

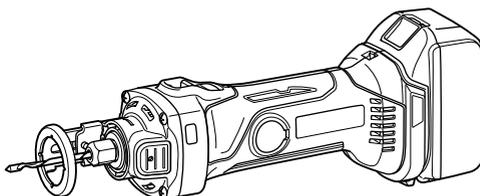
INSTRUCTION MANUAL



# Cordless Cut-Out Tool

DCO140

DCO180



014848

**IMPORTANT:** Read Before Using.

## ENGLISH (Original instructions)

# SPECIFICATIONS

Model	DCO140	DCO180
Collet chuck capacity	3 mm, 6 mm or 1/8", 1/4"	3 mm, 6 mm or 1/8", 1/4"
Rated speed (n)/ No load speed (n <sub>0</sub> )	30,000 min <sup>-1</sup>	30,000 min <sup>-1</sup>
Overall length	313 mm	313 mm
Net weight	1.6 kg	1.7 kg
Rated voltage	D.C. 14.4 V	D.C. 18 V

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.
- Weight, with battery cartridge, according to EPTA-Procedure 01/2003

END004-6

## Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



- Read instruction manual.



- Only for EU countries

Do not dispose of electric equipment or battery pack together with household waste material!

In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE012-1

## Intended use

The tool is intended for cutting gypsum, wood, plastic and soft wall tiles.

ENG905-1

## Noise

The typical A-weighted noise level determined according to EN60745:

Sound pressure level (L<sub>pA</sub>) : 77 dB (A)

Uncertainty (K) : 3 dB (A)

The noise level under working may exceed 80 dB (A).

## Wear ear protection

ENG900-1

## Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

Work mode : rotation without load  
Vibration emission (a<sub>h</sub>) : 2.5 m/s<sup>2</sup> or less  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

ENG901-1

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

## ⚠WARNING:

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

ENH101-17

## For European countries only

### EC Declaration of Conformity

**Makita declares that the following Machine(s):**

Designation of Machine:

Cordless Cut-Out Tool

Model No./ Type: DCO140, DCO180

**Conforms to the following European Directives:**  
2006/42/EC

They are manufactured in accordance with the following Standard or standardized documents:

EN60745

The Technical file in accordance with 2006/42/EC is available from:

Makita, Jan-Baptist Vinkstraat 2, 3070, Belgium

27.9.2013



000331

Yasushi Fukaya  
Director

Makita, Jan-Baptist Vinkstraat 2, 3070, Belgium

GEA006-2

## General Power Tool Safety

### Warnings

**⚠ WARNING** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

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

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

#### Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

#### Electrical safety

4. **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.
5. **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.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **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.
8. **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.

9. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.

#### Personal safety

10. **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.
  11. **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.
  12. **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.
  13. **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.
  14. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
  15. **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.
  16. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- #### Power tool use and care
17. **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.
  18. **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.
  19. **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.

20. **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.
21. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
22. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
23. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

#### **Battery tool use and care**

24. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
25. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
26. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
27. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

#### **Service**

28. **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.
29. **Follow instruction for lubricating and changing accessories.**
30. **Keep handles dry, clean and free from oil and grease.**

## **CORDLESS CUTOUT TOOL SAFETY WARNINGS**

1. **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
2. **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
3. **Wear eye protection and dust mask.**
4. **Ventilate your work area adequately.**
5. **Check the bit carefully for cracks or damage before operation. Replace cracked or damaged bit immediately.**
6. **Check for the proper clearance beneath the workpiece before cutting so that the bit will not strike a hard surface such as the floor, workbench, etc.**
7. **Do not cut metal objects such as nails and screws. Inspect for and remove all nails, screws and other foreign material from the workpiece before operation.**
8. **Check that the bit is not contacting the workpiece before the switch is turned on. Always hold the tool with two hands while switching the tool on. The motor torque can cause the tool to turn.**
9. **Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate improperly installed bit.**
10. **Make sure that the shaft lock is released before the switch is turned on.**
11. **Always use with the shoe securely attached to the tool and positioned flat and firmly against the workpiece.**
12. **Hold the tool firmly.**
13. **Do not perform any operation using your hands to support or guide the workpiece.**
14. **Keep hands away from moving parts.**
15. **Do not use this tool for drilling.**
16. **Do not leave the tool running. Operate the tool only when hand-held.**
17. **Always switch off and wait for the bit to come to a complete stop before removing the bit from workpiece.**

18. Do not touch the bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
19. Draw attention to the need to use cutters of the correct shank diameter and which are suitable for the speed of the tool.

