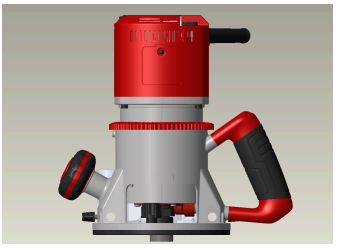
14x21cm

ROUTECH

# RT-001/RT-001M/RT-001B
# 2400W/3.25HP Router
# User Manual



- RT-001M contents: Router Motor, Spanner, ½” Collet
- RT-001B contents: Base Unit, Guide Bush Adaptor, Guide Fence

**WARNING: Never tighten the collet with the nut without the cutter bit inserted (Tightening the collet without a cutter bit inserted, even by hand, will cause the collet to become stuck)**

MEMS HOLDING LIMITED (UK) www.igoootools.com

# Introduction

Thank you for choosing a ROUTECH tool. This manual provides essential information for the safe and effective operation of your ROUTECH router. To fully utilize its unique features and functions, please read this manual carefully before use.

## Description of Symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.

Wear hearing protection

Wear eye protection
Wear breathing protection
Wear head protection

Wear hand protection

Read instruction manual

Warning: Sharp blades or teeth!

DO NOT use in rain or damp environments!

Always disconnect from the power supply when adjusting, changing accessories, cleaning, carrying out maintenance and when not in use!

Dust extraction required or recommended

WARNING: Moving parts can cause crush and cut injuries

Caution!

Class II construction (double insulated for additional protection)

Please recycle where facilities exist.
Check with your local authority or retailer for recycling advice.
Environmental Protection
Electrical products should not be disposed of as household waste.

**WARNING: Hearing Protection Required.** This tool produces sound levels may exceed 85dB(A). Always wear ear protection. If the sound becomes uncomfortable, even with hearing protection, stop using the tool immediately and check that your hearing protection is properly fitted and provides adequate noise reduction. Limit exposure time as needed.

**WARNING: Vibration Hazard.** Prolonged exposure to tool vibration can cause numbness, tingling, and reduced grip strength. Long-term exposure may lead to chronic conditions. To minimize risk, limit vibration exposure time, wear anti-vibration gloves, and keep your hands warm. Refer to the specifications for vibration levels and use them to calculate safe operating durations.

## Technical Abbreviations Key

| | |
|---|---|
| **V** | Volts |
| **~, AC** | Alternating current |
| **A, mA** | Ampere, milli-Amp |
| **n0** | No load speed |
| **n** | Rated speed |
| **°** | Degrees |
| **Ø** | Diameter |
| **Hz** | Hertz |
| **DC** | Direct current |
| **W, kW** | Watt, kilowatt |
| **/min or $min^{-1}$** | Operations per minute |
| **dB(A)** | Decibel sound level (A weighted) |
| **$m/s^2$** | Metres per second squared (vibration magnitude) |

## Specification

| | |
|---|---|
| **Model no:** | RT-001/RT-001M/RT-001B |
| **Voltage:** | 120V/60Hz |
| **Output power:** | 2400W |
| **Input power:** | 15A |
| **No load speed(RPM):** | 10000-21000 |
| **6 speed setting(RPM):** | 1) 10000<br>2) 12000<br>3) 14000<br>4) 16000<br>5) 19000<br>6) 21000 |
| **Collet size:** | ½” |
| **Max. cut diameter:** | • 1-¾” with with Guide Bush Mounting Plate attached<br>• 3” without Guide Bush Mounting Plate attached<br>• 2” when used with router table, without Guide Bush Mounting Plate attached |
| **Max cutter shank:** | **1⁄2"** |
| **Depth adjustment range:** | 3.15” |
| **Dust extraction port dimensions:** | Inner: 1.1”<br>Outer: 1.26” |
| **Ingress protection:** | IPX0 |
| **Protection class:** | ⧈ |
| **Dimensions (L x W x H):** | 30 x 11.5x 11.5cm |
| **Weight:** | 4.85kg |
| As part of our ongoing product development, specifications of ROUTECH products may alter without notice. | |
| **Sound and vibration information:** | |
| **Sound pressure LPA:** | 86.3dB(A) |
| **Sound power LWA:** | 97.3dB(A) |
| **Uncertainty K:** | 3dB |
| **Weighted vibration** | 3.27m/s2 |
| **Uncertainty** | 2.5m/s2 |
| **Warning:** The sound intensity level for the operator may exceed 85dB(A) and sound protection measures are necessary. | |

# General Safety

- **WARNING:** Read and Understand All Instructions. Failure to follow these safety warnings and instructions may result in electric shock, fire, or serious injury.
- **WARNING:** User Responsibility. This tool is not intended for use by individuals (including children) with limited physical, sensory, or mental capabilities, or those lacking experience or knowledge, unless they are supervised or instructed by a responsible person. Children must be supervised to prevent them from playing with the tool.
- **Keep These Instructions Safe. Save all warnings and instructions for future reference.**
- **"Power Tool" Defined. In these warnings, "power tool" refers to your corded (mains-powered) or cordless (battery-powered) tool.**

### Work Area Safety

1. Maintain a Clean and Well-Lit Workspace. Cluttered or dark areas increase the risk of accidents.
2. Avoid Explosive Environments. Do not use power tools in areas where flammable liquids, gases, or dust are present. Power tools create sparks that can ignite these substances.
3. Keep Children and Bystanders Away. Distractions can cause you to lose control of the tool.

### Electrical Safety

1. Use Correct Plugs and Outlets. Power tool plugs must match the outlet. Never modify the plug. Do not use adapter plugs with grounded tools. Using unmodified plugs and matching outlets reduces the risk of electric shock.
2. Avoid Grounded Surfaces. Do not touch grounded surfaces like pipes, radiators, ranges, and refrigerators while using the tool. This increases the risk of electric shock.
3. Protect From Moisture. Do not expose power tools to rain or wet conditions. Water entering the tool increases the risk of electric shock.
4. Protect the Cord. Do not abuse the power cord. Never use it to carry, pull, or unplug the tool. Keep it away from heat, oil, sharp edges, and moving parts. Damaged or tangled cords increase the risk of electric shock.
5. Use Outdoor-Rated Extension Cords. When using the tool outdoors, use an extension cord rated for outdoor use.
6. Use an RCD in Damp Locations. If using the tool in a damp location is unavoidable, use a residual current device (RCD). This reduces the risk of electric shock.

