

## Makita Cordless Max Tile & Glass Cutter 85mm

Cordless Pin Nailer powered by an 18V Lithium-Ion battery with a nose tip designed for better visibility – for quick and easy access to the desired firing point on a workpiece. Hire for fast and powerful fixing into the most delicate of trim pieces, tiny furniture trim and thin veneers where other large gauge guns might damage the workpiece.

### User Benefits

- Slide type Li-Ion battery
- Ergonomically designed handle
- On-tool storage for hex wrench
- Bevel cuts up to 45 degrees
- Large easy-fill water supply bottle
- High power
- Designed for cutting glass and ceramic tile
- Lock-off button for safe operation



### Machine Specifications

<b>Diamond Wheel Diameter</b>	85 mm	
<b>Max. Wheel Thickness</b>	0.8 mm	
<b>Max. Cutting Depth at 0° bevel</b>	25.5 mm	
<b>Max. Cutting Depth at 45° bevel</b>	16.5 mm	
<b>Sound pressure level (Lpa)</b>	84 dB(A)	
<b>Sound power level (Lwa)</b>	95 dB(A)	
<b>Uncertainty (K)</b>	3 dB(A)	
<b>Rated Speed</b>	1600 rpm	
<b>Vibration emission</b>	2.5 m/s <sup>2</sup>	
<b>Rated Voltage</b>	D.C. 10.8V – 12V Max	
<b>Battery Cartridge</b>	BL1015, BL1016, BL1020B, BL1021B	BL1040B, BL1041B
<b>Overall length</b>	313 mm	331 mm
<b>Net Weight</b>	1.8 kg	1.9 kg

