

# BLACK+ DECKER™

[www.blackanddecker.com](http://www.blackanddecker.com)



RT18  
RT18KA

English

4

FIG. A

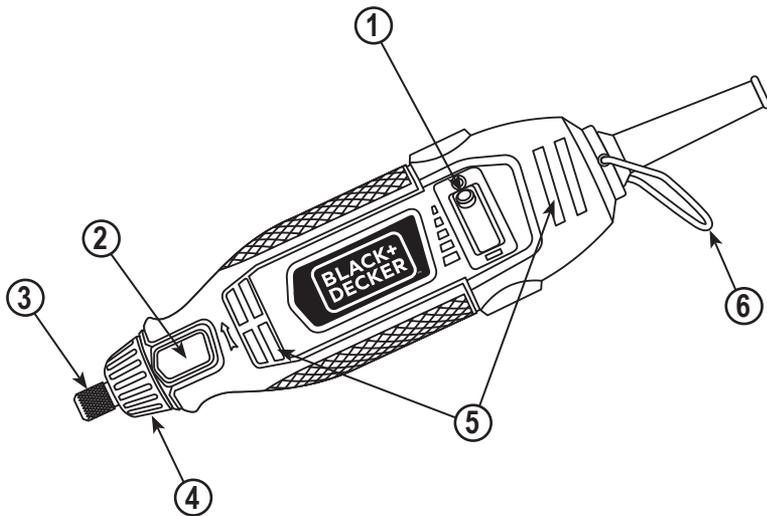


FIG. B

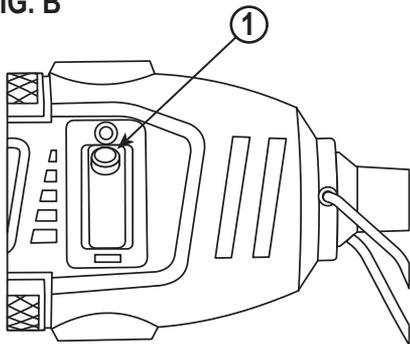


FIG. C

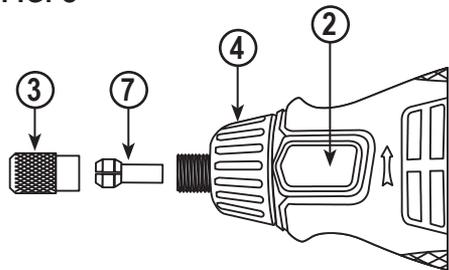


FIG. D

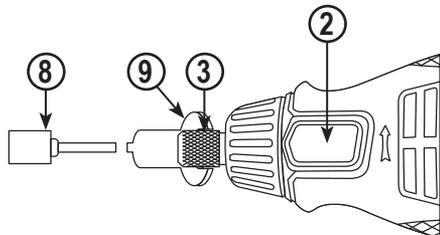


FIG. E

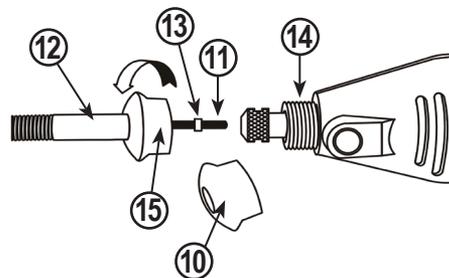


FIG. F

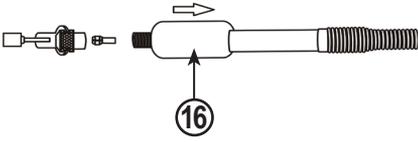


FIG. G

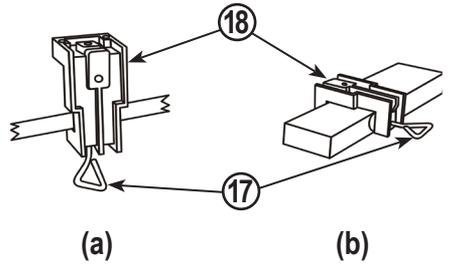


FIG. H

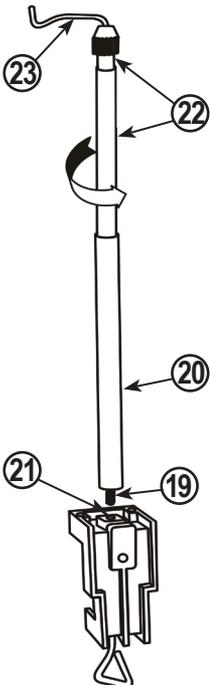
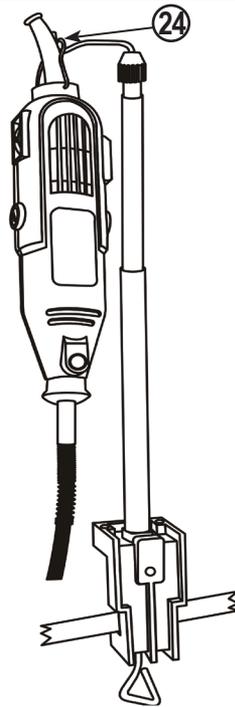
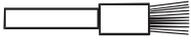
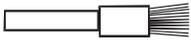
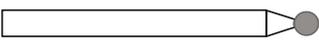


FIG. I

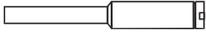
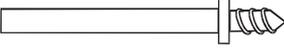
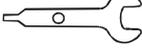


► The illustrations are for representative purposes only, they can differ from actual product.

# ACCESSORIES

Illustration	Description	Shape	Quantity
	Cut Off wheel	15/16"	23
	Sanding disc	3/4" Round	31
	Drum sander	1/2" Diameter 1/8" Shank	1
	Sanding band	1/2"	18
	Felt polishing wheel	1"	3
	Felt polishing wheel	1/2"	3
	Felt polishing tip	3/8"	3
<b>Assorted</b>	Grinding stones	Assorted	10
	Brass brush	1/4" Axial	1
	Brass brush	7/8" Radial	1
	Bristle brush	1/4" Axial	1
	Bristle brush	7/8" Radial	1
	Diamond bit	5/64" Taper	1
	Diamond bit	5/64" Ball	1

## ACCESSORIES

Illustration	Description	Shape	Quantity
	Diamond bit	Cylinder	1
	Multi-purpose bit	1/8" Cylinder	1
	Screw mandrel	3/32"	1
	Screw mandrel	1/8"	1
