



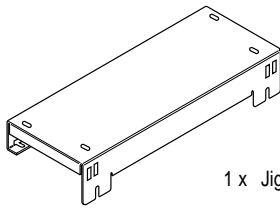
# DJ300

## DOVETAIL JIG

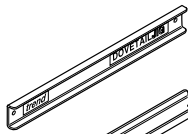


***trend***<sup>®</sup>  
routing technology

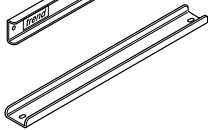
ITEMS ENCLOSED & DESCRIPTION OF PARTS



1 x Jig body



1 x Front clamping bar (short) with abrasive strip



1 x Top clamping bar (long) with abrasive strip



4 x Nylon spacer



4 x Clamp knob female



4 x Clamp bar set bolt UNC1/4" - 20 x 1 3/4 (long)



6 x Set bolt half nut UNC1/4" - 20



2 x Template set bolt UNC1/4" - 20 x 1 1/2 (short)



4 x Spring



2 x Template lock nut UNC1/4" - 20



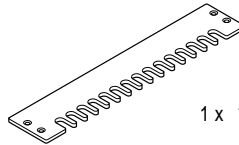
2 x Knurled brass thumb screw



1 x Dovetail cutter 12.7mm dia x 104°



4 x Self tapping screw No.10 x 1/2"



1 x 1/2" (12.7mm) Dovetail template



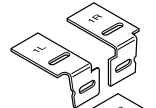
4 x Template bracket screws countersunk socket head



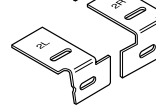
1 x Hex key - 1/8" (3.2mm) A/F



2 x Template bracket complete with integral nuts



No.1 Edge guides For 1/2" (12.7mm) lapped dovetail template



No.2 Edge guides For 1/2" (12.7mm) rebated dovetail & comb jointing template



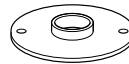
2 x Template spring pin stops



2 x Edge guide pan head screws



2 x Edge guide screw washer



1 x Template guide bush 15.7mm diameter



2 x Countersunk machine screw M5 x 10mm for guide bush



1 x Spanner 7/16" (11.1mm) A/F for adjusting template lock nut



1 x Manual



1 x Guarantee Card

## SAFETY PRECAUTIONS

- Always switch off the power and unplug the router when changing cutters or when making adjustments.
- Always wear protective goggles when routing.
- Wear sound protective ear muffs when routing for long periods of time.
- Always wear a dust mask or respirator. Use dust extraction equipment whenever possible.
- Do not wear loose clothing. Make sure baggy sleeves are rolled up and ties are removed.
- Always remove spanners and hex keys from the workpiece before switching router on.
- Keep hands well clear of the router cutter when routing.
- Avoid accidental starting of the router. Make sure the power switch is in the 'Off' position before plugging in and connecting to the electrical supply.
- Never leave the router unattended when running. Always wait until the router comes to a complete stop before making any adjustments.
- Do not switch the router on with the cutter touching the workpiece.
- Mount the Dovetail Jig securely to a work bench or to a workboard fitted to a suitable surface.
- Periodically check all nuts and bolts to make sure they are tight and secure.
- Use dust extraction equipment.

## Cutter Care

- Do not drop cutters or knock them against hard objects.
- Cutters should be kept clean. Resin build-up should be removed at regular intervals with Resin Cleaner<sup>®</sup>. The use of a dry lubricant will act as a preventative such as Trendicote<sup>®</sup> PTFE spray.
- Cutter shanks should be inserted into the collet at least  $\frac{3}{4}$  of shank length to prevent

distortion. A distorted collet should be discarded, as it can cause vibration and damage the shank.

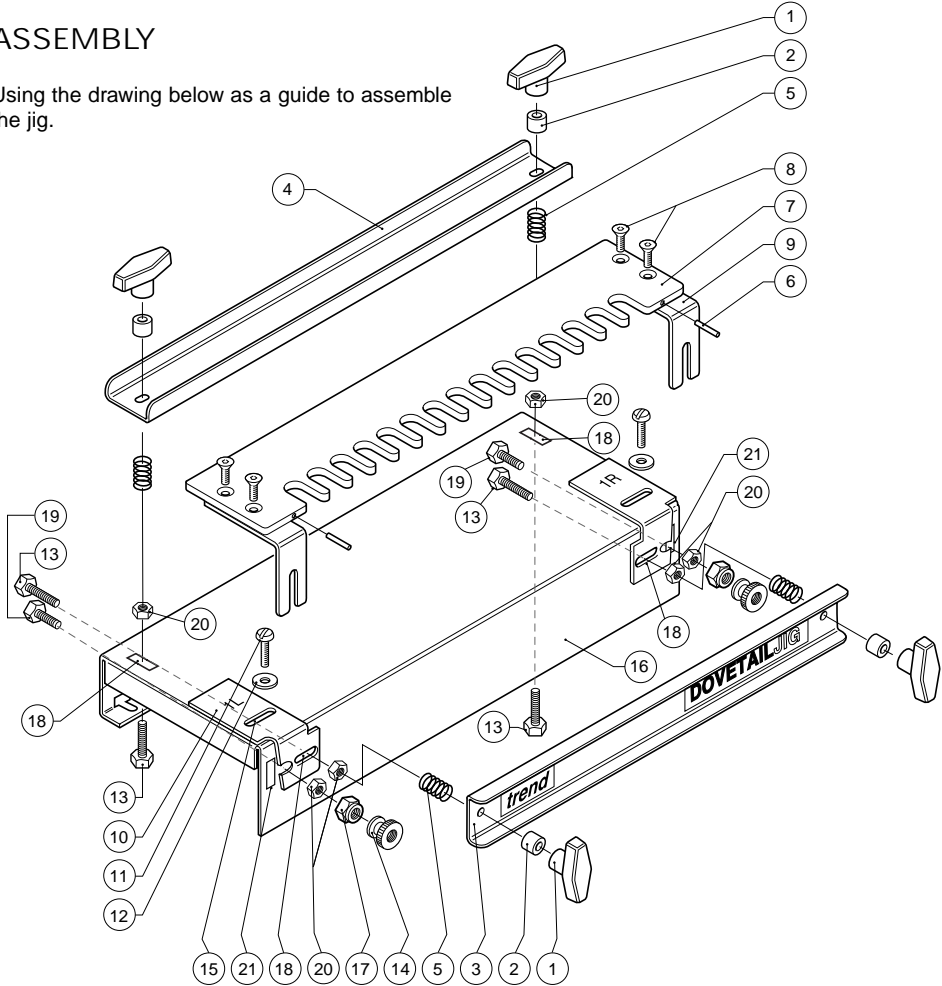
- Do not overtighten collet as this will score the shank and create a weakness.
- It is also advisable to periodically check the router collet nut for wear.

## Useful Advice

- Judge your feed rate by the sound of the motor. In time, the operator will acquire a 'feel' for the router and a feed speed relative to the work will come naturally. Too slow a feed will result in burning.
- Apply the normal precautions as with any electric power tool.
- The main cause of routing machine failure is the inclination for operators to overload them. The motto is 'Keep the revs up'. The drop in revolutions should not exceed, if possible, more than 20% of full running speed.
- The motor of a router is susceptible to the accumulation of sawdust and wood chips and should be blown out, or 'vacuumed', frequently to prevent interference with normal motor ventilation.
- Refer to the Instruction Manual supplied with your router for full details of its features and safety information.
- The use of a fine height adjuster is highly recommended (if available for your router) for accurately adjusting the height of the cutter when dovetailing.
- Trial cuts should be made on waste material before starting any project.

ASSEMBLY

Using the drawing below as a guide to assemble the jig.

