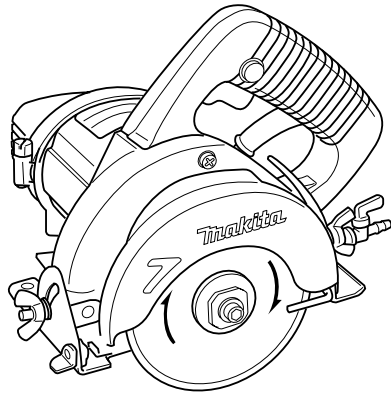




# Cutter

MODEL 4101RH



003504

## INSTRUCTION MANUAL

**⚠ WARNING:**

For your personal safety, READ and UNDERSTAND before using.  
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# SPECIFICATIONS

Model		4101RH
Wheel diameter		125 mm
Max. cutting capacities	90°	41.5 mm
	45°	26 mm
No load speed (min <sup>-1</sup> )		12,000
Overall length		236 mm
Net weight		3.0 kg
Safety class		Class I

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- Note: Specifications may differ from country to country.

## Symbols

END104-2

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

-  .....Read instruction manual.
  -  .....The tool should be used on horizontal surfaces.
  -  .....Do not use the tool upside down.
  -  .....The tool should be used with the PRCD (Portable Residual Current Device).
  -  .....Do not use the abrasive cut-off wheel.
  -  .....After use, brush off accumulation of dust on the base.
  -  .....Do not use the saw blade.
  -  .....Only for EU countries
- Do not dispose of electric equipment together with household waste material!

In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

## Intended use

The tool is intended for cutting in brick, concrete and stone with the use of water.

## Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. This tool should be grounded while in use to protect the operator from electric shock. Use only three-wire extension cords which have three-prong grounding-type plugs and three-pole receptacles which accept the tool's plug.

## For European countries only

### Noise and Vibration

The typical A-weighted noise levels are  
 sound pressure level: 99 dB (A)  
 sound power level: 110 dB (A)

Uncertainty: 3 dB

– Wear ear protection. –

The typical weighted root mean square acceleration value is 4 m/s<sup>2</sup>.

These values have been obtained according to EN60745.

## EC-DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product is in compliance with the following standards of standardized documents, EN60745, EN55014, EN61000 in accordance with Council Directives, 73/23/EEC, 89/336/EEC, 98/37/EC.

Yasuhiko Kanzaki **CE 2005**



Director

## MAKITA INTERNATIONAL EUROPE LTD.

Michigan Drive, Tongwell, Milton Keynes, Bucks MK15 8JD, ENGLAND

Responsible manufacturer:

Makita Corporation Anjo Aichi Japan

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# GENERAL SAFETY RULES

GEA001-3

## **WARNING:**

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

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## SAVE THESE INSTRUCTIONS

### Work area safety

1. **Keep work area clean and well lit.** Cluttered and 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.

### Personal safety

9. **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.

10. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
11. **Avoid accidental starting. Ensure the switch is in the off-position before plugging in.** Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
12. **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.
13. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
14. **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.
15. **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.

### Power tool use and care

16. **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.
17. **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.
18. **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.

- 
19. **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.
  20. **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.
  21. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
  22. **Use the power tool, accessories and tool bits etc. in accordance with these instructions and in**

**the manner intended for the particular type of power tool, 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.

#### **Service**

23. **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.
24. **Follow instruction for lubricating and changing accessories.**
25. **Keep handles dry, clean and free from oil and grease.**

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## **ADDITIONAL SAFETY RULES**

ENB052-2

1. **This tool is equipped with a portable residual current device. Do not connect the tool to a power supply without using the PRCD (Portable Residual Current Device). In case of damage of the cord, it has to be replaced by the manufacturer's service organization.**
2. **For additional protection against electric shock, be sure to WEAR RUBBER GLOVES AND RUBBER BOOTS during operation.**
3. **Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately.**
4. **Use only flanges specified for this tool.**
5. **Be careful not to damage the spindle, flanges (especially the installing surface) or bolt. Damage to these parts could result in wheel breakage.**
6. **When using the water feed, be careful not to let water get into the motor. If water runs into the motor, an electric shock hazard may result.**
7. **Hold the tool firmly.**
8. **Keep hands away from rotating parts.**
9. **Make sure the wheel is not contacting the workpiece before the switch is turned on.**
10. **Wait until the wheel attains full speed before cutting.**
11. **Stop operation immediately if you notice anything abnormal.**
12. **Never attempt to cut with the tool held upside down in a vise. This can lead to serious accidents, because it is extremely dangerous.(Fig. 1)**
13. **Before setting the tool down after completing a cut, be sure that the wheel has come to a complete stop.**
14. **Do not stop the wheel by lateral pressure on the disc.**

