

HINGE JIG



trend[®]
routing technology

INTRODUCTION

The Trend Hinge Jig is a portable template set designed for recessing hinges in the door and the frame. It has been designed for ease of use and minimal setting up to complete the job both accurately and quickly. The Hinge Jig has been tried and tested by contractors with excellent results.

- Use on-site and in joinery shops to increase productivity.
- No need for marking out in the conventional way.
- Use with soft and hard woods. Tackles knots with ease.
- Quick to set up and simple to use.
- Clean and accurate recesses are achieved every time.
- Suitable for timber based and man-made doors, door linings and door frames using square butt hinges.
- Door linings and door frames.
- For fire doors.

Specification:

Hinge sizes possible

Length Min 2 5/8" ____ (67mm)
 Max 5" ____ (127mm)

Width Min 3/8" ____ (9.5mm)
 Max 1 3/8" ____ (35mm)

Door sizes possible

Height Min 6' 5" ____ (1956mm)
 Max 7' ____ (2100mm)*

Thickness Min 5/8" ____ (16mm)
 Max 2" ____ (51mm)

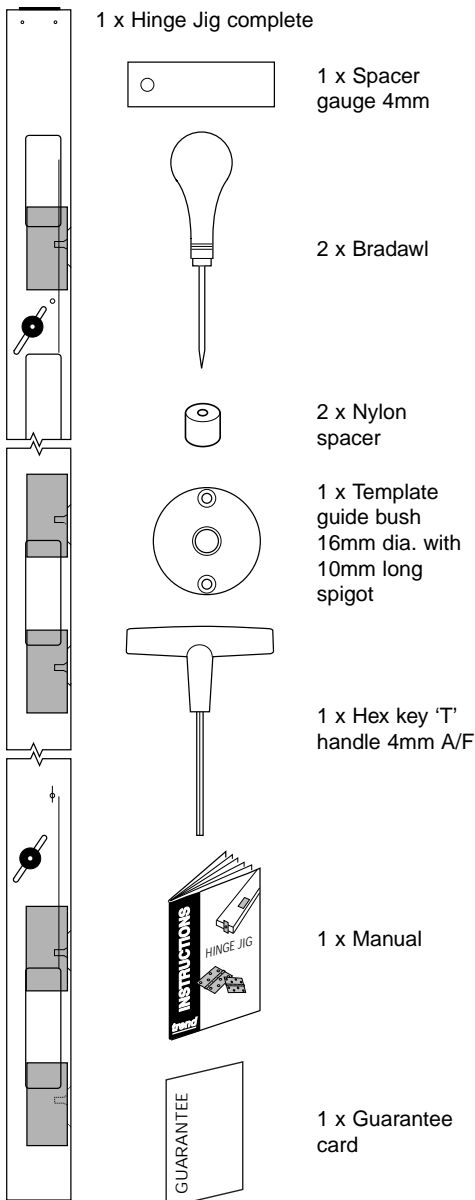


IMPORTANT!

When unpacking the Hinge Jig, the cardboard tube and endcaps should be retained. Adequate protection can be gained by returning the hinge jig to the tube and replacing the endcap for storage and transportation.

* For doors over 6' 8" the bottom hinge position can no longer be 9" up from bottom.

ITEMS ENCLOSED



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.
- Hold the workpiece securely.
- Periodically check all nuts and bolts to make sure they are tight and secure.

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[®]. The use of a dry lubricant will act as a preventative such as Trendicote[®] PTFE spray.
- Cutter shanks should be inserted into the collet at least 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 over-tighten collet as this will score the shank and create a weakness there.
- It is also advisable to periodically check the router collet nut for wear.

