



**ORIGINAL  
INSTRUCTIONS**

# T4



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



**Please read these instructions before use.**  
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Dear Customer

Thank you for purchasing this Trend product, we hope you enjoy many years of creative and productive use.

Please remember to return your guarantee card within 28 days of purchase.


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## Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

The following symbols are used throughout this manual:

 **WARNING:** indicates a potential hazardous situation which, if not avoided, could result in **death or serious injury**.

 **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in **minor or moderate injury**.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, may result in **property damage**.



Denotes risk of electric shock.



Denotes risk of fire.

## Additional Symbols Used



Wear Personal Protective Equipment (PPE). Ear, eye and respiratory protection **must** be worn.



Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.



If you require further safety advice, technical information or spare parts, please call Trend Technical Support or visit [www.trend-uk.com](http://www.trend-uk.com)

**ROUTER  
T4E**

**TECHNICAL DATA**

Voltage	UK & Eire	$V_{AC}$	240/115
	Europe	$V_{AC}$	230
Power input		W	850
Power output		W	
No-load speed		min-1	11,500 - 32,000
Router carriage			2 columns
Router carriage stroke		mm	35
Revolver depth stop		mm	3-step, turret stop with graduation
Collet size	UK & Eire	inch	1/4
	UK & Eire	mm	6, 6.35, 8
	Europe	mm	6, 8
Cutter diameter, max.		mm	30
Weight		kg	2.8

Noise values and vibration values (triax vector sum) according to EN60745-2-17:

$L_{PA}$ (emission sound pressure level)		dB(A)	85
$K_{PA}$ (uncertainty for the given sound pressure)		dB(A)	3
$L_{WA}$ (sound power level)		dB(A)	96
$K_{WA}$ (uncertainty for the given sound level)		dB(A)	3

Vibration emission

Value $a_{11}$ =	$m/s^2$	3.0
Uncertainty K =	$m/s^2$	1.5

The vibration emission level given in this information sheet has been measured in accordance with EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.



**WARNING:** The declared vibration emission level represents the main application of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the side effects of vibration such as: maintain the tool and the accessories, keep hands warm, organisation of work patterns.

**INTENDED USE**

This router is intended for routing grooves, edges, profiles and slots as well as copy routing. At reduces speed with the appropriate router cutter fitted non-ferrous alloys can also be routed.

This router is a light duty semi-professional power tool.

**DO NOT** use under wet conditions or in presence of flammable liquids or gases.

**DO NOT** let children come into contact with this appliance. Supervision is required when inexperienced operators use this appliance.

This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

**SAFETY**



**WARNING:**

Observe the safety regulations in the instruction manual of the power tool to be used. Please read the following instructions carefully. Failure to do so could lead to serious injury. When using electric tools, basic safety precautions, including the following should always be followed to reduce the risk of fire, electric shock and personal injury. 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.

Users should also read the HSE/HSC Safe Use of Woodworking Machinery Approved Code of Practice and Guidance Document and any amendments.

Users must be competent with woodworking equipment before using our products.

**IMPORTANT NOTE:**

**Residual Risk.** Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which cannot be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

**General**

1. Disconnect power tool and attachment from power supply when not in use, before servicing, when making adjustments and when changing accessories such as cutters. Ensure switch is in "off" position. Always ensure cutter has stopped rotating.
2. Always mount the power tool, accessory or attachment in conformity with the instructions. Only use attachment and accessories specified in the power tool manual. The tool or attachment should not be modified or used for any application other than that for which it was designed. Do not force tool.
3. 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.
4. 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.

5. 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. Connect machines that are used in the open via a residual current device (RCD) with an actuation current of 30 mA maximum. Use only extension cables that are approved for outdoor use.
6. The accessory or attachment must be kept level and stable at all times.
7. Keep work area clean. Cluttered workshops and benches can cause injuries. Ensure there is sufficient room to work safely.
8. 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.
9. 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.
10. Always keep guards in place and in good working order.
11. Remove any nails, staples and other metal parts from the workpiece.
12. 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.
13. Maintain accessories. Do not use damaged accessories. Only use accessories recommended by the manufacturer.
14. 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. Protect tools from impact and shock.
15. Do not use tool if switch does not turn it on or off. Have defective switches replaced by an Authorised Service Agent.
16. Don't over reach. Keep proper footing and balance at all times. Do not use awkward or uncomfortable hand positions.
17. 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.

18. Connect dust extraction equipment. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
19. Check all fixing and fastening nuts, bolts and screws on power tool, attachment and cutting tools before use to ensure they are tight and secure. Periodically check when machining over long periods.
20. 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.
21. Personal Protective Equipment (PPE) for eye, ear and respiratory protection must be worn. All PPE must meet current UK and EU legislation.
22. Do not leave tools running unattended. Do not leave tool until it comes to a complete stop.
23. Always clamp workpiece being machined securely.
24. Only use cutting tools for woodworking that meet EN847-1/2 safety standards, and any subsequent amendments.
25. Vibration levels. Hand held power tools produce different vibration levels. You should always refer to the specifications and relevant Health & Safety Guide.

**Routing Safety**

1. Read and understand instructions supplied with power tool, attachment and cutter.
2. Keep hands, hair and clothing clear of the cutter.
3. Remove adjusting keys and spanners. Check 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.
4. 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.
5. Eye protection. Always wear eye protection in the form of safety goggles, spectacles or visors to protect the eyes.
6. Respiratory protection. Always wear a face or dust mask, or powered respirator. Dust masks/filters should be changed regularly.
7. Do not switch router on with the cutter touching the workpiece. At the end of the cut, release the router plunge and allow spindle to stop rotating. Never use the spindle lock as a brake

8. The direction of routing must always be opposite to the cutter's direction of rotation. Do not back-cut or climb-cut.
9. Check before cutting that there are no obstructions in the path of the router. Ensure there are no obstacles beneath workpiece when cutting full thickness, and that a sacrificial work surface is used.
10. Hold power tool by insulated gripping surfaces, because the cutter may contact its own cord. Cutting the "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
11. Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
9. Cutter shanks should be inserted into the collet all the way to the line indicated on the shank. This ensures that at least  $\frac{3}{4}$  of the shank length is held in the collet. Ensure clamping surfaces are cleaned to remove dirt, grease, oil and water.
10. Observe the correct assembly and fitting instructions in the router instruction manual for fitting the collet, nut and cutter.
11. Tool and tool bodies shall be clamped in such a way that they will not become loose during operation. Care shall be taken when mounting cutting tools to ensure that the clamping is by the shank of the cutting tool and that the cutting edges are not in contact with each other or with the clamping elements.
12. It is advisable to periodically check the collet and collet nut. A damaged, worn or distorted collet and nut can cause vibration and shank damage. Do not over-tighten the collet nut.
13. Do not take deep cuts in one pass; take several shallow or light passes to reduce the side load applied to the cutter and router. Too deep a cut in one pass can stall the router.
14. In case of excessive vibrations whilst using the router stop immediately and have the eccentricity of the router, router cutter and clamping system checked by competent personnel.
15. All fastening screws and nuts should be tightened using the appropriate spanner or key and to the torque value provided by the manufacturer.
16. Extension of the spanner or tightening using hammer blows shall not be permitted.
17. Clamping screws shall be tightened according to instructions provided by the manufacture. Where instructions are not provided, clamping screws shall be tightened in sequence from the centre outwards.
18. Do not touch the cutter immediately after operation; it may be extremely hot and could burn your skin.
5. Whenever possible use a work holding device or jig to secure component being machined. Ensure any attachment is securely fitted to the workbench, with table surface at approximately hip height.
6. Use a No-Volt Release Switch. Ensure it is fixed securely, easily accessible and used correctly.
7. In router table (inverted) mode, stand to the front right of the table. The cutter will rotate anti-clockwise when viewed from top so the feed direction is from the right (against the rotation of the cutter). In overhead mode, stand to the front left of the machine table and the feed direction is from the left.
8. 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.
9. Never thickness timber between the back of the cutter and the backfence.