### Personal Safety

1. Stay Alert and Use Common Sense. Do not use the tool if you are tired or under the influence of drugs, alcohol, or medication. Inattention can lead to serious injury.
2. Wear Personal Protective Equipment (PPE). Always wear eye protection. Use dust masks, non-slip safety shoes, hard hats, and hearing protection as needed.
3. Prevent Accidental Starts. Ensure the switch is off before plugging in the tool or inserting the battery. Do not carry the tool with your finger on the switch.
4. Remove Adjustment Tools. Remove any wrenches or keys before turning on the tool. A tool left attached can cause injury.
5. Maintain Proper Footing and Balance. Do not overreach. This allows better control in unexpected situations.
6. Dress Appropriately. Do not wear loose clothing or jewelry. Keep hair, clothing, and gloves away from moving parts.
7. Use Dust Collection Systems. If dust collection systems are provided, use them correctly to reduce dust-related hazards.

### Power Tool Use and Care

1. Use the Right Tool for the Job. Do not force the tool. The correct tool will work better and safer.
2. Repair Faulty Switches. Do not use the tool if the switch does not turn it on and off.
3. Disconnect Before Adjustments. Unplug the tool or remove the battery before making adjustments, changing accessories, or storing the tool. This prevents accidental starts.
4. Store Tools Safely. Keep idle tools out of reach of children. Do not allow untrained individuals to use the tool.
5. Maintain Tools Properly. Check for misalignment, binding, and breakage. Repair damaged tools before use.
6. Keep Cutting Tools Sharp and Clean. Sharp tools are less likely to bind and are easier to control.
7. Use Tools as Intended. Use the tool, accessories, and bits according to these instructions and the intended application. Using tools for unintended purposes can be hazardous.

### Service

- Qualified Service Only. Have your tool serviced by a qualified repair person using identical replacement parts. This ensures continued safety.

# Router-Specific Safety Warnings

### WARNING: Risk of Electric Shock.

- Hold the router by insulated gripping surfaces only, as the cutter may contact its own cord. Cutting a "live" wire can make exposed metal parts of the tool "live," causing electric shock.
- If the power cord needs replacement, it must be done by the manufacturer or their authorized agent to prevent a safety hazard.
- Use a residual current device (RCD) with a rated residual current of 30 mA or less.

### WARNING: Risk of Injury and Loss of Control.

- Secure the workpiece with clamps or another stable method. Holding the work by hand or against your body is unstable and can lead to loss of control.

- Always use both handles and maintain a firm grip on the router.
- Keep handles and gripping surfaces dry, clean, and free of oil and grease for a secure grip.
- Remove any adjusting keys or wrenches before turning the router on.
- Do not overreach. Maintain proper footing and balance.
- Never start the router while the cutter is touching the workpiece.
- Keep your hands away from the routing area and cutter. Hold the auxiliary handle or an insulated gripping surface with your second hand.
- Keep pressure constant while cutting, allowing the cutter to dictate the speed. Do not force the tool or overload the motor.
- Be prepared for the cutter to stall in the workpiece, causing loss of control. In this case, hold the router firmly and immediately release the on/off switch.
- Always switch off and wait for the cutter to stop completely before removing the router from the workpiece.
- Disconnect the router from the power supply before making any adjustments, servicing, or maintenance.
- Use extreme care when using cutters with a diameter greater than 50mm. Use very slow feed rates and/or multiple shallow cuts.
- Ensure the plunge spring is always fitted when using hand-held routers.
    - Ensure the cutter has completely stopped before plunging to the collet lock position.
    - Do not press the spindle lock button or attempt to switch to bit change mode while the router is operating.
    - After switching on the router, check the router bit is rotating evenly (not ‘wobbling’) and there is no additional vibration due to the router bit being incorrectly fitted.

## WARNING: Router Bit Safety.

- Handle router bits with care; they are extremely sharp.
- Before use, inspect bits for damage or cracks. Replace damaged bits immediately.
- Ensure router cutters/bits are sharp and maintained correctly. Dull cutting edges can lead to uncontrolled situations.
- The maximum speed of the router bit/cutter must be at least as high as the maximum speed of the router.
- The shank size of the router cutter/bit must match the collet size exactly. Incorrectly fitted bits can rotate irregularly and increase vibration, leading to loss of control.

## WARNING: General Safety Practices.

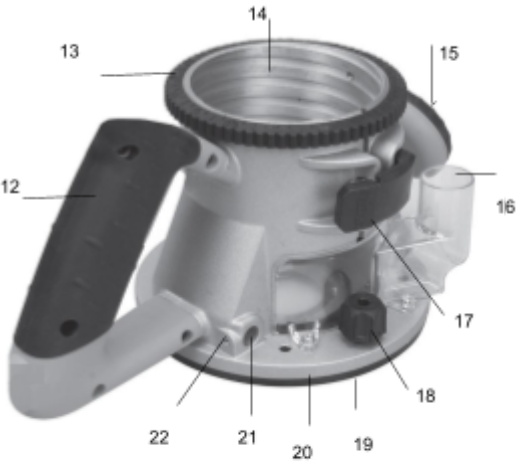
- Use safety equipment, including safety goggles or a shield, ear protection, a dust mask, and protective clothing, including safety gloves.
- Never leave cloths, cords, strings, etc., around the work area.
- Ensure the mains supply voltage matches the tool's rating plate voltage.
- Ensure any extension cords are in safe electrical condition and have the correct ampere rating.
- Completely unwind cable drum extensions to avoid overheating.
- Use detectors to locate utility cables or pipes before working. Consult utility companies if needed. Contact with utilities can cause electric shock, fire, explosion, or property damage.
- Remove embedded objects like nails and screws from the workpiece before starting.
- Before using the router to make a cut, switch it on and let it run briefly. Vibration may indicate an improperly installed bit.
- Note the direction of rotation of the bit and the direction of feed.
- Parts of router bits may become hot during operation. Do not handle immediately after use to avoid burns.
- Do not allow parts to contact combustible materials.
- Ensure rating labels and safety warnings on the tool remain legible and replace them if damaged.
- Even when used as prescribed, residual risks remain. If you have any doubts about safe use, do not use the tool.

