

COMBI 66









Observe the safety regulations in the instruction manual of the Power Tool to be used or connected to this attachment. Also observe any applicable additional safety rules. Read the following safety instructions before attempting to operate this product.

PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE.

The attention of UK users is drawn to The Provision and Use of Work Equipment Regulations 1998, and any subsequent amendments.

General

- Disconnect power tool, when not in use. Before servicing and when changing accessories such as cutters. Disconnect power tool and attachment from power supply. Ensure the machine is switched off before plugging tool in or connecting to a power supply.
- Always mount the power tool, accessory or attachment in conformity with the present instructions.
- Keep children and visitors away. Do not let children or visitors touch the tool, accessory or attachment. Keep children and visitors away from work area.
- Make the workshop child proof with padlock and master switch.
- Dress properly. Do not wear loose clothing or jewellery, they can be caught in moving parts. Rubber gloves and non-skid footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
- Consider working environment. Do not use the product in the rain or in a damp environment. Keep work area well lit. Do not use power tools near gasoline or flammable liquids. Keep workshop at a comfortable temperature so your hands are not cold.
- The accessory or attachment must be kept level and stable at all times.
- Keep work area clean. Cluttered workshops and benches can cause injuries

- Use the attachment with the power tools and accessories specified in this manual only. Do not force the tool or attachment to do a job for which it is not designed.
- Secure idle tools. When not in use, tools should be stored in a dry and high or locked up place, out of reach of children.
- For best control and safety use both hands on the power tool and attachment. Keep both hands away from cutting area. Always wait for the spindle and cutter to stop rotating before making any adjustments.
- Always keep guards in place and in good working order.
- Remove any nails, staples and other metal parts from the workpiece.
- Maintain tools and cutters with care. Keep cutters sharp and clean for better and safer performance. Do not use damaged cutters. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free from oil and grease.
- Maintain accessories. Do not use damaged accessories. Only use accessories recommended by the manufacturer.
- Check damaged parts. Before operation inspect the attachment, the power tool, the cable, extension cable and the plug carefully for signs of damage. Check for alignment of moving parts, binding, breakage, mounting and any other conditions that may effect its operation. Have any damage repaired by an Authorised Service Agent before using the tool or accessory.
- Do not use tool if switch does not turn it on or off. Have defective switches replaced by an Authorised Service Agent.
- Don't over reach. Keep proper footing and balance at all times.
- Don't abuse the cable. Never carry power tool or accessory by cord or pull it to disconnect from the socket. Keep cord from heat, oil and sharp edges. Always trail the power cord away from the work area.

- Connect dust extraction equipment. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
- Check all fixing and fastening nuts, bolts and screws before use to ensure they are tight and secure. Periodically check when machining over long periods.
- Stay alert. Watch what you are doing. Use common sense. Do not operate tools when you are tired, under the influence of drugs or alcohol.
- Personal Protective Equipment (PPE). All PPE must meet current UK and EU legislation.
- Do not leave tools running unattended. Do not leave tool until it comes to a complete stop.
- Always clamp workpiece being machined securely.
- Only use cutting tools for woodworking that meet EN847-1/2 safety standards, and any subsequent amendments.

Routing Safety

- Disconnect router power tool. When not in use, before servicing and when changing accessories such as cutters, disconnect router and attachment from power supply.
- Ensure router cutter has stopped rotating before changing it. Never use the spindle lock as a brake.
- Remove adjusting keys and spanners. Form the habit of checking to see that keys and adjusting spanners are removed from the router tool, cutter and attachment before turning router on. Make sure cutter can rotate freely.
- Check all ball bearing and blade fixing screws before use to ensure they are tight and secure. Periodically check when machining over long periods.
- When using a template guide bush ensure it cannot come into contact with collet and nut.
- Noise. Take appropriate measures for the protection of hearing if the sound pressure of 85dB(A) is exceeded. Routing sound pressure may exceed 85dB(A), so ear protection must be worn.