### Router Cutter Safety

1. Cutting tools are sharp. Care should be taken when handling them. Do not drop cutters or knock them against hard objects. Handle very small diameter cutters with extra care. Always return cutter to its packaging after use.
2. Always use cutters with a shank diameter corresponding to the size of the collet installed in your tool.
3. The maximum speed (n.max) marked on the tool, or in instructions or on packaging shall not be exceeded. Where stated the speed range shall be adhered to. Recommended speeds are shown in the Trend Routing Catalogue and/or website.
4. Always use router cutters in a router. 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 masonry.
5. Never use cutters with a diameter exceeding the maximum diameter indicated in the technical data of the power tool or attachment used.
6. Before each use check that the cutting tool is sharp and free from damage. Do not use the cutting tool if it is dull, broken or cracked or if in any other damage is noticeable or suspected.
7. Cutters should be kept clean. Resin build up should be removed at regular intervals with Resin Cleaner. The use of a PTFE dry lubricant will reduce resin build up. Do not use PTFE spray on plastic parts.
8. When using stacked tooling (multi-blade, block and groover etc.) on a spindle arbor, ensure that the cutting edges are staggered to each other to reduce the cutting impact.

12. It is advisable to periodically check the collet and collet nut. A damaged, worn or distorted collet and nut can cause vibration and shank damage. Do not over-tighten the collet nut.
13. Do not take deep cuts in one pass; take several shallow or light passes to reduce the side load applied to the cutter and router. Too deep a cut in one pass can stall the router.
14. In case of excessive vibrations whilst using the router stop immediately and have the eccentricity of the router, router cutter and clamping system checked by competent personnel.
15. All fastening screws and nuts should be tightened using the appropriate spanner or key and to the torque value provided by the manufacturer.
16. Extension of the spanner or tightening using hammer blows shall not be permitted.
17. Clamping screws shall be tightened according to instructions provided by the manufacture. Where instructions are not provided, clamping screws shall be tightened in sequence from the centre outwards.
18. Do not touch the cutter immediately after operation; it may be extremely hot and could burn your skin.

### Using Routers In A Fixed Position

1. Attention should be made to the HSE's Safe Use of Vertical Spindle Moulding Machines Information Sheet No.18 and any revisions.
2. After work, release the router plunge to protect the cutter.
3. Always use a push-stick or push-block when making any cut less than 300mm in length or when feeding the last 300mm of the cut.
4. The opening around the cutter should be reduced to a minimum using suitably sized insert rings in the table and closing the back fence cheeks or

### Useful Advice When Routing

1. 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.
2. Trial cuts should be made on waste material before starting any project.
3. When using some attachments e.g. a router table or dovetail jig, a fine height adjuster is recommended.
4. When using a template guide bush, ensure there is sufficient clearance between cutter tip and inside edge of bush and that it cannot come into contact with collet and nut. Ensure cutter and guide bush are concentric.


### Router Cutter Repair/Maintenance

1. Repair of tools is only allowed in accordance with the manufacturers instructions.
2. The design of composite (tipped) tools shall not be changed in process of repair. Composite tools shall be repaired 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.
3. Repair shall therefore include, e.g. the use of spare parts which are in accordance with the specification of the original parts provided by the manufacturer.
4. Tolerances which ensure correct clamping shall be maintained.
5. Care shall be taken that regrinding of the cutting edge will not cause weakening of the body and the connection of the cutting edge to the body.

**Electrical Safety** 

**Power Supply**

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate. Machines marked for 230 volt can also be operated from a 220 volt supply.

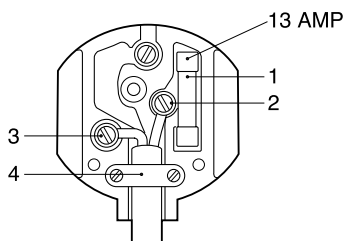
 The T4 is double insulated in accordance with EN 60745; therefore no earth wire is required.

**Mains Plug Replacement (UK & Ireland only)**

Always check the condition of the cable and plug before starting your work.

Should your mains plug need replacing and you are competent to do this, proceed as instructed below. If you are in doubt, contact an authorised Trend repair agent or a qualified electrician.

- Disconnect the plug from the supply.
- Cut off the plug and dispose of it safely; a plug with bared copper conductors is dangerous if engaged in a live socket outlet.
- Only fit 13 Amperes BS 1363A approved plugs fitted with a 13 Amp A.S.T.A approved BS 1362 fuse (1).
- The cable wire colours, or a letter, will be marked at the connection points of most good quality plugs. Attach the wires to their respective points in the plug (see below). Brown is for Live (L) (2) and Blue is for Neutral (N) (3).
- Before replacing the top cover of the mains plug ensure that the cable restraint (4) is holding the outer sheath of the cable firmly and that the two leads are correctly fixed at the terminal screws.



For 115V units with a power rating exceeding 1500W we recommend to use a plug to BS4343 standard.



**WARNING: Never connect to a light socket. Never connect the live (L) or neutral (N) wires to the earth pin marked E or ⚡.**

**Using an Extension Cable**

- If an extension cable is required, use an approved triple core extension cable suitable for the power input of this tool (see technical data).
- When using a cable reel, always unwind the cable completely.
- Also refer to the table below.

Conductor size (mm <sup>2</sup> )	Cable rating (Amperes)
0.75	6
1.00	10
1.50	15
2.50	20
4.00	25

Voltage (Amperes)	Amperes	Cable length (m)					
		7.5	15	25	30	45	60
115	0 - 2.0	6	6	6	6	6	10
	2.1 - 3.4	6	6	6	6	15	15
	3.5 - 5.0	6	6	10	15	20	20
	5.1 - 7.0	10	10	15	20	20	25
	7.1 - 12.0	15	15	20	25	25	-
	12.1 - 20.0	20	20	25	-	-	-
230	0 - 2.0	6	6	6	6	6	6
	2.1 - 3.4	6	6	6	6	6	6
	3.5 - 5.0	6	6	6	6	10	15
	5.1 - 7.0	10	10	10	10	15	15
	7.1 - 12.0	15	15	15	15	20	20
	12.1 - 20.0	20	20	20	20	25	-

## **EC DECLARATION OF CONFORMITY**

### **MACHINERY DIRECTIVE**



### **ROUTER**

### **T4E**

Trend declares that the product described under Technical Data is in compliance with 2006/42/EC, and has been designed in accordance with EN 60745-1:2009+A11:2010, EN 60745-2-17:2010.

This product also complies with Directives 2014/30/EU, 2011/65/EU and the following harmonised standards EN 55014-1, EN 55014-2, EN 61000-3-2 and EN 61000-3-3.

For more information please contact Trend at the following address or refer to back of manual. The undersigned make this declaration on behalf of Trend Machinery & Cutting Tools Ltd.