## WARNING: Dust Hazards.

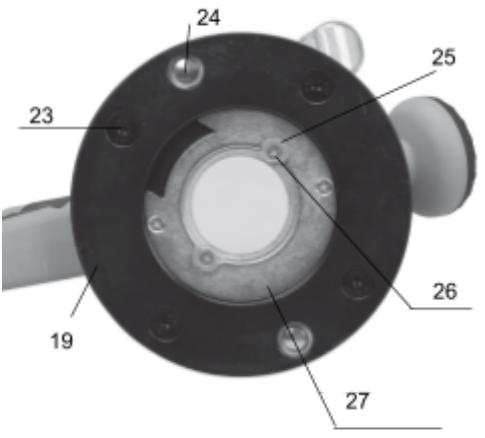
- Dust generated by power tools can be toxic. Some materials may be chemically treated or coated, posing a toxic hazard.
- Avoid prolonged exposure to router dust. Do not allow dust to contact skin or eyes, and do not ingest it.
- Work in a well-ventilated area.
- Use a suitable dust mask and dust extraction system where possible.
- With higher frequency of exposure, follow all safety precautions and use a higher level of personal protection.

# Description of Parts (not all included)

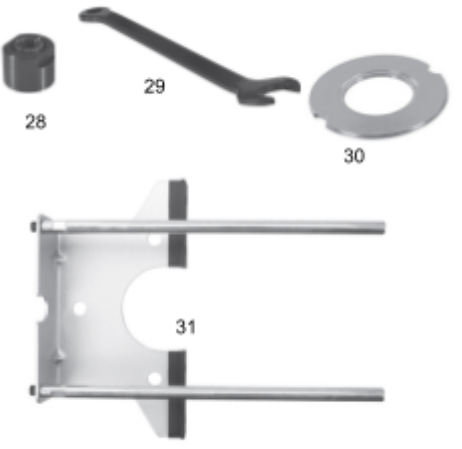

Motor unit




Fixed base unit




Fixed base unit




Accessories

1) Guide Pin x 4
2) Motor Drum
3) Brush Access Cover x 2
4) Brush Access Cover Screw x 2
5) Motor Vents
6) Speed Controller
7) Switch Safety Cover
8) ON/OFF Rocker Switch
9) Power Cord
10) Spindle Lock Button
11) Collet
12) Main Handle
13) Depth Gauge
14) Groove
15) Secondary Handle
16) Dust Extraction Port
17) Locking Clamp
18) Baseplate Mounting Knob
19) Baseplate
20) Base
21) Guide Fence Mounting Slot x 2
22) Guide Fence Mounting Knob x 2
23) Baseplate Screw (¼ UNC x 4)
24) Baseplate Mounting Tab
25) Guide Bush Fixing Tab x 2
26) Guide Bush Mounting Plate Fixing Screw x 2
27) Guide Bush Mounting Plate

Accessories

Note: Not supplied with all kits

28) Collet (1/4")
29) Spanner x 2
30) Guide Bush Adaptor
31) Guide Fence

- **RT-001M include: Router Motor unit, Spanner, ½" Collet**
- **RT-001B include: Base unit, Guide Bush Adaptor, Guide Fence**

# Intended Use

**This ROUTECH router is designed for use within a fixed-base router to perform the following woodworking operations:**

- Cutting profiles, grooves, and edges in natural wood, composite materials, and plastics.
- Utilizing guide bushes and templates for cutting shapes and following patterns.
- Stationary installation within compatible router table systems.

This tool is specifically designed for use with router bits intended for woodworking applications. It is not suitable for use with accessories or bits designed for other purposes, such as grinding or sanding.
**Important:** This router is designed for hobbyist and DIY use, and is not intended for continuous commercial or industrial applications.
**Misuse and Modifications:** The ROUTECH router must only be used for its intended purpose as outlined in this manual. Any use outside of these specifications will be considered misuse. The operator assumes full responsibility for any damage or injury resulting from misuse. The manufacturer is not liable for any modifications made to the tool, nor for any damage resulting from such modifications.

# Unpacking and Inspection

- **RT-001M include: Router Motor unit, Spanner, ½" Collet**
- **RT-001B include: Base unit, Guide Bush Adaptor, Guide Fence**

1. **Carefully Unpack Your ROUTECH Router:** Remove all packaging materials and inspect the router and its components for any damage.
2. **Familiarize Yourself with Your Router**: Take time to understand all the features and functions of your ROUTECH router as described in this manual.
3. **Verify All Components Are Present**: Check the contents of the package against the parts list (refer to section [insert section number or page number here] of this manual). Ensure all listed items are present and in good condition.
4. **Report Missing or Damaged Parts**: If any parts are missing or damaged, do not attempt to use the router. Contact ROUTECH customer service or your retailer immediately for assistance and replacement parts.

# Before Operation

**WARNING:** Disconnect from Power. Always disconnect the ROUTECH router from the power supply before attaching or changing any accessories, or making any adjustments.
**IMPORTANT:** Protect the Collet. Never tighten the collet without a router bit installed. Tightening an empty collet can cause damage.

## Motor Unit Installation

**IMPORTANT: Prevent Cord Damage. Always ensure the motor unit power cord is disconnected from the power socket before proceeding.**
**Procedure:**

1. **Release the Locking Clamp**: Open the locking clamp (**Figure** 1).
2. **Align the Lower Guide Pin**: Carefully insert the motor unit into the base unit, aligning the lower guide pin (1) with the corresponding groove (14) in the base unit (**Figure** 2).
3. **Rotate and Seat the Motor Unit**: Rotate the motor unit clockwise until the upper guide pin (1) is firmly seated in its groove (14) within the base unit.
4. **Secure the Locking Clamp**: Firmly tighten the locking clamp to secure the motor unit in place.