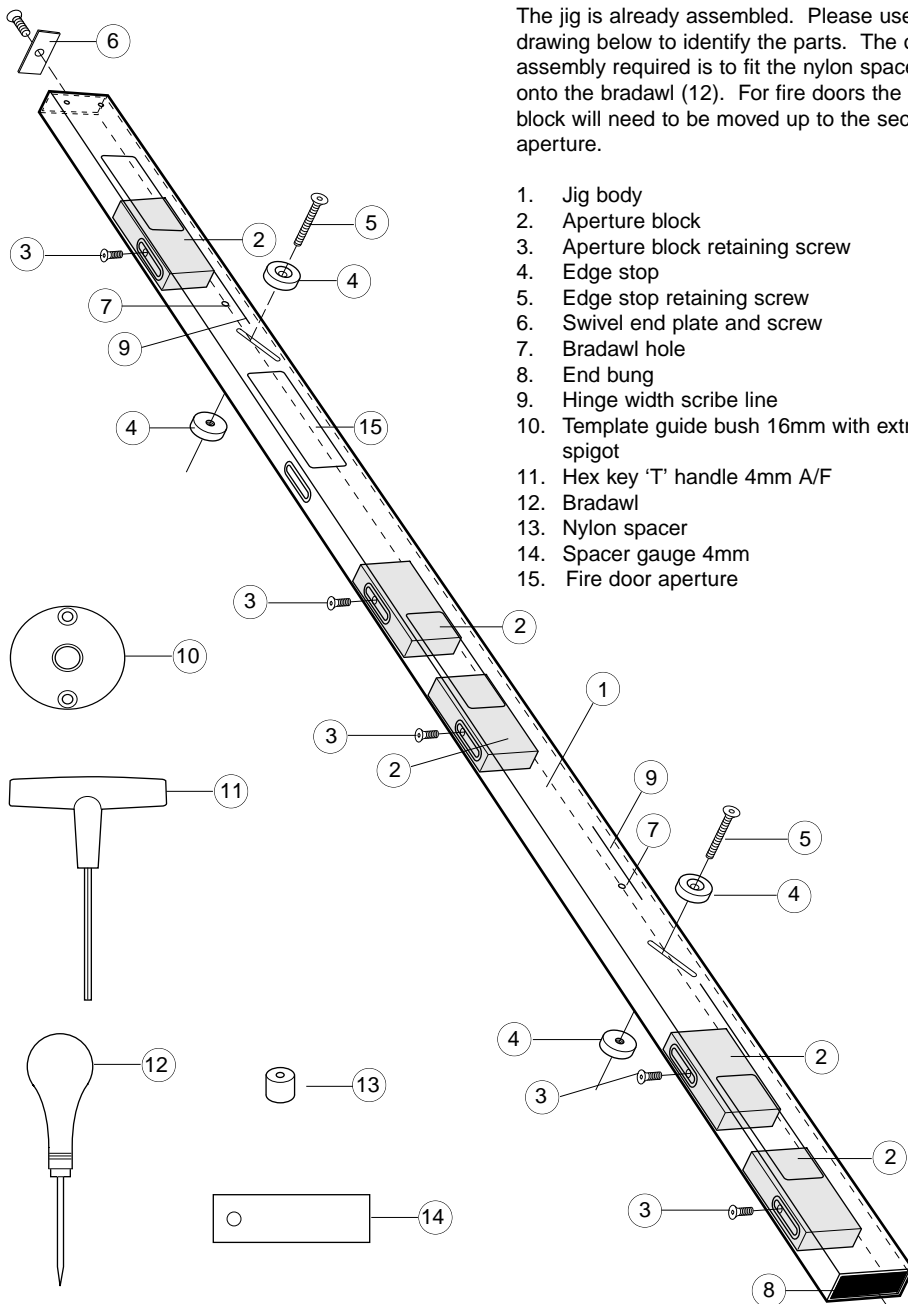
Useful Advice

- 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 abuse of routing machines 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.
- Trial cuts should be made on waste material before starting any project.