## SAVE THESE INSTRUCTIONS.

### **⚠WARNING:**

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

ENC007-8

## IMPORTANT SAFETY INSTRUCTIONS

### FOR BATTERY CARTRIDGE

1. Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
  2. Do not disassemble battery cartridge.
  3. If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
  4. If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.
  5. Do not short the battery cartridge:
    - (1) Do not touch the terminals with any conductive material.
    - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
    - (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
  6. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 ° C (122 ° F).
  7. Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
  8. Be careful not to drop or strike battery.
  9. Do not use a damaged battery.
10. Follow your local regulations relating to disposal of battery.

## SAVE THESE INSTRUCTIONS.

### Tips for maintaining maximum battery life

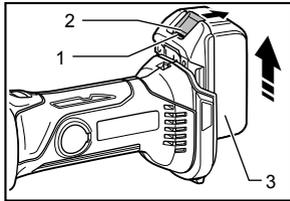
1. Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
2. Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
3. Charge the battery cartridge with room temperature at 10 ° C - 40 ° C (50 ° F - 104 ° F). Let a hot battery cartridge cool down before charging it.
4. Charge the battery cartridge once in every six months if you do not use it for a long period of time.

## FUNCTIONAL DESCRIPTION

### ⚠CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

### Installing or removing battery cartridge



014849

1. Red indicator
2. Button
3. Battery cartridge

### ⚠CAUTION:

- Always switch off the tool before installing or removing of the battery cartridge.
- **Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.** Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Install it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

### ⚠CAUTION:

- Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being installed correctly.

### Battery protection system

The tool is equipped with a battery protection system. This system automatically cuts off power to the motor to extend battery life.

The tool will automatically stop during operation if the tool and/or battery are placed under one of the following conditions:

- **Overloaded:**  
The tool is operated in a manner that causes it to draw an abnormally high current.

In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

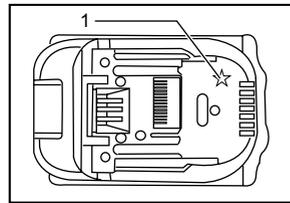
If the tool does not start, the battery is overheated. In this situation, let the battery cool before turning the tool on again.

- **Low battery voltage:**

The remaining battery capacity is too low and the tool will not operate. In this situation, remove and recharge the battery.

### NOTE:

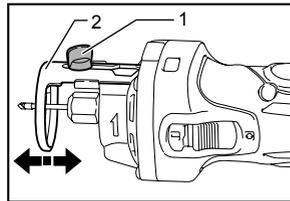
The overheat protection works only with a battery cartridge with a star marking.



012128

1. Star marking

### Adjusting depth of cut



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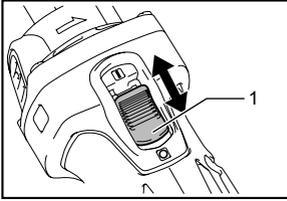
1. Thumb screw
2. Shoe

To adjust the shoe, loosen the thumb screw. Slide the shoe to the desired position and then tighten the thumb screw securely. Check for the proper clearance beneath the workpiece before cutting not to strike a hard surface such as the floor, workbench, etc.

### Switch action

#### ⚠CAUTION:

- Before installing the battery cartridge into the tool, always check to see that the slide switch actuates properly and returns to the "OFF" position when the rear of the slide switch is depressed.



1. Slide switch

014856

To start the tool, slide the slide switch toward the "I (ON)" position. For continuous operation, press the front of the slide switch to lock it.

To stop the tool, press the rear of the slide switch, then slide it toward the "O (OFF)" position.

### Accidental re-start preventive function

Even if the battery cartridge is installed on the tool with the slide switch in the "I (ON)" position, the tool does not start.

To start the tool, first slide the slide switch toward the "O (OFF)" position and then slide it toward the "I (ON)" position.

## ASSEMBLY

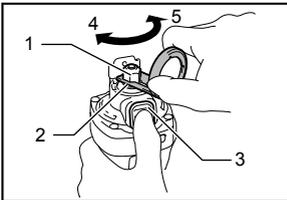
### ⚠CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

### Installing or removing bit

### ⚠CAUTION:

- Do not tighten the collet nut without installing a bit, or the collet cone may break.