**Note:** Locking Clamp Adjustment: The clamping pressure of the locking clamp (17) can be adjusted using the adjustment bolt ( **Figure** 1)**.**

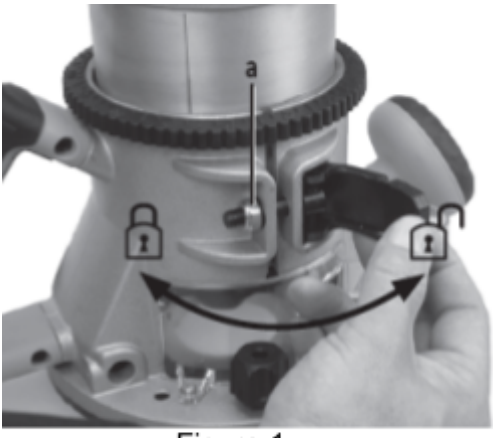


Figure 1


Figure 2

## Collet & router bit installation

**WARNING: Sharp Edges.** Always wear protective gloves when handling router bits due to their sharp edges.

**Procedure:**

1. **Ensure Router is Off:** Confirm the router is switched OFF and the switch safety cover is closed.
2. **Remove Motor Unit:**
   - Open the locking clamp (**Figure** 1).
   - While holding the base unit, rotate the motor unit counter-clockwise until the lower guide pin (1) disengages from the groove (14) in the base unit.
   - Carefully remove the motor unit from the base unit.
3. **Position Motor Unit:** Place the motor unit on its side on a stable work surface, with the collet (11) facing away from you.
4. **Engage Spindle Lock:** Press and hold the spindle lock button (10). Using the spanner (29), rotate the collet slightly until the spindle lock engages.
5. **Loosen Collet:** Continue holding the spindle lock button and loosen the collet by turning it counter-clockwise until it can be removed (**Figure** 3).
6. **Install Collet:** Select the appropriate collet and thread it onto the chuck by turning it clockwise. Do not fully tighten at this stage.
7. **Insert Router Bit:** Insert the router bit into the collet, ensuring a minimum of 20mm or half the shaft length (whichever is greater) is inserted.
8. **Tighten Collet:** Press and hold the spindle lock button. Using the spanner, tighten the collet clockwise to secure the router bit.

**Note: Router Table Operation:** When using the router in a router table, the spindle lock button may be inaccessible. In this case, use a second spanner to lock the spindle (**Figure** 4).

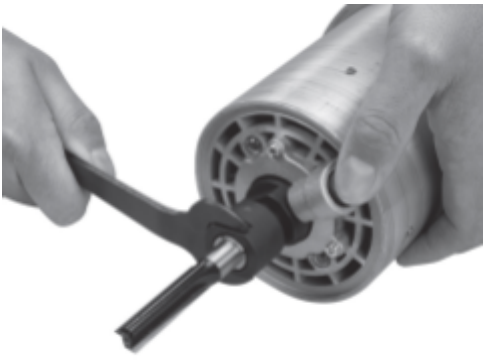


Figure 3

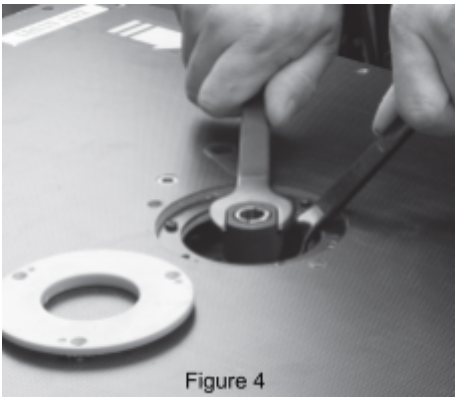


Figure 4

## Dust extraction

This Router is equipped with a Dust Extraction Port (21) for chip extraction above the cut. (Check the port size in specification)

## Guide Fence Installation

**Note:** The Guide Fence (31) is not supplied with all kits

Install the Guide Fence: Insert the guide fence into the guide fence mounting slots (21) located on the base unit. Secure the guide fence using the guide fence mounting knob(22).

## Guide Bush Mounting Plate Removal

**Procedure:**

1. Invert the Router: Carefully invert the router and rest it on the flat motor vents (5) so that the baseplate (19) faces upwards (**Figure** 5).
2. Remove Fixing Screws: Unscrew the two guide bush mounting plate fixing screws (26).
3. Remove Mounting Plate: Remove the guide bush mounting plate (27).

**WARNING: Alignment is Critical. Always verify that the guide bush mounting plate is correctly aligned. The mounting plate's center hole must be precisely centered within the router base for safe operation with router guide bushes and bits. Failure to achieve proper alignment can result in damage to the router, the mounting plate, the guide bush, and the router bit, and may cause serious personal injury.**

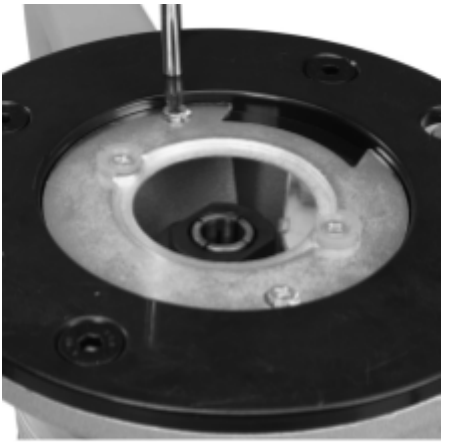


Figure 5

## Installing Guide Bushes

**Note: Guide Bush Availability.** Guide bushes are not included.

**Note: Mounting Plate Required.** Ensure the guide bush mounting plate (27) is installed.

**Procedure:**

1. **Position Fixing Tabs:** Loosen the two guide bush mounting plate fixing screws (26) and ensure the two guide bush fixing tabs (25) are positioned facing the outer edge of the router base (20).