	Mandrel for felt wheels	1/8"	1
	Dressing stone	3/8" x 3/8" x 1"	1
	Collet (installed in tool)	1/8"	1
	Collet	3/32"	1
	Collet	1/16"	1
	Collet wrench		1
	Depth gauge		1

## RT18/RT18KA TOTARY TOOL

### TECHNICAL DATA

SPECIFICATIONS	RT18
Power	180W
Rated speed	38000/min
Max chuck capacity	1/16" (1,6mm), 3/32" (2,4mm), 1/8" (3,2mm)
Weight	0,68kg (1,5lb)

### GENERAL SAFETY RULES

△ **Warning!** Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

### SAVE THESE INSTRUCTIONS



#### SAFETY INSTRUCTIONS

**General power tool safety warnings.**

**Warning!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions listed below may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

#### 1. Work Area Safety

- Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

#### 2. Electrical Safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.

- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock. **Note:** The term "Residual Current Device (RCD)" can be replaced by "Ground Fault Circuit Interrupter (GFCI)" or by "Earth Leakage Circuit Breaker (ELCB)".

#### 3. Personal Safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust related hazards.

#### 4. Power Tool Use and Care

- a. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

## 5. Service

- a. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

## 6. Electrical safety



Your tool is double insulated; therefore no earth wire is required. Always check that the main voltage corresponds to the voltage on the rating plate.