Technical Director  
Neil McMillan

Trend Machinery & Cutting Tools Ltd  
Unit 6 Odhams Trading Estate  
St Albans Road, Watford  
Herts, WD24 7TR  
United Kingdom  
01.01.2018

### **RESIDUAL RISKS**

In spite of the application of the relevant safety regulations and implementation of safety devices, certain residual risks cannot be avoided. These are:-

- Impairment of hearing.
- Risk of personal injury due to flying particles.
- Risk of burns due to accessories becoming hot during operation.
- Risk of personal injury due to prolonged use.

### **Additional Specific Safety Rules for Cutters**

- Hold power tool by insulated gripping surfaces, because the cutter may contact its own cord. Cutting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
- Use the clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
- For personal protection, ALWAYS wear a dust mask.
- Always use cutters suitable for a speed of 30,000 min and marked accordingly.
- Never use cutters with a diameter exceeding the maximum diameter indicated in the Technical Data.



**WARNING: We recommend the use of a residual current device with a residual current rating of or less.**

This router is designed to accept router cutters of straight, profile, rabbet, and grooved type with rated minimum speed of 30,000 min<sup>-1</sup>.



**WARNING: Always consider the following compulsive conditions:**

- Use 6.35mm shank diameter for straight, rebate, groove and profile cutter.
- Maximum cutter diameter:
  - T4 35mm at 35mm cutting depth
  - T4 Groove Cutter:  
35mm at 6mm cutting depth

### **MARKINGS ON TOOL**

The following pictures are shown on the tool.



Read instruction manual before use.

### **Date Code Position**

The year of manufacture is on the rating plate.



**ITEMS ENCLOSED**

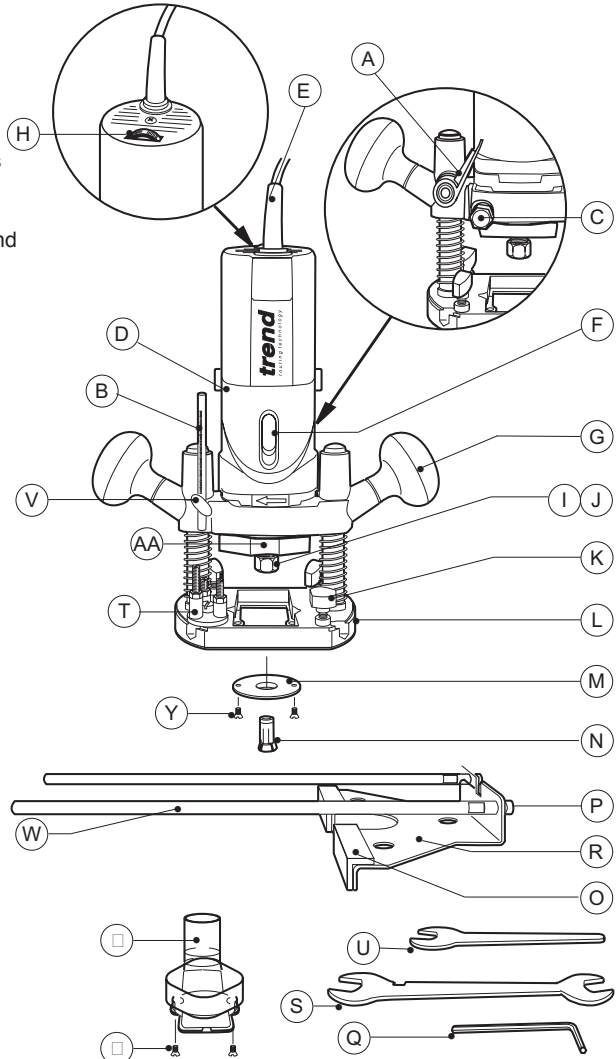
- 1 x Parallel side-fence with rods
- 1 x Collet 6mm
- 1 x Collet 6.35mm 1/4" fitted to machine
- 1 x Collet 8mm
- 1 x Guide bush 16mm and fixing screws
- 1 x Spanner (17mm A/F) for collet nut
- 1 x Spanner (14mm A/F) for spindle (in carving mode)
- 1 x Hex key (4mm A/F) for side-fence
- 1 x Dust extractor spout
- 1 x Instructions
- 1 x Guarantee card

- Check for damage to the tool, parts or accessories which may have occurred during transport.
- Take the time to thoroughly read and understand this manual prior to operation.

**DESCRIPTION OF PARTS**

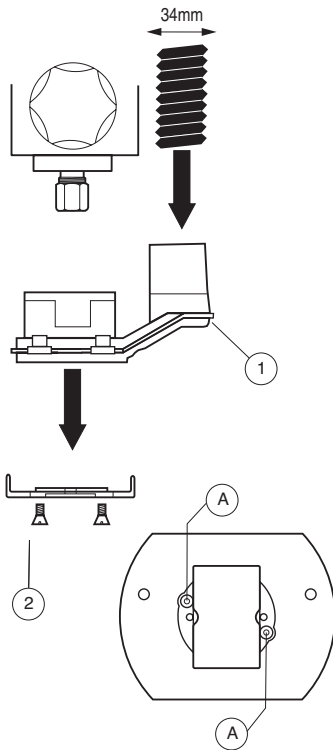
- (A) Plunge locking lever
- (B) Depth stop
- (C) Motor to base locking nut
- (D) Motor housing
- (E) Power cable
- (F) On/Off switch
- (G) Grip knob
- (H) Variable speed control dial
- (I) Collet nut
- (J) Collet spring (fitted behind collet)
- (K) Thumb knob to secure fence rods
- (L) Router base
- (M) Template guide bush dia. 16mm
- (N) Collet
- (O) Removable fence cheek
- (P) Side-fence rod fixing screw
- (Q) Hex key for side-fence rods
- (R) Side-fence body
- (S) Spanner (14mm A/F) for spindle when in grinder mode

- (T) 3-way turret stop
- (U) Spanner (17mm A/F) for collet nut
- (V) Thumb knob for depth stop
- (W) Fence guide rods 8mm x 300mm long
- (X) Dust spout fixing screw
- (Y) Template guide bush fixing screw
- (Z) Dust spout 34mm dia.
- (AA) Spindle lock





## ASSEMBLY & ADJUSTMENT



### Fitting and Removing the Dust Extractor Spout

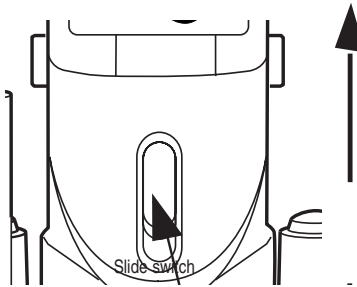
- Insert the extractor spout (1) into the base of the router.
- Fit the two countersunk headed screws (2) through holes (A) from beneath and screw-on into the captivated nuts in the spout.
- Dismantle in reverse order.
- The extractor spout is suitable for dust extractors with a hose diameter of 34mm.



**WARNING: Whenever possible use the dust extraction spout with a suitable extractor when routing.**

**Switching On & Off** 

- A slide switch on the front of the motor body is used to turn the router on and off. When fitting the motor unit to the base, ensure that the switch is facing forwards.



**Adjusting the Depth of Cut** 

- Place the machine on the workpiece.
- Pre-set the 3-way turret stop (1) as required.
- Undo the thumb knob (2) for securing the depth stop (3).
- Undo the plunge locking lever (4).
- Lower the machine slowly until the cutter just touches the workpiece and secure it with the plunge locking lever (4).
- Raise the depth stop in accordance with the scale (5) for the depth of cut required and clamp in place with the thumb knob (2).