2. **Align and Insert Guide Bush:** Align the guide bush notches with the screws and place the guide bush into the recess on the guide bush mounting plate (27) (**Figure 6**).
3. **Secure Guide Bush:** Rotate the fixing tabs (25) to engage the guide bush, then tighten the guide bush fixing screws (26) to secure the guide bush in place.
4. **Guide Bush Removal:** To remove the guide bush, follow the above steps in reverse order.

Figure 6

## Guide Bush Adaptor

The Guide Bush Adaptor (30) is installed in the same way as a Guide Bush – see "Installing guide bushes" above. The adaptor can be used to install the range of Porter Cable guide bushes.

# Operation

**WARNING: Personal Protective Equipment.** Always wear eye protection, respiratory protection, hearing protection, and suitable gloves when operating this router.

## Switching On and Off

**Note: Switch Safety Cover.** The switch safety cover (7) is designed to prevent accidental startup. It must be retracted before the router can be switched on. The cover will remain retracted until the router is switched off.

**Procedure (with Base Unit):**

1. **Clear Work Area:** Ensure the router bit will not contact any foreign objects when power is applied.
2. **Connect Power:** Plug the power cord into the mains electrical supply.
3. **Retract Safety Cover:** Slide the switch safety cover (7) back to expose the on/off rocker switch.
4. **Switch On:** Press the on/off rocker switch to the "I" (on) position. The safety cover will remain retracted while the switch is in this position.
5. **Switch Off:** Press the on/off rocker switch to the "0" (off) position. The safety cover will automatically slide back to its original position.

## Variable speed control

**Note: Speed Guidelines.** Select the highest speed that prevents burning the workpiece. Always adhere to the router bit manufacturer's speed limits.

**Important Considerations:**

- **Reduced Speed and Overload:** Operating at reduced speeds increases the risk of router damage due to overload. Use slow feed rates and/or multiple shallow cuts.
- **Large Diameter Bits:**
  - Bits larger than 2 1/2" can be used at lower speeds.
  - For bits between 2 1/2" and 3", use only 10,000 or 12,000 min-1.
  - For bits between 3" and 3 1/2", use only 10,000 min-1.

**Speed Adjustment:**

- The speed controller (6) is marked 1 to 6, corresponding to the approximate speeds below. Rotate the speed controller to select the desired speed.

**IMPORTANT: Prevent Overheating!** At low and medium speeds, the router automatically maintains speed. If you hear the motor's speed changing under load, immediately reduce the depth of cut or slow your feed rate. Continuing to overload the motor can cause overheating and damage. Always set the speed before starting a cut. If you must adjust the speed during operation, stop the router and move it away from the workpiece first.

| Speed Settings (RPM): | |
|---|---|
| **Setting** | **Speed (RPM)** |
| **1** | **10000** |
| **2** | **12000** |
| **3** | **14000** |
| **4** | **16000** |
| **5** | **19000** |
| **6** | **21000** |

## Cutting Depth Adjustment (Base Unit)

**Procedure:**

1. **Loosen Locking Clamp:** Loosen the locking clamp (17).
2. **Raise Router Bit:** While holding the base unit, turn the motor unit counter-clockwise until the router bit tip is above the baseplate (19) surface.
3. **Set Router on Surface:** Place the router on a flat wood surface.
4. **Lower Router Bit:** Turn the motor unit clockwise until the router bit gently touches the wood surface.
5. **Tighten Locking Clamp:** Tighten the locking clamp (17).

6. **Zero Depth Gauge:** Rotate the depth gauge (13) until the zero mark (32) aligns with the index line (33) on the motor housing (**Figure** 7).
7. **Loosen Locking Clamp:** Loosen the locking clamp (22) again.
8. **Set Desired Depth:** Tilt the router so the bit is clear of the wood. Turn the motor unit (1) clockwise until the index line (39) on the motor housing reaches the desired depth indicated on the depth gauge (18).
9. **Secure Locking Clamp:** Firmly tighten the locking clamp (22).

**Note:** Setting the index line to 1/4" on the depth gauge means the cutting edge of the bit is positioned 1/4" below the base unit. One complete turn of the motor unit equals a 1" depth of cut.

Figure 7

## Making a Cut

**WARNING: Base Unit or Router Table Required.** The motor unit is designed for use only when attached to the base unit or a router table system. Using it handheld without either can result in serious injury.
**Note: Using Guides.** Always use a guide when routing. This can be a bearing-guided router bit, a straight edge, or the guide fence (31) (fence not included in the motor kit).
**Note: Straight Edge Setup.** When using a straight edge, calculate the cut position by measuring the distance from the center of the router bit to the outer edge of the router base.
**Procedure:**

1. **Secure Workpiece and Grip Router:** Hold the router firmly with two hands on the provided handles. Secure the workpiece with clamps whenever possible.
2. **Achieve Full Speed:** Allow the motor to reach its full operating speed before engaging the workpiece.
3. **Engage Workpiece:** Move the router bit smoothly into the workpiece while keeping the baseplate (19) flat against the workpiece.
4. **Edge Cutting Direction:** When edge cutting, the cut should be on the left side relative to the direction of travel (**Figure** 8).
5. **Maintain Constant Pressure and Feed Rate:** Maintain consistent pressure and feed rate, allowing the router bit to cut steadily. Be aware that knots and variations in the wood can slow progress.

**Note: Preventing Bit Chatter.** To avoid bit chatter, cut **counter-clockwise** for external cuts (**Figure** 8-b, c) and **clockwise** for internal cuts (**Figure** 8-d).
**Note: Feed Rate.** Moving the router too quickly can result in a poor finish and motor overload. Moving it too slowly can overheat the workpiece.
**Note: Router Table Use.** Do not operate the router upside down unless it is securely mounted in a well-guarded router table.