**Warning!** If the power cord is damaged, it must be replaced by the manufacturer, authorized BLACK+DECKER Service Center or an equally qualified person in order to avoid damage or injury. If the power cord is replaced by an equally qualified person, but not authorized by BLACK+DECKER the warranty will not be valid.

## 7. Labels on tool

The label on your tool may include the following symbols:



Read Instructions Manual



Use Eye Protection



Use Ear Protection

Hz ..... Hertz

W ..... Watts

min ..... minutes

~ ..... Alternating Current

— ..... Direct Current

V ..... Volts  
A ..... Amperes

n<sub>0</sub> ..... No-Load Speed



..... Class II Construction



..... Earthing Terminal



..... Safety Alert Symbol



.../min.. Revolutions or Reciprocation per minute

## SAFETY WARNINGS COMMON FOR GRINDING, SANDING, WIRE BRUSHING, POLISHING OR ABRASIVE CUTTING-OFF OPERATIONS

- a. **This power tool is intended to function as a grinder. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b. **Operations such as sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c. **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d. **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- e. **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- f. **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g. **Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.
- h. **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires.**

If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

- i. **Wear personal protective equipment.** Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- j. **Always hold the tool firmly in your hand(s) during the start-up.** The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.
- k. **Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use.** Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.
- l. **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- m. **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
- o. **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- p. **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- q. **After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened.** Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.
- r. **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory

could snag your clothing, pulling the accessory into your body.

- s. **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- t. **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
  - u. **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

## FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

### KICKBACK AND RELATED WARNINGS

- ▶ Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.
- ▶ For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.
- ▶ Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:
  - a. **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.
  - b. **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
  - c. **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
  - d. **Do not attach a toothed saw blade.** Such blades create frequent kickback and loss of control.
  - e. **Always feed the bit into the material in the same direction as the cutting edge is exiting**

from the material (which is the same direction as the chips are thrown). Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.

- f. **When using rotary files, cut-off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped.** These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.
- g. **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- h. **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.

- f. **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
- g. **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- h. **Use extra caution when making a “pocket cut” into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

### SAFETY WARNINGS SPECIFIC FOR WIRE BRUSHING OPERATIONS

- a. **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.** The wire bristles can easily penetrate light clothing and/or skin.
- b. **Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush.** Loose bristles or wires will be discharged during the run-in time.
- c. **Direct the discharge of the spinning wire brush away from you.** Small particles and tiny wire fragments may be discharged at high velocity during the use of these brushes and may become imbedded in your skin.

### SAFETY WARNINGS SPECIFIC FOR GRINDING AND ABRASIVE CUTTING-OFF OPERATIONS

- a. **Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- b. **For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length.** Proper mandrels will reduce the possibility of breakage.
- c. **Do not “jam” a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.
- d. **Do not position your hand in line with and behind the rotating wheel.** When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.
- e. **When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the**

### EXTENSION CORDS

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

## Minimum gage for cord sets

Volts	Total length of cord in feet				
	120V	0 - 25	26 - 50	51 - 100	101 - 150
220V	0 - 50	51 - 100	101 - 200	201 - 300	
Amperios		Total length in feet			
More than	No more than	25	50	11	150
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not recommended	

## FEATURES (Fig. A)

- ON/OFF switch and speed control
- Spindle lock button
- Collet nut
- Umbrella nut
- Air vents
- Hanging loop

## ASSEMBLY

### ON/OFF and speed control switch (Fig. B)

Both the ON/OFF and speed control functions are controlled by one switch (1) located on the top of the tool.

- To turn the tool ON, slide the switch to the left.
- To turn the tool OFF, slide the switch to the right.
- To increase the speed, turn the tool ON and continue to slide the switch to the left. To decrease the speed, slide the switch to the right.

### Changing the collet (Fig. C)

Some accessories require the use of different sized collets.

Collet sizes can be 1/8", 3/32" and 1/16". It is important to ensure that the collet size matches the accessory.

**Note:** This tool includes the most commonly used collets: 1/8", 3/32" and 1/16".

△ **Warning!** Using a collet that is too large for the accessory will result in the accessory possibly being thrown from the tool causing serious injury.