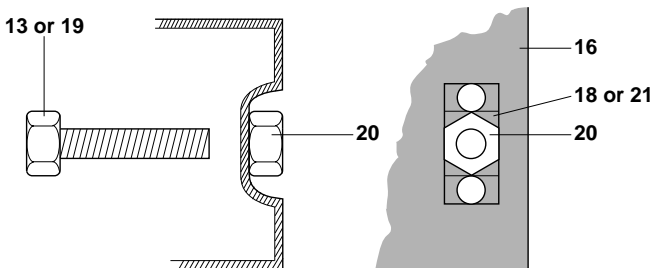


- |                                    |  |
|------------------------------------|--|
| 1. Clamp knob female               | 12. Edge guide washer  |
| 2. Nylon spacer                    | 13. Clamp bar set bolt UNC1/4" - 20 x 1 3/4" (long)                                |
| 3. Clamping bar - short            | 14. Knurled brass thumb screw  |
| 4. Clamping bar - long             | 15. Edge guide fastening slot  |
| 5. Spring                          | 16. Jig body   |
| 6. Template spring pin stop        | 17. Lock nut UNC1/4" - 20  |
| 7. 1/2" (12.7mm) dovetail template | 18. Embossed slot for bar set bolt (front slots hidden from view on diagram above) |
| 8. Template bracket screws         | 19. Template set bolt UNC1/4" - 20 x 1 1/2" (short)                                |
| 9. Template bracket                | 20. Half nut UNC1/4" - 20  |
| 10. Dovetail edge guide            | 21. Embossed slot for template set bolt  |
| 11. Edge guide pan head screws     |  |

## Assembly Instructions

- To fit the four clamp bar set bolts (13), firstly insert the half nut (20) into the embossed slot(18) in the jig body (16). For the clamp bar set bolts the two back top embossed holes and the two front inner embossed slots are used. Assembling one assembly at a time fit the clamp bar set bolt (13) into the half nut (20) from inside the jig body (16). Tighten using the spanner enclosed. Repeat for the remaining three bolt assemblies.
- To fit the two template set bolts (19), firstly insert the half nut (20) into the two outer front embossed slots (21) in the jig body (16). Screw the template set bolt (19) into the half nut (20) from inside the jig body (16). Tighten using the spanner enclosed. Repeat for the other bolt assembly.
- Fit the edge guides marked 1L (left-hand) & 1R (right-hand) to the dovetail body (16), securing them with the edge guide washer (12) and pan head screws (11) through the fastening slots (15) and into the tapped holes in the top of the body of the jig.
- Screw the lock-nut (17) onto each of the template bolts (19) on the front of the dovetail body, followed by the knurled brass thumb screw (14), keeping the knurled side to the front. Adjust the lock-nuts so that they are both 8mm from the jig body using the spanner provided.
- To install the clamping bars, identify front clamping bar - short (3) and top clamping bar - long (4).
- Fit spring (5) onto the clamp bar set bolt (13) and the fit clamp bar (3) or (4) on the set bolt (13). Fit the nylon spacer (2) onto the set bolt (13). (When using material, with a thickness greater than 23mm, the nylon spacer must be removed).
- Thread the female clamp knob (1) onto the set bolt (13). Fit both front and top clamp bars in the same way.
- Using a hammer, gently tap the two template spring pin stops (19) into the holes in the edge of the template (7). (This procedure is also required for the 1/4" (6.35mm) template accessory ref. DJ300/01).
- Attach the aluminium template (7) to the template brackets (9) with the four socket head countersunk screws (8).
- Slide the template by engaging the slots of the template brackets (9) over the bolt (13). Lightly tighten the knurled brass thumb screws (14).

The jig will need to be mounted onto the workbench or false work surface as shown on page 8.

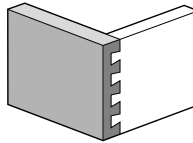


**IMPORTANT!**  
Periodically check tightness of all nuts and bolts.

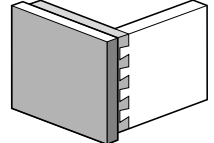
Template Specification

Standard 1/2" (12.7mm)  
Template

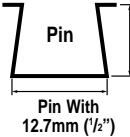
The DJ 300 Dovetail Jig is supplied with a standard 1/2" (12.7mm) dovetail template and will produce lapped dovetail and lapped rebated dovetail joints. The 15.7mm template guide bush and the 12.7mm (1/2") diameter x 104° Dovetail router cutter should be used and are supplied with the jig.



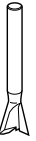
1/2" (12.7mm)  
Lapped Dovetail



1/2" (12.7mm) Lapped  
rebated dovetail



Pin  
Pin Depth  
9.5mm (3/8")



12.7mm (1/2") dovetail  
cutter ref. L120 (UK &  
Eire), C041 (Europe)

**Specification**

Min material thickness is 11mm.  
Max material thickness is 25mm.  
Pitch width is 21.5mm.

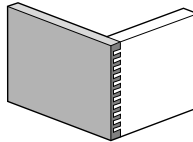
Optional 1/4" (6.35mm) Lapped  
Dovetail Template Ref. DJ300/O1

The size of dovetail is 1/4" (6.35mm) and is ideal for small boxes and small drawers. The template includes a 7.74mm guide bush (ref. GB774).

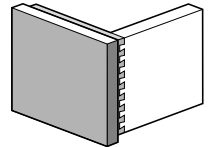
**The cutter is not supplied as standard.**

The principle for setting-up and routing the dovetail is the same as for the standard 1/2" (12.7mm) dovetail template.

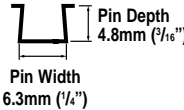
The edge guides No. 3 and No. 4 are supplied with the optional 1/4" template (6.35mm).



1/4" (6.35mm)  
Lapped Dovetail



1/4" (6.35mm) Lapped  
rebated dovetail



Pin Width  
6.3mm (1/4")  
Pin Depth  
4.8mm (3/16")



6.0mm dovetail cutter  
ref. S31/11 (UK &  
Eire), C154 (Europe)

**Specification**

Min material thickness is 8mm.  
(A 6mm plywood or MDF packing piece behind front bar is required.)  
Max material recommended is 12mm.  
Pitch width is 11.3mm.

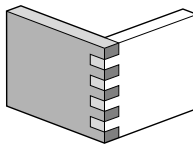
Optional 1/2" (12.7mm) Comb  
Joint Template Ref. DJ300/O2

The comb joint is ideal for strong corner joints for boxes. The finger size are 1/2" (12.7mm) in diameter. The template uses the 15.7mm guide bush (ref. GB157) as supplied with the standard dovetail jig.

**The cutter is not supplied as standard.**

The principle for setting-up and routing the comb is different to that for the dovetail, each piece is routed separately under the front clamp bar.

Also included with the optional 1/2" (12.7mm) comb are edge guides No. 3.



Comb Joint



12.55mm x 25mm  
straight cutter ref.  
3/76 (UK & Eire)  
C021A (Europe)

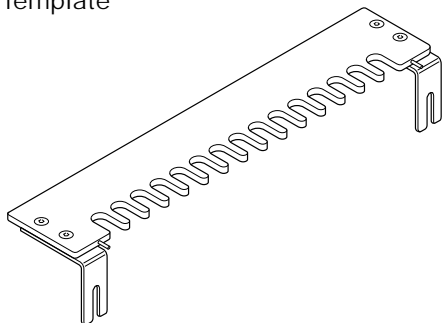


Pin Width  
12.7mm (1/2")  
Pin Depth  
20mm Max

**Specification**

Min material thickness is 12mm.  
Max material recommended is 20mm.  
Pitch width is 25.4mm.

Standard 1/2" (12.7mm) Dovetail Template



Included with Dovetail Jig



**No. 1**  
Edge Guides for 1/2"  
(12.7mm) Lapped Dovetails

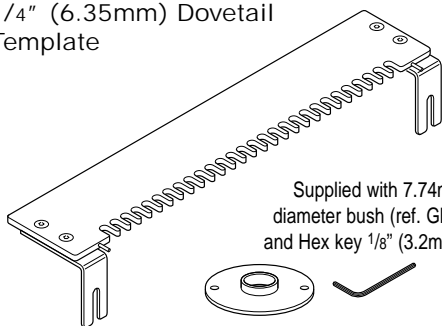


**No. 2**  
Edge Guides for 1/2"  
(12.7mm) Rebated Dovetails



Supplied with 15.7mm  
diameter bush (ref. GB157)

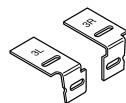
DJ300/01  
1/4" (6.35mm) Dovetail Template



Supplied with 7.74mm  
diameter bush (ref. GB774)  
and Hex key 1/8" (3.2mm) A/F



Included with 1/4" (6.35mm)  
Dovetail Template

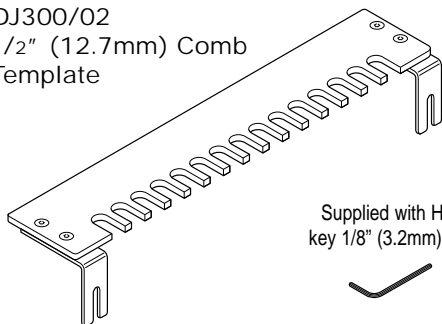


**No. 3**  
Edge Guides for 1/4"  
(6.35mm) Lapped Dovetail



**No. 4**  
Edge Guides for 1/4"  
(6.35mm) Rebated Dovetail

DJ300/02  
1/2" (12.7mm) Comb Template



Supplied with Hex  
key 1/8" (3.2mm) A/F



Included with Dovetail Jig



**No. 2**  
Edge guides as used for  
rebated 1/2" (12.7mm)  
dovetails.



Uses standard guide bush  
(ref. GB157)