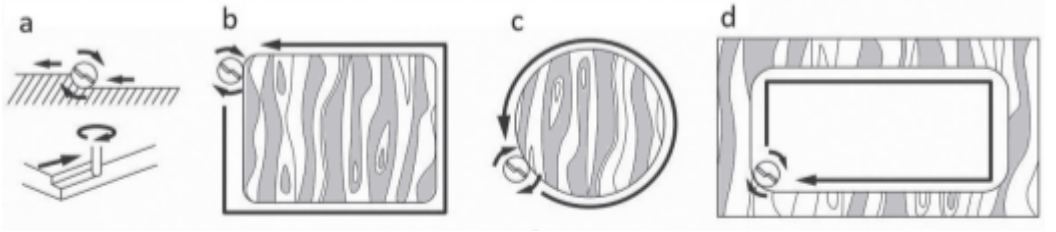


Figure 8

## Template & guide bush routing (**Figure** 9)

- **Guide Bush Variety:** Various template guide bushes are available for diverse template routing applications.
- **Mounting Plate Setup:** For guide bush mounting plate installation, refer to the "Guide Bush Mounting Plate and Guide Bush Information" section.
- **Template Function:** Templates (**Figure** 9-c), when used with a guide bush (**Figure** 9-b), enable the router to create consistent and repeatable shapes in your workpiece.
- **Understanding Offset:** Be aware that the cut on the final workpiece will differ from the template opening. The guide bush offset (**Figure** 9-e) must be calculated before cutting.
- **Calculating Offset:** To determine the offset, use this formula: Offset = Guide Bush Outer Diameter - Router Bit Diameter.
- **Template Material Options:** Templates and jigs can be crafted from a range of materials, including hardboard, plywood, plastic, or metal.

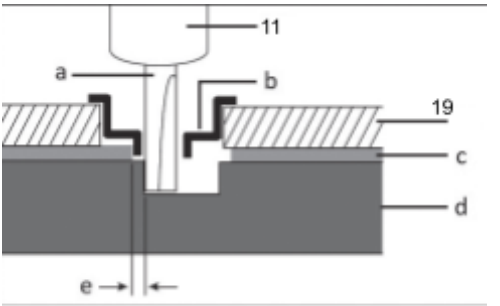


Figure 9

## Accessing Baseplate Screw Threads for Table Mounting

1. **Remove Baseplate:** To mount the router in a third-party router table or a custom-built table, remove the four baseplate screws (23) from the baseplate (19). Then, remove the baseplate.
2. **Screw Thread Identification:** The four baseplate screw holes are threaded with ¼ UNC screws, which are used to secure the baseplate to the base (20) and can also be used for **table mounting**.
3. **Screw Hole Spacing 103.24mm: Figure 10** shows the spacing dimensions of the baseplate screw holes.

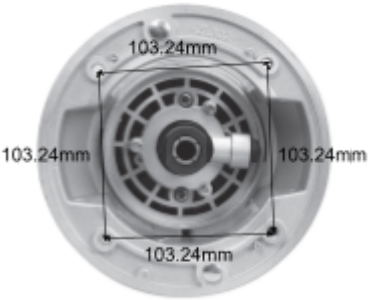


Figure 10

# Maintenance

**WARNING: Disconnect Power Before Maintenance.** Always disconnect the router from the power supply before any inspection, maintenance, or cleaning.

## General Inspection and Maintenance

- **Check Fasteners Regularly:** Periodically ensure all fixing screws are securely tightened.
- **Inspect Power Cords:** Before each use, carefully inspect the tool's power supply cord for any signs of damage or wear. Repairs should be performed by an authorized service supplier. This also applies to any extension cords used with the tool.

## Cleaning and Maintenance

**WARNING: Protective Equipment Required.** Always wear eye protection and gloves when cleaning this tool.
- **Maintain Tool Cleanliness:** Keep your tool clean to prevent premature wear and extend its service life. Dirt and dust can accelerate the wear of internal components.
- **Surface Cleaning:** Clean the tool's body using a soft brush or dry cloth.
- **Plastic Part Cleaning:** Do not use caustic agents on plastic parts. If dry cleaning is insufficient, use a mild detergent on a damp cloth.
- **Avoid Water Contact:** Never allow water to come into contact with the tool.
- **Ensure Thorough Drying:** Ensure the tool is completely dry before use.
- **Ventilation Cleaning:** If available, use clean, dry, compressed air to blow through the ventilation holes.

## Lubrication

- **Lifetime Lubrication:** This ROUTECH router is lubricated with a high-grade lubricant at the factory, designed to last the tool's lifespan under normal operating conditions. No further lubrication is required.

## Brushes

- **Brush Wear:** Over time, the carbon brushes within the motor will naturally wear.
- **Signs of Wear:** Excessively worn brushes may result in reduced power, intermittent operation, or visible sparking.

**Replacing Carbon Brushes Procedure:**
1. **Remove Brush Access Cover:** Remove the brush access cover (3) (**Figure 11-A**).
2. **Loosen Brush Assembly Screw:** Unscrew the brush assembly securing screw (**Figure 11-B**).
3. **Disconnect Wiring Connector:** Partially slide out the brush assembly and disconnect the wiring connector (**Figure 11-C**).
4. **Remove Worn Brushes:**
   - Disconnect the brush electrical connector (**Figure 11-D1**).
   - Move the spring aside (**Figure 11-D2**).
   - Carefully remove the worn carbon brushes (**Figure 11-D3**).
5. **Clean Brush Sockets:** Ensure the brush sockets are clean and free of debris.
6. **Install New Brushes:** Carefully insert new carbon brushes into the sockets.
7. **Reconnect Wiring:** Partially slide the brush assembly back into place and reconnect the electrical connectors.
8. **Secure Brush Assembly:** Push the assembly fully into place and secure it with the screw.
9. **Verify Spring Position:** Ensure the spring is correctly positioned to apply pressure to the top of the new brush.
10. **Replace Brush Access Cover:** Reinstall the brush access cover.
11. **Repeat for Other Brush:** Repeat steps 1 through 10 for the other carbon brush.
12. **Run Router to Bed Brushes:** After installing both brushes, run the router without load for 2-3 minutes to allow the brushes to bed in.

**Note: Brush Bedding and Servicing.** The complete bedding-in process for new carbon brushes may require repeated use. Motor sparking may continue until the brushes are fully bedded in. Alternatively, you can have the tool serviced at an authorized service center.