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- Eye protection. Wear safety goggles, spectacles or visors to protect the eyes from ejected waster particles.
- Respiratory protection. Wear a face or dust mask, or powered respirator. Dust masks/filters should be changed regularly.
- Do not switch router on with the cutter touching the workpiece.
- The direction of routing must always be opposite to the cutter's direction of rotation.
- After work, release the router plunge and allow spindle to stop rotating before putting machine down.
- Check before cutting that there are no obstructions in the path of the router. When cutting through the full thickness of the workpiece, ensure there are no obstacles beneath workpiece, and that a sacrificial work surface is used.

Additional Safety Rules For Router Cutters

- Cutting tools are sharp. Care should be taken when handling them.
- Always use cutters with a shank diameter corresponding to the size of the collet installed in your tool.
- Always run router cutters at the spindle speed recommended and marked accordingly. Ensure cutter has reached correct speed before entering workpiece. Recommended speeds can be found on the packaging, in cutter instructions or in the Trend Routing Catalogue.
- Always use router cutters in a router. Router cutters must not be used in a drill. Drill and boring bits must not be used in a router. Router cutters must only be used for the material cutting application for which they are designed. Do not use on metal or masonary.
- Never use cutters with a diameter exceeding the maximum diameter indicated in the technical data of the powertool or attachment used.
- Do not drop cutters or knock them against hard objects. Do not use cutters that are damaged.
- Cutters should be kept clean. Resin build up should be removed at regular intervals with Resin

 $\begin{array}{l} {\sf Cleaner}^{\textcircled{B}}. \mbox{ The use of a dry} \\ {\sf lubricant} \ ({\sf Trendicote}^{\textcircled{B}}\ {\sf PTFE}) \ {\sf will} \\ {\sf act} \ {\sf as} \ {\sf a preventative}. \ {\sf Do not use} \\ {\sf PTFE} \ {\sf spray on plastic parts}. \end{array}$

- Cutter shanks should be inserted into the collet to the mark line on the shank. This ensures that at least ³/4 of the shank length is held in the collet. Do not over-tighten the collet nut as this will score the shank and create a weakness and fracture point.
- Observe the correct assembly instructions in the router instruction manual for fitting the collet and nut. Observe the router power tool manual instructions on fitting cutters correctly.
- It is advisable to periodically check the collet and collet nut. A worn, distorted or damaged collet can cause vibration and damage the shank, and should be replaced. Worn collet nuts should be replaced.
- Do not take deep cuts in one pass; take several shallow or light passes to reduce the side load applied to the cutter. Too deep a cut in one pass can stall the router.
- Very small diameter cutters must be handled and used with care.
- Always return cutter to its packaging after use.
- Should you experience excessive vibration during use stop immediately. Have the eccentricity of the router, router cutter and clamping system checked.
- All fastening screws and nuts should be tightened using the appropiate spanner or key in accordance with the manufacturers instructions.

Using Routers In A Fixed Position

- After work, release the router plunge to protect the cutter.
- Always use a push-stick or pushblock for last 300mm of the cut.
- Whenever possible use a work holding device or jig to secure component being machined.
- Ensure attachment is securely fitted to the workbench, with table surface at approximately hip height.

- Ensure a No-Volt Release Switch is fixed to or adjacent to the attachment and that it is used correctly.
- Check the direction of the workpiece is always opposite to the cutter's direction of rotation.
- Do not use awkward or uncomfortable hand positions.
- Do not reach underneath table or put your hands or fingers at any time in the cutting path while tool is connected to a power supply.

Useful Advice When Routing

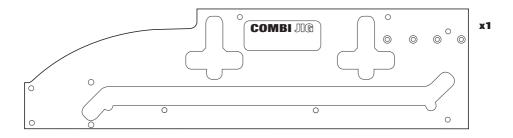
- Judge your feed rate by the sound of the motor. Feed the router at a constant feed rate. Too slow a feed rate will result in burning.
- Take many light passes rather than one deep cut to reduce the side load applied to both router and router cutter.
- Trial cuts should be made on waste material before starting any project.
- When using some attachments including a router table or dovetail jig, the use of a fine height adjuster is highly recommended.
- When using a template guide bush, ensure there is sufficient clearance between cutter tip and inside each of bush. Ensure cutter and guide bush are concentric.

