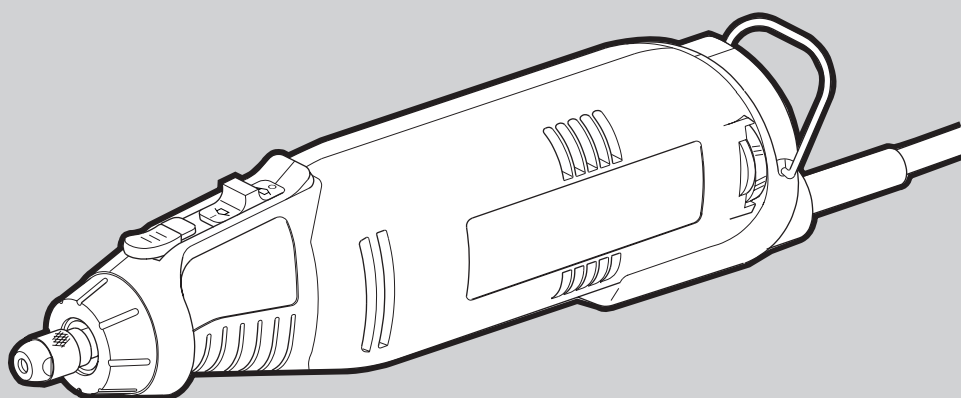




 **BLACK &  
DECKER®**

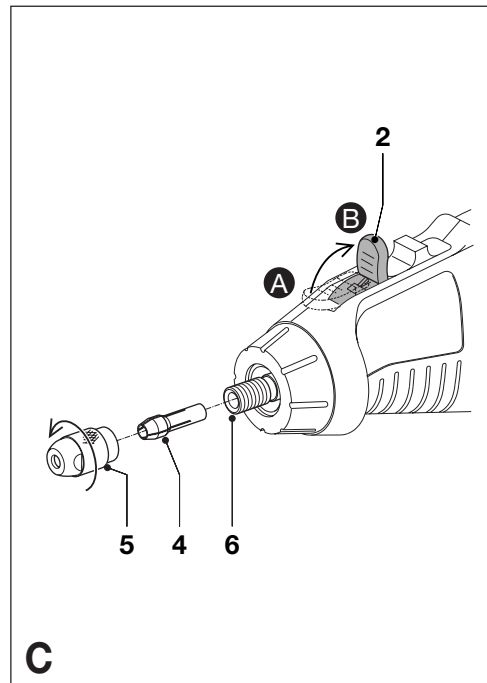
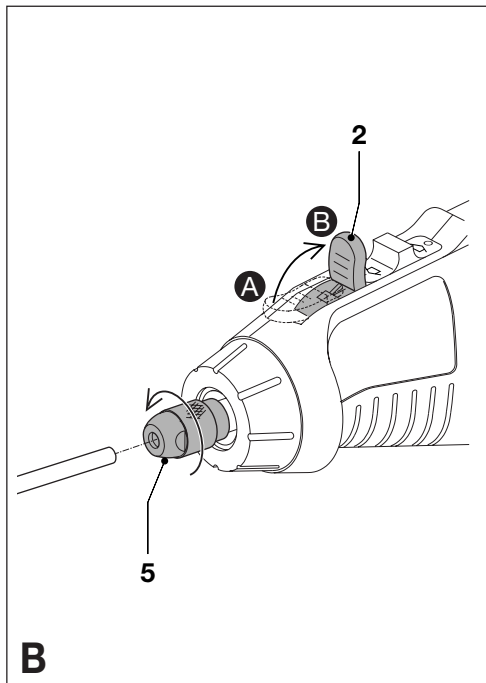
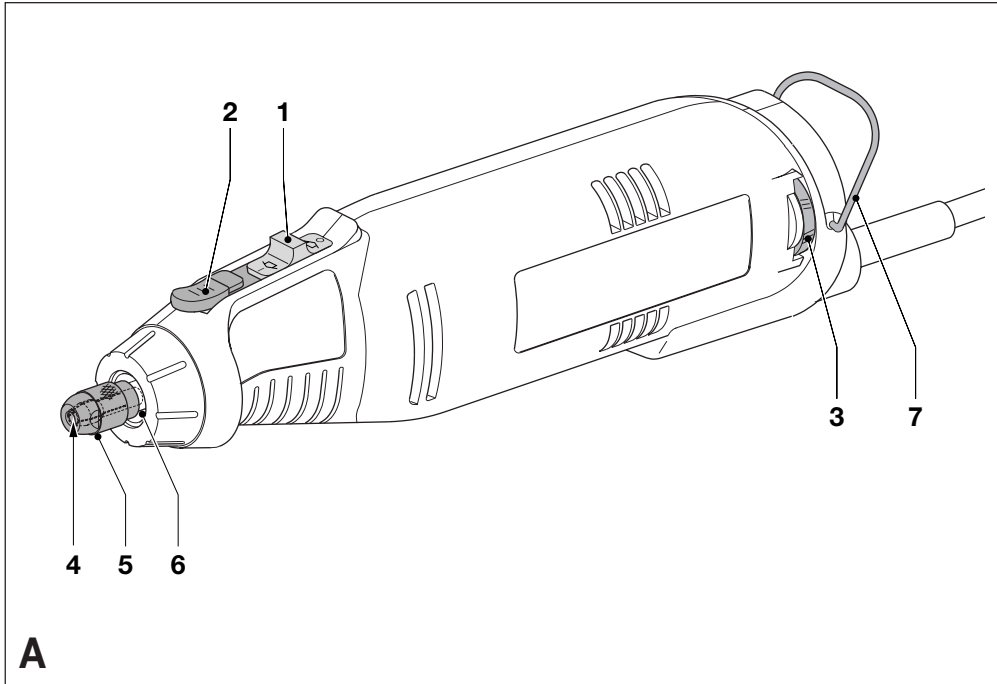