- Instruction on mounting of accessories and use and care of abrasive products
- Instruction on the use of all the different types of wheels specified in the instructions, e.g. side grinding, peripheral grinding
- Instruction to properly support the workpiece
- Instruction on proper handling of the tool depending on the operation (one or two handed control)
- In case of cones or plugs with a threaded hole

intended to be mounted on a threaded mandrel, critical dimensions and other data shall be given in order to prevent the mandrel end from touching the bottom of the hole of the abrasive product

- Instruction that the maximum recommended diameter of **mounted wheels, threaded cones and plugs** shall not exceed 55 mm and that the maximum recommended diameter of sanding accessories shall not exceed 80 mm

- Turn the tool switch **OFF** and remove the plug from the power source.
- Depress the spindle lock button (2) and slowly turn the collet nut (3) until the spindle lock button locks the spindle (Fig. C).
- While holding the spindle lock button down, turn the collet nut counter clockwise until it is removed.
- Remove the collet (7) by pulling it out of the spindle.
- Insert the replacement collet into the spindle and replace the collet nut by turning it clockwise while holding the spindle lock button down.
 

**Note:** Do not tighten the collet nut without an accessory installed in the collet. You will damage the collet.

## Installing accessories (Fig. D)

- Turn the switch **OFF** and disconnect the tool from the power source.
- Depress the spindle lock button (2) and slowly turn the collet nut (3) until the spindle lock button locks the spindle (Fig. D).
- While holding the spindle lock button down, turn the collet nut counter-clockwise until the collet is loose inside the collet nut.
- Insert accessory (8) into collet.

### Notes:

- Make sure the correct collet is used for the accessory. If collet is too large, replace the collet with the next smaller size.
  - Insert accessory at least 3/4" into the collet.
- Press the spindle lock button and engage it in the spindle. While holding the spindle lock button down, hand-tighten the collet by turning it clockwise.

**Note:** Do not use pliers to tighten the collet nut. Use the small wrench supplied. Over tightening will cause damage to the tool.

- Pull on the accessory to ensure it is securely in place.

## Connecting the flexible shaft to the tool (Fig. E)

The flexible shaft is designed to facilitate working in confined spaces where otherwise using the rotary tool may be awkward.

△ **Warning!** Never bend the flexible shaft with a radius of less than 6" when operating. Store the flexible shaft in the designated compartment of the blow molded case when not in use.

- Remove umbrella nut (10) from the tool by turning it

counter-clockwise.

- Before replacing collet nut, check to make sure the 1/8" collet is installed in the motor shaft.

**Notes:**

- To change collet, see Fig. C.
  - Do not tighten collet nut on collet.
- Pull flexible shaft inner cable (11) out of the outer casing (12) about 2".
  - Insert flexible shaft inner cable into the collet until the stopper (13) touches the collet.
  - Tighten collet nut (see Fig. D).  
**Note:** Do not use pliers to tighten the collet nut. Use the small wrench supplied. Over tightening will cause damage to the tool.  
**Note:** Slide flexible shaft outer casing over the collet nut until casing rests against the threaded section (14).  
**Note:** DO NOT force the outer casing. If the outer casing will not easily slide over the inner cable, turn the collet on the opposite end of the flexible shaft until the resistance of the inner cable ceases.
  - This should allow the outer casing to slide over the inner cable, and then allow the casing to rest against the threaded section.
  - Screw flexible shaft head nut (15) onto the threaded section by turning it clockwise.  
**Note:** Only finger-tighten spindle nut. Do not use pliers or wrench.

**Changing the collet and accessories in the flexible shaft (Fig. F)**

To change the collet or to install an accessory in the flexible shaft, follow "Changing the collet" and "Installing accessories". To lock the shaft, pull back on the flexible shaft grip (16) and rotate the collet until the shaft grip locks the shaft (see Fig. F). The flexible shaft grip will return to its normal position when not being held in the lock position.