*The gap between the depth stop and the turret stop screw determines the depth of cut.*

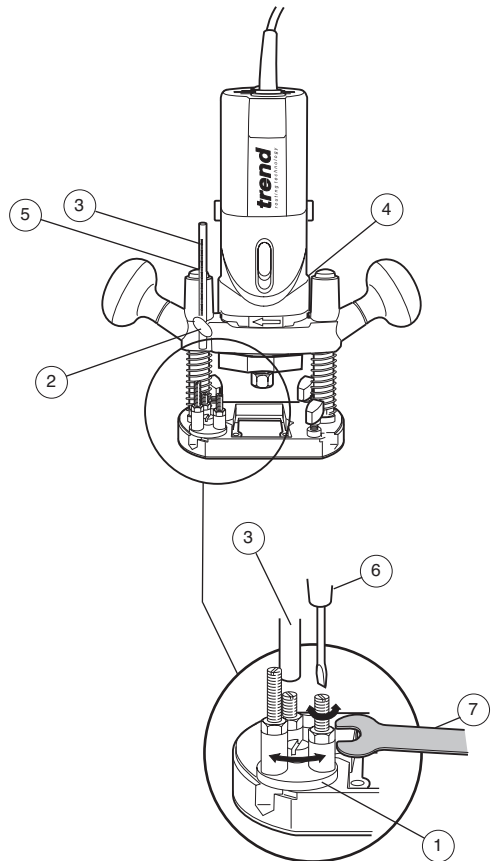
The rotating turret stop screws can be used for pre-setting up to three depths of cut. Their height can be adjusted using a screwdriver (6) and an 8mm A/F spanner (7).



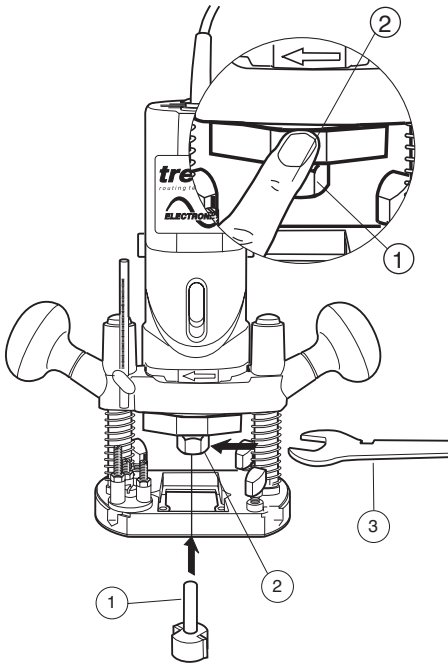
**WARNING: Never make adjustments when the router is running or plugged in. Deep cuts should always be routed in several passes.**



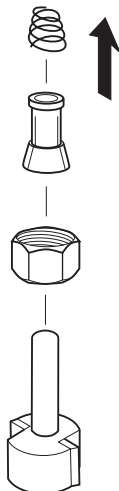
**WARNING: Make sure the machine is switched off before connecting it to the power supply!**



By turning the turret stop, three depth settings can be quickly made.



**Correct Sequence for Fitting Collet, Nut, Collet Spring and Cutter**



**How to Fit and Remove a Router Cutter**

**Fitting Cutters**

- Insert at least  $\frac{3}{4}$  of the shank length of the cutter (1) into the collet assembly (2).
- Press the spindle lock (2) until the router spindle is locked (you may need to turn the spindle slightly to engage it).
- Tighten the collet nut with the 17mm A/F spanner (3). Do not use excessive force.

**Removing Cutters**

- Press the spindle lock (2) until the router spindle is locked (you may need to turn the spindle slightly to engage it).
- Undo the collet nut with the 17mm A/F spanner.
- The cutter should now slide out.
- Each time you finish using a cutter, remove it and store it in a safe place.
- A collet spring is fitted into the spindle behind the collet to allow for easy collet change.



**WARNING: Do not tighten the collet without a cutter fitted.**

**WARNING: Always use cutters with shanks which match the diameter of the collet.**

**WARNING: Do not use cutters larger than 30mm in diameter.**

### Electronic Speed Control Dial Setting

The speed is infinitely variable from 8,000 to 32,000 RPM using the electronic speed control dial (1) for uniform cutting results in all types of wood, plastics and in aluminium.

- Turn the electronic speed control dial to the required level. The dial is lettered from MIN to MAX and corresponds to router speeds from 11,500 RPM to 32,000 RPM.



**It is recommended that the router speed is set at 24,000 rpm for cutters up to 30mm diameter.**

- Generally, use the lower settings for large diameter cutters and the higher settings for small diameter cutters. The correct setting will also depend on the density of the material, depth of cut and feed speed of the router, as severe loss of rpm denotes motor overload. In most cases the slowest speed required for large cutters with smaller shank sizes is 18,000 rpm.

### Using the Fine Height Adjuster

The optional fine height adjuster (Ref. FHA/009) should be used when fine adjustment is required. This is especially recommended when using our dovetail jig or router table.

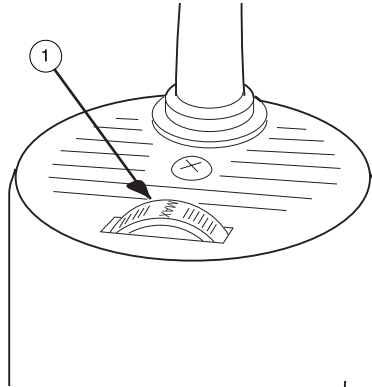
- Remove the depth stop and replace it with the fine height adjuster.
- Leave the plunge locking grip knob and the thumb knob loose and thread the end of the fine height adjuster onto the longest screw.
- Set the depth of cut by turning the fine height adjuster handle until the correct height is reached. Then lock the carriage clockwise with the plunge locking grip knob.



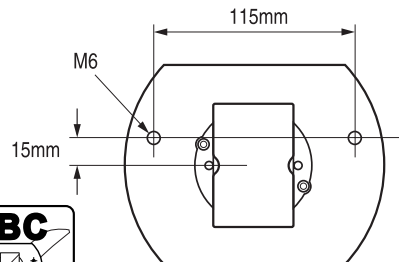
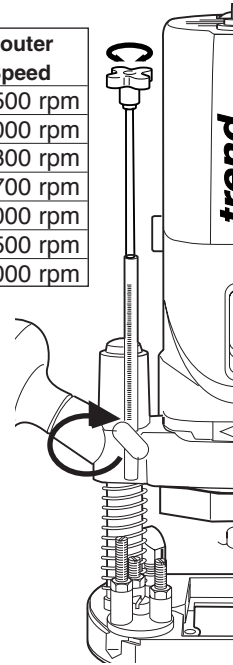
**NOTICE: Remember to always unlock the carriage by releasing the plunge locking lever when adjusting the height with the fine adjuster.**

### Fixing Points for Accessories

The router has two M6 threaded holes in its base for fixing the router to a table or various jigs and accessories.



