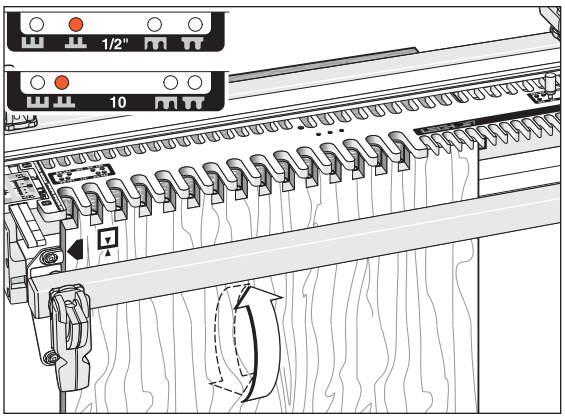
11-1
Refer to the extended board width charts on page 84 to select the width and comb size. Prepare four boards and mark them 1,2,3,4. Select the grain alignment and mark the common top (or bottom) edges. Don't worry about face side selection, this can be done after routing.



11-2
Replace the spacer board with a scrap back-up board. This board needs to be flat and even thickness like the spacer board and have its front edge straight. It should be long enough to extend past the end of the active comb.

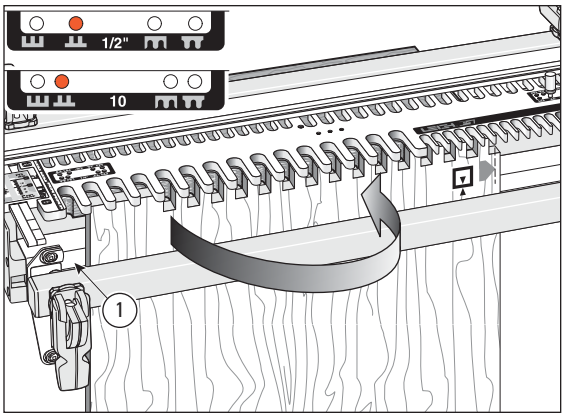


11-3
Lower the template onto the backup board and set scales on the comb size to be used (example here: ½"[and 10mm] combs ①). Position the template with the template pin in the position. Clamp board No. 1 in the jig, side edge mark to side stop, top end edge touching the underside of the template. Make sure the horizontal scrap board is touching firmly against the rear of the workpiece.

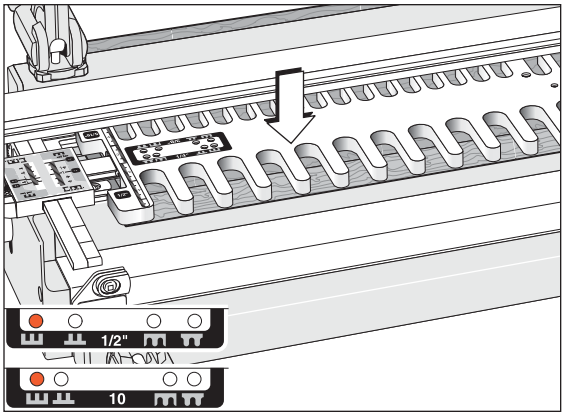


11-4
Rout the full width of the active comb on both ends of boards 1 and 3 in position . Be sure to keep the same side edges to the side stop.
Do not move or remove the backup board.

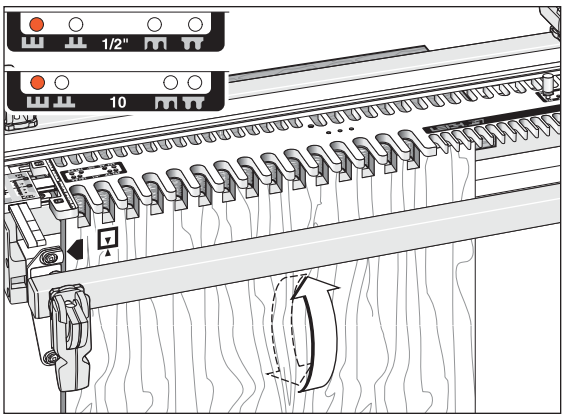
Remember: All square box joint boards (for boxes or end-on-end joints) are clamped alternately face-in and face-out .



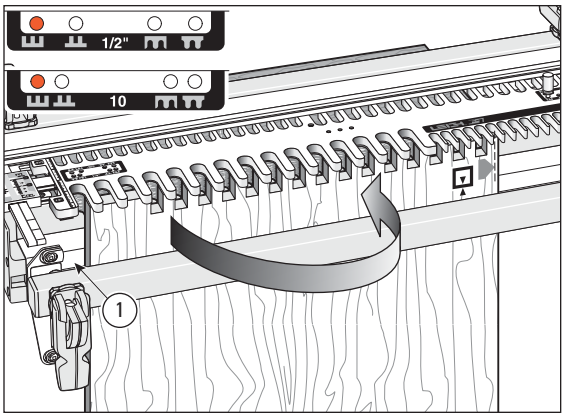
11-5
Turn board No. 1, like turning the page of a book so the side stop mark is now to the right. Very carefully position and clamp the board in the jig so the previously routed sockets in the workpiece **perfectly line up with the routed sockets in the backup board. Keep the left edge of the board away from the side stop** ①. Rout the left side of this end. Repeat this procedure to complete the routing of the other end of board 1, and both ends of board 3.