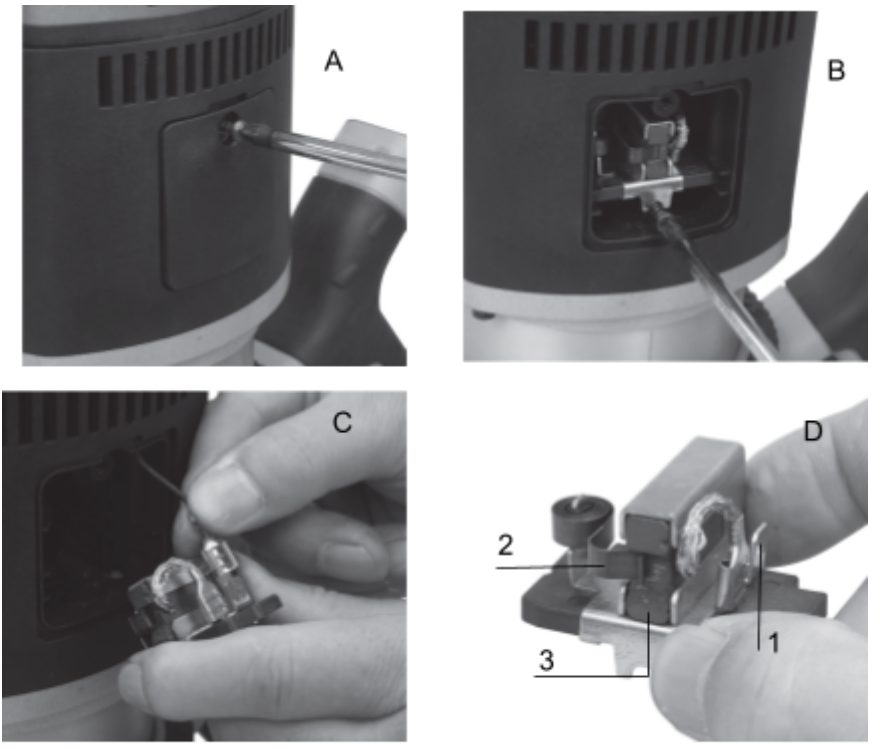
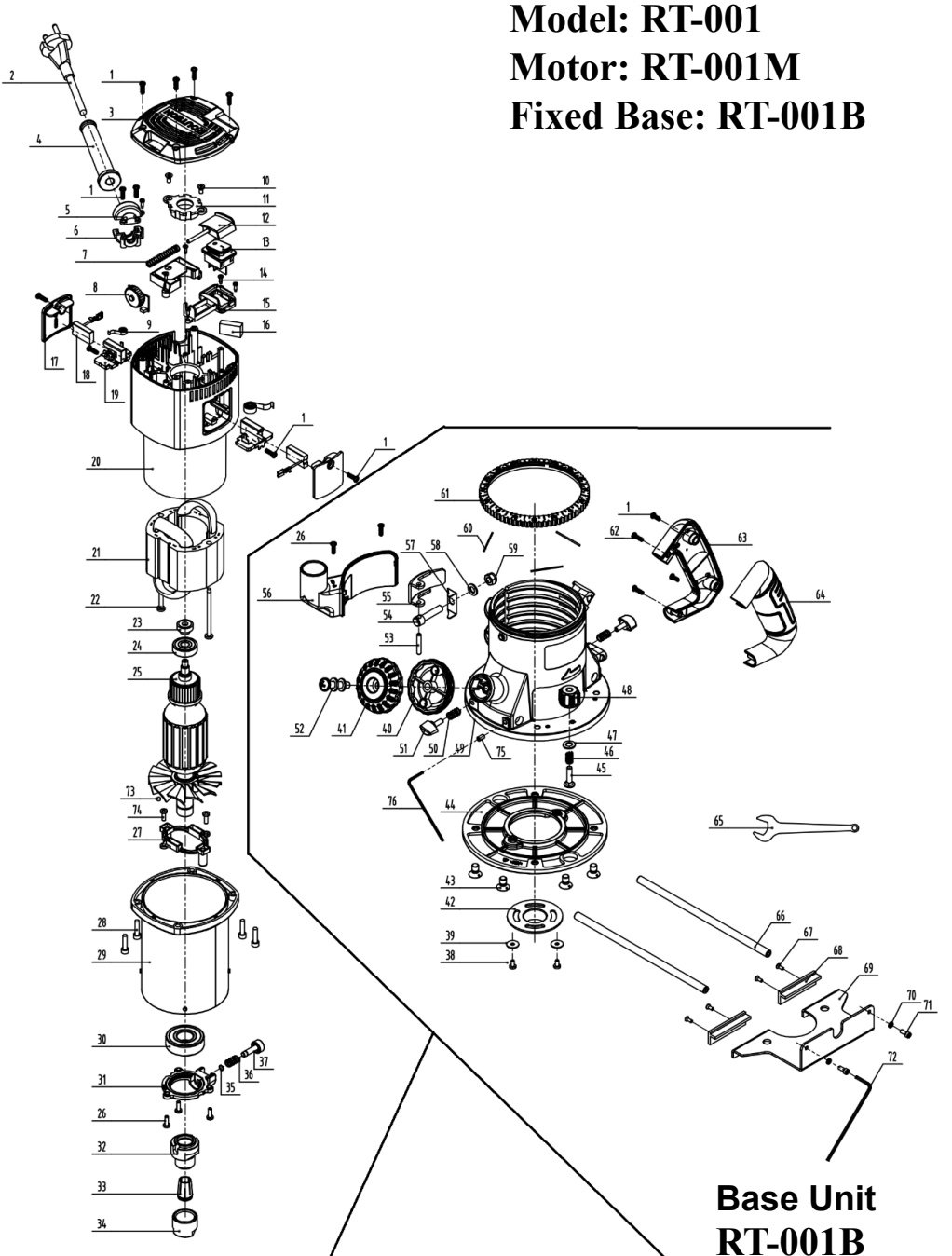