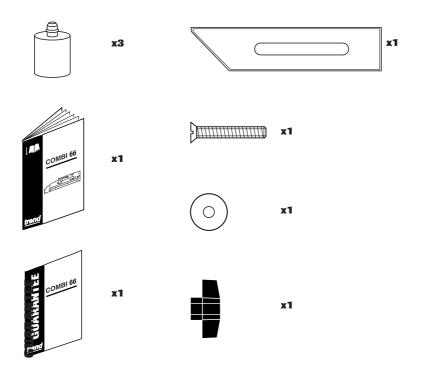
Router Cutter Maintenance

- Composite cutting tools (brazed tip) must be maintained by a competent person i.e. a person of training and experience, who has knowledge of the design requirements and understands the levels of safety to be achieved.
- The design of composite tools must not be changed in the process of maintenance.
- Replacement parts must meet Trend specification.
- Tolerances which ensure correct clamping by the collet shall be maintained.
- When re-grinding the tool, care must be taken not to cause weakening of the body or the connection between the cutting edge and the body.

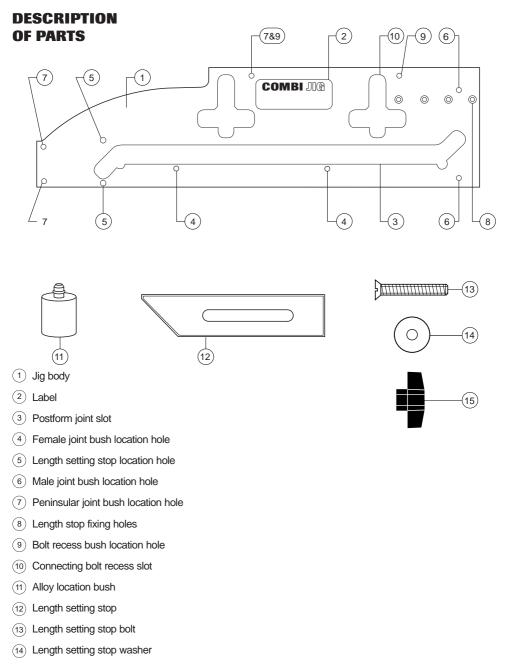


ITEMS ENCLOSED









(15) Length setting stop knob



COMBI 66

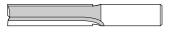
ACCESSORIES

Recommended Cutters

A 12.7mm $(1/2^{"})$ diameter cutter must be used, which has a 50mm cutting reach and plunge cut facility.

Router must be plunged in stages of maximum 8mm in one pass.

Order Ref. C153, TR17D, TR17, 3/83D, 3/83M



Order Ref. RT/11, RT/11M



Ref.
C153x1/2TC
C153Dx1/2TC
TR17x1/2TC
TR17Dx1/2TC
3/83x1/2TC
3/83Dx1/2TC
3/83Mx1/2TC
RT/11x1/2TC*
RT/11Mx1/2TC*
RB/A RB/A/10

*This cutter has a 30mm tip length but will cut to a maximum depth of 50mm.

Sub-base Sets

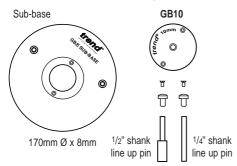
To obtain a perfect accurate close fitting joint, a 30mm guide bush must be used. The guide bush must always be fitted concentric with the cutter. This can be achieved using Trend sub-bases and 30mm outside diameter guide bush ref. GB30.

Trend sub-bases have a central recess to allow fitting of the Trend guide bush to most makes of routers and are available ready to fit the most popular makes.

Two types are offered GB/5 and UNIBASE.

All sub-bases contain screws, a line up bush and two line up pins. The line up pins and bush ensure exact alignment of sub-base with router spindle, when fitted with the relevant collet.

GB/5 Set comprises the following



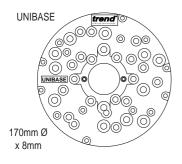
Fits following Router Models

GB/5
GB/5/A
GB/5/D
GB/5/J
GB/5/K
GB/5/L
GB/5/M
GB/5/P
GB/5/Q
GB/5/S*

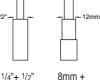
*Please state model when ordering.