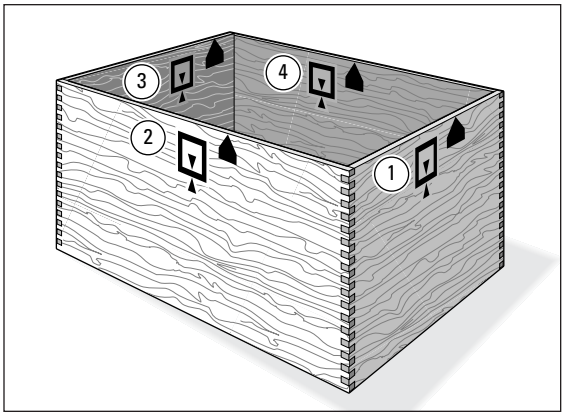
11-6
Move the template to position and **replace the backup board with a new clean-edged piece.**



11-7
Rout both ends of boards 2 and 4, first routing both ends of each board against the the left side stop, and then...



11-8
...reposition (as with boards 1 and 3) to align and complete the routing. **Keep the left edge of the board away from the side stop** ①. Rout the left side of this end of boards 2 and 4.



11-9
Keeping the marked side stop edges of all boards toward the top (or bottom) of the box, select the preferred outside faces of the boards and assemble the box. Remember; box joint corners need clamping from both directions, or use strap clamps and blocks.

BOARD WIDTH CHART (INCHES and MM)

Use to the nearest 1/32" or 1mm for width selection. To make symmetrical square joints, use the board widths in red. For asymmetrical square joints, use the board widths in black. Rounded joints cannot be routed wider than the dimensions on pages 37 and 38.

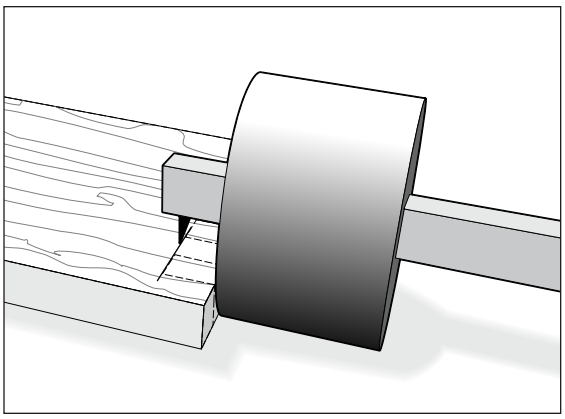
Numbers in white columns are the number of sockets and pins

CHAPTER 12

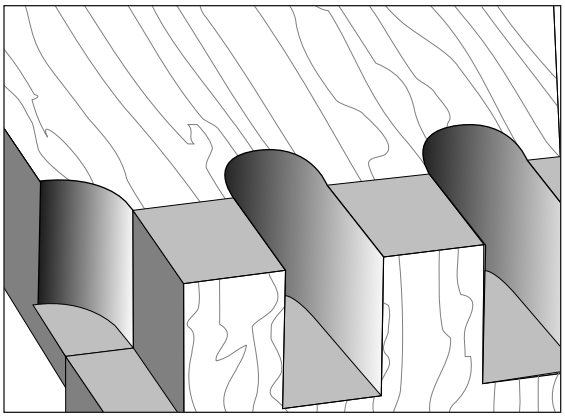
Hints and Tips

Chapter Foreword

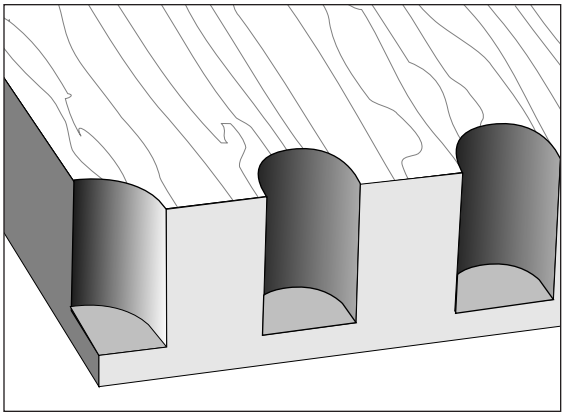
Here are some special techniques and ideas to help you get the most out of your Leigh F1 Template.



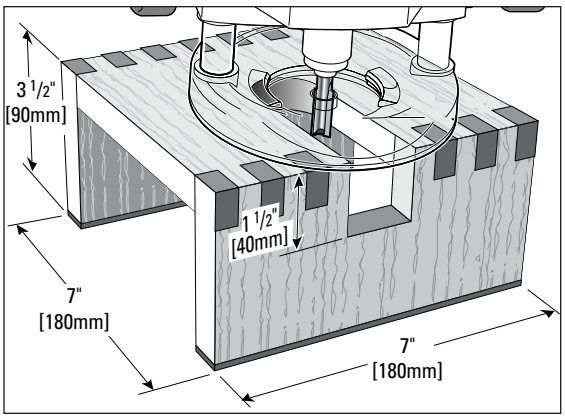
12-1
To prevent tear-out at the back bottom part of the cut, scribe a line with your marking gauge across the back of the board at exactly the depth of cut.



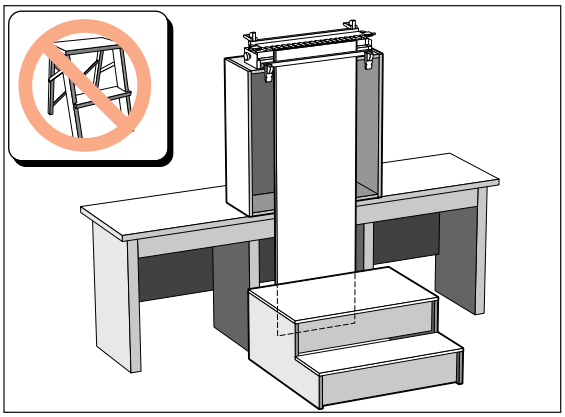
12-2
To help prevent tear-out on the sides of the exit cut, back up the cut with a horizontal board end-grain pushed against the back of the workpiece and held in the rear clamp.