Figure 11

# Troubleshooting

| Problem | Possible cause | Solution |
|---|---|---|
| No function when ON/OFF Rocker Switch (8) is operated | 1. No power<br>2. Defective ON/OFF Rocker Switch | 1. Check power supply<br>2. Replace the ON/OFF Rocker Switch at an authorised Triton service centre |
| Inaccurate cutting profile | Incorrectly fitted or loose router bit/Collet (11) | Tighten router bit/Collet and cutter assembly |
| Router will not operate | 1. No supply of power<br>2. Brushes worn or sticking<br>3. Switch is faulty<br>4. Motor components faulty or short circuited | 1. Check that power is available at the source<br>2. Disconnect power, open Brush Access Covers (3) and ensure brushes are not damaged or heavily worn<br>3/4. Have the tool serviced by an authorised service centre |
| Router runs or cuts slowly | 1. Blunt or damaged cutter<br>2. Speed Controller (8) set low<br>3. Motor is overloaded | 1. Re-sharpen or replace cutter<br>2. Increase variable speed setting<br>3. Reduce pushing force on router |
| Excessive vibration | 1. Incorrectly fitted or loose router bit<br>2. Bent or damaged router bit | 1. Refit or tighten router bit<br>2. Replace router bit |
| Heavy sparking occurs inside motor housing | 1. Brushes not moving freely<br>2. Damaged or worn motor | 1. Disconnect power, remove brushes, clean or replace<br>2. Have the tool serviced by an authorised Triton service centre |
| Unusual sound | 1. Mechanical obstruction<br>2. Damage to internal windings | Stop Use it. Contact us |

**Model: RT-001**
**Motor: RT-001M**
**Fixed Base: RT-001B**



**Motor Unit**
**RT-001M**

**Base Unit**
**RT-001B**

| Serial No. | Name | Quantity |
|---|---|---|
| 1 | Cross recessed pan head self-tapping screws ST4.2X14F | 12 |
| 2 | Cable wire | 1 |
| 3 | Rear cover | 1 |
| 4 | Cable jacket | 1 |
| 5 | Sheath cover | 1 |
| 6 | Sheath seat | 1 |
| 7 | Switch lock spring | 1 |
| 8 | Governor components | 1 |
| 9 | Scroll spring | 1 |
| 10 | Cross recessed countersunk head self-tapping screw ST4*14 | 2 |
| 11 | Bearing seat | 1 |
| 12 | Switch door | 1 |
| 13 | Switch | 1 |
| 14 | Cross recessed pan head self-tapping screws ST2.9*12 | 6 |
| 15 | Switch base | 1 |
| 16 | 0.47 two-pin capacitor | 1 |
| 17 | Carbon brush cover | 2 |
| 18 | Carbon brush | 2 |
| 19 | Carbon brush holder | 2 |
| 20 | Chassis | 1 |
| 21 | Stator | 1 |
| 22 | Cross recessed pan head self-tapping screws ST4.8*75 | 2 |
| 23 | Magnetic ring | 1 |
| 24 | Deep groove ball bearing 6200-2RS | 1 |
| 25 | Rotor | 1 |
| 26 | Cross recessed pan head screw M4*16 (two-in-one with elastic washer) | 5 |
| 27 | Light components | 1 |
| 28 | Hexagon socket head self-tapping screw ST4.8*25 | 4 |
| 29 | Aluminum shell | 1 |
| 30 | Deep groove ball bearing 6204-2RS | 1 |
| 31 | Bearing cap | 1 |
| 32 | Connector | 1 |
| 33 | Spring collet | 1 |
| 34 | Collet nut | 1 |
| 35 | Split Washer 5 | 1 |
| 36 | Spindle lock spring 1 | 1 |
| 37 | Shaft lock | 1 |
| 38 | Cross recessed pan head screw M4*8 | 2 |
| 39 | Flat washer ⌀4X⌀15X1 | 2 |
| 40 | Ball handle base | 1 |
| 41 | Ball handle cover | 1 |
| 42 | Sample gauge guide | 1 |
| 43 | Hexagon countersunk head screw 5/16″-18 thread*5/8 | 4 |
| 44 | Base plate | 1 |
| 45 | Half round head square neck screw M6*30 | 2 |
| 46 | Compression spring | 2 |
| 47 | Flat washer⌀6x⌀12x0.6 | 2 |
| 48 | Knob | 2 |
| 49 | Base | 1 |
| 50 | Rack knob spring | 2 |
| 51 | Knob screw | 2 |
| 52 | Hexagon socket head screw M8X45 (three-piece set) | 1 |
| 53 | Elastic cylindrical pin 5*30 | 1 |
| 54 | Quick clamp locking lever | 1 |
| 55 | Trigger | 1 |
| 56 | Chip cover | 1 |
| 57 | Trigger spacer | 1 |
| 58 | Flat gasket 0.7 | 1 |
| 59 | Type I full metal insert hexagonal lock nut M8 | 1 |
| 60 | Elastic wire | 3 |
| 61 | Dial | 1 |
| 62 | Cross recessed pan head self-tapping screws ST4.2*25F | 2 |
| 63 | Handle cover | 1 |
| 64 | Handle | 1 |
| 65 | Open end wrench 24 | 2 |
| 66 | Guide rod | 2 |
| 67 | Cross recessed countersunk head screw M4*6 | 4 |
| 68 | Sliding corner block | 2 |
| 69 | Backrest | 1 |
| 70 | Spring pad 5 | 2 |
| 71 | Hexagon socket head screw M5*12 | 2 |
| 72 | 4mm hex wrench | 1 |
| 73 | Permanent magnetΦ5*3 | 2 |
| 74 | Cross recessed pan head screw M4*12 | 2 |
| 75 | Inner hexagonal drop-resistant recessed end set screw M6x8 | 2 |
| 76 | 3mm hex wrench | 1 |

## Contact

For technical or repair service advice, please contact the us online
Web: www.igooootools.com
Email: igooo.us@igooootools.com

UK Address:
MEMS HOLDING LIMITED
71-75 Shelton Street
London
WC2H 9JQ
United Kingdom

Web QR Code