Included with 1/2" (12.7mm)  
Comb Template



**No. 3**  
Edge guides for future use

## Mounting Instructions

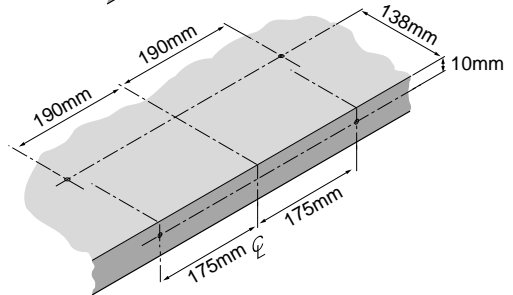
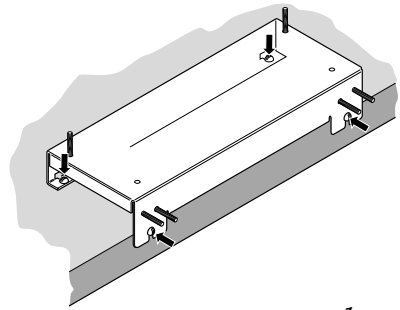
### Attaching Jig to Workbench

The jig should be secured to a workbench or false work surface with the four screws supplied.

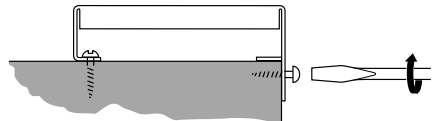
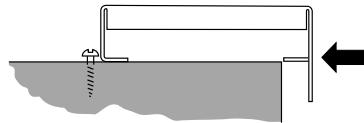
A false surface will protect the workbench and can be quickly clamped with quick release clamps.

Two screw locations are provided at the rear of the jig and two on the lip at the front.

- Mark the positions of the pilot holes for the screws as shown.
- Drill 1/8" (3.2mm) pilot holes at these locations.
- Screw two of the No. 10 x 1/2" self tapping screws in the work top and leave the screw heads 2mm proud of the surface.

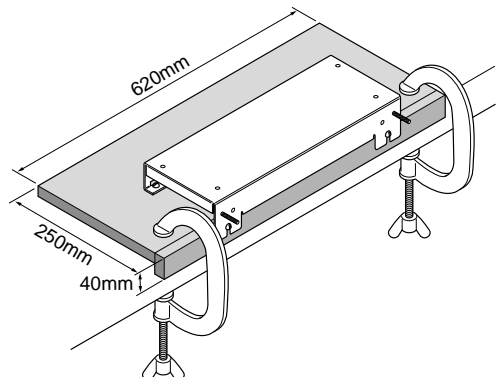


- Slide the jig over the two screw heads until they locate.
- Use the two remaining self tapping screws to secure the lip of the jig to the workbench or false work surface. The jig is now secure and ready to use.



### Making a False Work Surface

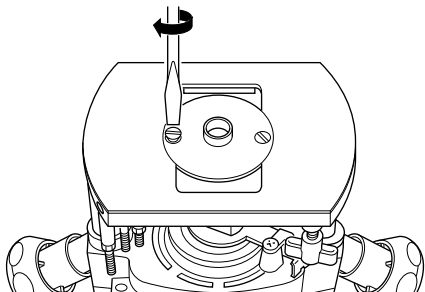
- This can be constructed from 12mm to 18mm MDF or similar material with a lip on the front which will hook over the front of the workbench. Suitable quick action clamps or similar can then be used.





### Setting-up the Router

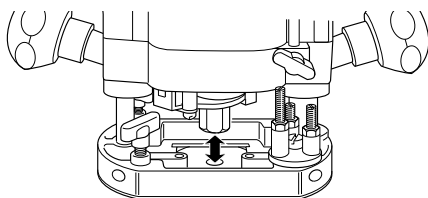
- Fit the guide bush to the base of the router.



- Fit a fine height adjuster if available, as this will make it easier to adjust the height accurately. The fine height adjuster is not required for comb jointing.

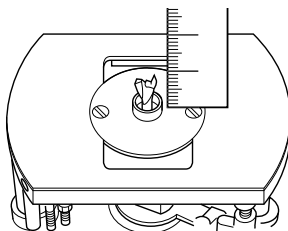


- Lower and lock the router carriage so that the collet is close to the guide bush, but not touching it.



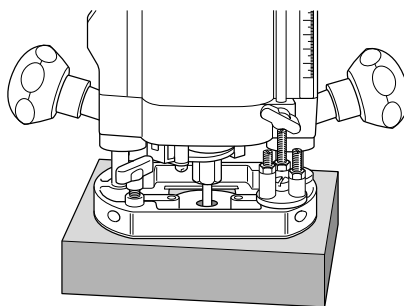
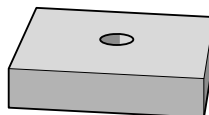
- Fit the 1/2" (12.7mm) dovetail cutter keeping 3/4 of the shank length in the collet.

Adjust the height of the cutter so that it protrudes approximately 17mm from the base of the router for 1/2" (12.7mm) dovetails and 11mm for 1/4" (6.35mm) dovetails. After a trial joint, slight adjustment may be required to ensure a well fitting joint. As the guide bush is recessed into the base of the router, these measurements should be taken from the router base not from the guide bush.



### Making a Router Stand Block

- As the cutter for dovetailing should not be retracted into the router, a useful aid is a Router Stand Block. This is simply a piece of scrap timber with a hole large enough to take the protruding guide bush and dovetail cutter. This will allow the router to stand up safely between operations.



## TIMBER PREPARATION

It is important to plan your work before starting to save set-up time and avoid costly mistakes. Both sides of the jig can be used to make the dovetail joints. However, only clamp one pair into the jig at any one time to ensure it is clamped securely.

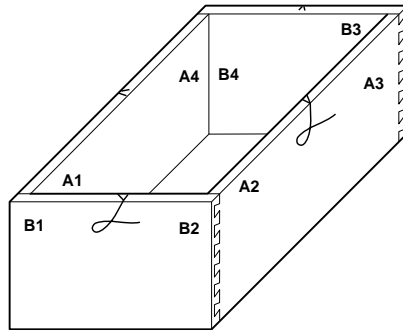
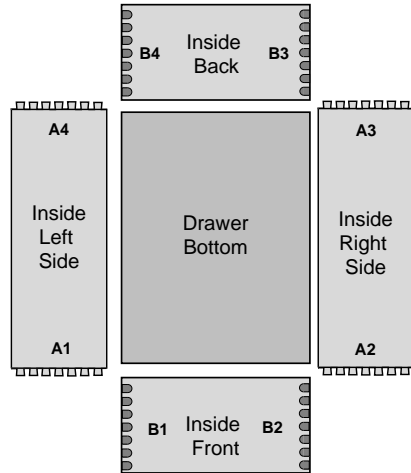
When joining multiple pieces for a drawer or series of drawers, label the pieces as front, back, sides and which face will be inside or outside. Label the pieces so it is clear which end mates with each other (see diagram).

The 'A' parts will be clamped under the front clamping bar and the 'B' under the top clamping bar. Even numbers will be placed against the left-hand edge guide and the odd numbers against the right-hand edge guide.

A typical 1/2" (12.7mm) dovetail drawer has a 3/4" (19mm) thick front with sides made of 1/2" material. The dovetail jig's design requires that you use the same stock thickness for the back as you do for the front, if you are cutting joints simultaneously. Your drawer fronts and backs must be at least 5/8" (16mm) thick to fully accommodate the length of the dovetails without compromising strength.

Before joining the actual timber components, make a trial run on scrap timber. This will familiarise you with the jig and check all dimensions used.

After all the pieces have been cut to size and checked to ensure squareness, set them on a bench in the order and they will be fitted together. Lay each piece down so the inside faces up and label each piece on the inside as shown.



### IMPORTANT!

The dimensions shown in these instructions are subject to acceptable tolerances in the manufacture of the guide bush, template and cutter. Therefore use the setting dimensions as guidance only and make a trial cut in scrap timber before starting every project.