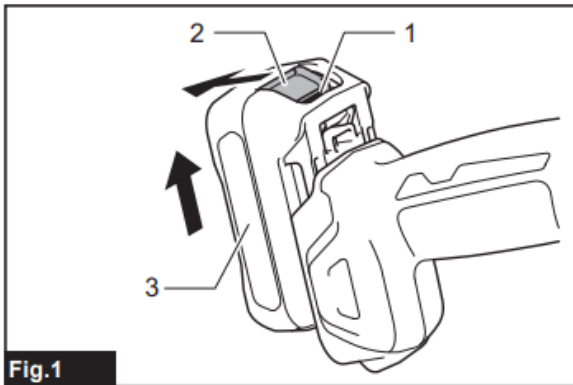


Fig.1

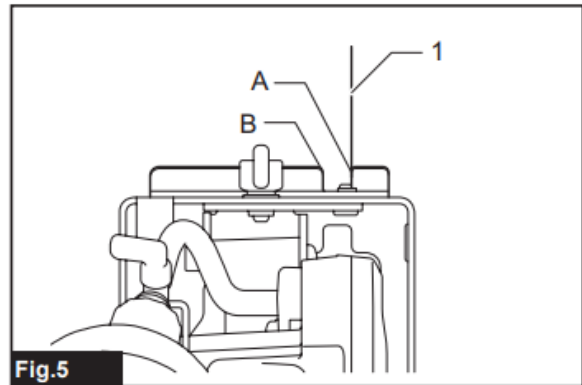


Fig.5

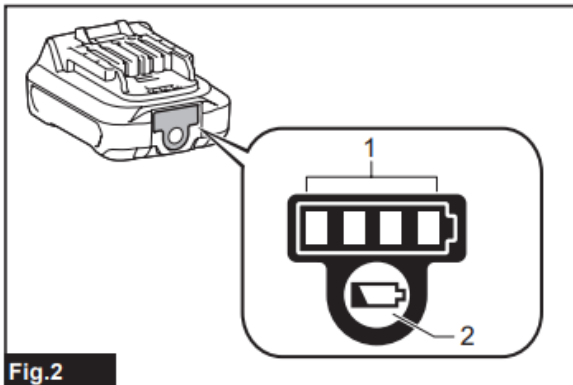


Fig.2

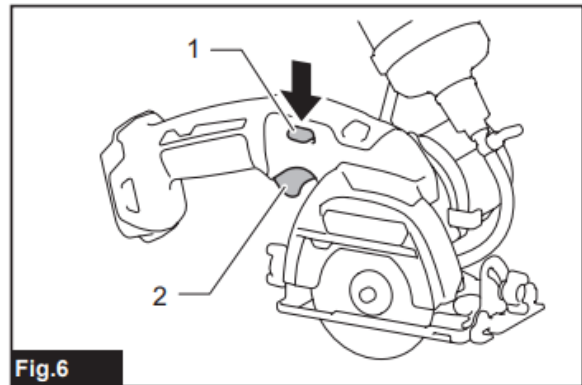


Fig.6

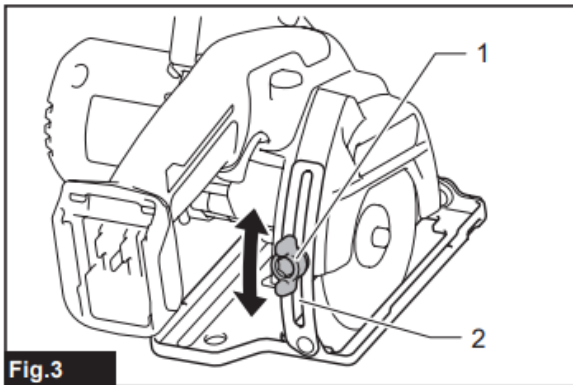


Fig.3

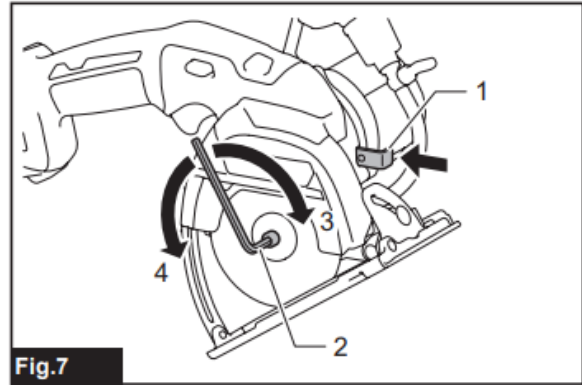


Fig.7

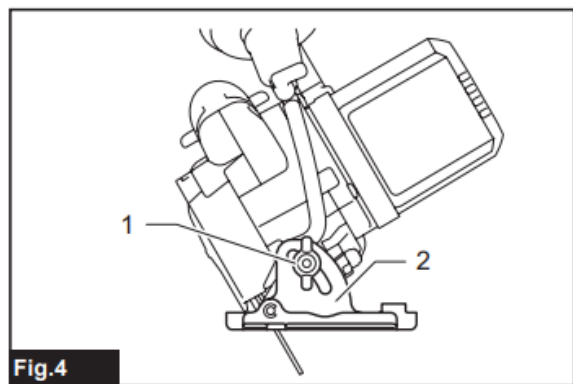


Fig.4

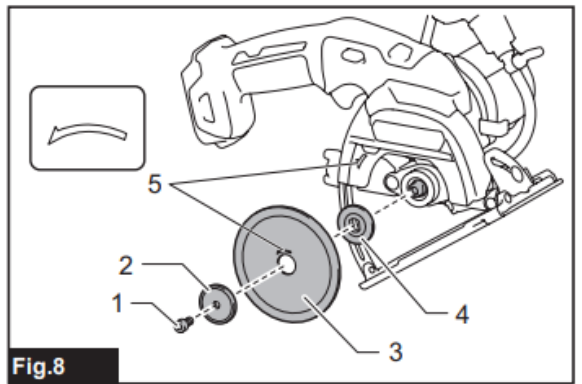


Fig.8

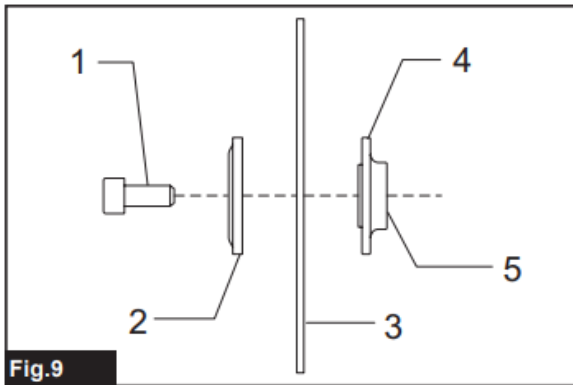


Fig.9