1. Collet nut  
2. Shoe  
3. Shaft lock  
4. Tighten  
5. Loosen

014852

Press the shaft lock to prevent shaft rotation when installing or removing the bit.

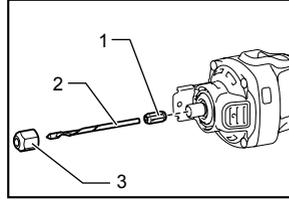
To install the bit, place it in the collet cone as far as it goes and then tighten the collet nut securely with the shoe as a wrench.

To remove the bit, follow the installation procedure in reverse.

## Changing the collet cone (country specific)

### ⚠CAUTION:

- Use the correct size collet cone for the bit which you intended to use.
- Do not tighten the collet nut without installing a bit, or the collet cone may break.



1. Collet cone  
2. Bit  
3. Collet nut

014853

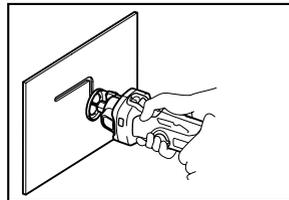
To change the collet cone, loosen the collet nut and remove. Remove the installed collet cone and replace with desired collet cone. Reinstall collet nut.

## OPERATION

### ⚠CAUTION:

- Avoid forcing the bit to bend or twist. It may snap.
- Before turning the tool on, make sure the bit and collet nut are securely tightened.

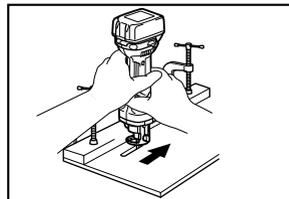
Hold the tool securely with the bit pointing in a safe direction not contacting any surface. Turn the tool on and wait until the tool reaches full speed.



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When using the drywall guide bit into a drywall, carefully insert the bit straight until the shoe base contacts the material fully.

Move the tool slowly with a constant pressure in a clockwise direction to make the cut.



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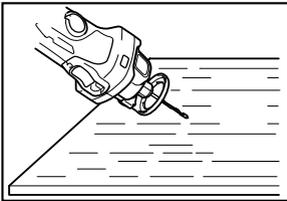
When cutting straight line, clamp a straight board firmly to the material and use it as a guide. Move the tool in the direction of the arrow with the shoe base flush with the side of the guide board.

When the cut is complete, turn the tool off and wait for the bit to stop rotating and then carefully remove it from the material.

**NOTE:**

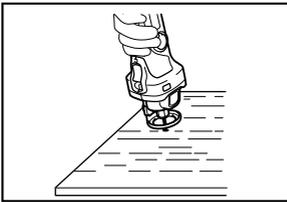
- When using this tool, the rotating action causes the tool to pull. The less pressure applied to the tool causes less pull and provides a more accurate cut. Excessive pressure or fast cutting can cause the bit to dull or break premature.
- When cutting drywall around outlet boxes, cut in a counterclockwise direction for ease of cut.
- The standard bit included with this tool is for cutting drywall only. When cutting materials other than drywall, do not use the standard drywall guide bit.

**Using multipurpose bit (optional accessory)**



014870

When using the multipurpose bit into the material, hold the tool at approximately a 45 degree angle with the edge of the shoe base contacting the material.



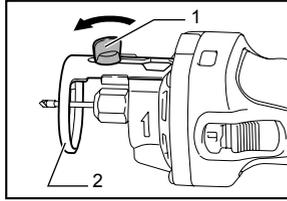
014871

Bring the tool carefully to a straight position so the shoe base contacts the material fully.

**Circular guide (optional accessory)**

Circular cutting diameters: 10 cm - 34 cm

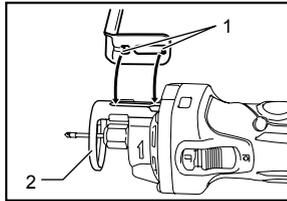
**Installing circular guide**



1. Thumb screw
2. Shoe

014865

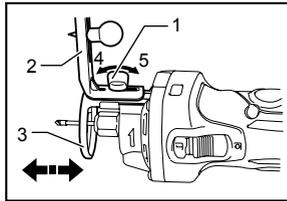
Release the thumb screw which secures the shoe.