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## **SAVE THESE INSTRUCTIONS**

## FUNCTIONAL DESCRIPTION

### ⚠ CAUTION:

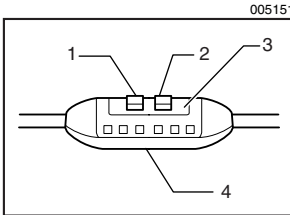
- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

### Portable residual current device

Connect the tool to a power supply and test the Portable Residual Current Device (PRCD) before using the tool. Push the "RESET" or "ON" button and confirm that the pilot lamp lights. Push the "TEST" button and confirm that the pilot lamp goes out. Push the "RESET" or "ON" button again to use the tool.

### ⚠ WARNING:

- Do not use the tool if the pilot lamp does not go out when the "TEST" button is pushed.



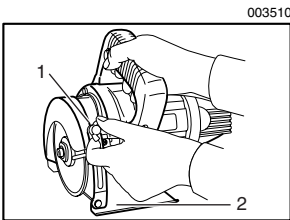
1. TEST button
2. "RESET" or "ON" button
3. Pilot lamp
4. Portable residual current device (PRCD)

### Adjusting the depth of cut

Loosen the wing bolt on the depth guide and move the base up or down. At the desired depth of cut, secure the base by tightening the wing bolt.

### ⚠ CAUTION:

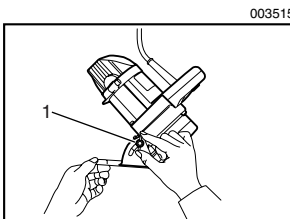
- After adjusting the depth of cut, always tighten the wing bolt securely.



1. Wing bolt
2. Base

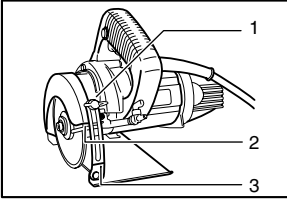
### Adjusting bevel angle

Loosen the wing nut on the bevel scale plate on the front of the base. Set for the desired angle ( $0^\circ - 45^\circ$ ) by tilting accordingly, then tighten the wing nut securely.



1. Wing nut

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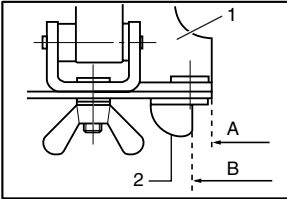
1. Wing bolt
2. End of blade case
3. Red line

Loosen the wing bolt on the depth guide and move the base so that the end of the blade case is above the red line on the depth guide. Then tighten the wing bolt to secure the base.

**NOTE:**

- If the end of the blade case is under the red line on the depth guide, the outer flange may hit the workpiece when you perform the bevel cut.

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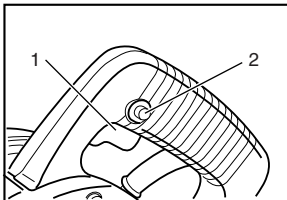
1. Base
2. Top guide

**Sighting**

For straight cuts, align the “A” position on the front of the base with your cutting line. For 45° bevel cuts, align the “B” position with it.

**Switch action**

003523



1. Switch trigger
2. Lock-off button

**⚠ CAUTION:**

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the “OFF” position when released.

To prevent the switch trigger from being accidentally pulled, a lock-off button is provided.

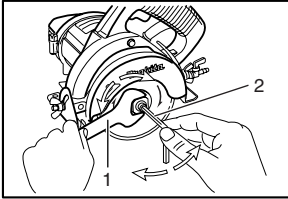
To start the tool, push in the lock-off button and pull the switch trigger. Release the switch trigger to stop.

**ASSEMBLY**

**⚠ CAUTION:**

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

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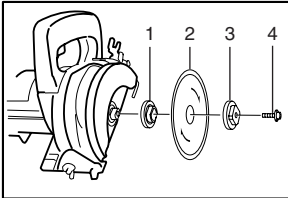


1. Wrench 22
2. Hex wrench

### Installing or removing diamond wheel

Hold the outer flange with the wrench and loosen the hex socket head bolt clockwise with the hex wrench. Then remove the hex socket head bolt, outer flange and diamond wheel.

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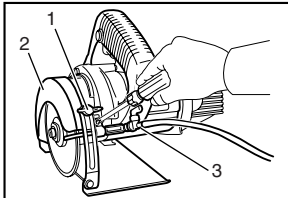
1. Inner flange
2. Diamond wheel
3. Outer flange
4. Hex socket head bolt

Install the diamond wheel, outer flange and hex socket head bolt onto the spindle. Hold the outer flange with the wrench and tighten the hex socket head bolt counterclockwise with the hex wrench. **BE SURE TO TIGHTEN THE HEX SOCKET HEAD BOLT SECURELY.**

#### ⚠ CAUTION:

- Use only the Makita wrench to install or remove the wheel.