UNIBASE comprises the following







1/4"+ 1/2"8mm +shank12mm shankline up pinline up pin

8mm

Fits following Router Models

Atlas Copco OFSE2000 Bosch GOF 1300ACE, 1600A, 1700ACE Casals FT2000VCE DeWalt DW625EK, 629 Draper R1900V Elu MOF 31, 77, 98, 131, 177(E) Felisatti TP246(E), R346EC Festo OF2000E Freud FT2000E Hitachi MI12V, M12SA, TR12 Metabo OF1612, OFE1812 Ryobi RE600N, R600N, RE601, R500, R502 Skil 1875U1 Wadkin R500

Description Universal sub-base Ref. UNIBASE

30mm Guide Bush



1/4"

1/2

Description	Ref.
30mm guide bush to fit sub-bases	GB30

General instructions for fitting Sub-bases to Router

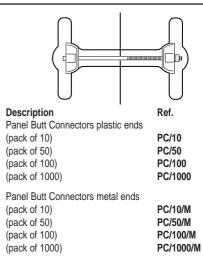
- 1. Fit line up guide bush onto sub-base, with screws supplied.
- Fit 12.7mm (¹/₂") shank line up pin into collet of router. Plunge router until pin projects through base and lock plunge.
- 3. Locate guide bush and sub-base assembly over protruding pin.
- 4. Line up fixing holes and fit screws.
- 5. Now tighten up screws.
- Remove line up bush and line up pin. Alignment should now be correct. Fit 30mm guide bush and cutter.
- 7. Periodically check the sub-base is concentric to the spindle of the router.



Panel Butt Connectors

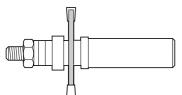
Panel butt connectors are essential for connecting worktops. They fit into the recess on the underside of the worktop and are tightened with a 10mm spanner. The jig has integral bolt recess slots to allow the bolt recess to be cut in the underside of the worktop, using cutter.The recess is elongated to allow easy access for the spanner. Two types are offered, plastic ended or metal ended. Plastic ended offer better grip.

See the latest Trend Routing Catalogue for details.



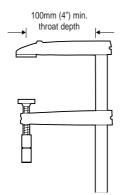
Biscuit Jointer for the Router

Worktops with inadequate support below them need additional stability by biscuit jointing the edges. The Trend biscuit jointing set for the router together with the No.20 biscuits will ensure worktops do not sag or warp in time, see the latest Trend Routing Catalogue for details.



Description	Ref.
Craft Range Biscuit Jointer Set	C152x1/2TC
Trade Range Biscuit Jointer Set	TR35x1/2TC
Professional Range Biscuit Jointer Set	342x1/2TC
No.20 Biscuits –	
Quantity 100	BSC/20/100
1000	BSC/20/1000

Gripper Clamp



Description Gripper Clamps Ref. 6003010 (Two off required)



Two heavy duty quick action or gripper clamps with throats of at least 100mm (4") are required to secure the jig to the worktop. Whenever fast action clamps are used, ensure they do not foul the router path and that they are securely tightened.

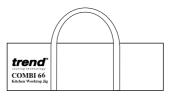


Carry Case

Hard wearing carry case to protect and allow ease of carrying of the COMBI66 Jig.

Description Carry Case for COMBI66

Order Ref. CASE/66



Fill & Seal

A solvent and silicone free coloured bonding sealant used to seal worktop joints to prevent moisture reaching the core material. Available in nine colours, Fill & Seal can be intermixed to match all laminate colour variations. Sufficient to join four 700mm worktops, it is supplied in 100ml flexible tubes, allowing it to be squeezed into the joint prior to closing the joint faces. Low odour and mould resistant the sealant has a fast curing time of around 20 minutes.

Description

Pack of 9 colours

Order Ref. FS/100/BA FS/100/CB FS/100/CH FS/100/EG FS/100/PG FS/100/PG FS/100/PW FS/100/TE

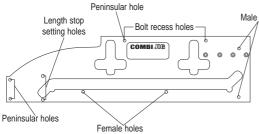
FS/100/PACK



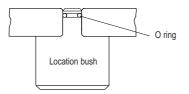
ASSEMBLY

Location Bush Identification

Three location bushes are used in different holes in the jig to align the correct template aperture for the application.