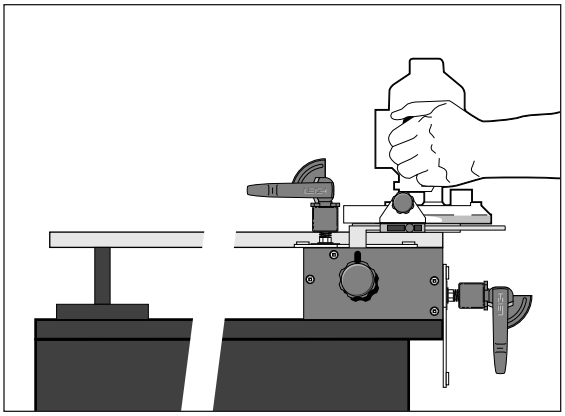
12-3
This same scrap piece can remain in place for successive cuts. If you have a variable speed router, try changing the speed and experiment with different feed rates.



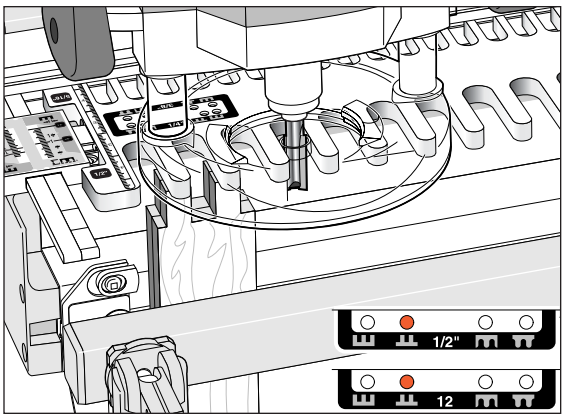
12-4
Router Stand: Make up a small router stand as illustrated, to mount the router securely on the bench when not in use.



12-5
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.



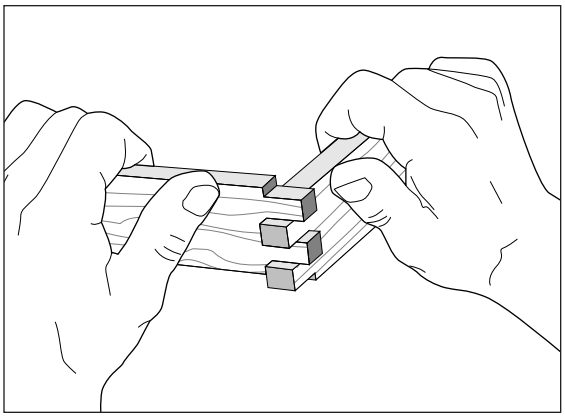
12-6
When placing long horizontal boards in the rear clamp, make sure the rear end of the board is supported to prevent unnecessary racking of the jig.



12-7 Quick Fit Test

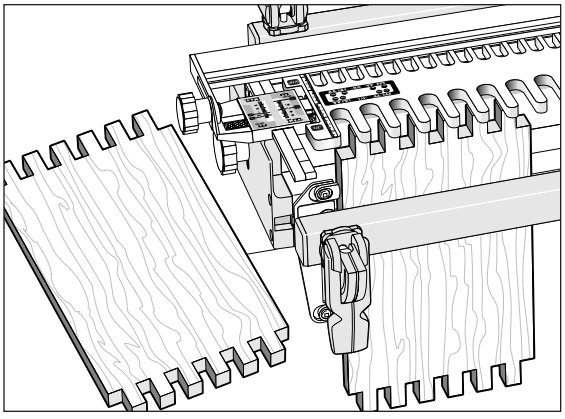
Rather than routing test pieces separately, here is a quick way to get 99% of the way there. Simply rout two thinner boards of scrap stock simultaneously. Any single pin position will do, unless you intend to rout small box joints, in which case, use the matching pin positions described in chapter 10.

If you prefer, use one piece and saw in half after routing.



12-8

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.