Dial No.	Router Speed
MIN	11,500 rpm
1	15,000 rpm
2	18,300 rpm
3	21,700 rpm
4	25,000 rpm
5	28,500 rpm
MAX	32,000 rpm



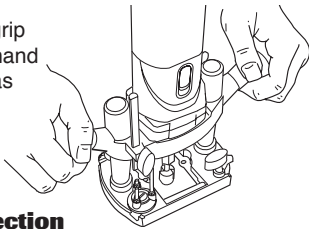
**OPERATION**



**WARNING:** To reduce the risk of serious personal injury, always use proper hand position as shown.

**WARNING:** To reduce the risk of serious personal injury, always hold securely in anticipation of a sudden reaction.

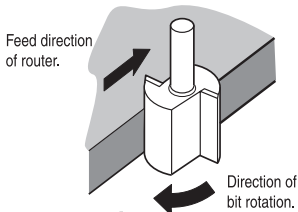
Proper hand grip requires one hand on each grip as shown.



**Cutting Direction**



**WARNING:** The direction of routing must always be opposite to the cutter's direction of rotation, otherwise there is a risk of kick-back.



**Feed Direction**



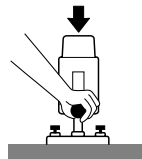
When routing along an edge, the direction of the router travel should be against that of the rotation of the cutter. This will create the correct cutting action and prevent the cutter 'snatching'. It will also pull the router towards the workpiece and hence the side-fence or guide bearing will be less likely to wander from the edge of the workpiece.

**Feed Speed**



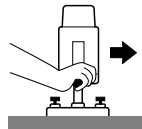
The speed at which the cutter is fed into the wood must not be too fast that the motor slows down, or too slow that the cutter leaves burn marks on the face of the wood. Practice judging the speed by listening to the sound of the motor when routing.

**Sequence of plunging**



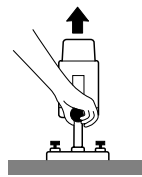
**Step One**

Plunge down and lock the motor carriage, with the plunge locking lever.



**Step Two**

Carry out the routing operation.



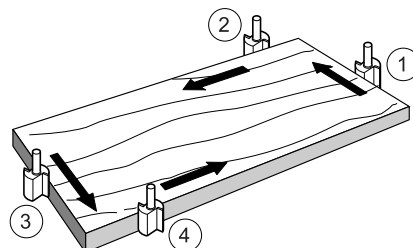
**Step Three**

Release the plunge locking lever and the motor carriage returns to the normal position.

**Moulding Natural Timbers**



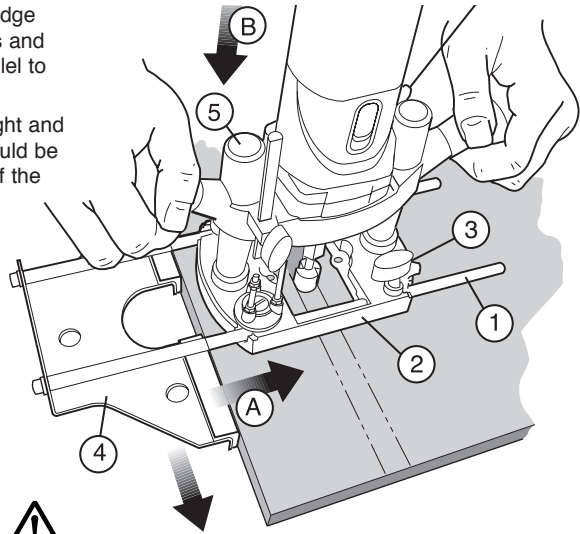
When edge moulding natural timbers, always mould the end grain first, followed by the long grain. This ensures that if there is 'breakout', this will be removed when the long grain is routed.



## Side-Fence Routing

The side-fence is used to guide the router when moulding, edge profiling or rebating the edge of the workpiece or when routing grooves and slots in the centre of the workpiece, parallel to the edge.

The edge of the workpiece must be straight and true. The cheeks are adjustable and should be set ideally with a 3-4mm gap each side of the cutter.



## Fitting and using the Side-Fence

- Make sure the thumb knobs (3) are fully released. Slide the guide rods (1) into the router base (2) and tighten the thumb knobs (3).
- Adjust the side-fence (4) to the required distance and clamp in place with the thumb knobs (3).
- Lower the cutter height until the cutter is just above the workpiece.
- Lower the cutter onto the workpiece and set the cutter height by raising the depth stop (5) the required distance.
- Switch on the router and when the cutter reaches full speed, gently lower the cutter into the workpiece and lock the plunge, with the plunge locking lever (6).

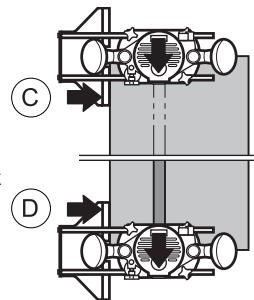
- Feed along the timber, keeping sideways pressure (A) to ensure the side-fence does not wander away from the workpiece edge and downward pressure on the inside hand (B) to prevent the router from tipping.
- When finished, raise the cutter, secure with the plunge locking lever and switch off.



**CAUTION: Ensure working position is comfortable and at a suitable working height.**

When starting the cut, keep the pressure on the front cheek (C) until the back cheek contacts the workpiece edge.

At the end of the cut, keep pressure on the back cheek (D) until the cut is finished. This will prevent the router cutter swinging in at the end of the workpiece and 'nipping' the corner.



### Using the Guide Bush

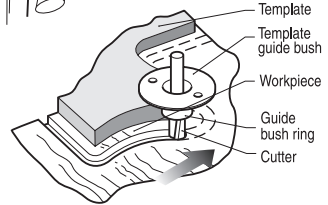
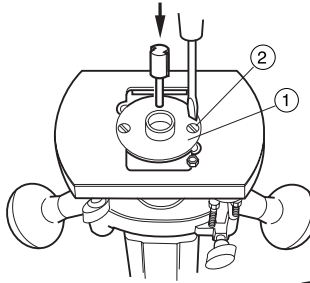
The 16mm guide bush (1) is fastened to the router's base from beneath using the two M5 countersunk machine screws (2) supplied.

### Routing with a Template

The guide bush is used in conjunction with a template when the routing operation is repetitive or the workpiece is complex in shape. The template is fixed to the upper surface of the workpiece. A cutter is chosen with a diameter which will pass through the centre of the bush leaving enough clearance. The cutter can be straight or shaped. The router can then be guided around the template so that the shape of the template will be replicated.

### Making the Template

The template is cut from 6mm or 1/4" MDF, plywood or plastic to the shape required. The guide bush offset needs to be allowed for when calculating the shape of the template. The template must be smaller by an amount equal to the difference between the 'outer edge of the guide ring' and the 'outer edge of the cutter'. See below for the offset calculation. The edge of the template must be free of imperfections as these will be replicated in the final workpiece.



Alternatively it can be used for cutting shapes or making panelling grooves.

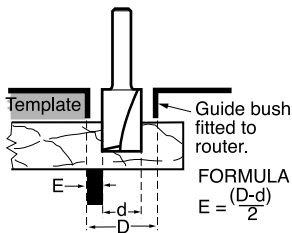


**NOTICE:** When using a T4 with a Hinge Jig a universal sub-base Ref. UNIBASE is recommended.



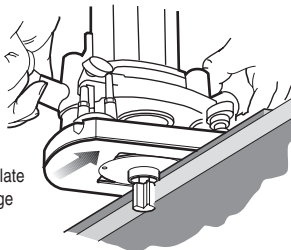
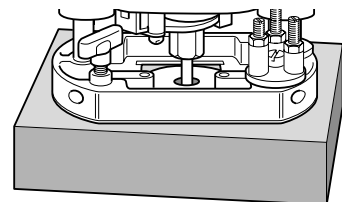
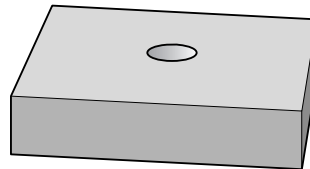
**CAUTION:** In some instances the cutter may project below the guide bush, so ensure a router stand block is used.