Location bushes are held in position by 'O' rings. Insert the smallest end of the bush into the hole by lightly pushing and turning at the same time. If the bushes are tight use a lubricant on the 'O' ring. Ensure bushes are fully home before use. When using jig ensure location bushes do not foul workbench.

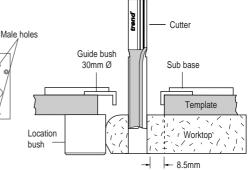


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In order to prevent breakout of the laminate, rotation of the cutter and feed direction must always be into the postform edge of the worktop.

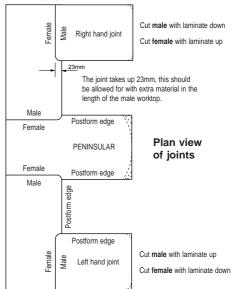
Margin Distance

Allow 8.5mm when cutting joints. Measure or use a batten of this thickness to aid setting out.



Setting out the Joints

When cutting a joint ensure location bushes contact the postformed edge of the worktop. For certain joints the worktop will need to be inverted so that all cuts are made into the postformed edge, never out through it. When routing worktop the balancing paper on the underside may feather edge – this feather edge should be removed with abrasive paper.





Setting the Length Stop

OPERATION



Setting the Length Stop for the Female Joint

Carry out the setting operation first:

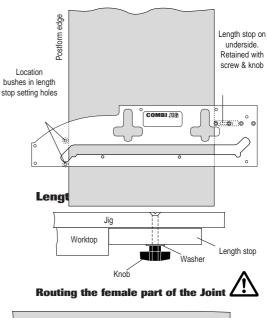
- Fit bushes into length stop setting holes and offer the jig to the male worktop as shown. The label will be uppermost.
- Position the jig across the width of the male worktop. Loosely fit the length stop.
- Fasten length stop to template so that it traps the template across the worktop between the male location bushes and the stop. Tighten up the knob.
- Remove the bushes from male location hole. The template is now set to cut the correct length of joint for the female cut.

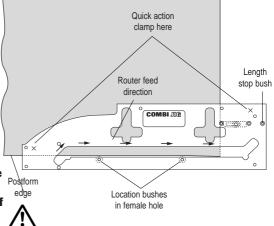
Female Joint <u>/!</u>

- Fit two location bushes in female holes as shown. (The label must be uppermost.) Leave the length stop bush in position.
- Place the template onto the female worktop to be cut, ensuring the location bushes are touching the worktop. Now cramp securely in position using two quick action clamps ensuring they will not foul the router path.
- Set cutter depth.
- Plunge router and cut joint in a series of passes, feeding left to right.

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When cutting a joint, hold the router guide bush hard against the template and cut from left to right. It is recommended that the depth stops of the router are used to set the depths of cut. Several shallow passes of the router should be made and it is not necessary to lean heavily on the router or the jig. Allow the weight of the router to rest on the part of the template which is resting on the worktop. Ensure router remains parallel and upright at all times.





The edge of the jig slot that is not used is notched to act as a visual guide.



Set the length stop using the worktop width for te male cut, as this may be different to the female worktop width.



Male Joint 🥂

Depending on accessibility lay female worktop into position on units. Lay male worktop on top and support other end. Using a pencil draw round the female cut onto the male from underside. If inaccessible lay female onto male. Depending on a right or left hand joint, the pencil line may need to be transferred on to the other side. Due to the difference between the cutter and the guide bush diameters, the cutter path will be 8.5mm over from the edge of the template, therefore either measure 8.5mm or use a packing piece of this size to offset the template by this amount to ensure the cutter cuts along the pencil line.

The postformed edge of the worktop must always be in contact with the location bushes, this means that to cut a male right hand joint, the worktop must be inverted. Remembering to cut into the postformed edge.

- Insert two location bushes into male holes as Location bush in shown, label facing down.
- Place template across the width of the worktop and clamp securely to worktop.
- Set cutter depth. Plunge router and cut the male joint before finally cutting the work-top to length. A series of passes should be made feeding from left to right.