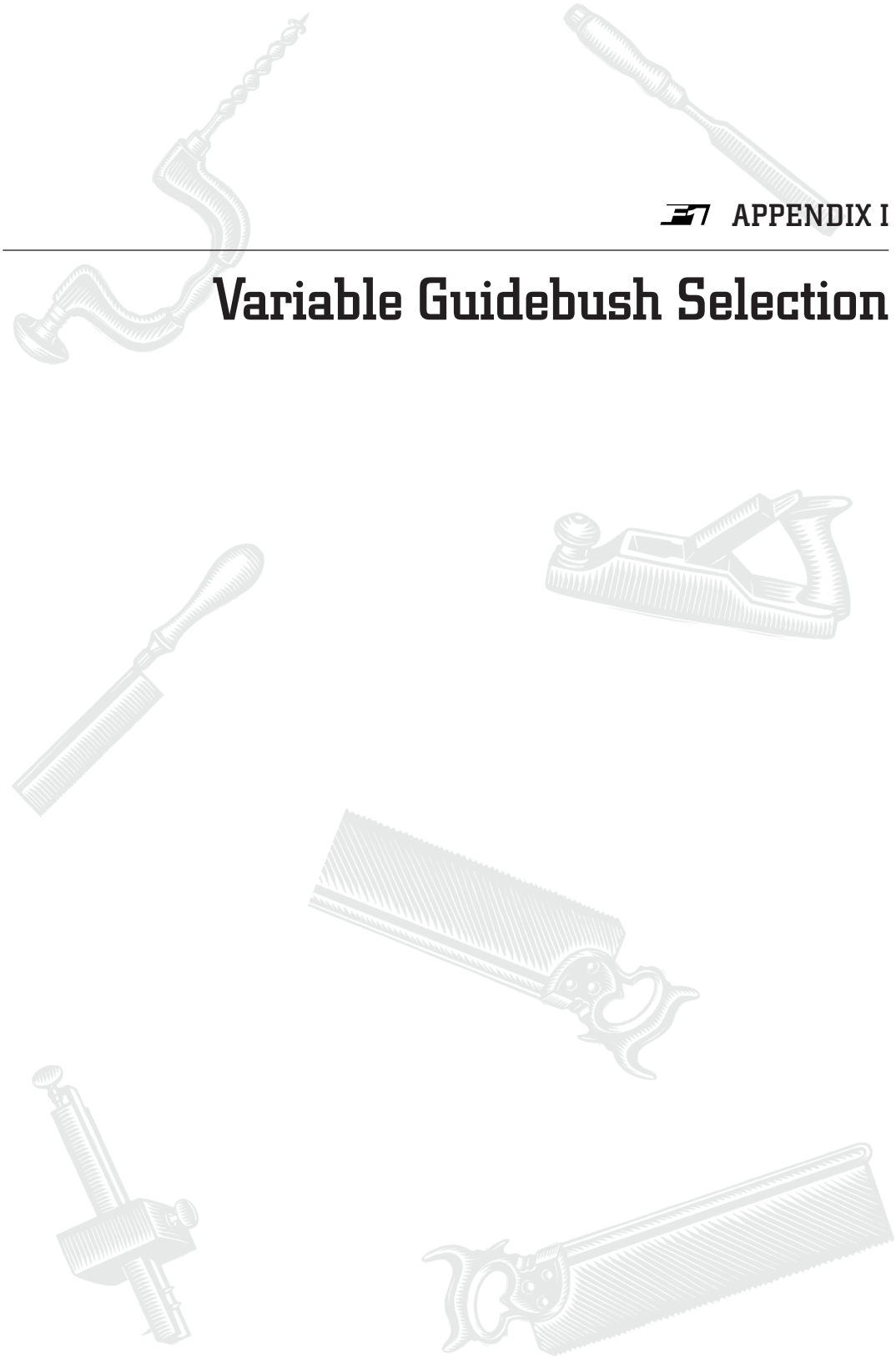


12-9

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.

APPENDIX I

Variable Guidebush Selection



Chapter Foreword

VGS: The Leigh Variable Guidebush System

The VGS is included with the F1 Finger Joint Template but you may need an optional adaptor for your router (see next pages).

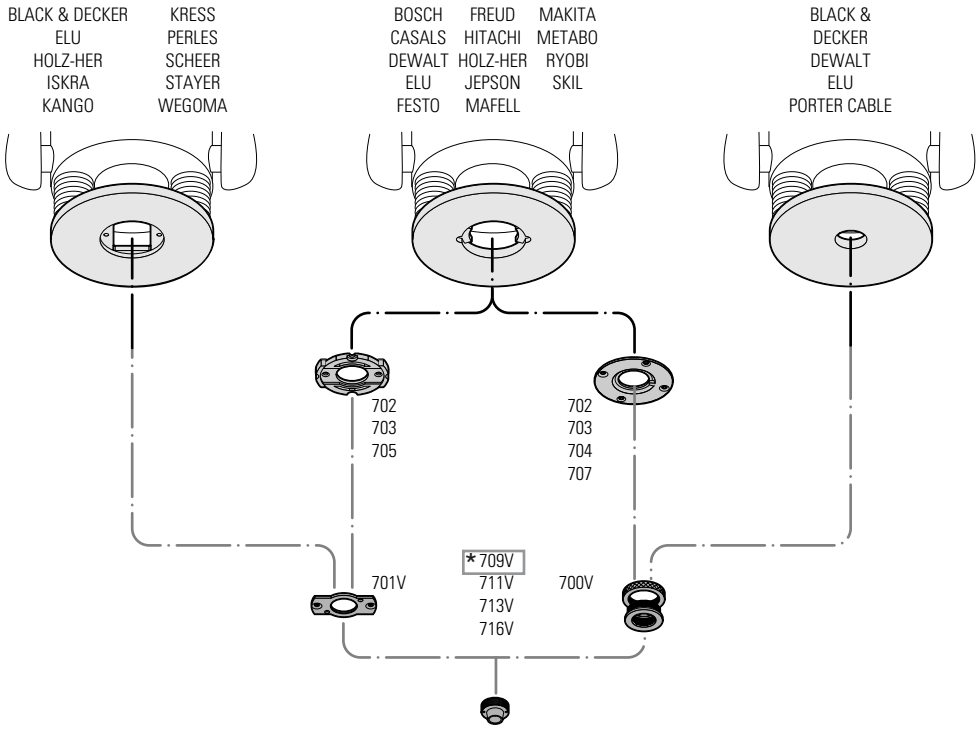
Do not use the VGS on D Series dovetail jigs or the M2(MMTA) as the tapered VGS bushes will not index properly on the guidefingers and guide rails.