ASSEMBLY

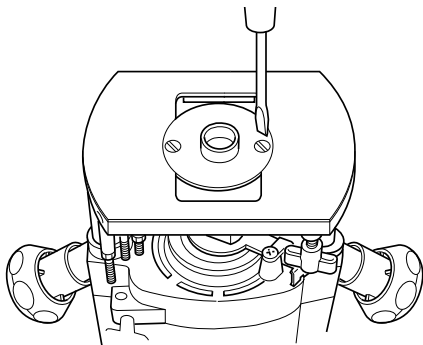
The jig is already assembled. Please use drawing below to identify the parts. The only assembly required is to fit the nylon spacer (13) onto the bradawl (12). For fire doors the middle block will need to be moved up to the second aperture.

1. Jig body
2. Aperture block
3. Aperture block retaining screw
4. Edge stop
5. Edge stop retaining screw
6. Swivel end plate and screw
7. Bradawl hole
8. End bung
9. Hinge width scribe line
10. Template guide bush 16mm with extra long spigot
11. Hex key 'T' handle 4mm A/F
12. Bradawl
13. Nylon spacer
14. Spacer gauge 4mm
15. Fire door aperture



Setting up the Router

- Fit the guide bush to the base of the router using the screws supplied with the router.



IMPORTANT!

If there is any doubt about the concentricity of cutters relative to the guide bush, then a false sub-base as described below should be used in order to ensure an accurate fit of hinges. For all other makes of router, the sub-base to suit your router will need to be purchased.

- The UNIBASE Universal Sub-base has a central recess to allow fitting of the special guide bush Ref. GB160. The sub-base is supplied drilled to fit the most popular makes of routers. See the chart for the correct selection of sub-base.
- UNIBASE set contains a circular sub-base, mounting screws, a line up guide bush Ref. UNI/GB/6 and centering pins.
- The 1/4" centering pin and the UNI/GB/6 are used to align the sub-base with the router spindle, to ensure concentricity with the guide bush.

The special guide bush will fit directly onto the base of routers below. No sub-base is required:

Trend	T3, T5
AEG	OF450S, 500S, OFE710
Atlas Copco	OFS50, 720, OFSE850, 1000
Black & Decker	SR100, BD780(E), KW779, KW780(E), KW800(E)
Casals	FT1000
Champion	CPR850
Dewalt	DW613, 614, 615
Draper	R850V
Einhell	EOF850SP
Elu	MOF96(E), 69
Ferm	FBF-6E, 8E
Holzher	2335, 2336, 2356
Kango	R8550S
Kress	FM6955
Nutool	NPT850
Perles	OF808(E)
Power Devil	PDW5026, 5027
Stayer	PR50
Virutex	FR77C, 78C
Wickes	900W

The UNIBASE is required for the following light duty routers.

Bosch	POF400A, 52, 500A, 600ACE GOF900A, 900ACE,
Casals	FT750, 1000(E)
DeWalt	DW620, 621
Elu	OF97(E)
Festo	OF900(E), 1000(E), 1010EB
Freud	FT1000(E)
Hitachi	FM8, ZK2008, M8(V)
Mafell	L050E
Makita	3620
Metabo	OF528, 1025, OFE1229
Peugeot	DEF570E, DF55E
Ryobi	R150, 151, RE155K, 120
Skil	1835U
Sparky	X52E

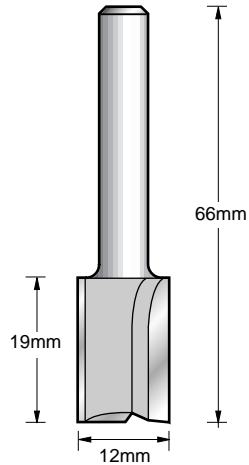
The GB/5/S* sub-base is required for the following routers.

Black & Decker	BD60, DN67
Kinzo	25C44
Lynx	RT-800-A

* Please state make and model of router when ordering.