### Calculations for template offset



### Making a Router Stand Block

When using a guide bush 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 cutter. This will allow the router to stand up safely between operations.



Using a template to rout an edge straight.

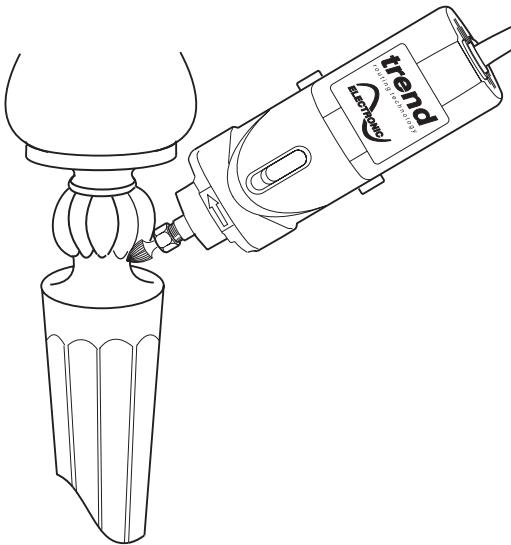


### Carving and Grinding

Carving and grinding applications can be carried out with the router removed from its plunge base. When using the router in this way, only use multi flute carving, engraving, or de-burring rasps and burrs.



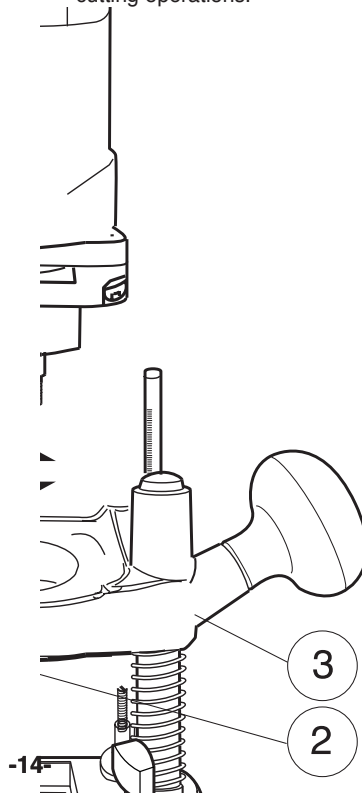
**Never use high speed router cutters for carving operations.**



**WARNING: Always unplug the machine from the power supply before separating the router from its plunge base.**

### Removing the Router from the Plunge Base

- Never separate the router from the base while a cutter is fitted in the collet. Always disconnect the router from the power supply before separating the router from the base.
- Remove collet nut, collet and spring.
- Use the 14mm open ended spanner (1) to release the clamping nut (2) on the base. Slacken the nut off until the motor unit slides out of the base (3).
- Refit spring, collet and collet nut.
- To change cutters the 14mm A/F spanner and 17mm A/F spanner are used because the spindle lock will be disengaged.
- When re-fitting the motor unit, ensure that the switch is facing the front of the router so that it is accessible when plunge routing.
- Ensure that the clamping nut is re-tightened before using the router for normal plunge cutting operations.



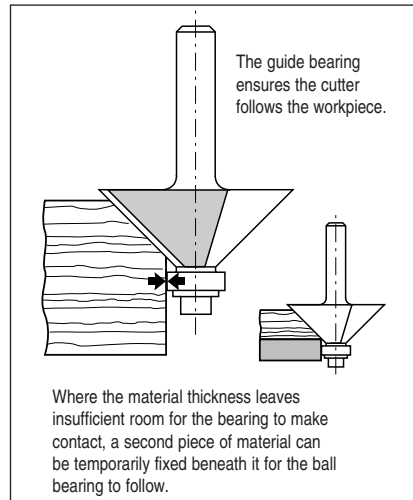
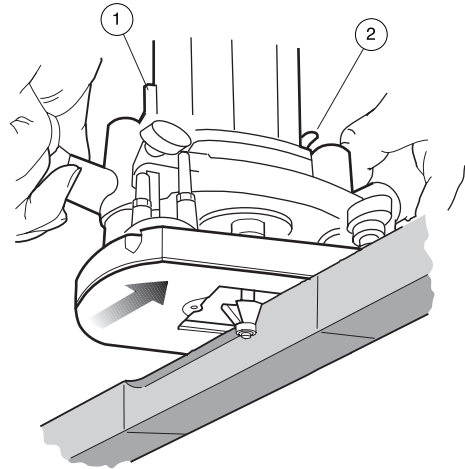
**Bearing Guided Cutters** 

Edge profiling and shaping cutters are available with a bearing fitted to the end. This enables shaped or straight workpieces to be routed without the need for a guiding device such as a side-fence or batten.

The edge must be free from imperfections as these will be reflected in the finish of the mould. Often alternative diameters of bearings are offered which will change the shape of the resulting mould.

With certain shapes such as the chamfer cutter below, increasing the depth of cut will produce a larger chamfered edge.

- Fit the bearing guided cutter into the router collet.
- Place router onto the workpiece.
- Set height of cutter using the depth stop (1).
- Switch on the machine.
- After releasing the plunge locking lever (2), lower the machine slowly as far as the depth stop.
- With bearing of cutter running along board edge, mould the edge of the workpiece by moving the router in the direction shown.
- A continuous motion should be used to prevent burning of the workpiece. When possible, take a number of passes at increased cutter depths. A light final pass will produce a good finish.
- When complete, retract the carriage by releasing the locking grip knob.
- Switch off the router.

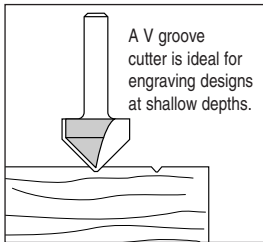
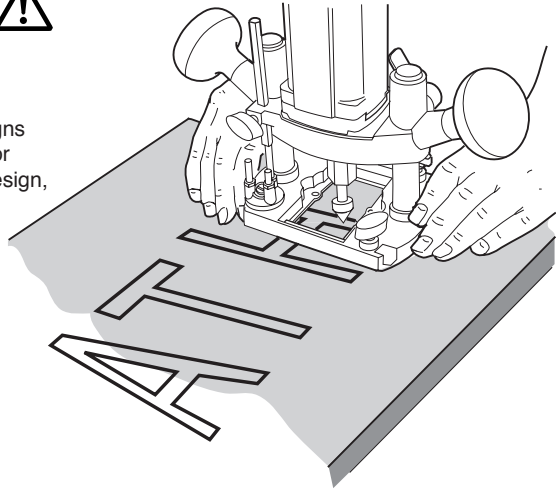


**CAUTION: Keep downward pressure with the inside hand to prevent the router from tipping.**

**Freehand Routing with the Router** 

The T4 can also be used for signwriting or creative freehand work without any form of guide.

With practice, numbers or name plate designs can be routed freehand. Draw the design or motif on the workpiece and then rout the design, taking shallow passes.