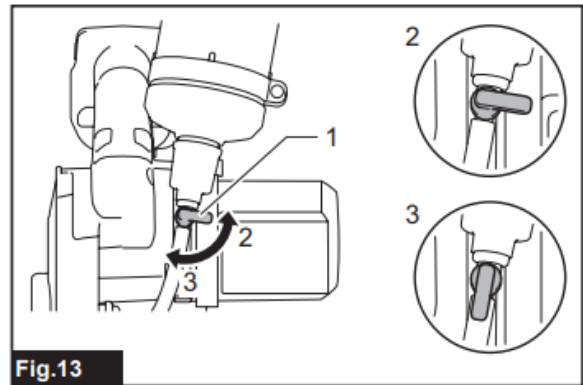


Fig.13

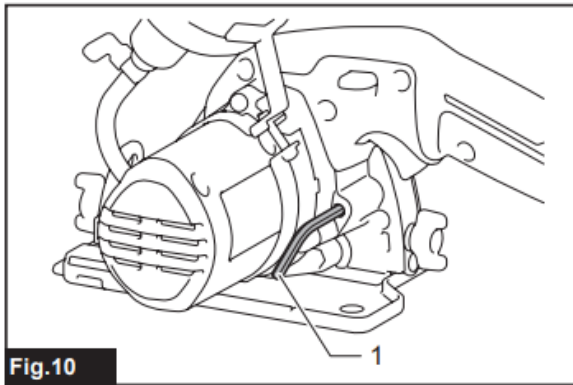


Fig.10

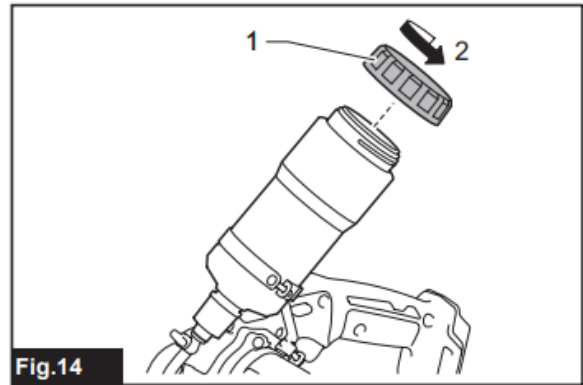


Fig.14

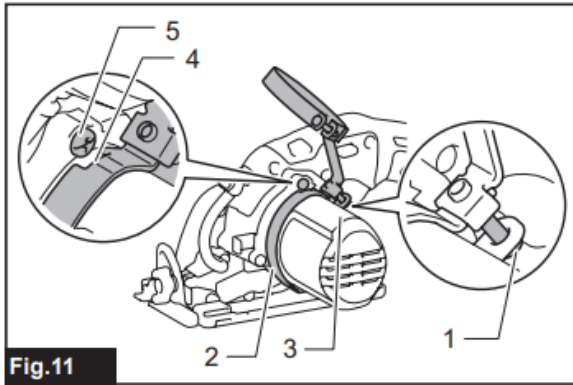


Fig.11

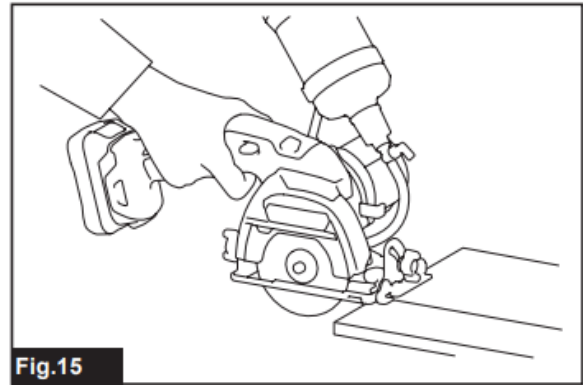


Fig.15

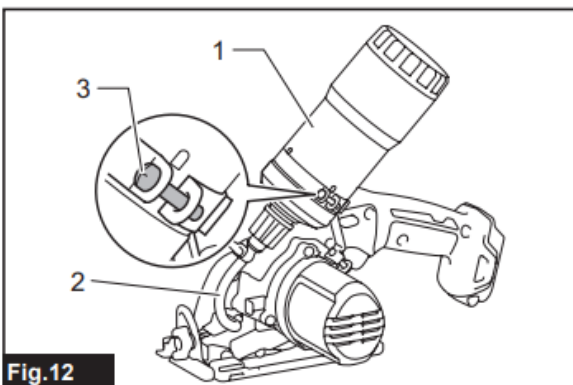


Fig.12

- 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

## Intended use

The tool is intended for cutting in glass and masonry materials with a diamond wheel and water.