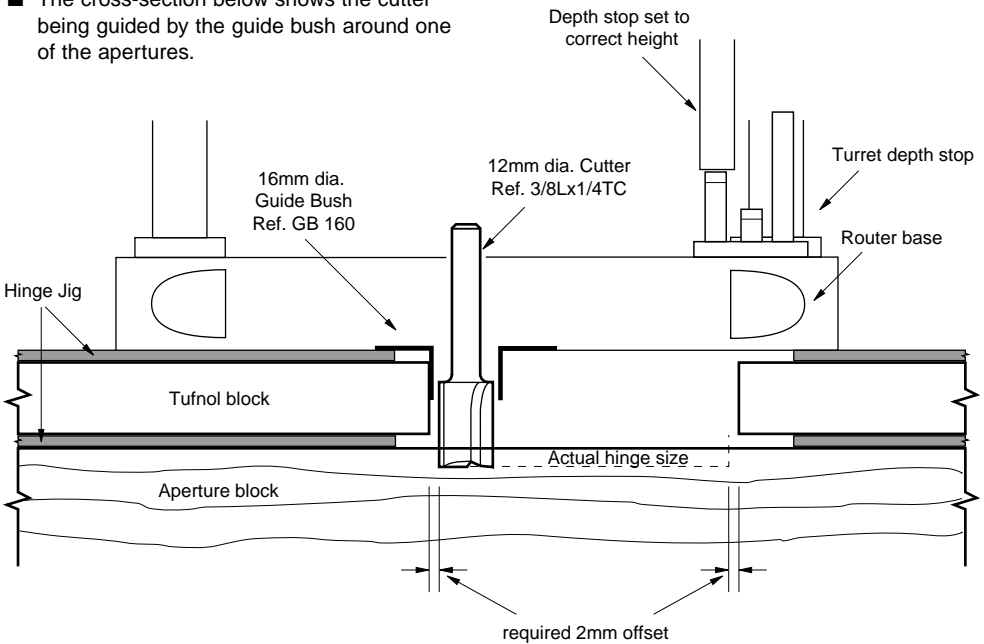
Fitting the Router Cutter

- The recommended router cutters for use with the jig are Refs. 3/8LX1/4TC, C019AX1/4TC or TR12X1/4TC.
- The cutters must have a 12.0mm diameter and a minimum overall length of 66mm.
- Unplug router from mains, insert 25mm of shank of cutter into collet and gently tighten collet nut.



Template Guide Bush principle

- The cross-section below shows the cutter being guided by the guide bush around one of the apertures.



OPERATION

Setting the Jig for Hinge Recessing

The jig has three sets of adjustments which require setting depending on the door size and thickness, as well as the size and positions of the hinges. These are all carried out with the 4mm hex key provided with the jig, one hinge and the 4mm feeler gauge.

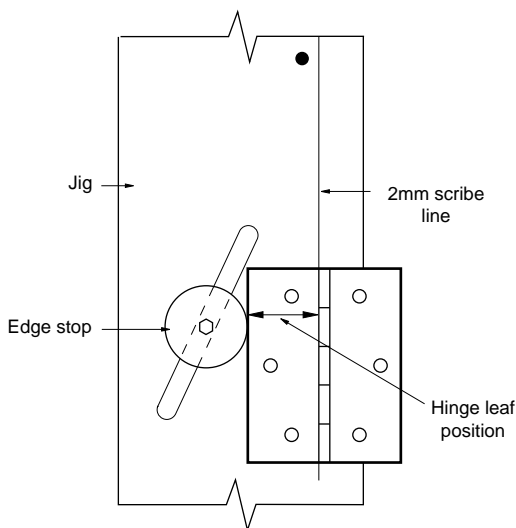
The following setting up operation will only need to be carried out once for a set of doors having the same height dimensions and hinge sizes.