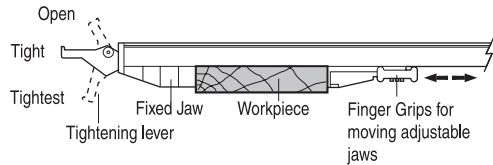
**Batten Routing** 

Where a side-fence cannot be used, it is also possible to guide the router along a batten clamped across the workpiece (with an overhang at both ends).

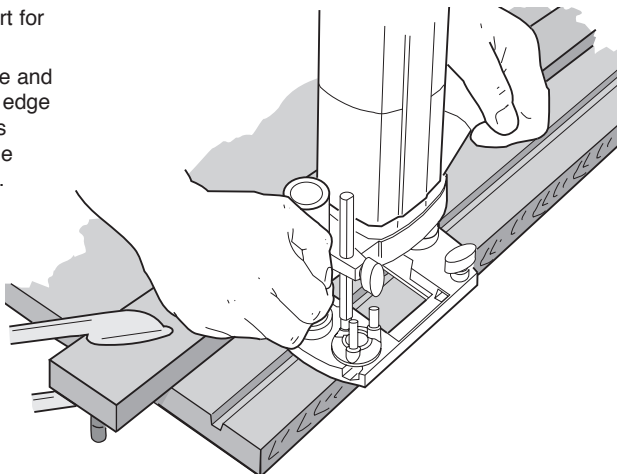
Guidance from a batten is similar to that obtained from a side-fence. This method is appropriate if the edge of the workpiece is not straight or is not very smooth or simply the guide rods of the side-fence are too short for the job.

Use the straight edges of the router base and calculate the distance required from the edge of the batten to the cut required. Always check that the clamps do not obstruct the path of the router before starting the cut.

The Trend clamp guides have integral clamping mechanism for quick & accurate guiding of the router.



Standard technique is used, and side pressure applied to ensure the router does not wander from the batten.



After use, remove all accessories, and return tool to its storage case.

Please use only Trend original accessories.

## MAINTENANCE



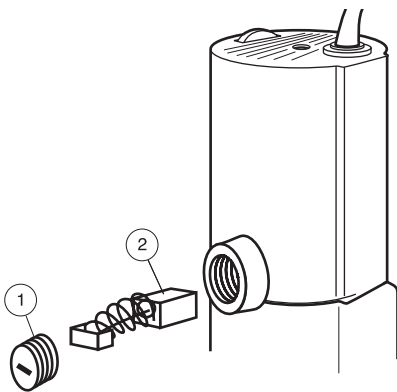
### Cleaning

- Keep the machine clean at all times. Some maintenance products and solvents may damage the plastic parts, these include products containing Benzene, Trichloroacetyl Chloride and Ammonia.
- Never use any caustic agents to clean the plastic parts.

### Changing Brushes



**Ensure machine is isolated from power supply.**



- Undo brush cap (1) using flat head screwdriver.
- Remove brush (2).
- Insert new brush ensuring brush body is correct orientation for aperture.
- Refit brush cap (1) and tighten.
- Repeat for other brush.
- Always use original T4 spare parts.



**WARNING: It is advisable to have the brushes replaced by an authorised Trend Service Agent. The router will also be given a thorough inspection.**

### Lubrication

- The bearings of the machine need no lubrication, as they are sealed. The two plunge columns on the routing base should be slightly oiled from time to time.
- Keep the cooling vents on the motor housing clean and unobstructed at all times. Blow out any dust and dirt at regular intervals.
- Visually check the carbon brushes. In the event of excessive sparking, they may need changing.
- After about 40 operating hours inspection by a authorised Trend service agent is recommended.

### Storage

- After use return the tool to its storage case.

## ENVIRONMENTAL PROTECTION



**Recycle raw materials instead of disposing as waste.**

Accessories and packaging should be sorted for environmental-friendly recycling.



Separate collection.

This product must not be disposed of with normal household waste.

### Household User

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by retailer when you purchase a new product.

Please call Trend Customer Services for advice as to how to dispose of unwanted Trend electrical products in an environmentally safe way or visit [www.trend-uk.com](http://www.trend-uk.com)

### Business Users

Please call Trend Customer Services for disposal of unwanted Trend electrical products.

## GUARANTEE

The unit 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 Trend Customer Services or see our stockist locator at [www.trend-uk.com](http://www.trend-uk.com).

Please use only Trend original spare parts.