The Variable Guidebush System

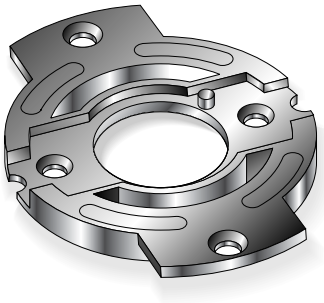
The Vital Link Between Your Router and the Leigh F1 Template

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.

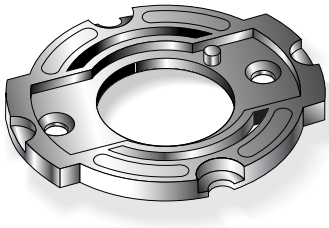
Do not use this diagram for part selection. See pages 94 and 95.



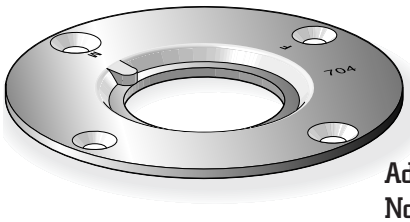
***Note: 709V is not included in "metric" F1 Template.**



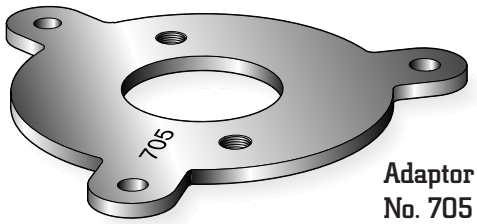
Adaptor No. 702



Adaptor No. 703



Adaptor No. 704



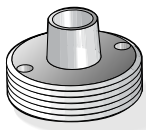
Adaptor No. 705

Adaptor No. 706

How to Select the Adaptor for The Leigh F1 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 F1.**
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.*

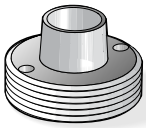
These accessories are included with the F1 Template, except bush 709V* is not included with the metric F1.



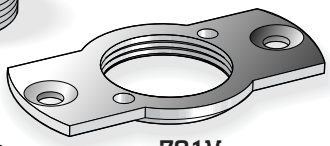
709V*

711V

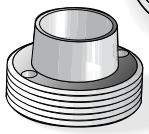
700V



713V



701V



716V

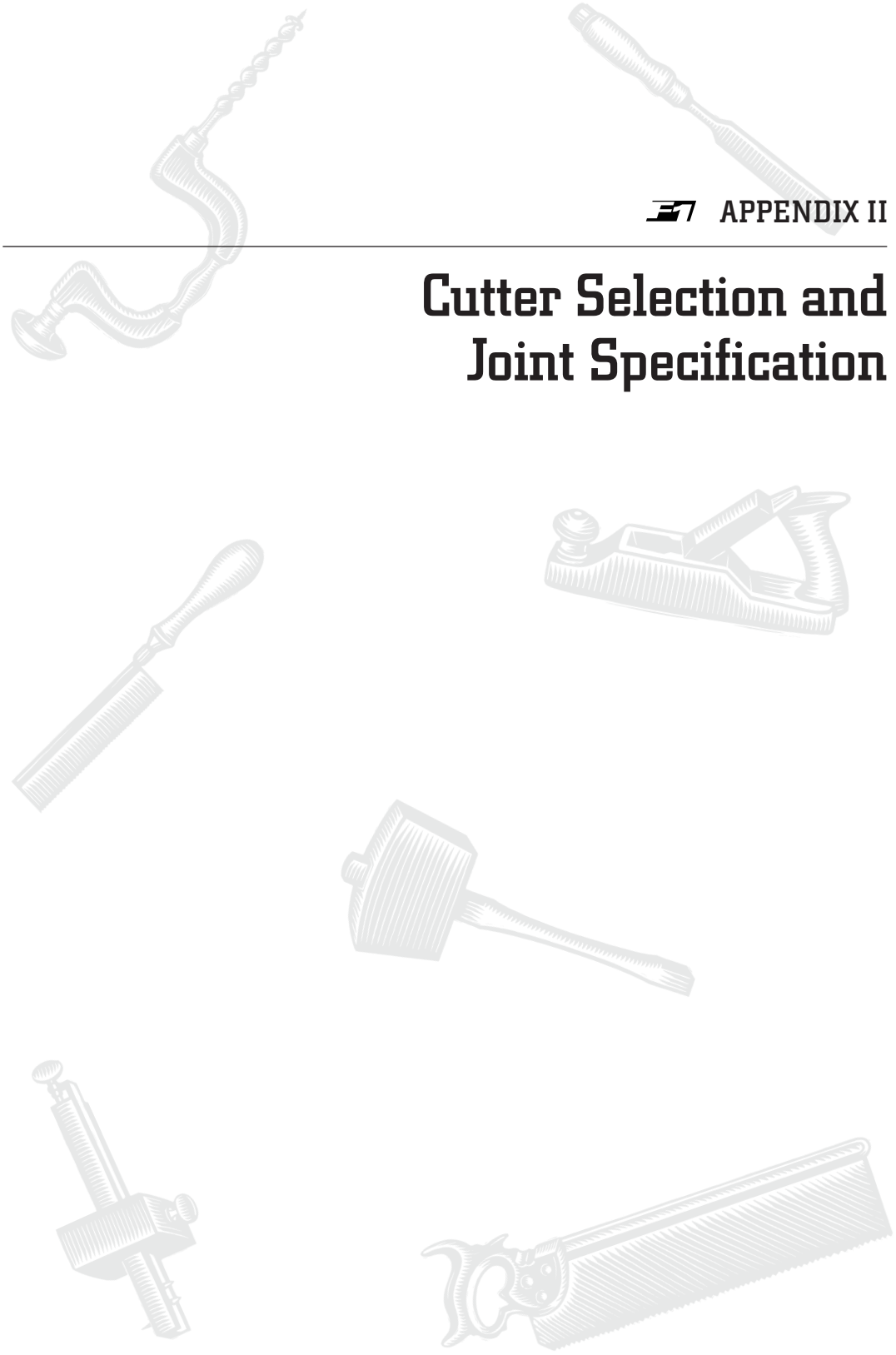
Find the make and model of your router in columns 1 and 2. See which Leigh holder works with your router in column 4. Select the correct adaptor plate for your router (if required) from column 3. Leigh adaptors are in red. Other adaptors must be purchased from the router manufacturers distributor. The VGS holders are included with your F1.