Setting the Width of the Recess

The width of the recess for the hinge leaf is governed by the two edge stops. These engage onto the edge of the door or frame and their position governs the width of the recess. The position of each of the two edge stops are set as follows:-

- Undo the edge stop retaining screw with the hex key.
- Place one leaf of the hinge against the edge stop.
- Move edge stop along the slot until leaf edge of hinge lines up with the inside of the 2mm scribe line.
- Tighten edge stop retaining screw with the hex key.



Setting the Positions of the Recess

The Hinge Jig has been designed to cater for the traditional positions of the hinges on a door as follows:

- Top hinge - Located 150 mm (6") from the top of the door.
- Bottom hinge - Located 200 mm (9") from the bottom of the door.
- Centre hinge - Centrally between the top and bottom hinges.



Lay the Hinge Jig onto a flat surface e.g. the edge of the door. The procedure for setting the position of each hinge is as follows:

- Slacken block retaining screw of upper aperture block.
- Measure required position of hinge using tape measure.
- Slide block to required position.
- Tighten block retaining screw.

The top aperture has no upper block as it is fixed at 150mm (6") position from the top of the door. If only two hinges are used, then only the top and bottom apertures of the jig will be used.

Setting the Length of the Recess

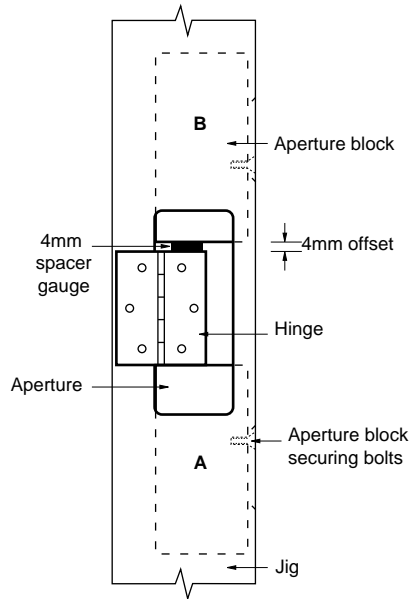
The length of the recess for the hinge is governed by the lower aperture blocks which can be adjusted for hinges of length 75mm to 105mm. The 4mm spacer gauge is used to give the necessary offset. The procedure is as follows for each of the three apertures:-

- Place one hinge lengthways into the aperture.
- Slacken block retaining screw of lower aperture block.
- Place spacer gauge between hinge and upper aperture block.
- Slide lower block up to hinge.
- Tighten block retaining screw.



IMPORTANT!

For fire doors, this jig will allow a second hinge 355mm down from the top of the upper hinge. To use with a fire door, move the middle aperture block up to the second aperture position and set to hinge length.



Setting the Depth of the Recess

The depth of the recess must be the same thickness as the hinge or slightly deeper. Most routers are fitted with a depth stop to limit the depth of plunge of the router. Refer to your router's instruction manual for particular details on using the depth stop. The depth of the recess for the hinge is set as follows:

- Release depth gauge on the router.
- Place jig onto the edge of the door.
- Place router onto jig and locate guide bush into one of the apertures of the jig.
- Plunge cutter through aperture until it touches the edge of the door.
- Lock the router's carriage in this position.
- Move depth gauge up by the thickness of the hinge by:
 1. Either using the depth gauge measurement/dial
or
 2. Placing a leaf of the hinge between the depth gauge and the stop.
- Lock off depth stop and remove hinge.
- Check the depth of the cutter is correct by first fully plunging the router and locking the plunge mechanism. Invert the router and place the jig over the guide bush, now check that the cutter protrudes past the template the same distance as the thickness of the hinge.

Double check all settings, ensure all screws are tight. Setting up is complete.