### Timber Widths

- Any width of timber up to 300mm wide can be dovetail jointed. To obtain a symmetrical joint with full tails and pins at each end, see the chart on the right for the recommended widths of timber.
- The edge guides have a built in offset to produce exact fitting dovetail joints. Their position is adjustable to enable a symmetrical joint to be obtained with timber widths that are not ideal. Their position can be simply be judged by eye.

### Making a Setting Block

To eliminate unnecessary measurements being made should you change the settings of the jig (e.g. when using other templates or adjusting the jig for awkward widths of timber). One should make a setting block which should be kept safe and used to set up the jig to create a standard 1/2" (12.7mm) dovetail joint or optional 1/4" (6.35mm) dovetail joint.

Make the setting block as follows:

- Use timber that is uniform in thickness and has a square end.
- Draw a line 3mm from the left and right edge. (2mm for 1/4" (6.35mm) dovetail template). This will be used to set the left and right edge guides.
- Draw a line 15mm from the front edge. (7.5mm for 1/4" (6.35mm) dovetail template). This offset will be used to set the template position.

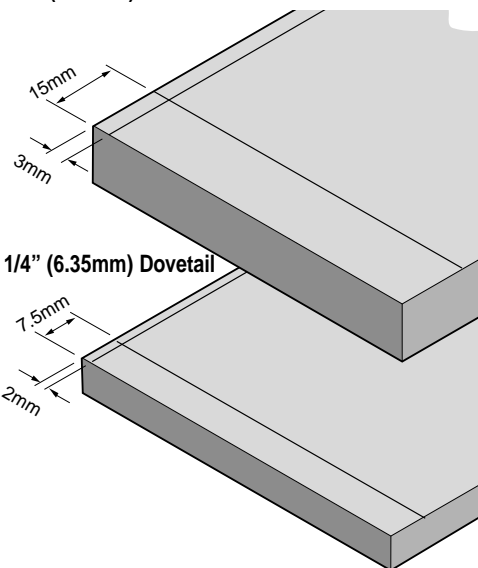
Setting-up the jig with this block is shown overleaf.

1/2" (12.7mm) Dovetail Template (21.5 mm pitch with 3mm offset line)									
No. of whole tails									
1	2	3	4	5	6	7	8	9...	
21.5	43	64.5	86	107.5	129	150.5	172	193.5	
Optimum width of timber in mm									
ie Pitch x No. of tails = Width (when 3mm offset line used).									

1/4" (6.35mm) Dovetail Template (11.3 mm pitch with 2mm offset line)									
No. of whole tails									
1	2	3	4	5	6	7	8	9	
11.3	22.6	33.9	45.2	56.5	67.8	79.1	90.4	101.7	
Optimum width of timber in mm									
ie Pitch x No. of tails = Width (when 2mm offset line used).									

### 1/2" (12.7mm) Dovetail



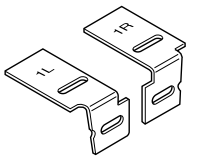
## OPERATION

### Setting-up for Dovetailing

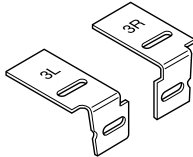
With the standard 1/2" (12.7mm) Dovetail Template or the optional 1/4" (6.35mm) Dovetail template.

### Setting the Jig using the Setting-up Block

- Fit the Edge Guides and leave the screw slightly loose (1).



Fit No. 1 for 1/2" (12.7mm) lapped dovetail

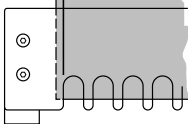


Fit No. 3 for 1/4" (6.35mm) lapped dovetail

- Position a scrap piece of timber (2) under the front clamp, slightly proud of jig surface and well away from the edge guide and clamp it in this position (3).

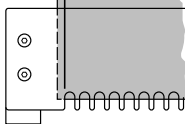
- Place the setting block under the top clamp and butt it up to the scrap piece (1). Fit the template onto the jig and lay it on top of the timber (2). Tighten the knurled brass thumb screw (3). Slide the setting block until the offset line is aligned with the left hand edge of the first slot (4). See drawings below.

3mm offset line



For 1/2" (12.7mm) lapped dovetail

2mm offset line

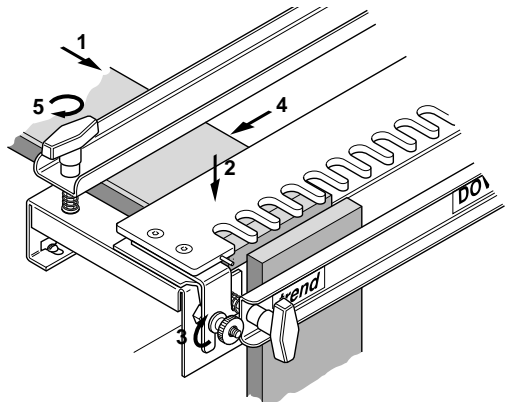
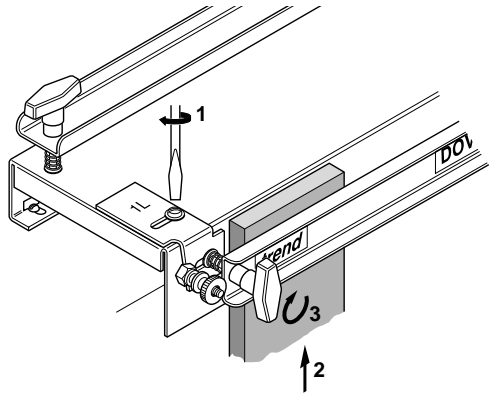


For 1/4" (6.35mm) lapped dovetail



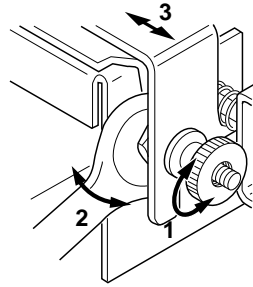
### IMPORTANT!

When using 1/4" (6.35mm) dovetail template the minimum material thickness is 8mm. A 6mm packing piece (plywood or MDF) behind the front bar will be required to ensure the clamp tightens properly.



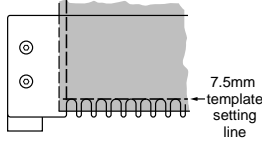
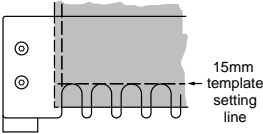
Tighten the top clamps making sure the setting block does not move (5).

- Slacken the brass thumb screw (1). Using the spanner supplied (2), adjust the position of the lock-nuts until the back of the template slots align with the Template Setting Line (3).



1/2" (12.7mm) Dovetail Template

Optional 1/4" (6.35mm) Template

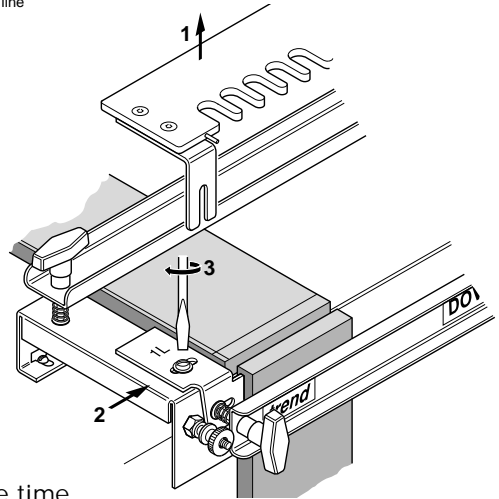


- Remove the template (1). Slide the edge guide up to the edge of the setting block (2). After ensuring it is square, tighten the edge guide securely (3).

Repeat the setting procedure for the right-hand edge guide.

- Remove the setting up block and the scrap timber and keep it safe. The jig is now ready to use.

- For each joint, clamp the two pieces of timber under the clamps making sure both are flush with each other and touching the edge guide. Place even numbers against the left-hand edge guide and the odd numbers against the right-hand edge guide.