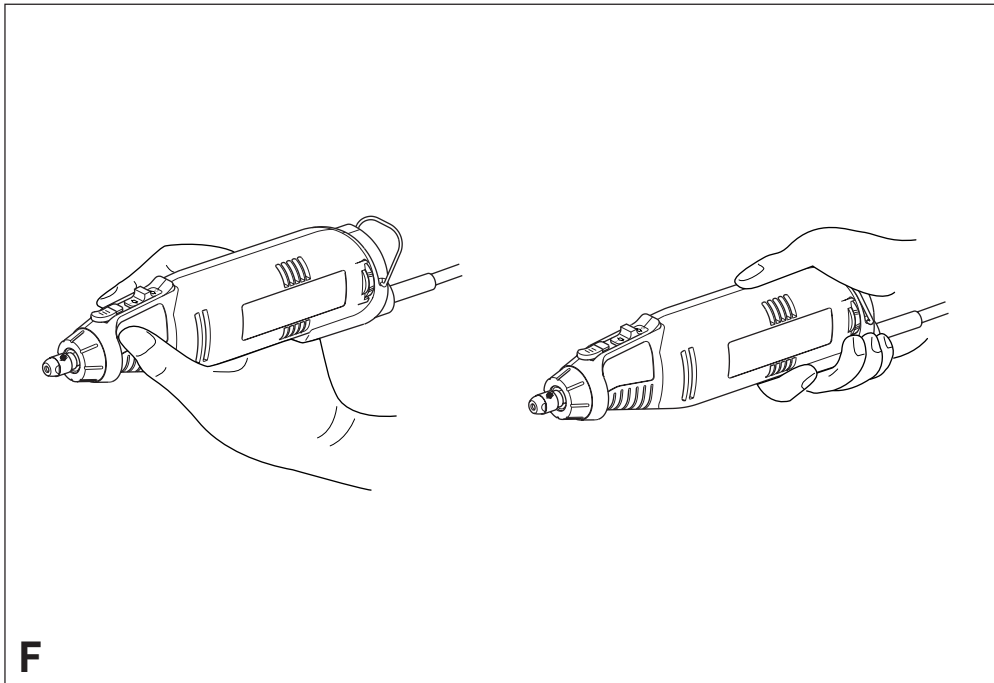
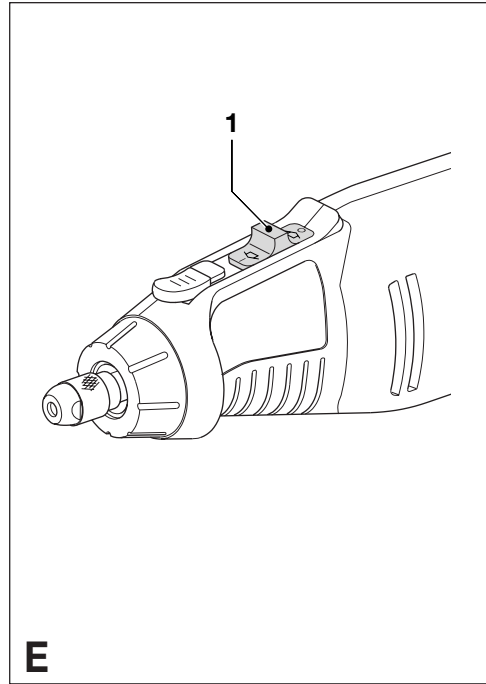
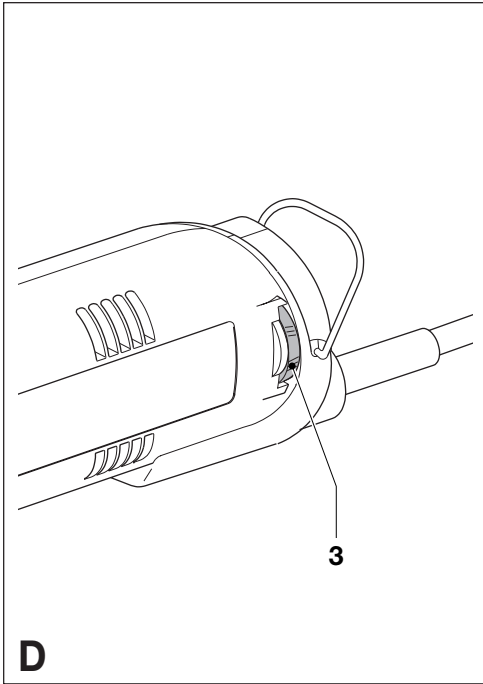
**RT650**