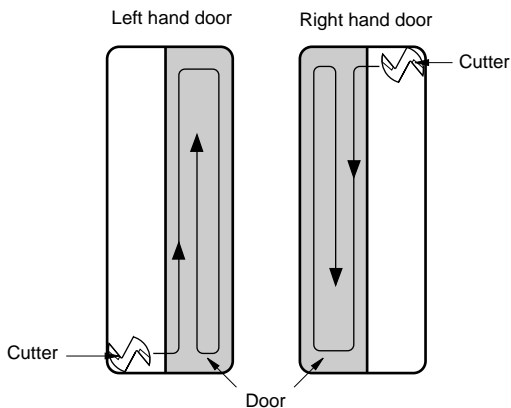
Routing Hinge Recesses in the Door

- The door should be laid on its edge with the hanging edge of the door facing upwards. Use the conventional block and wedge to keep the door securely in this position. Alternatively clamp the bottom of the door into the jaws of a Black & Decker® Workmate®.
- Place the Hinge Jig onto the edge of the door. Ensure that the Jig is placed the correct way round so that the edge stops are on the knuckle edge of the door. The swivel end plate should be at the top of the door.
- Rotate the swivel end plate through 90° and slide the jig down the door until the swivel end plate touches the top of the door.
- Push the jig up to the door so that the edge stops touch the opening face of the door.
- Without letting the jig move, locate the bradawls into the bradawl holes.
- Hammer the bradawls carefully into the edge of the door until the nylon spacer fitted to the bradawls touch the face of the jig.
- Now plug in the router and place the router with cutter and guide bush fitted into the first aperture of the jig.



IMPORTANT!
The swivel end plate fixing screw may need to be loosened slightly.





- Switch router on and wait for the motor to reach full running speed. Electronic speed controlled routers should be set to the maximum speed.
- Position the guide bush in the corner of the aperture and plunge cutter until correct depth is reached. Lock the carriage of the router in this position. Rout around the aperture in a clockwise direction, then remove the waste from the centre of the aperture. See drawings opposite for direction of cut to prevent breakout.
- Release the carriage of the router and repeat the procedure for the remaining apertures.
- Switch off router and remove jig from door by pulling out bradawls with a twisting action.
- Square off rounded corners of hinge recess with a corner chisel Ref. C/CHISEL and hammer.

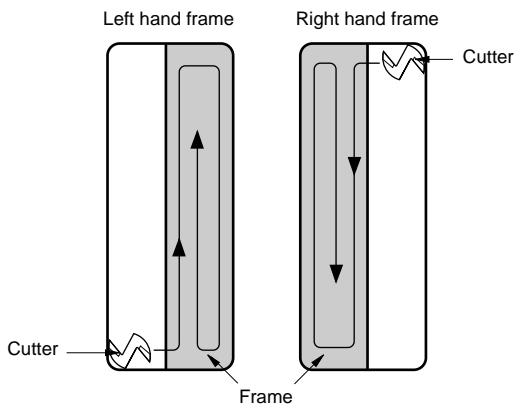


Routing Hinge Recesses in the Frame

- No adjustments are necessary to the jig or the router.
- Swivel the end plate through 90°.
- Using the opposite side of the Jig, butt the top of the jig into the head of the frame and up against the hanging jamb until the edge stops touch the opening edge of the frame.
- Without letting the jig move, locate the bradawls into the bradawl holes.
- Hammer the bradawls carefully into the door frame until the nylon spacer fitted to the bradawl touches the face of the jig.
- Now plug in the router and place the router with cutter and guide bush fitted, into the first aperture of the jig.
- Switch router on and wait for the motor to reach full running speed. Electronic speed controlled routers should be set to the maximum speed.



- Position the guide bush in any corner of aperture and plunge cutter into frame until depth, set by depth stop, is reached. Lock the carriage of the router in this position. Immediately start routing around the aperture in a clockwise direction. Then remove the waste from the centre of the aperture.



- Release the carriage of the router and repeat the procedure for the remaining apertures.
- Switch off router and remove jig from frame by pulling out bradawls with a twisting action.
- Square off rounded corners of hinge recess with a corner chisel Ref. C/CHISEL and hammer.