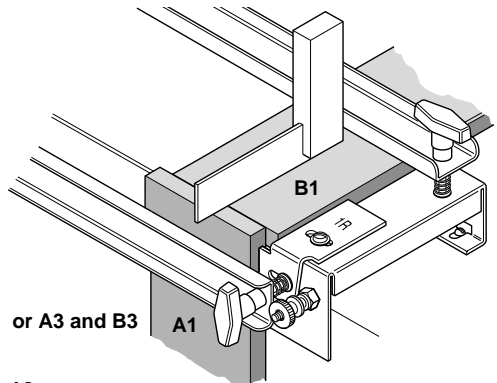
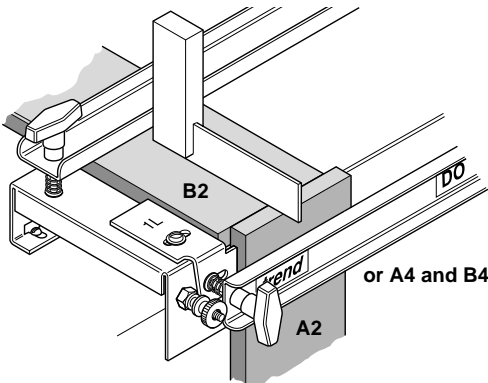


**IMPORTANT!**

Only clamp and rout one set at one time to ensure maximum clamping action of the clamp bars.

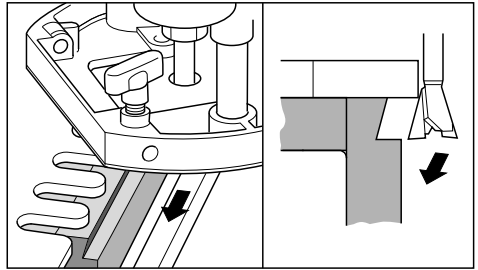
Tighten up top and side clamps evenly and tighten the template securely.

DO NOT OVERTIGHTEN.

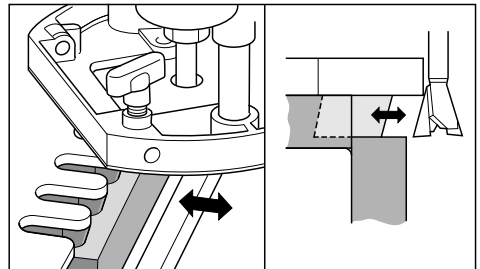


## Routing the Joint

- Start up the router and make one very light cut from right to left, machining only the front edge. This will prevent chipping out at the next stage.



- Now carefully rout from left to right following the guide bush in each of the slots. Examine each of the slots to ensure all the material have been cleanly routed. If you discover that there are parts of the joint that have not been cleanly routed, without adjusting the jig, rout the joint a second time.



### IMPORTANT!

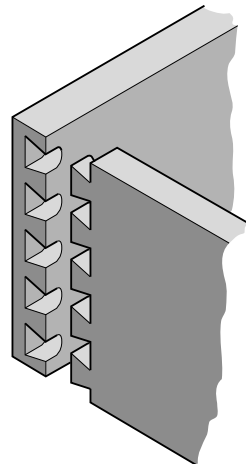
Do not lift the router from the template with the guide bush engaged in the slots as damage to the template will occur.

- Remove material and try the joint.

Follow the table below if the joint is not as expected.

Dovetail joint too loose	Increase depth adjustment of cutter.
Dovetail joint too tight	Decrease depth adjustment of cutter.
Dovetail joint too shallow	Move template comb towards the jig body.
Dovetail joint too deep	Move template comb away from jig body.

Adjust the jig accordingly and re-align the two pieces carefully in the jig and rout them again.



## Rebated Dovetails

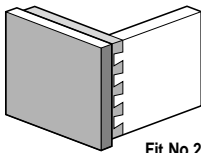
The technique for setting and routing rebated dovetails are similar to flush lapped dovetails except, the drawer front and side are routed separately and the drawer front must overhang the jig when routing to allow for the rebate.

## Drawer Front Preparation

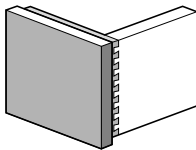
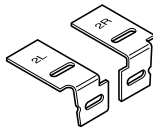
- Prepare the drawer front with a  $\frac{3}{4}$ " (19mm) longer and  $\frac{3}{4}$ " (19mm) wider dimension than the drawer size required.

Route a  $\frac{3}{8}$ " (9.5mm) wide by  $\frac{7}{16}$ " (11.1mm) deep rebate around the inside of the drawer front, using the rebate cutter ref. 46/39 or C040 fitted with ball bearing ref. B16A.

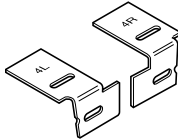
- Fit the appropriate edge guides and leave slightly loose. See below:



Fit No.2 Edge Guide  
for the 1/2" (12.7mm) Rebated Dovetail Template



Fit No.4 Edge Guide  
for the 1/4" (6.35mm) Rebated Dovetail Template

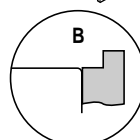
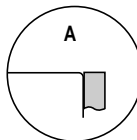
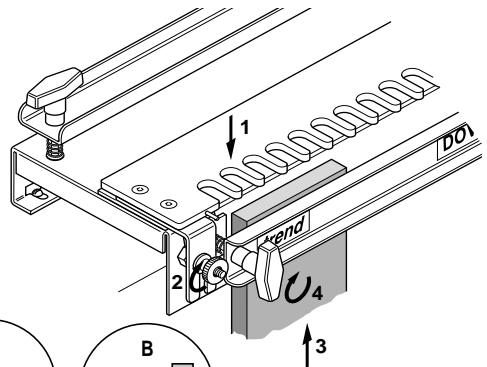
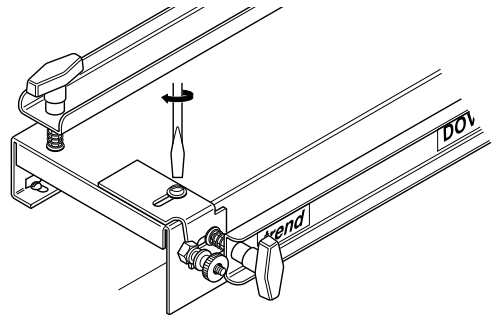
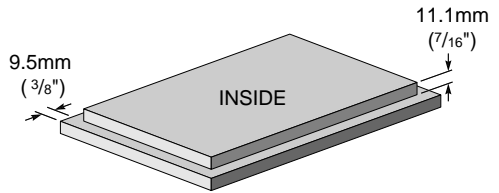
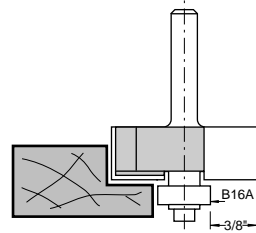


- Fit the template to the jig (1) & tighten brass thumb screw (2).

To ensure an overhang of  $\frac{3}{8}$ " (9.5mm) of the drawer front, slide a piece of scrap timber  $\frac{3}{8}$ " (9.5mm) thick under the front clamp (3), ensuring it is well away from the edge guide. See (A).

Alternatively use a scrap piece of timber with a  $\frac{3}{8}$ " (9.5mm) deep rebate. See (B).

Clamp it in position (4).



- Place the drawer front under the top clamp (1) and make sure it is flush with the  $\frac{3}{8}$ " (9.5mm) timber.

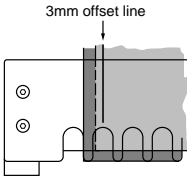
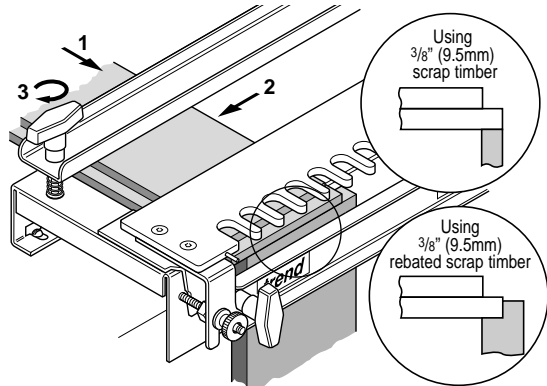
Slide the drawer front until the offset line aligns with the left edge of the first slot (2).

Clamp the timber securely (3).

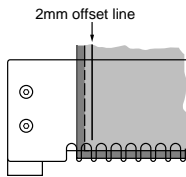


**IMPORTANT!**

Timber must be moved over by one finger on template in order to locate edge guide.

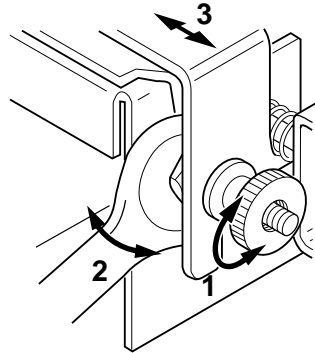


Edge Guide Setting Line  
for the  $\frac{1}{2}$ " (12.7mm)  
Dovetail Template

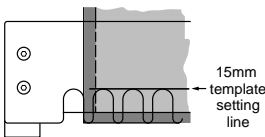


Edge Guide Setting Line  
for the  $\frac{1}{4}$ " (6.35mm)  
Dovetail Template

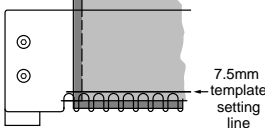
- Slacken the brass thumb screw (1). Using the spanner supplied (2), adjust the position of the lock-nuts until the back of the template slots align with the Template Setting Line (3).