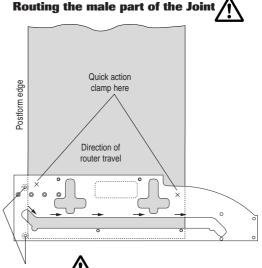
Out-of-square Joints (max 3°)

Only the male cut needs to be adjusted if an outof-square joint is required. On out-of-square joints there is a possibility of the chipboard core of the worktop becoming exposed which will need to be hidden with sealant.

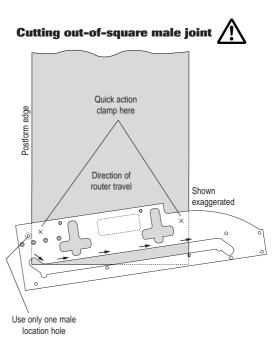
Depending on accessibility mark out an out-ofsquare joint, first lay the female board on the cupboard carcass in position. Next lay the male section of board on to the carcass and on top of the female section of the board. Support other end. Mark around the female joint onto the male section of board.

If inaccessible lay female onto male.

- Use only the one location bush in the male hole indicated.
- Swing the template to suit the angle required and clamp down.
- Remember to allow an 8.5mm gap between template and cutting line.



Test fit the joints together, abrasive paper may be required to clean up the chipboard core.





Cutting the Bolt Recesses

When the joint has been tested, proceed as follows to cut the recess for panel butt connectors on the underside of the worktop. The same cutter and guide bush are retained and used with the integral bolt recess slots in the jig to produce the recesses for the panel butt connectors. The bolt recess position can be gauged approximately 150mm from the edge of the postform edge, or where access is possible with kitchen units. Mark with pencil both positions on the underside of the worktop.

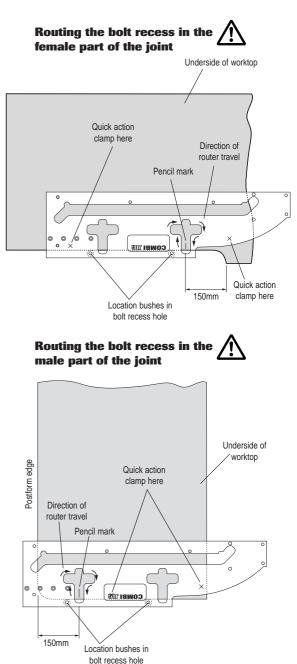
Insert the location bushes into the bolt recess holes as shown.

- The template may need to be inverted when cutting some bolt recesses.
- Securely clamp jig to worktop.
- The bolt recesses should be approximately 22mm deep although this will depend upon the thickness of worktop.
- Once one bolt recess is cut move jig over to the remaining pencil lines and repeat.
- Repeat the procedure for the male joint.

Worktop Thickness	Depth Recess
30	22mm
40	28mm



Best results are achieved when the centre line of the bolt corresponds to the centre line of the worktop. Clamp jig securely to worktop.





Strengthening the Joint



If the joint between the worktops is not supported underneath, after some time the joint may 'sag' and become misaligned; to reduce this the joint should be reinforced with a loose tongue or biscuit dowels. The biscuit jointing cutter set Trend Ref. 342, C152 or TR35 can be used with a portable router. The size of biscuit used should be No. 20.

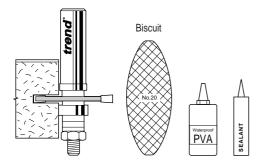
Ref. BSC/20/100 (100 biscuits) Ref. BSC/20/1000 (1000 biscuits)

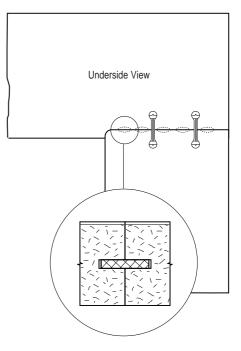
A 650mm worktop should have at least 5 biscuits.

Sealing the Joint

The cut edges of the joint should be coated with a water-resistant adhesive, or Trend Fill & Seal® sealant before assembly, to prevent moisture seeping into the core of the worktops, which would swell, and disfigure the worktop

Cutter Ref. 342 shown







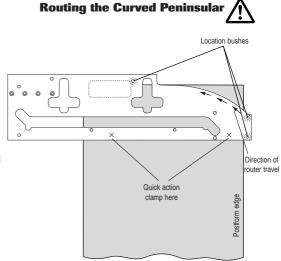
Curved Peninsular

Insert the three location bushes in the holes as shown.