Fitting the Door

- Fit hinges to door and raise upright.
- Use a jack to raise door until hinges align with recess.
- Screw leaves to frame.

Providing procedure is carried out correctly and that the frame/lining is plumb and parallel, then no adjustment should be necessary due to the identical mirror image positioning of the recesses in both the door and the frame.

Other Points

If a larger gap is required to accommodate smoke seal or draft excluder, a packing piece can be temporarily glued or stuck to the swivel end plate in order to utilise the jig in the same technique and achieve accurate results.

If a new door is being hung in an existing frame or lining, the door height may be shortened by a timber threshold or parquet flooring or by a new screed. This may cause problems with the jig fitting the door.

Finishing the Frames

The holes left by the bradawls are on both closing edges of the door and frame and are very unobtrusive. These can be easily filled with a matching coloured filler.



IMPORTANT!

Release the plunge action on the router after each hinge, as not doing so could result in cutting into the edge of the jig and causing damage. If you damage the jig or blocks, an epoxy resin (e.g. Araldite[®] Epoxide Resin) can be used to fill the gap and if rubbed smooth will provide a continuous edge on which the guide bush can follow.



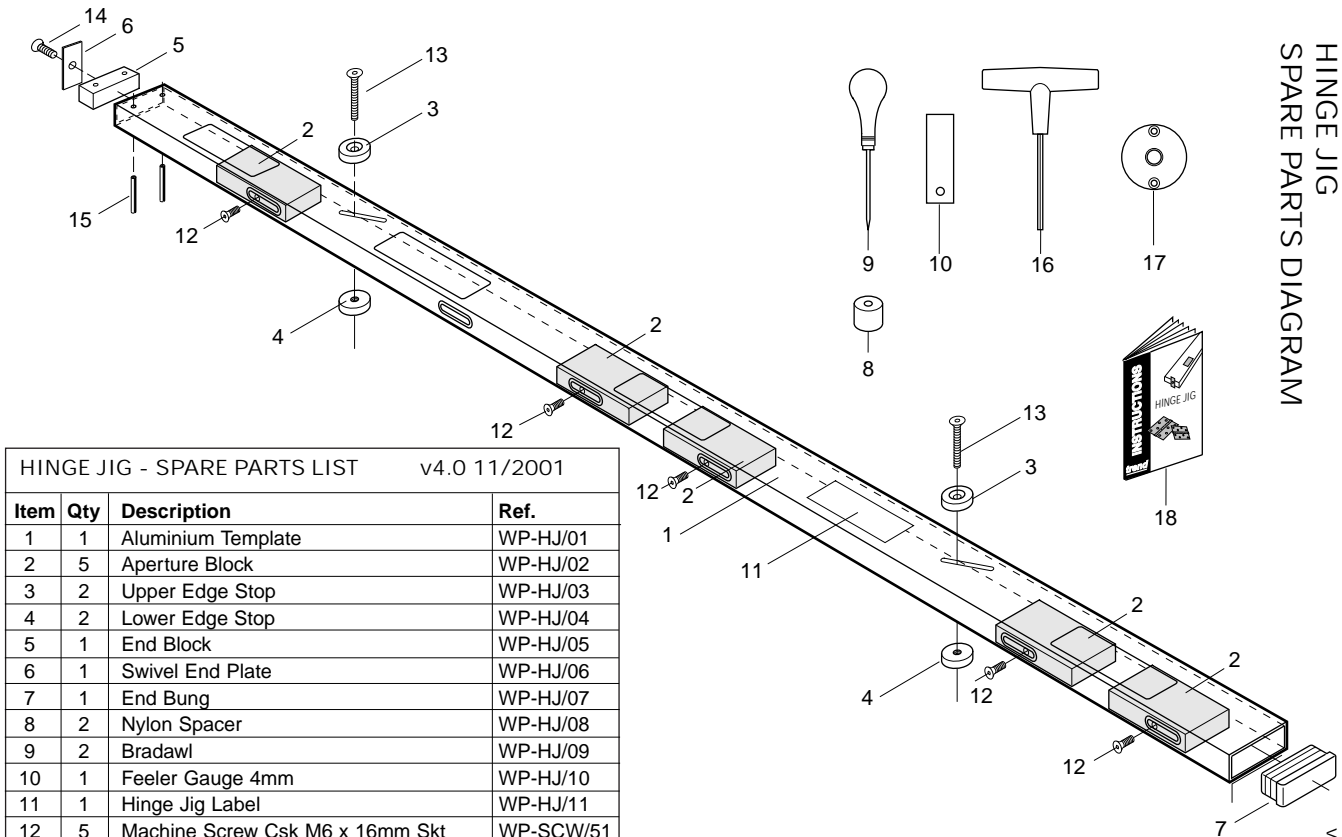
Guarantee

- 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.

HINGE JIG
SPARE PARTS DIAGRAM



HINGE JIG - SPARE PARTS LIST v4.0 11/2001

Item	Qty	Description	Ref.
1	1	Aluminium Template	WP-HJ/01
2	5	Aperture Block	WP-HJ/02
3	2	Upper Edge Stop	WP-HJ/03
4	2	Lower Edge Stop	WP-HJ/04
5	1	End Block	WP-HJ/05
6	1	Swivel End Plate	WP-HJ/06
7	1	End Bung	WP-HJ/07
8	2	Nylon Spacer	WP-HJ/08
9	2	Bradawl	WP-HJ/09
10	1	Feeler Gauge 4mm	WP-HJ/10
11	1	Hinge Jig Label	WP-HJ/11