$\frac{1}{2}$ " (12.7mm) Dovetail Template



Optional  $\frac{1}{4}$ " (6.35mm) Template

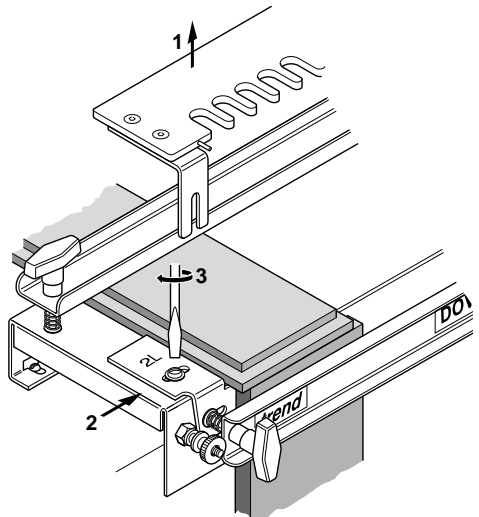


- Remove the template (1).

Slide the edge guide up against the drawer front (2).

Tighten the edge guide securing screw (3).

Replace the template.

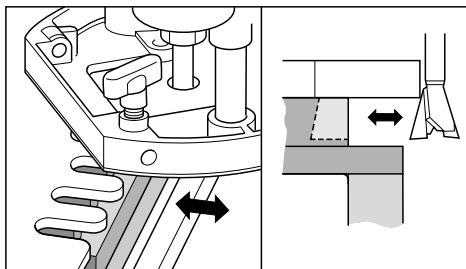






**IMPORTANT!**

Referring to the marking out of the timber on page 10 please place even numbers against the left-hand edge guide and the odd numbers against the right-hand edge guide when routing.



**Routing the Drawer Front**

- Fit the correct guide bush and cutter.

Rout from right to left following the guide bush in each of the slots.

The drawer front is now finished.

For drawer fronts with a different size of rebate, adjust dimensions accordingly.

**Routing the Side**

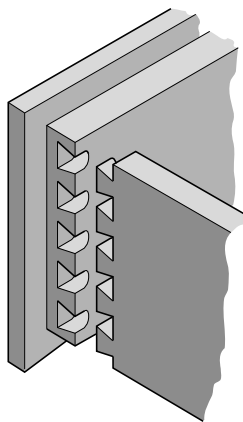
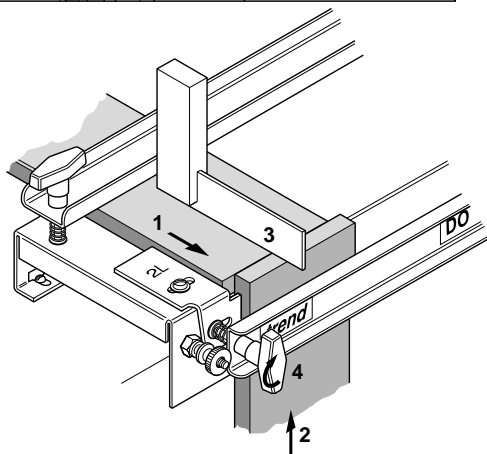
- This again is routed separately. Slide a scrap piece of timber (1), the same thickness as the side, under the top clamp. This is to prevent tear-out.

Insert the side piece (2) under the front clamp and align it with the scrap piece (1) and the Try-square (3).

Clamp it in this position (4).

Rout as per normal lapped dovetail (see page 14 – Routing the Joint).

- Remove the side piece and check the joint. Use the chart on page 14 for adjusting the fit if necessary.



**Setting the depth of cut in the future**

To ease setting up of the cutter height in the future, rout a joint using the setting-up block in the same position as a drawer front. Then use this to accurately set the depth of cut of the cutter in the future.

## Comb Jointing with the Optional Comb Template

The comb template is secured to the jig in the same manner as the dovetail templates.

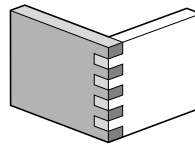
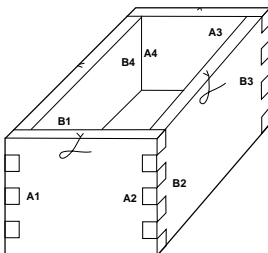
The GB157 guide bush as supplied with the standard jig should be used together with a 12.55mm dia. straight two flute cutter ref. 3/76 or C021A.

- Assemble the template to the template brackets using the machine screws supplied.
- Fit the guide bush and cutter to the router.
- The comb joint is best routed in two or three passes at increased depths. Therefore the 3 step turret stop fitted to most routers is ideal for this purpose.

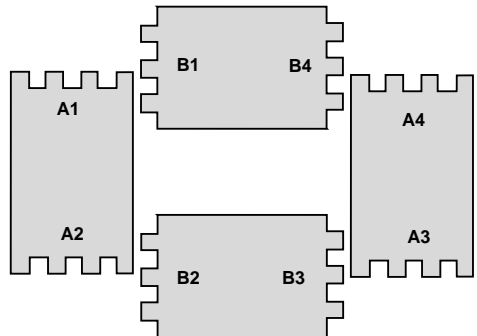
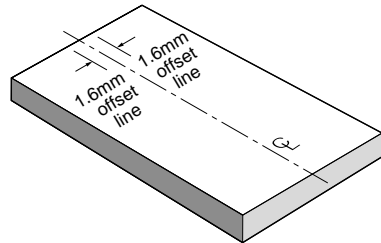
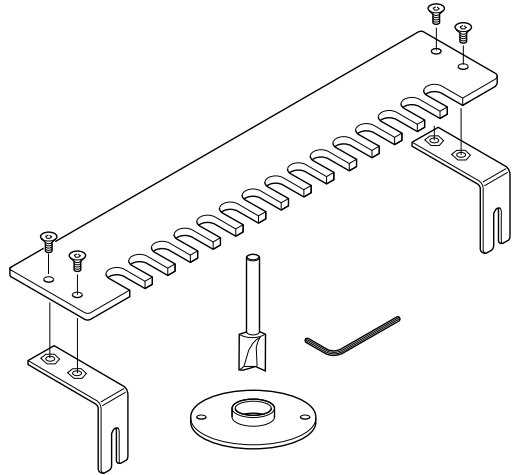
The technique for setting and routing comb joints requires each piece to be clamped in the front clamp and routed separately. A wider piece of scrap is clamped under the top clamp to stop tear-out and provide support for the router. The scrap must be at least 1/4" (6.35mm) thicker to ensure you do not rout into the body of jig. When using timber over 16mm thick the nylon spacers on the clamp knob will need to be removed.

## Timber Preparation

- Cut all four pieces for the box to the exact dimensions of the final unit. Make sure that all ends are perfectly square and exact widths.
- Mark the centre line on both pieces of material and mark a 1.6mm (1/16") offset to the left and to the right of the centre line.
- Label the piece as shown in the diagram.



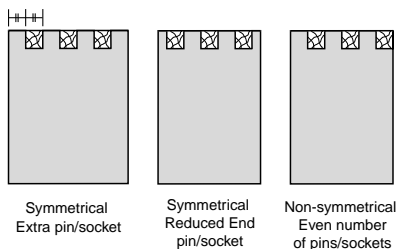
Use No.2 Edge Guides for the Comb Template



### Timber Widths

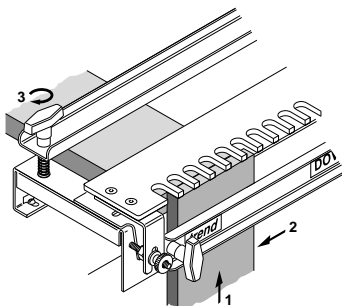
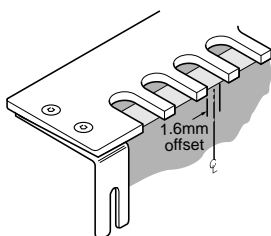
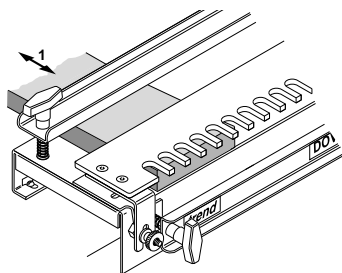
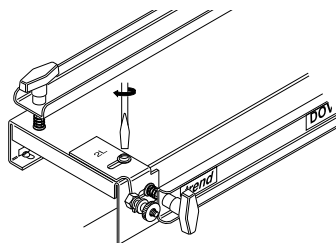
- Any width of timber up to 300mm wide can be comb jointed, however to obtain an even looking symmetrical comb joint where there is an extra pin/socket, the timber must be machined to a width shown in the chart.
- For timber that is not machined to the recommended width, either the end pin/sockets will need to be narrow or an un-symmetrical comb will have to be machined.