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**4**





ENGLISH

## ROTARY TOOL RT650

### CONGRATULATIONS!

You have chosen a Black & Decker tool. Our aim is to provide quality tools at an affordable price. We hope that you will enjoy using this tool for many years.

### EC DECLARATION OF CONFORMITY



RT650

Black & Decker declares that these products conform to:  
98/37/EC, 89/336/EEC, 73/23/EEC,  
EN 50144, EN 55014, EN 60555

Level of sound pressure, measured according to EN 50144:

			RT650
$L_{pA}$	(sound pressure)	dB(A)	66.8
$L_{WA}$	(acoustic power)	dB(A)	79.9



Always wear ear protection if the sound pressure exceeds 85 dB(A).

Hand/arm weighted vibration value according to EN 50144:

		RT650
		1.4 m/s <sup>2</sup>

Colin Wills  
Director of Engineering  
BDCI, 4/F, 2 Dai Wang Street  
Tai Po Industrial Estate  
Tai Po NT, Hong Kong

### INTENDED USE

Your Black & Decker rotary tool RT650 has been designed for the following applications using the appropriate accessories:

- Drilling in wood, metal and plastics
  - Cutting wood, metal and plastics
  - Engraving and shaping wood, metal, plastics and fibreglass
  - Polishing metal, glass and stone
  - Grinding metal, glass and ceramics
  - Sharpening metal
  - Sanding wood and fibreglass
  - Removing rust and corrosion from metal
- This tool is intended for consumer use only.

### SAFETY INSTRUCTIONS

#### Warning symbols

The following symbols are used in this manual:



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



Denotes risk of electric shock.