1. Projections
2. Shoe

014866

Align the projections in the circular guide with the grooves in the shoe, and secure the shoe and circular guide with the thumb screw.

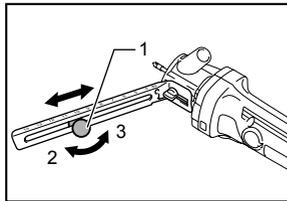


1. Thumb screw
2. Circular guide
3. Shoe
4. Loosen
5. Tighten

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To adjust the cutting depth, loose the thumb screw and then slide the shoe with the circular guide. After the proper adjustment, tighten the thumb screw securely.

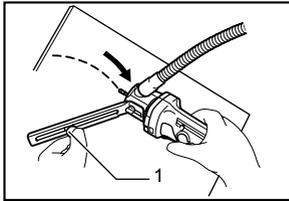
**Using circular guide**



1. Knob
2. Tighten
3. Loosen

014863

Loosen the knob, and adjust its position in accordance with the size of the circle to be cut. (The hole dimensions to be cut are indicated on the side of the circular guide as a general guideline.) After completion of the adjustment, tighten the knob securely.



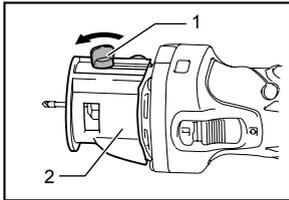
1. Knob

014864

Install the end of the knob into the center of the circle to be cut, and proceed to cut in a clockwise direction.

### Vacuum cover (optional accessory)

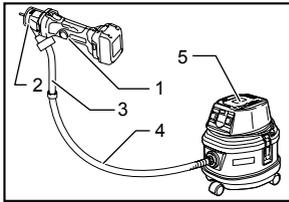
To perform cleaner operations, use the vacuum cover and connect the tool to Makita vacuum cleaner or dust collector.



1. Thumb screw
2. Vacuum cover

014851

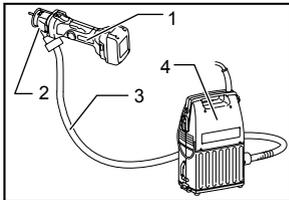
Loosen the thumb screw and remove the shoe. Attach the vacuum cover, and fasten it securely with the thumb screw. The circular guide (optional accessory) can be installed on the vacuum cover.



1. Tool
2. Vacuum cover
3. Hose 28
4. Hose for vacuum cleaner
5. Vacuum cleaner

014859

Connect the hose of a vacuum cleaner/dust collector to the vacuum cover. When connecting to Makita vacuum cleaner, use an optional hose 28 mm in inner diameter.



1. Tool
2. Vacuum cover
3. Hose 28
4. Dust collector

014860

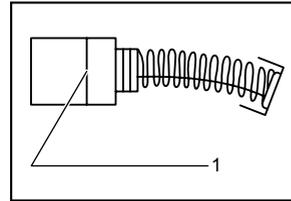
When connecting to Makita dust collector, connect the hose for the dust collector directly to the dust nozzle.

## MAINTENANCE

### ⚠CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

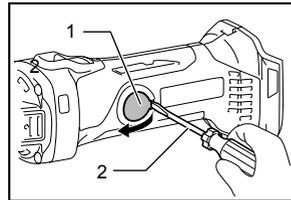
### Replacing carbon brushes



1. Limit mark

001145

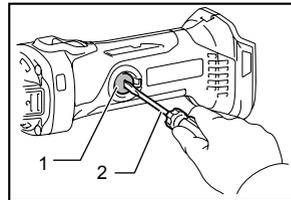
Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.



1. Holder cap cover
2. Screwdriver

014868

Insert the top end of slotted bit screwdriver into the notch in the tool and remove the holder cap cover by lifting it up.



1. Brush holder cap
2. Screwdriver

014869

Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps. Reinstall the holder cap cover on the tool.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

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## OPTIONAL ACCESSORIES

### CAUTION:

- These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Drywall guide bit
- Multi purpose bit
- Collet cone
- Wrench
- Circular guide
- Vacuum cover
- Makita genuine battery and charger

### NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.



**Makita** Jan-Baptist Vinkstraat 2, 3070, Belgium  
**Makita Corporation** Anjo, Aichi, Japan