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	OFE 610 in plunge base OFE 1000	No adaptor required	701V
	OFSE 2000	703	
BLACK & DECKER	All Professional, HD 1250, RP400K	No adaptor required	700V
	6200	720673-00	701V
	SR100, 7AEE, KW780 Series	No adaptor required	
BOSCH	90140, 90098, 90088, 90085, 90150 90300, 90303, 90305, 91264	No adaptor required	NA
	1600, 1601, 1602, 1603, 1604, 1606, B1350	2 610 906 290	700V
	1613, 1613EVS,1614, 1614EVS, B1450 POF800ACE, GOF900ACE,GOF1300ACE 1617, 1617 EVS, 1618 (Magnesium)	RA1100	700V
	1611, 1611EVS, 1615, 1615EVS B1550, GOF1600, GOF1700ACE	702	701V
CASALS	FT750, FT1000E, FT2000E	703	701V
CRAFTSMAN (SEARS)	All non-plunge models	No adaptor required	NA
	135275070 Plunge	See Skil 1823 or 1835	see column 3
	Other plunge models	702	701V
DEWALT	DW610	No adaptor required	700V
	DW613	No adaptor required	701V
	DW614, DW615, DW621 DW624, DW625, DW626	North America only Adaptor supplied w/router	700V
	DW621K and DW626 outside N. America	706	701V
	DW625 Type 1, 2 & 3 outside N. America	702	
	DW625 Type 4 outside N. America, DW625EK	702R	
EINHELL	EOF 850 SP, OF-G 1100E	No adaptor required	701V
ELU	OF15, OF15E, OF97, OF97E	706	701V
	MOF68, MOF69, MOF96, MOF96E	No adaptor required	
	MOF131, MOF177 Type 1, 2 & 3	702	
	MOF177 Type 4, MOF177EK	702R	
	2720, 2721, 3328	No adaptor required	700V
	3303, 3304	E09600 or 761 270-00	
	3337, 3338, 3339	702	701V
FEIN	RT-1800	No adaptor required	700V
FESTO	OF1E, OF2E, OF650, OF900E, OF1000, OF1010E	704	700V
	OF2000, OF2000E	705	701V
FLEX	All	No adaptor required	700V
FREUD	FT2000	703	701V
HITACHI	TR8, TR12, FM8, M8, M12 Series	703	701V
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
MAKITA	3600, 3606, 3608, 3612, 3612B, 3612BR 3612C N. America, 3620, 3621	703	701V
	3612C Europe Qk. Fit Base	Contact your National Leigh distributor	700V
	3601B	321 493-1	
	RP0910, RP1110C	706	701V
	RF1100, RF1101, RD1100, RD1101	No adaptor required	700V
METABO	OF1612, OFE1812	704	700V
MILWAUKEE	All	No adaptor required	NA
PERLES	OF808 Series, OFE 6990	No adaptor required	701V
PORTER CABLE (ROCKWELL)	All	No adaptor required	700V
RYOBI	R30, R50, R150, R151, RE155, R161 R500, R501, R502,	703	701V
	R600, R601, RE600, RE601	702	
	R160, R165, R170, R175, RE175, R180, R185	407 0176	700V
SCHEER	HM9, HM14, HM14-12, HM18, HM18-E	No adaptor required ●	701V
SKIL	1823 or 1835	91803	700V
	All others	No adaptor required	NA
STANLEY	All	No adaptor available	NA
STAYER	PR50 Series	No adaptor required	701V
TREND (FELLISATI)	T5	No adaptor required	701V
	T9	Adaptor supplied with router	
WEGOMA	OF850 Series	No adaptor required	701V

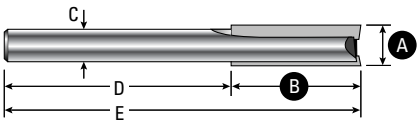
■ *MAFELL – Rework the adaptor slightly.* ● *SCHEER – Rework the router base slightly*

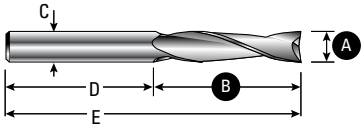
APPENDIX II

Cutter Selection and Joint Specification

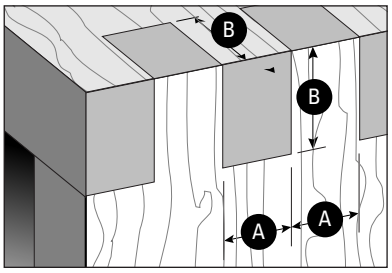


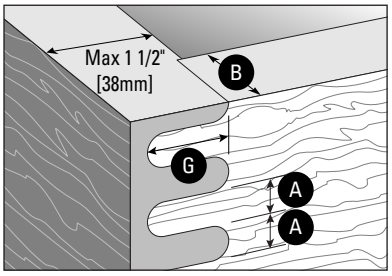
Cutter Selection and Joint Specification





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 sizes of each cutter selected and use the appropriate collet or collet reducers. ¼" and ⅜" collet reducers come standard with most ½" collet routers. Where 8mm collets are unavailable, use Leigh No.172-8, ½" to 8mm collet reducer for all 5⁄16" and 8mm shank bits.