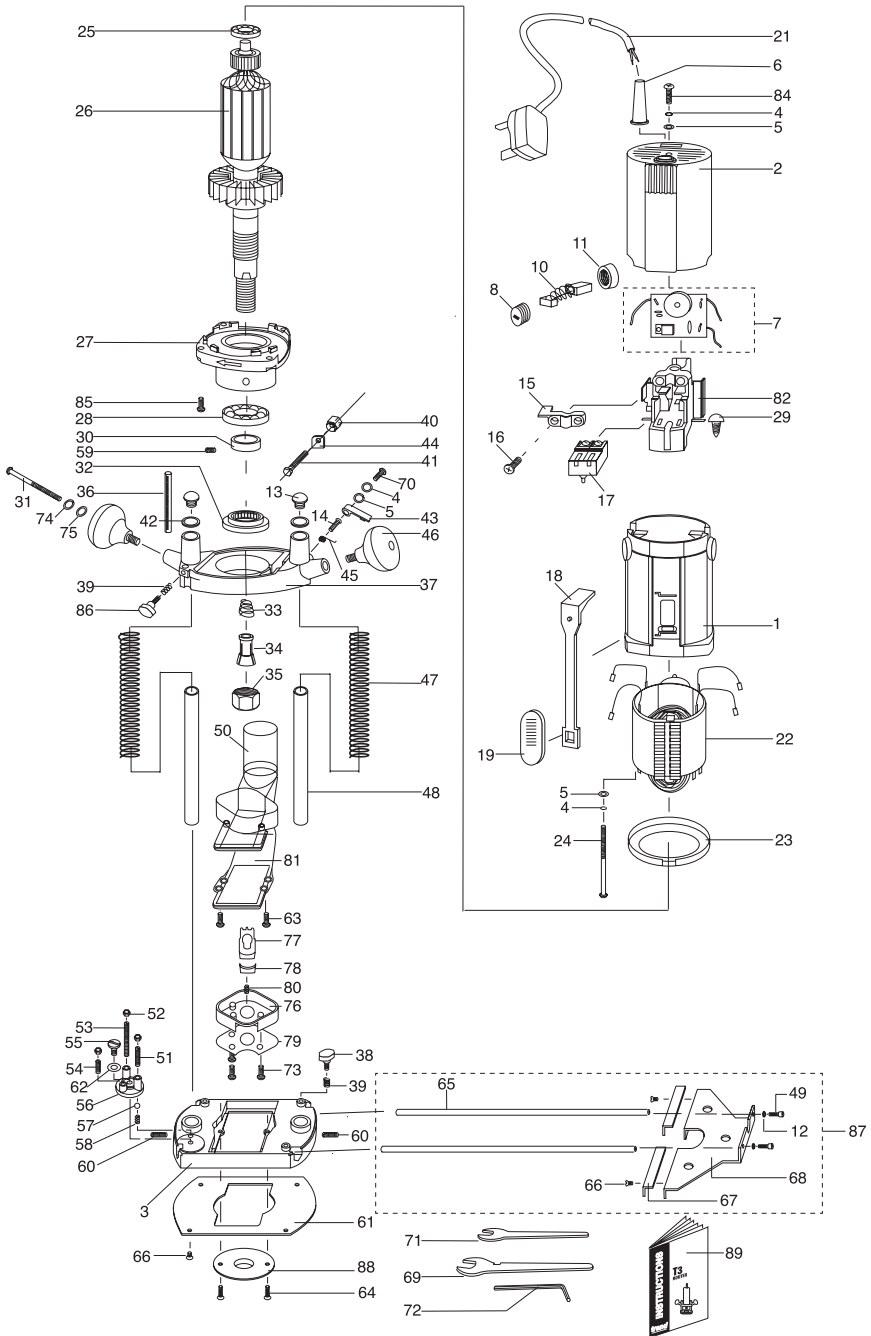
<b>T4 - SPARE PARTS LIST</b>			<b>v2.2 02/2015</b>
<b>No.</b>	<b>Qty.</b>	<b>Desc.</b>	<b>Ref.</b>
1	1	Stator Housing	WP-T4/001
2	1	Top Vent Housing	WP-T4/002
3	1	Base	WP-T4/003
4	1	Spring Washer 4mm	WP-T4/004
5	2	Washer 4mm x 7mm x 0.8mm	WP-T4/005
6	1	Cable Guard	WP-T4/006
7	1	Speed Control Circuit Board 230V T4E	WP-T4E/007
	1	Speed Control Circuit Board 115V T4EL	WP-T4EL/007
8	2	Carbon Brush Cover	WP-T4/008
9	-	-	-
10	1	Carbon Brush 230V (1 pair)	WP-T4E/010
	1	Carbon Brush 115V (1 pair)	WP-T4EL/010
11	2	Carbon Brush Holder	WP-T4/011
12	2	Spring Washer 5mm	WP-WASH/29
13	2	Column End Cap	WP-T4/013
14	1	Plunge Locking Screw LH	WP-T4/014
15	1	Cable Clamp	WP-T4/015
16	1	Screw Self Tapping Pan 4mm x 12mm Pozi	WP-T4/016
17	1	Switch 230V T4	WP-T4E/017
	1	Switch 115V T4EL	WP-T4EL/017
18	1	Push Rod	WP-T4/018
19	1	On / Off Lever	WP-T4/019
20	-	-	-
21	1	2 Core Cable with Plug 230V UK T4	WP-T4/021
	1	2 Core Cable with Plug 230V Euro T4/EURO	WP-T4EURO/021
	1	2 Core Cable with Plug 115V UK T4L	WP-T4L/021
22	1	Field 240V T4E	WP-T4E/022
	1	Field 115V T4EL	WP-T4EL/022
23	1	Baffle	WP-T4/023
24	2	Machine Screw Pan M4 x 63mm Pozi	WP-T4/024
25	1	Top Bearing 7mm x 22mm x 7mm 608ZZ	WP-T4/025
26	1	Armature 230V with Fan T4	WP-T4E/026
	1	Armature 115V with Fan T4EL	WP-T4EL/026
27	1	Lower Bearing Housing	WP-T4/027
28	1	Lower Bearing 17mm x 35mm x 10mm 6003ZZ	WP-T4/028
29	2	Screw Self Tapping Pan 4mm x 14mm Pozi	WP-T4/029
30	1	Collar Left Hand Threaded	WP-T4/030
31	2	Machine Screw Pan M6 x 55mm Pozi	WP-T4/031
32	1	Bearing Lock Plate	WP-T4/032
33	1	Collet Spring	WP-T4/033
34	1	Collet 6.35mm (1/4")	CLT/T4/635
	1	Collet 6mm	CLT/T4/6
	1	Collet 8mm	CLT/T4/8
35	1	Collet Nut	CLT/NUT/T4
36	1	Depth Stop	WP-T4/036
37	1	Middle Frame	WP-T4/037
38	1	Thumb Knob	WP-T4/038

**T4 - SPARE PARTS LIST****v2.2 02/2015**

<b>No.</b>	<b>Qty.</b>	<b>Desc.</b>	<b>Ref.</b>
39	1	Spring 8mm	WP-T4/039
40	1	Base Housing Lock Nut	WP-T4/040
41	1	Bolt Hex M6 x 48mm	WP-T4/041
42	1	Circlip 17mm	WP-T4/042
43	1	Plunge Lock Lever	WP-T4/043
44	1	Lower Housing Clamp Spacer	WP-T4/044
45	1	Torsion Spring 12mm Dia	WP-T4/045
46	2	Grip Knob	WP-T4/046
47	2	Plunge Spring	WP-T4/047
48	2	Plunge Column	WP-T4/048
49	2	Machine Screw Socket M5 x 12mm	WP-SCW/12
50	1	Dust Extraction Spout Upper Housing	WP-T4/050
51	1	Threaded Pin M5 x 25mm	WP-T4/051
52	3	Nut Hex M5	WP-NUT/05
53	1	Threaded Pin M5 x 35mm	WP-T4/053
54	1	Threaded Pin M5 x 15mm	WP-T4/054
55	1	Stepped Machine Screw M6	WP-T4/055
56	1	Revolving Turret	WP-T4/056
57	1	Ball for Revolving Turret	WP-T4/057
58	1	Spring for Revolving Turret	WP-T4/058
59	1	Set Screw M4 x 5mm slot	WP-T4/059
60	2	Set Screw M6 x 8mm	WP-T4/060A
61	1	Plastic Base Slider	WP-T4/061
62	1	Spring Washer Revolving Guide Rubber	WP-T4/062
63	2	Machine Screw Csk M5 x 12mm Slot	WP-SCW/11
64	2	Machine Screw Csk M5 x 8mm Slot	WP-SCW/09
65	1	Guide Rod 8mm x 300mm (pair)	WP-T4/065
66	4	Machine Screw Csk M4 x 6mm Pozi	WP-SCW/66
67	1	Side Fence Cheeks (pair)	WP-T4/067
68	1	Parallel Side Fence Body	WP-T4/068
69	1	Spanner Special 17mm A/F	WP-T4/069
70	1	Machine Screw Pan M4 x 12mm Pozi	WP-T4/070
71	1	Spanner 14mm A/F	WP-SPAN/14P
72	1	Hex Key 4mm A/F	WP-AP/04
73	3	Machine Screw Csk M4 x 18mm Pozi	WP-T4/073
74	2	Washer 6mm x 11mm x 0.8mm	WP-T4/074
75	2	Spring Washer 6mm	WP-WASH/30
76	1	Spindle Lock Housing	WP-T4/076
77	1	Spindle Lock Bracket	WP-T4/077
78	1	Spindle Lock Button	WP-T4/078
79	1	Spindle Lock Plate	WP-T4/079
80	1	Spring for Spindle Lock	WP-T4/080
81	1	Dust Spout Lower Housing	WP-T4/081
82	1	Switch Base	WP-T4/082
83	-	-	-
84	1	Machine Screw Pan M4 x 14mm Pozi	WP-T4/084
85	4	Screw Self Tapping Pan 4mm x 20mm	WP-T4/085
86	1	Depth Stop Knob	WP-T4/086
87	1	Side Fence Complete with Rods	WP-T4/087
88	1	Guide Bush 16mm	GB16/B
89	1	Manual	MANU/TA

**T4 - SPARE PARTS DIAGRAM**

v2.2 02/2015





MANU/IT4 v5.0



RECYCLABLE

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