**Notes:**

- Do not attempt to loosen or tighten the collet without locking the shaft as noted above. Damage to the flexible shaft will result.
  - Do not over tighten collet nut.
- ⚠ **Warning!** When using the flexible shaft, only hold the shaft by the grip. Do not force the cutting accessory so as to avoid damaging the flexible shaft.

**Assembling and installing the stand (Fig. G, H, I)**

The C-clamp that holds the hang bar rod can be mounted either horizontally or vertically (a) and (b).

- Clamp the C-clamp (18) onto a work table (horizontal surface) or other appropriate vertical surface by tightening the clamp screw (17) clockwise (see, (a) and (b)).  
**Note:** Do not over tighten to avoid breaking the clamp.

- Thread screw (19) in the bottom of the hang bar rod (20) into the appropriate mounting hole (21) in the C-clamp (Fig. H).

**Note:** Do not over tighten. Hand-tighten only.

- Loosen hang bar sections (22) by turning them counter-clockwise.
- Pull out each hang bar section approximately 5" and lock into place by turning them clockwise.  
**Note:** Do not over tighten. You will damage the locking mechanism.
- Insert the rotary tool hanger (23) into the top of the hang bar rod.
- Using the hang loop on the rotary tool (24) hang rotary tool from the stand (Fig. I).

**Selecting proper speeds**

Different speeds are required depending upon the type of operation being performed. The following chart outlines those basic speeds:

OPERATION	SPEED
Cutting metal	Maximum
Sanding wood	Maximum
Cutting hard metal	Maximum
Engraving metal	Med-Max
De-burring	Med-Max
Drilling holes	Med-Max
Removing rust	Med
Sharpening	Med
Polishing	Slow

**APPLICATION**

⚠ **Warning!** To reduce the risk of injury, electric shock and damage to the tool, before any work check the utility lines electricity, gas or water supply line are hidden in the work area.

⚠ **Warning!** Firmly grasp primary hold part of tool and side handle before starting.

**MAINTENANCE**

Your 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.

⚠ **Warning!** When servicing, use only identical replacement parts. Use of any other part may create a hazard or cause product damage.

**DO NOT** use solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use.

Use clean cloth to remove dirt, dust, oil, grease etc.

⚠ **Warning!** Do not at any time allow brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

**DO NOT** abuse power tools. Abusive practices can damage the tool as well as the workpiece.

⚠ **Warning!** Do not attempt to modify this rotary tool or create accessories not recommended for use. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury. It will also void the warranty.

⚠ **Important!** To assure product Safety and reliability, repairs, maintenance and adjustment (other than those listed in this manual) should be performed by authorized service centers or other qualified service personnel, always using identical replacement parts.

## LUBRICATION

All of the bearings in this rotary tool are lubricated with a sufficient amount of high- grade lubricant for the life of the unit under normal conditions. Therefore, no further lubrication is required.

## ACCESSORIES

The performance of your tool depends on the accessory used. BLACK+DECKER accessories are engineered to high quality standards and designed to enhance the performance of your tool. By using these accessories you will get the very best from your tool.

## PROTECTING THE ENVIRONMENT



Separate collection. This product must not be disposed of with normal household waste. Should you find one day that your BLACK+DECKER product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials. Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

## SERVICE INFORMATION

BLACK+DECKER offers a full network of company-owned and authorized service locations throughout Asia. All BLACK+DECKER Service Centers are staffed with trained

personnel to provide customers with efficient and reliable power tool service. Whether you need technical advice, repair, or genuine factory replacement parts, contact the BLACK+DECKER location nearest to you.

## NOTES

- ▶ BLACK+DECKER's policy is one of continuous improvement to our products and, as such, we reserve the right to change product specifications without prior notice.
- ▶ Standard equipment and accessories may vary by country.
- ▶ Product specifications may differ by country.
- ▶ Complete product range may not be available in all countries.
- ▶ Contact your local BLACK+DECKER dealers for range availability.