1/2" (12.7mm) Comb Template (25.4mm pitch with Symmetrical Sockets)								
No. of Sockets								
1	2	3	4	5	6	7	8	9...
38.1	63.5	88.9	114.3	139.7	165.1	190.5	215.9	241.3
<b>Optimum width of timber in mm</b>								
ie (Pitch x No. of Sockets) + 12.7mm = Width.								

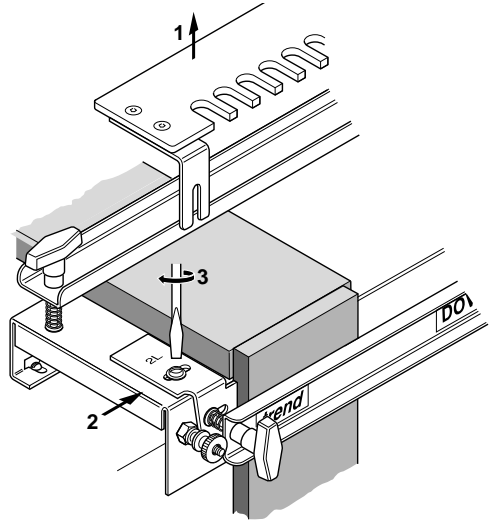


### Setting up the Jig

- Fit the edge guides marked No. 2 and leave slightly loose.
- Fit the comb template to the jig.  
Slide a packing piece which is at least 1/4" (6.35mm) thicker than the timber for the joint, under the top clamp, flush with the front of the jig and well away from the edge guide.  
Clamp it in position.
- To set the left-hand edge guide, slide the first box side (1) under the front clamp, keeping the top edge flush underneath the template. Align the left-hand offset line with the edge of a finger (2).  
Clamp the piece in this position (3).



- Remove the template (1), slide the edge guide up against the box side (2) held under the front clamp. Then tighten the edge guide securing screw (3).
- Repeat the setting up operation for the right-hand side edge guide using the right-hand off-set line.
- Ensure the packing piece supports the whole width of the box side, otherwise breakout could occur when routing.

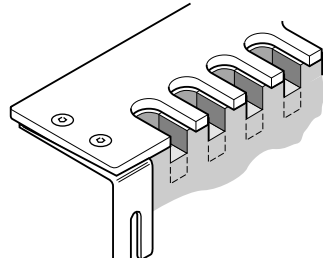


### Routing the Joint

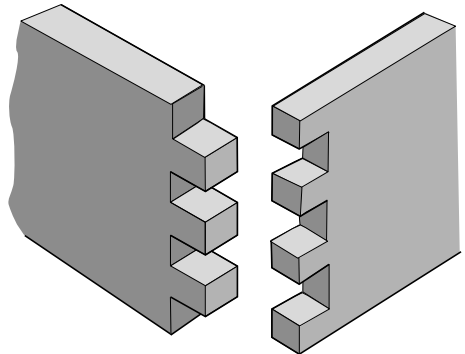
- Set the depth of cut as follows:  
3 to 6mm - one pass  
6 to 12mm - two passes  
12 to 18mm - three passes

The full depth of cut should be the same as the thickness of the box side. A slightly deeper cut can be made if finishing is desired. However be careful not to rout into the body of the jig.

- To ensure a correctly fitting and a mirrored joint is obtained, place the pieces marked 'A' against the left hand edge guide and the 'B' piece against the right hand edge guide.
- Rout from left to right following each finger.



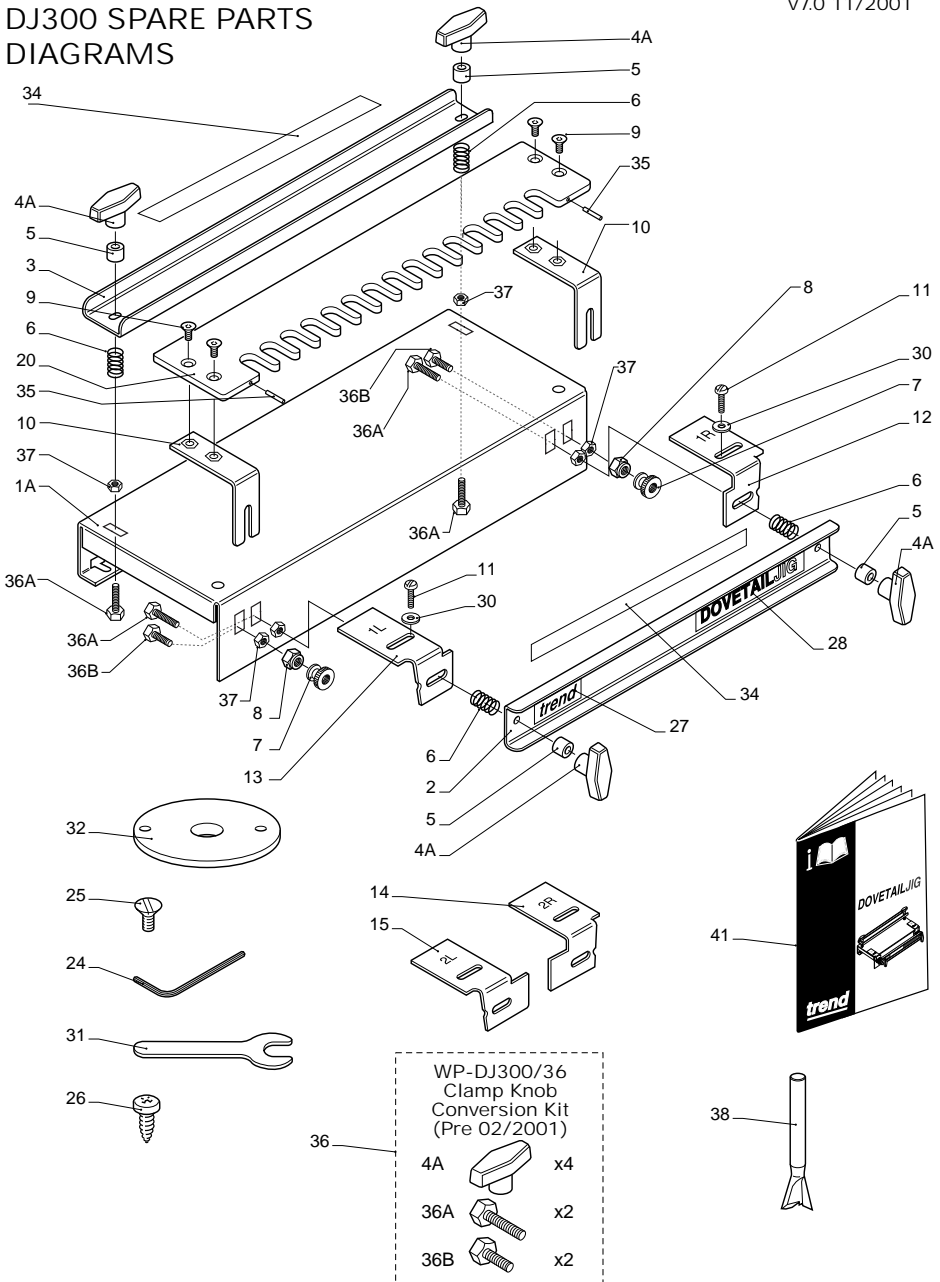
- Repeat the above steps for each box side.
- If the ends of the box sides are not flush then adjust the 1.6mm offset accordingly.
- Check the joints by assembling them dry. Any extra length to the fingers can be routed down and sanded off.