Read the manual prior to operation.

#### Know your tool



- ◆ **Warning!** When using mains-powered tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock, personal injury and material damage.
- ◆ Read all of this manual carefully before operating the tool.
- ◆ Before operating the tool, make sure that you know how to switch the tool off in an emergency.
- ◆ Retain this manual for future reference.





## ENGLISH

### General

#### 1. Keep work area clean

Cluttered areas and benches can cause accidents.

#### 2. Consider work area environment

Do not expose the tool to rain. Do not use the tool in damp or wet conditions. Keep the work area well lit. Do not use the tool where there is a risk of causing fire or explosion, e.g. in the presence of flammable liquids and gases.

#### 3. Keep children away

Do not allow children, visitors or animals to come near the work area or to touch the tool or mains cable.

#### 4. Dress properly

Do not wear loose clothing or jewellery, as these can be caught in moving parts. Preferably wear rubber gloves and non-slip footwear when working outdoors. Wear protective hair covering to keep long hair out of the way.

#### 5. Personal protection

Always use safety glasses. Use a face or dust mask whenever the operations may produce dust or flying particles. Wear ear protection whenever the sound level seems uncomfortable.

#### 6. Guard against electric shock

Prevent body contact with earthed or grounded surfaces (e.g. pipes, radiators, cookers and refrigerators). Electric safety can be further improved by using a high-sensitivity (30 mA/30 mS) residual current device (RCD).

#### 7. Do not overreach

Keep proper footing and balance at all times.

#### 8. Stay alert

Watch what you are doing. Use common sense. Do not operate the tool when you are tired.

#### 9. Secure workpiece

Use clamps or a vice to hold the workpiece. It is safer and it frees both hands to operate the tool.

#### 10. Connect dust extraction equipment

If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.

#### 11. Remove keys and adjusting wrenches

Always check that keys and adjusting wrenches are removed from the tool before operating the tool.

#### 12. Extension cables

Before use, inspect the extension cable and replace if damaged. When using the tool outdoors, only use extension cables intended for outdoor use.

#### 13. Use appropriate tool

The intended use is described in this instruction manual. Do not force small tools or attachments to do the job of a heavy-duty tool. The tool will do the job better and safer at the rate for which it was intended. Do not force the tool.

**Warning!** The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury.

#### 14. Check for damaged parts

Before use, carefully check the tool and mains cable for damage. Check for misalignment and seizure of moving parts, breakage of parts, damage to guards and switches and any other conditions that may affect its operation.

Ensure that the tool will operate properly and perform its intended function. Do not use the tool if any part is damaged or defective.

Do not use the tool if the switch does not turn it on and off. Have any damaged or defective parts repaired or replaced by an authorised repair agent. Never attempt any repairs yourself.

#### 15. Unplug the tool

Unplug the tool when it is not in use, before changing any parts of the tool, accessories or attachments and before servicing.

#### 16. Avoid unintentional starting

Do not carry the tool with a finger on the on/off switch. Be sure that the tool is switched off when plugging in.

#### 17. Do not abuse cord

Never carry the tool by its cord or pull it to disconnect from the socket. Keep the cord away from heat, oil and sharp edges.

#### 18. Store idle tools

When not in use, tools should be stored in a dry, locked up or high place, out of reach of children.

#### 19. Maintain tools with care

Keep cutting tools sharp and clean for better and safer performance. Follow the instructions for maintenance and changing accessories.





## ENGLISH

Keep handles and switches dry, clean and free from oil and grease.

### 20. Repairs

This tool complies with relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts; otherwise this may result in considerable danger to the user.

#### Additional safety instructions for rotary tools



Wear safety glasses or goggles when operating this tool.