## Noise

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

Sound pressure level ( $L_{pA}$ ) : 84 dB(A)

Sound power level ( $L_{WA}$ ) : 95 dB (A)

Uncertainty (K) : 3 dB(A)

**⚠ WARNING:** Wear ear protection.

## Vibration

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

Work mode: concrete cutting

Vibration emission ( $a_n$ ) : 2.5 m/s<sup>2</sup> or less

Uncertainty (K) : 1.5 m/s<sup>2</sup>

**NOTE:** 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.

**NOTE:** 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.

**⚠ WARNING:** 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).

## EC Declaration of Conformity

*For European countries only*

The EC declaration of conformity is included as Annex A to this instruction manual.

## SAFETY WARNINGS

### 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.

### Cordless cutter safety warnings

1. **The guard provided with the tool must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator. Position yourself and bystanders away from the plane of the rotating wheel.** The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.
2. **Use only diamond cut-off wheels for your power tool.** Just because an accessory can be attached to your power tool, it does not assure safe operation.

3. **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.
  4. **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
  5. **Always use undamaged wheel flanges that are of correct diameter for your selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage.
  6. **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.
  7. **The arbour size of wheels and flanges must properly fit the spindle of the power tool.** Wheels and flanges 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.
  8. **Do not use damaged wheels. Before each use, inspect the wheels for chips and cracks. If power tool or wheel is dropped, inspect for damage or install an undamaged wheel. After inspecting and installing the wheel, position yourself and bystanders away from the plane of the rotating wheel and run the power tool at maximum no load speed for one minute.** Damaged wheels will normally break apart during this test time.
  9. **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.
  10. **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 wheel may fly away and cause injury beyond immediate area of operation.
  11. **Hold the power tool by insulated gripping surfaces only, 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.
  12. **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 wheel.
  13. **Never lay the power tool down until the accessory has come to a complete stop.** The spinning wheel may grab the surface and pull the power tool out of your control.
  14. **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.
  15. **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.
  16. **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
- Kickback and related warnings**  
Kickback is a sudden reaction to a pinched or snagged rotating wheel. Pinching or snagging causes rapid stalling of the rotating wheel which in turn causes the uncontrolled power tool to be forced in the direction opposite of the wheel'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.
1. **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.
  2. **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
  3. **Do not position your body in line with the rotating wheel.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
  4. **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.
  5. **Do not attach a saw chain, woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade.** Such blades create frequent kickback and loss of control.
  6. **Do not "jam" the 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 binding of the wheel in the cut and the possibility of kickback or wheel breakage.
  7. **When wheel is binding 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 wheel from the cut while the wheel is in motion otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel binding.

8. 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.
9. 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.
10. 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.

**Additional Safety Warnings:**

1. Before using a segmented diamond wheel, make sure that the diamond wheel has the peripheral gap between segments of 10 mm or less, only with a negative rake angle.
2. Never attempt to cut with the tool held upside down in a vise. This can lead to serious accidents, because it is extremely dangerous.
3. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
4. Store wheels as per manufacturer recommendations. Improper storage may damage the wheels.

**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.

**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. The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

11. Follow your local regulations relating to disposal of battery.
12. Use the batteries only with the products specified by Makita. Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.

**SAVE THESE INSTRUCTIONS.**

**⚠CAUTION:** Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

**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.

## 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

**CAUTION:** Always switch off the tool before installing or removing of the battery cartridge.

**CAUTION:** 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.

► **Fig.1:** 1. Red indicator 2. Button 3. Battery cartridge

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. Insert 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.

**CAUTION:** Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted 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. If you turn the tool on, the motor runs again but stops soon. In this situation, remove and recharge the battery.

### Indicating the remaining battery capacity

*Only for battery cartridges with the indicator*

► **Fig.2:** 1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

Indicator lamps		Remaining capacity
Lighted	Off	
■ ■ ■ ■		75% to 100%
■ ■ ■ □		50% to 75%
■ ■ □ □		25% to 50%
■ □ □ □		0% to 25%

**NOTE:** Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

### Adjusting depth of cut

**CAUTION:** After adjusting the depth of cut, always tighten the clamping screw securely.

► **Fig.3:** 1. Clamping screw 2. Depth guide

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

### Bevel cutting

► **Fig.4:** 1. Clamping screw 2. Bevel scale plate

Loosen the clamping screw on the bevel scale plate on the front of the base. Set for the desired angle (0° - 45°) by tilting accordingly, then tighten the clamping screw securely.