INCH SPECIFICATIONS

LEIGH CUTTER ITEM NO.		A	B	C	E	F	G
Carbide	HSS	Cutter Dia. Finger Size	Cutting Depth Range Max. Board Thickness	Shank Diameter	Overall Length	Maximum Board Width	Max. Rounded Finger Length
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**	1/8"	3/8"	1/4"	2-5/8"	8-7/16" *	–
135	**165**	5/32"	5/8"	1/4"	2-7/8"	10-1/2"	–
136	**166**	3/16"	5/8"	1/4"	2-7/8"	12-9/16"	–
138	**168**	1/4"	3/4"	1/4"	3	8-7/16" *	1-1/8"
140-8	**170**	5/16"	7/8"	8mm & 5/16"	2-3/4"	10-1/2"	1-1/4"
143	**173**	3/8"	1	3/8"	3	12-9/16" to 22-29/32"**	1-3/8"
160	**180**	1/2"	1-1/4"	1/2"	3-1/2"	14-21/32" to 23-13/16"**	1-3/8"

* 1/4" and 1/8" box joints may be routed up to 14" widths on the 1/2" comb.
** See Chapter 11 for wider box joints.

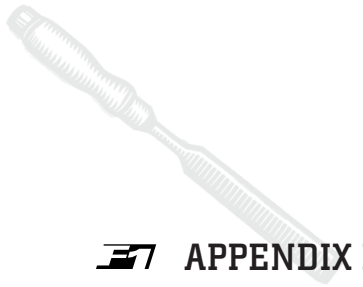
Leigh does not stock metric sized cutters. Please contact your national distributor for Leigh.

METRIC SPECIFICATIONS

A Finger Size Cutter Dia.	B Cutting Depth Range Max. Board Thickness	C Shank Diameter	E Overall Length	F Maximum Board Width	G Max. Rounded Finger Length
2	6	8	60	260	–
3	9	8	70	600	–
4	12	8	70	260	–
5	16	8	70	340	–
6	19	8	70	600	–
8	22	8	75	260 to 499**	32
10	25	8	75	340 to 580**	35
12	32	8	75	600	35
12	35	12	90	600	35