- ◆ Only use Black & Decker accessories recommended for this tool.
- ◆ Never use any worn, cracked or damaged accessories.
- ◆ Hold the tool away from your face when switching on.
- ◆ Keep your fingers away from rotating accessories.
- ◆ Be careful not to accidentally hit any foreign objects in the workpiece.
- ◆ Be aware that accessories may be hot shortly after use.
- ◆ If an accessory jams, switch the tool off and unplug it before attempting to free the accessory.
- ◆ Clamp the workpiece whenever possible, especially when using cutting discs.
- ◆ Wear a dust mask whenever sanding.
- ◆ Thoroughly remove all dust after sanding.
- ◆ Take special care when sanding paint which is possibly lead based or when sanding some woods (e.g. MDF) and metal which may produce toxic dust:
  - Wear a dust mask specifically designed for protection against lead paint dust and fumes and ensure that persons within or entering the work area are also protected.
  - Do not let children or pregnant women enter the work area.
  - Do not eat, drink or smoke in the work area.
  - Dispose of dust particles and any other debris safely.

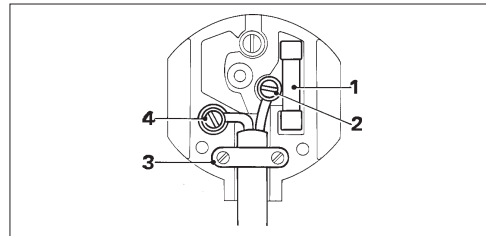
### ELECTRICAL SAFETY

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.



This tool is double insulated in accordance with EN 50144; therefore no earth wire is required.

#### Mains plug replacement (U.K. & Ireland only)



- ◆ 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 repair agent or a qualified electrician.
- ◆ Disconnect the plug from the supply and remove the fuse from the plug.
- ◆ 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 BS1363A approved plugs fitted with the correctly rated 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 above). Brown is for Live (L) (2), blue is for Neutral (N) (4).
- ◆ Before replacing the top cover of the mains plug ensure that the cable restraint (3) is holding the outer sheath of the cable firmly and that the leads are correctly fixed at the terminal screws.
- ◆ If the plug has a fuse cover, make sure that the fuse cover is fitted. Do not use the plug if the fuse cover is missing or damaged.



Never use a light socket.





## ENGLISH

### Using an extension cable

Always use an approved extension cable suitable for the power input of this tool (see technical data). Before use, inspect the extension cable for signs of damage, wear and ageing. Replace the extension cable if damaged or defective. When using a cable reel, always unwind the cable completely. Use of an extension cable not suitable for the power input of the tool or which is damaged or defective may result in a risk of fire and electric shock.

### CARTON CONTENTS

The carton contains:

- 1 Rotary tool
- 1 Wrench
- 1 Accessories and application guide
- 1 Instruction manual

- ◆ Carefully unpack all parts.
- ◆ Please note that additional items may be found in the carton, depending on the letter suffix following the catalogue number of your tool.

### OVERVIEW (fig. A)

1. On/off switch
2. Spindle lock
3. Speed control knob
4. Collet
5. Collet nut
6. Spindle
7. Suspension hook

### ASSEMBLY



Before assembly, make sure that the tool is switched off and unplugged.

### Fitting and removing accessories (fig. B)

- ◆ Make sure that the tool is switched off and unplugged.
- ◆ Activate the spindle lock (2) by setting it to position B as shown.
- ◆ Slacken the collet nut (5) by turning counterclockwise.
- ◆ Insert the shaft of the accessory into the collet as far as it will go.

- ◆ Securely tighten the collet nut.
- ◆ Release the spindle lock (2) by setting it to position A as shown.



- ◆ Make sure that the collet size matches the shaft diameter.
- ◆ Never tighten the collet nut without an accessory in the collet.
- ◆ Tighten and loosen the collet by hand if possible. If necessary, use the supplied wrench to loosen the collet. Do not use any tools that could mark the finish or break the collet.

### Replacing collets (fig. C)

This tool is supplied with a 3.2 mm collet. Different sizes are available as an accessory to accommodate a wide range of accessories. To fit the correct collet for the accessory to be used:

- ◆ Make sure that the tool is switched off and unplugged.
- ◆ Activate the spindle lock (2) by setting it to position B as shown.
- ◆ Remove the collet nut (5) by turning counterclockwise.
- ◆ Pull the collet off the spindle (6).
- ◆ Place the new collet into the spindle.
- ◆ Loosely screw the collet nut onto the spindle.
- ◆ Release the spindle lock (2) by setting it to position A as shown.