12	5	Machine Screw Csk M6 x 16mm Skt	WP-SCW/51
13	2	Machine Screw Csk M6 x 40/18mm Skt	WP-SCW/52
14	1	Machine Screw Small Csk M6 x 12mm Skt	WP-SCW/56
15	2	Split Pin 3mm x 25mm	WP-PIN/01
16	1	Hex Key 'T' Handle 4mm	WP-AKT/01
17	1	Guide Bush 16mm Dia. x 10mm Spigot	GB160
18	1	Manual	MANU/HJ

V4.0 11/2001

Quick Start Instructions

These instructions are provided for those who are confident with the router and are already familiar with the Hinge Jig.

Setting Up

1. Fit router cutter & guide bush to router.
2. Position door with hanging edge uppermost.
3. Adjust two edge stops to width of hinge.
4. Place hinge jig on hanging edge of door.
5. Rotate the end plate at 90° to jig.
6. Ensure end plate touches end of door.
7. Ensure edge-stops touch opening face of door.
8. Secure jig to door using the two bradawls.
9. Adjust top blocks to position of hinges.
10. Adjust bottom blocks to length of hinges.
11. Adjust depth stop on router to thickness of hinge.
12. Switch router on & locate guide bush into aperture.
13. Plunge down router and rout clockwise.
14. Repeat routing operation for each hinge recess.
15. Chisel corners square by hand to receive hinges.

Routing the Frame

1. Rotate the end plate until flush with jig.
2. Butt the end plate into the head of frame.
3. Ensure edge-stops touch edge of frame.
4. Secure jig to door frame using the two bradawls.
5. Locate guide bush into aperture and switch router on.
6. Plunge down router and rout clockwise.
7. Repeat routing operation for each hinge recess.
8. Chisel corners square by hand to receive hinges.

MANU/HJ v4.0



Trend Machinery & Cutting Tools Ltd.

Odhams Trading Estate St Albans Road
Watford WD24 7TR England

Enquiries: _____ 0800 487363

Technical Support: ___ 0044 (0) 1923 224681

Fax: _____ 0044 (0) 1923 236879

Email: _____ mailserver@trendm.co.uk

WWW: _____ www.trendm.co.uk