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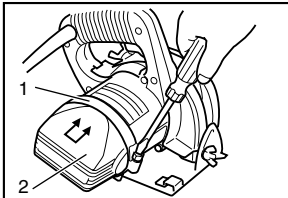
1. Wing bolt
2. Blade case
3. Water pipe

### Installing water pipe

First, unplug the tool. Loosen the wing bolt on the depth guide and move the base down. Install the water pipe on the blade case using the screw.

Attach the vinyl tube onto the water pipe and attach the adapter on the vinyl tube to a faucet of water mains pressure. Adjust the amount of water flow by simply adjusting the water cock.

003543



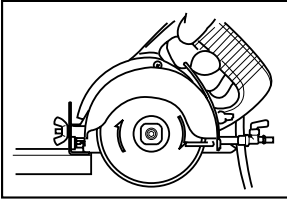
1. Clamp
2. Cover (A)

### Installing cover (A)

Install the cover (A) on the tool so that its side with "Upside ↑" mark faces upward.

## OPERATION

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Adjust the amount of water flow. Hold the tool firmly. Set the base plate on the workpiece to be cut without the wheel making any contact. Then turn the tool on and wait until the wheel attains full speed. Now simply move the tool forward over the workpiece surface, keeping it flat and advancing smoothly until the cutting is completed. Keep your cutting line straight and your speed of advance uniform.

### ⚠ CAUTION:

- THIS TOOL SHOULD ONLY BE USED ON HORIZONTAL SURFACES.
- Be sure to move the tool forward in a straight line and gently. Forcing and exerting excessive pressure or allowing the wheel to bend, pinch or twist in the cut can cause overheating of the motor and dangerous kickback of the tool.
- Since excessive cutting may cause overload of the motor, the depth of cut should not be more than 20 mm at a pass. When you wish to cut more than 20 mm deep, make a couple of passes with progressively deeper settings.

## MAINTENANCE

### ⚠ CAUTION:

- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

### Dressing diamond wheel

If the cutting action of the diamond wheel begins to diminish, use an old discarded coarse grit bench grinder wheel or concrete block to dress the diamond wheel. To do this, tightly secure the bench grinder wheel or concrete block and cut in it.

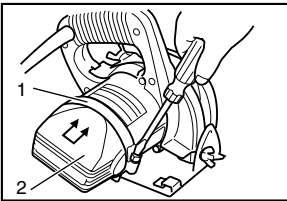
### After use

Blow away dust from the inside of the tool by running the tool at an idle for a while. Brush off accumulation of dust on the base. Accumulation of dust in the motor or on the base may cause a malfunction of the tool.

### Cleaning covers

When accumulation of dust on the cover (A) looks excessive, loosen the clamp and remove the cover (A). Wash off accumulation of dust inside the cover (A) and wipe it. Then install the cover (A) on the tool so that its side with "Upside ↑" mark faces upward. Push the cover (A) toward the motor as far as it will go and secure it by tightening the clamp.

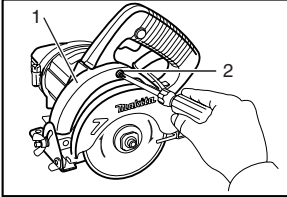
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1. Clamp
2. Cover (A)



003549



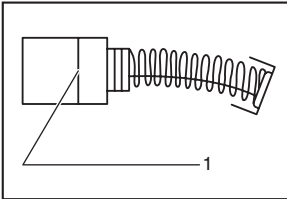
1. Cover (B)
2. Screw

When changing the wheel, clean the cover (B) at the same time. Loosen the screw securing the cover (B) and remove the cover (B). Wash off accumulation of dust inside the cover (B) and wipe it. Then attach the cover (B) to the tool by tightening the screw. Accumulation of dust inside the covers may cause a malfunction of the tool.

**⚠ CAUTION:**

- When using the tool, be sure to attach the covers (A) and (B).

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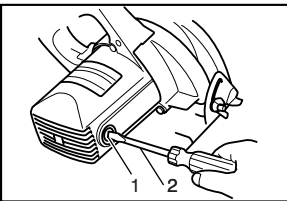
1. Limit mark

### Replacing carbon brushes

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.

First, remove the cover (A).

003550



1. Brush holder cap
2. Screwdriver

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.

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.

## 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.

- Diamond wheels
- Hex wrench 5
- Wrench 22
- Rip fence (Guide rule)





Makita Corporation Anjo, Aichi, Japan