### USE



Let the tool work at its own pace. Do not overload.

- ◆ If you are not sure about the correct speed setting, start with a low speed setting and gradually increase it until you find the optimum setting.
- ◆ Where indicated, never exceed the speed rating of an accessory. The wire brush accessory must not be used above speed setting 3 (15,000 min<sup>-1</sup>).

### Variable speed control (fig. D)

The variable speed control allows you to adapt the speed of the tool to the application.







## ENGLISH

- ◆ Set the control knob (3) to the desired setting. At setting 1 the tool will operate at low speed, 8,000 min<sup>-1</sup>. At setting 6 the tool will operate at the maximum speed, 27,000 min<sup>-1</sup>.

The table below suggests settings for different applications.

Application	Setting
Drilling holes	4-5
Cutting metal	5-6
Engraving metal	4-5
Removing rust	1-2
Sharpening	3-5
Polishing	1-2
Sanding wood	5-6
Removing paint	3-5

### Switching on and off (fig. E)

- ◆ To switch the tool on, slide the on/off switch (1) forward (position I).
- ◆ To switch the tool off, slide the on/off switch to the rear (position 0).

### Hints for optimum use

- ◆ Always hold the tool securely as shown in fig. F. For precision work, hold the tool near the front.
- ◆ Do not exert too much pressure on the tool.
- ◆ Consult your retailer for more information on available accessories.

### MAINTENANCE

Your Black & Decker tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



Before performing any maintenance, switch off and unplug the tool.

- ◆ Regularly clean the ventilation slots in your tool using a soft brush or dry cloth.
- ◆ Regularly clean the motor housing using a damp cloth. Do not use any abrasive or solvent-based cleaner.

### PROTECTING THE ENVIRONMENT



Should you find one day that your tool needs replacement, or if it is of no further use to you, think of the protection of the environment. Black & Decker repair agents will accept old Black & Decker tools and ensure that they are disposed of in an environmentally safe way.

### Technical data

		RT650
Voltage	V <sub>AC</sub>	230
Power input	W	90
No-load speed	min <sup>-1</sup>	8,000 - 27,000
Weight	kg	\$

### GUARANTEE (UK, SOUTH AFRICA, AUSTRALIA AND NEW ZEALAND ONLY)

Should your Black & Decker product become defective due to faulty materials or workmanship, within 24 months from the date of purchase, we guarantee to either replace all defective parts or -at our discretion- to replace the unit free of charge, provided that:

- ◆ The product is returned to us or one of our authorised repair agents with proof of purchase.
- ◆ The product has not been used for trade, professional or hire purposes.
- ◆ The product has not been subjected to misuse or neglect.
- ◆ The product has not sustained any damage through foreign objects, substances or accidents.
- ◆ Repairs have not been attempted by anyone other than our service staff or authorised repair agents.

This guarantee is offered as an extra benefit and does not affect your statutory rights.

### AFTER SALES SERVICE (UK, SOUTH AFRICA, AUSTRALIA AND NEW ZEALAND ONLY)

Black & Decker offers a nationwide network of authorised repair agents. The use of other than genuine Black & Decker parts and accessories may reduce the performance of the tool and cause personal injury and material damage.



## ENGLISH

The terms and conditions of the warranty could also be rendered void.

### OUR AFTER SALES SERVICE POLICY (UK, AUSTRALIA AND NEW ZEALAND ONLY)

Full details on our after-sales service are available on the Internet at **[www.2helpU.com](http://www.2helpU.com)**.

Alternatively, contact our Service and Information Centre at the address towards the back of this manual.

It is our aim that all Black & Decker customers should be totally satisfied with their Black & Decker product and our after sales service. If any help or advice is needed, please contact your local Black & Decker repair agent.

If your product needs repair, please take or send it to an authorised repair agent, providing proof of purchase if claiming a guarantee repair.