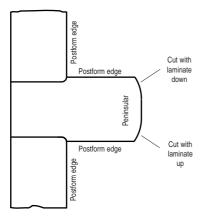
Locate the template on the worktop as illustrated ensuring that location bushes are touching the worktop edge. Clamp into position with quick action clamps.

When cutting the curved peninsular, hold the router guide bush against the edge of the template. Cut from left to right.

It is recommended that depth stops are used and at least three or four cuts taken.



Peninsular End Cuts



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In order to prevent break out of the laminate, rotation of the cutter and feed direction of the router must always be into the postform edge of worktop.

MAINTENANCE

The jig has been designed to operate over a long period of time with a minimum of maintenance. Continual satisfactory operation depends upon proper tool care and regular cleaning.

Cleaning

Clean the jig with a soft cloth.

Lubrication

Your jig requires no additional lubrication.

RECYCLING

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

GUARANTEE

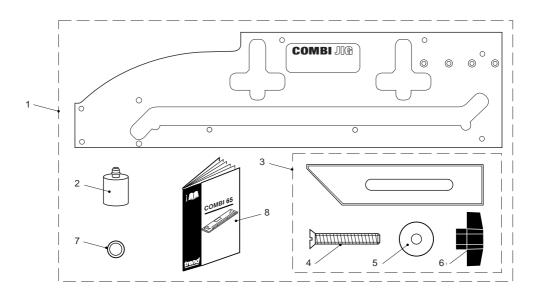
The jig carries a manufacturers guarantee in accordance with the conditions on the enclosed guarantee card.

For the location of your nearest Trend Service Agent, please call the telephone number at the back of this manual.



COMBI 66 - SPARE PARTS DIAGRAM

v1.0 04/2003



COMB	COMBI 66 - SPARE PARTS LIST v1.0 04/2003		
ltem	Qty	Description	Ref.
1	0	Combi 66 Jig	COMBI/66
2	3	Alloy Bush	CJ/BUSH
3	1	Length Setting Stop Kit	CJ/LSK
4	0	Machine Screw Csk M8 x 50mm Slot	WP-SCW/41
5	0	Washer 8.5mm x 32mm x 6.0mm	WP-WASH/17
6	0	Knob M8	WP-KNOB/10
7	0	Combi Jig 'O' Ring Pack for Bushes (pack of 5)	CJ/ORS
8	1	Manual	MANU/66



TROUBLE SHOOTING

Fault	Cause	Remedy
Joint does not fit correctly at the radius.	Cutter or guide bush is the incorrect diameter or location bushes are not against worktop edge.	Check concentricity of cutter with guide bush. Cutter 12.7mm diameter with 30mm diameter guide bush. Ensure location bushes touch worktop.
The back edge of the joint does not line up.	Either the length stop or template was in the incorrect position, or the worktop has not pushed up against the length stop when the joint was cut.	Check position of length stop and re-cut joints.
When clamped together the joint has irregular gaps.	The guide bush has drifted away from the edge of the template whilst cutting either part of the joint, or wood chips in particle board have torn slightly.	Check with a straight edge which part of the joint is uneven and re-cut (this can only be done on the male cut) ensuring that the guide bush is kept against the template by machining from left to right. Use abrasive paper to remove torn wood chips.
Chipped laminate	Can be caused by a blunt cutter or removing too much material at one pass or exiting out of postform edge.	Always use sharp cutters and when cutting through the laminate cut 3–4mm of material. Maintain correct feed direction, to ensure cutter enters postform edge.
Jig slipping on material	Clamps not secure or too deep a cut being made or cutter is blunt.	Check clamps for wear. Clamp securely, take shallow passes, use a sharp cutter.
Cut joints not square	Router has tilted or operator has leaned heavily on router causing jig flex.	Ensure jig is supported and do not push hard on router taking shallow passes. Ensure weight of router is on supported part of jig and that the router is upright.
Assembled joint not flush or bowed	Worktop different thickness or worktop not flat (cupped).	Ensure worktop is same thickness and flat.





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