### Sighting

► **Fig.5:** 1. Cutting line

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

**CAUTION:** Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

**CAUTION:** Do not pull the switch trigger hard without pressing the lock-off lever. This can cause switch breakage.

► **Fig.6:** 1. Lock-off lever 2. Switch trigger

To prevent the switch trigger from being accidentally pulled, a lock-off lever is provided. To start the tool, slide the lock-off lever and pull the switch trigger. Release the switch trigger to stop.

## ASSEMBLY

**CAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

### Installing or removing diamond wheel

**CAUTION:** Use only the Makita wrench to install or remove the diamond wheel.

**CAUTION:** When installing the diamond wheel, be sure to tighten the bolt securely.

**CAUTION:** Always install the diamond wheel so that the arrow on the diamond wheel points in the same direction as the arrow on the diamond wheel case. Otherwise the wheel rotates in reverse, it may cause personal injury.

► **Fig.7:** 1. Shaft lock 2. Hex wrench 3. Tighten 4. Loosen

► **Fig.8:** 1. Hex bolt 2. Outer flange 3. Diamond wheel 4. Inner flange 5. Arrow

To remove the diamond wheel, press the shaft lock fully so that the diamond wheel cannot revolve and use the hex wrench to loosen the hex bolt counterclockwise. Then remove the hex bolt, outer flange and diamond wheel.

To install the diamond wheel, follow the removal procedure in reverse. Make sure the diamond wheel is installed so that the arrow on the wheel points in the same direction as the arrow on the diamond wheel case.

**BE SURE TO TIGHTEN THE HEX BOLT SECURELY.**

► **Fig.9:** 1. Hex bolt 2. Outer flange 3. Diamond wheel 4. Inner flange 5. Protrusion (bigger side)

**NOTE:** If an inner flange is removed by chance, install the inner flange so that its protrusion (bigger side) faces inside as shown in the figure.

### Hex wrench storage

► **Fig.10:** 1. Hex wrench

When not in use, store the hex wrench as shown in the figure to keep it from being lost.

### Installing water supply

Loosen the screw A.

Slide the tank holder all the way over the motor housing so that the notch of the band (part of the tank holder) is positioned just below the screw head of the tool as illustrated.

Then tighten the screw A.

► **Fig.11:** 1. Screw A 2. Tank holder 3. Motor housing 4. Notch of the band (part of the tank holder) 5. Screw head of the tool

Attach the tank on the tank holder so that the tank holder fits between the step and dots. Connect the cap on the tube end to the mouth of the tank. Turn the tank clockwise. Then tighten the screw B.

► **Fig.12:** 1. Tank 2. Tube 3. Screw B

### Water supply

**CAUTION:** When filling the tank with water, be careful not to let the tool get wet.

Be sure that the water supply cock is closed before filling the tank with water. Open the cap on the tank and fill the water. Recap the tank.

► **Fig.13:** 1. Water supply cock 2. Close 3. Open

► **Fig.14:** 1. Cap 2. Open

## OPERATION

**CAUTION:** This tool should only be used on horizontal surfaces.

**CAUTION:** Be sure to hold the workpiece firmly down on a stable bench or table during operation.

**CAUTION:** Do not twist or force the tool in the cut, or the motor may be overloaded or the workpiece may break.

**CAUTION:** Do not use the tool with the diamond wheel in an upward or sideways position.

**CAUTION:** The wheel for this tool is a wet-type diamond wheel for glass and tile applications. Be sure to feed water to the diamond wheel during operation.

**CAUTION:** If the cutting action of the diamond wheel begins to diminish, dress the cutting edge of the wheel using an old discarded coarse grit bench grinder wheel or concrete block. Dress by pressing lightly on the outer edge of the diamond wheel.

► **Fig.15**

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.

Feed water to the wheel by adjusting the water supply cock to obtain a gentle flow of water.

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.

For fine, clean cuts, cut slowly. (When cutting glass plate 5 mm (3/16") thick, cut at about 250 mm/min (9-7/8"/min). When cutting tile 10 mm (3/8") thick, cut at about 300 mm/min (11-13/16"/min).) Also slow down as you complete a cut to avoid breaking or cracking the workpiece being cut.

**NOTE:** When the battery cartridge temperature is low, the tool may not work to its full capacity. At this time, for example, use the tool for a light-duty cut for a while until the battery cartridge warms up as high as room temperature. Then, the tool can work to its full capacity.

**NOTE:** Make sure that the water supply cock is closed before operation.

## MAINTENANCE

**CAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.

**NOTICE:** Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

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

## 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.

- Diamond wheels
- Hex wrench
- 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.