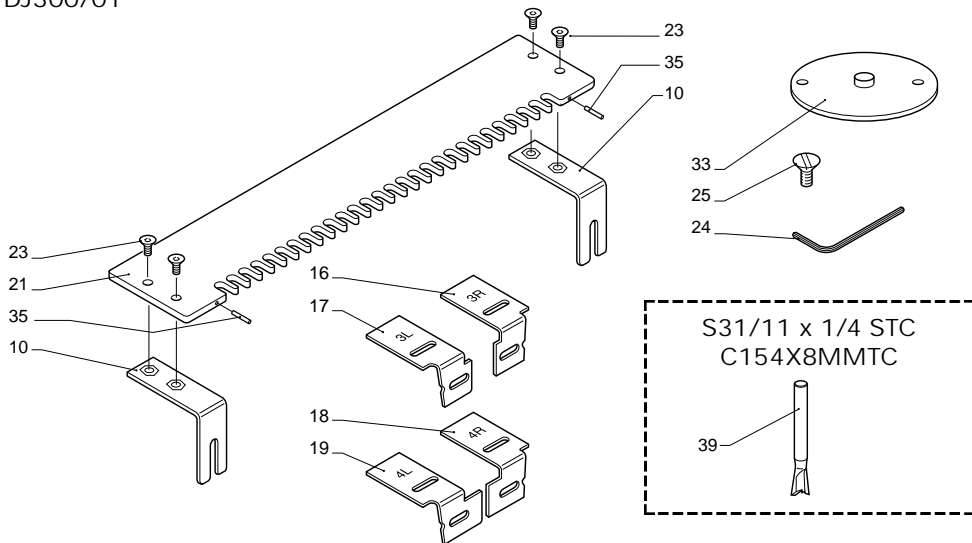
DJ300 SPARE PARTS LIST			v7.0 11/2001
Item	Qty.	Description	Ref.
1	1	DJ300 Jig Body c/w Studs (pre 02/2001)	WP-DJ300/01
1A	1	DJ300 Jig Body Embossed (post 02/2001)	WP-DJ300/01A
2	1	Front Clamping Bar - short	WP-DJ300/02
3	1	Top Clamping Bar - long	WP-DJ300/03
4	4	Clamp Knob Male UNC1/4" - 20 x 1 1/2"	WP-DJ300/04
4A	4	Clamp Knob Female UNC1/4" - 20 (post 02/2001)	WP-DJ300/04A
5	4	Nylon Spacer	WP-DJ300/05
6	4	Spring For bar	WP-DJ300/06
7	2	Knurled Brass Thumb Screw	WP-DJ300/07
8	2	Lock Nut UNC1/4" - 20	WP-DJ300/08
9	4	Machine Screw 1/2" (12.7mm) Dovetail UNF10 - 32 x 3/8" Skt	WP-DJ300/09
10	2	Template Bracket c/w Nut	WP-DJ300/10
11	2	Edge Guide Pan Head Screws UNF10 - 32 x 3/8" Skt	WP-DJ300/11
12	1	No.1 1/2" (12.7mm) Edge Guide Right	WP-DJ300/12
13	1	No.1 1/2" (12.7mm) Edge Guide Left	WP-DJ300/13
14	1	No.2 1/2" (12.7mm) Rebated Edge Guide Right	WP-DJ300/14
15	1	No.2 1/2" (12.7mm) Rebated Edge Guide Left	WP-DJ300/15
16	1	No.3 1/4" (6.35mm) Edge Guide Right	WP-DJ300/16
17	1	No.3 1/4" (6.35mm) Edge Guide Left	WP-DJ300/17
18	1	No.4 1/4" (6.35mm) Rebated Edge Guide Right	WP-DJ300/18
19	1	No.4 1/4" (6.35mm) Rebated Edge Guide Left	WP-DJ300/19
20	1	1/2" (12.7mm) Dovetail Template	WP-DJ300/20
21	1	1/4" (6.35mm) Dovetail Template	WP-DJ300/21
22	1	1/2" (12.7mm) Box/Comb Joint Template	WP-DJ300/22
23	4	Machine Screw UNF10 - 32 x 5/16" Slot (1/4" Template)	WP-DJ300/23
24	1	Hex Key 1/8" (3.2mm) A/F	AK/18
25	2	Machine Screw Csk M5 X 10mm Slot	WP-SCW/13
26	4	Screw Self Tapping No. 10 x 1/2" Pozi	WP-SCW/105
27	1	Trend Label	WP-DJ300/27
28	1	DJ300 Label	WP-DJ300/28
29	-	-	-
30	2	Edge Guide Screw Washer 5.2mm x 9.8mm x 1.1mm	WP-WASH/09
31	1	Spanner 7/16" A/F	WP-SPAN/716P
32	1	Guide Bush 15.7mm Dia	GB157
33	1	Guide Bush 7.74mm Dia	GB774
34	2	Self Adhesive Friction Strip	WP-DJ300/34
35	2	Template Spring Pin Stop 3mm x 20mm	WP-DJ300/35
36	0	Clamp Knob Conversion Kit* (pre 02/2001)	WP-DJ300/36
36A	4	Set Bolt Hex UNC1/4" - 20 x 1 3/4" (post 02/2001)	WP-DJ300/36A
36B	2	Set Bolt Hex UNC1/4" - 20 x 1 1/2" (post 02/2001)	WP-DJ300/36B
37	6	Half Nut Hex UNC1/4" - 20 (post 02/2001)	WP-DJ300/37
38	1	Dovetail Cutter 1/2" (12.7mm) Dia x 104°	L120 or C041A
39	1	Dovetail Cutter 6.0mm Dia x 98°	S31/11 or C154
40	1	Straight Cutter 12.55mm Dia x 25mm Cut	3/76 or C021A
41	1	Manual	MANU/DJ300

\* Converts pre 02/2001 jig to post 02/2001 version.

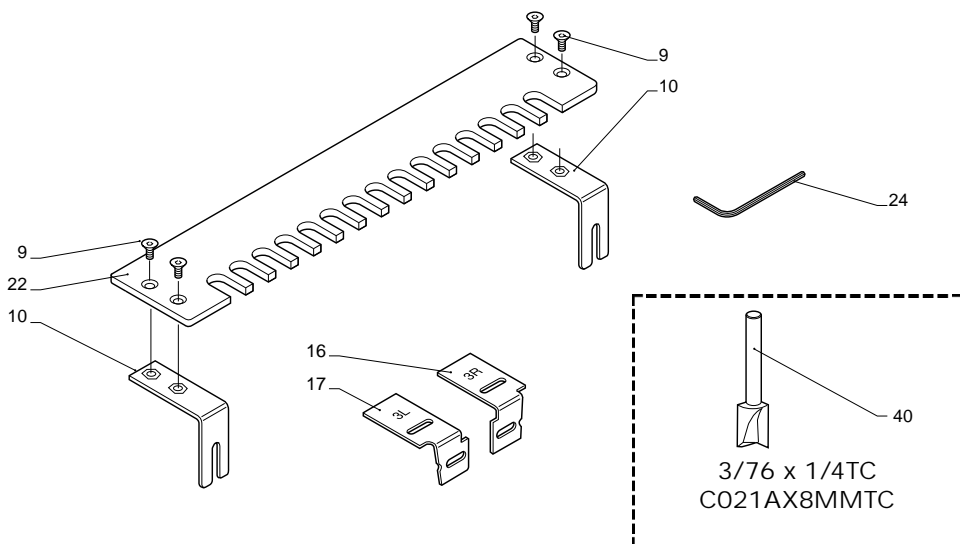
DJ300 SPARE PARTS  
DIAGRAMS



DJ300/01

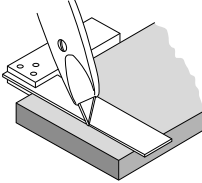


DJ300/02



## TROUBLE SHOOTING

- Tear out - this occurs when cutting across the grain and can be overcome by scribing the ends of the timber with a marking knife or gauge at the height of the cutter.



- Dovetail joint too loose - increase depth adjustment of cutter.
- Dovetail joint too tight - decrease depth adjustment of cutter.
- Dovetail joint too shallow - move template comb towards the jig body by adjusting locking nut.
- Dovetail joint too deep - move template comb away from body by adjusting locking nut.
- Clamping bar will not adjust sufficiently for 23mm plus thickness - remove nylon spacers and refit clamping knob.
- Clamping bar will not tighten sufficiently for 8mm thickness for 1/4" (6.35mm) dovetails - insert a packing piece behind clamping knob.

### Guarantee

- The jig carries a manufacturers guarantee in accordance with the conditions on the enclosed guarantee card.

### Recycling

- Jig, accessories and packaging should be sorted for environmentally friendly recycling.



MANU/DJ300 v7.0



RECYCLABLE

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