** See Chapter 11 for wider box joints.

Appendix II F1 User Guide



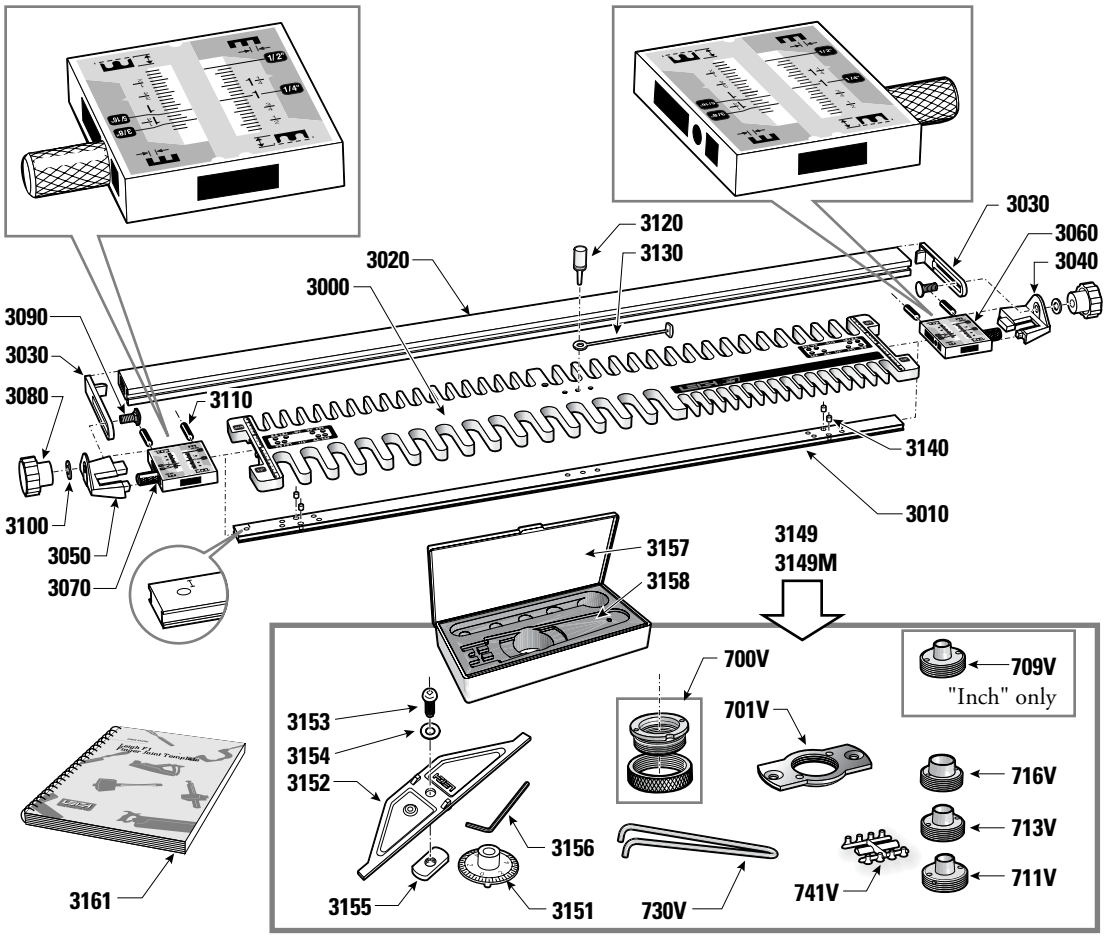
APPENDIX III

Template Parts List

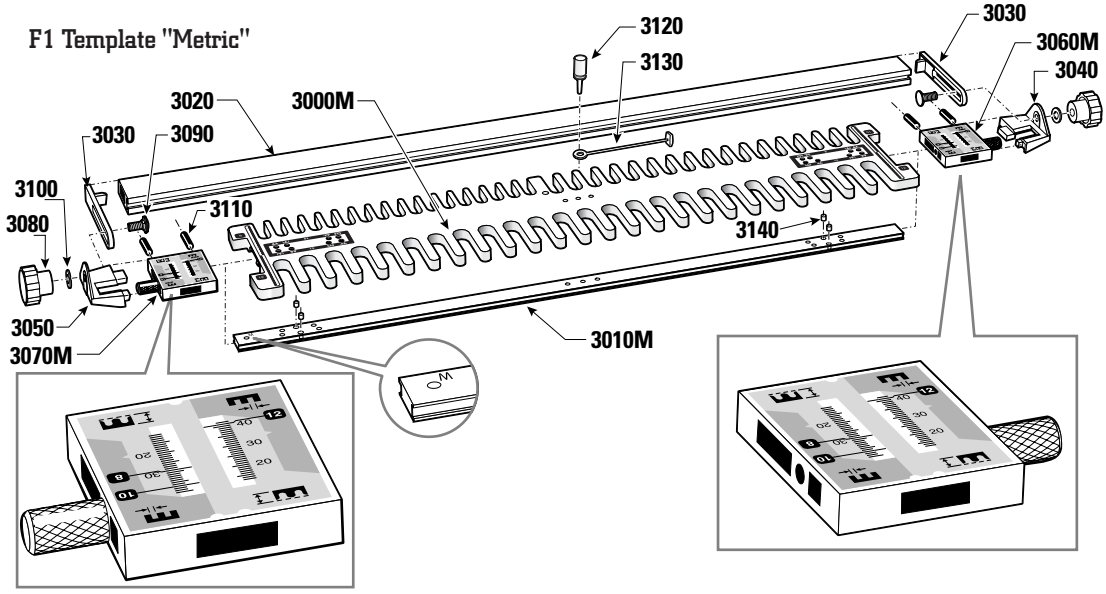
When ordering parts, please quote the Template model (inch or metric), serial number, part number, part description and quantity required.

PART NO.	QUANTITY PER TEMPLATE	PART DESCRIPTION
3000	1	"Inch" Template with decals
3000M	1	"Metric" Template with decals
3010	1	"Inch" Template Bar with glides (3140)
3010M	1	"Metric" Template Bar with glides (3140)
3020	1	Fence with brackets (3030)
3030	2	Fence Brackets
3040	1	RH Scale Bracket (RH in ½" & ¼" mode) with screws (3110)
3050	1	LH Scale Bracket (LH in ½" & ¼" mode) with screws (3110)
3060	1	RH Scale Assembly (RH in ½" & ¼" mode) with screws (3110)
3060M	1	RH Scale Assembly (RH in 12mm mode) with screws (3110)
3070	1	LH Scale Assembly (LH in ½" & ¼" 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	F1 VGS Set complete, inch
3149M	1	F1 VGS Set complete, metric
3151	1	Dial Knob
3152	1	Side Stop Locator
3153	1	Side Stop Locator Screw
3154	1	Side Stop Locator Washer
3155	1	Tab Nut (used on Model D1258 jig only)
3156	1	Allen Wrench for Set Screws
3157	1	VGS Box
3158	1	VGS Box Liner
3161	1	F1 User Guide, inch & metric
700V	1	VGS Holder (2 pieces)
701V	1	VGS Holder
709V	1	VGS Bush for ¼" 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 ½ "[12mm] Comb
730V	1	Pin Wrench for VGS
741V	8	Nylon Thread-Inserts for VGS (on tree)

F1 Template "Inches"



F1 Template "Metric"



APPENDIX IV

Customer Support

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
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Fax: 86-(0)25-5792-8826
Email: cassie@harvey.cn
Web: www.harveymachinery.com
Web: www.harveyworks.cn

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Ets Bordet
98 Rue Louis Ampère,
Neuilly Sur Marne, 93330 France
Tel: 01 41 53 40 40
Email: info@bordet.fr
Web: www.bordet.fr

GERMANY
Hacker GmbH
Holzbearbeitungsmaschinen
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Deutschland
Tel: 08031/68171
Fax: 08031 68221
Email: hacker.rosenheim@t-online.de
Web: www.hacker-rosenheim.de

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Ferrari Macchine Legno SRL
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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
Tel: 81-50-3816-0115
Fax: 81-54-367-6515
Email: info@off.co.jp
Web: www.off.co.jp/category/LEIGH/

KOREA
Leigh Korea
604, 13-1, Gugal-Ro 72beon-gil,
Giheung[1]Youngin-si,
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16972 South-Korea
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