### OTHER DIY TOOLS

Black & Decker has a full range of tools that make DIY jobs easy. If you would like further information on the following products, please contact our Service and Information Centre (see the address page towards the end of this manual) or your local Black & Decker retailer.

Drills  
Cordless screwdrivers  
Cordless drills/screwdrivers  
Sanders  
Jigsaws  
Circular saws  
Mitre saws  
Angle grinders  
Planers  
Routers  
Corded and cordless multi-purpose tools  
Paint strippers  
Workbenches

We also have a wide range of accessories for the above tools.

Not all products are available in all countries.





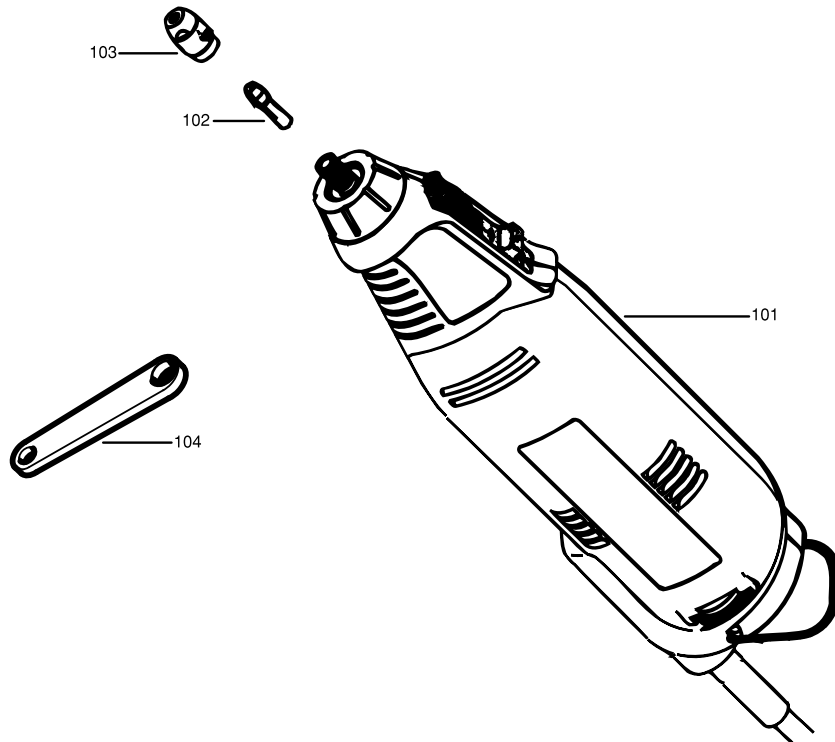




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<b>Australia</b>	DeWALT Industrial Power Tool Company 7 Clarice Road Box Hill, Victoria 3128	Tel. 03 9895 9200 Fax 03 9899 7465
<b>New Zealand</b>	Black & Decker 81 Hugo Johnson Drive Penrose, Auckland, New Zealand	Tel. 09 579 7600 Fax 09 579 8200
<b>South Africa</b>	Black & Decker South Africa (Pty) Ltd Physical address: 146 Lechwe Street Corporate park Randjiesfontein, Midrand Postal address: Postnet Suite 107, Private Bag X65 Halfway House 1685	Tel. (011) 653-1400 Fax (011) 653-1499
<b>United Kingdom</b>	Black & Decker 210 Bath Road Slough, Berkshire SL1 3YD	Tel. 01753 511234 Fax 01753 551155 Helpline 01753 574277





**Dealer address**

**Date of purchase**



Name: .....

Address: .....

Town: .....

Postal code: .....

Was this tool bought as a replacement?

Yes  
 No

Was this tool a gift?

Yes  
 No

Was this tool your first purchase?

Yes  
 No

Dealer address: .....

Data protection act:  
 Tick the box if you prefer not to receive further information.





# GUARANTEE CARD



Please complete this section immediately after the purchase of your tool and send it to Black & Decker in your country. If you live in Australia or New Zealand, please register by using the alternative guarantee card supplied.



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