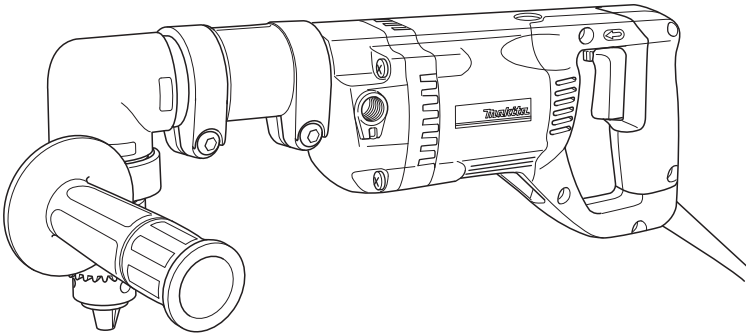
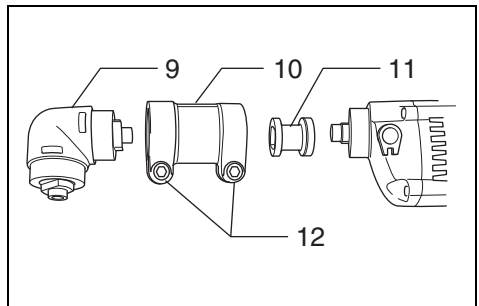
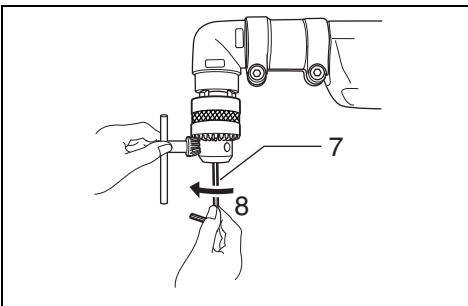
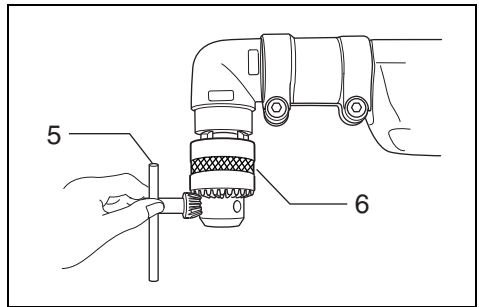
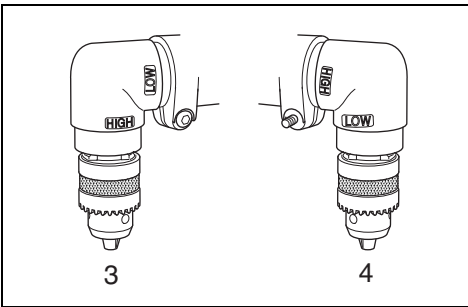
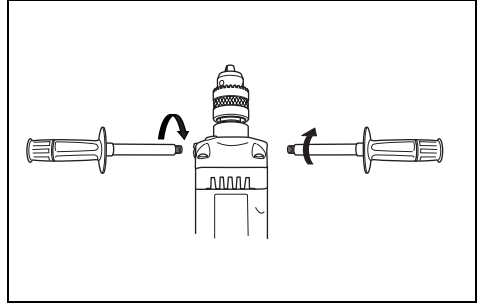
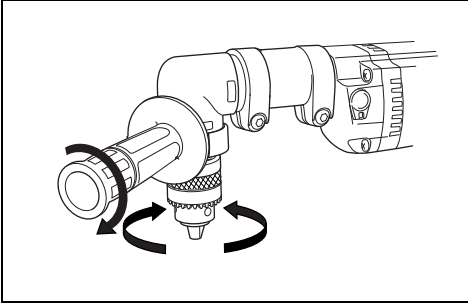
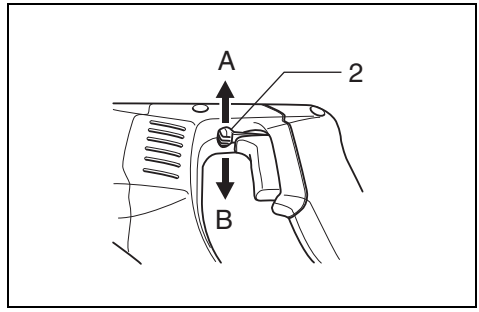
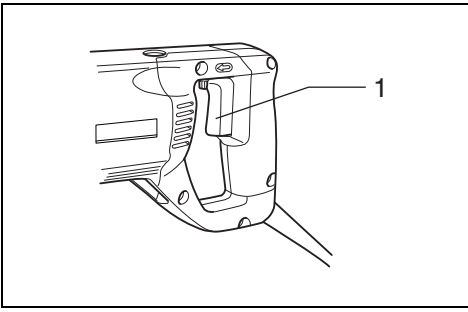




<b>GB</b>	<b>Angle Drill</b>	<b>Instruction Manual</b>
<b>F</b>	<b>Perceuse d'Angle</b>	<b>Manuel d'instructions</b>
<b>D</b>	<b>Winkelbohrmaschine</b>	<b>Betriebsanleitung</b>
<b>I</b>	<b>Trapano ad angolo</b>	<b>Istruzioni per l'uso</b>
<b>NL</b>	<b>Haakse boormachine</b>	<b>Gebruiksaanwijzing</b>
<b>E</b>	<b>Taladro Angular</b>	<b>Manual de instrucciones</b>
<b>P</b>	<b>Furadeira Angular</b>	<b>Manual de instruções</b>
<b>DK</b>	<b>Vinkelboremaskine</b>	<b>Brugsanvisning</b>
<b>S</b>	<b>Vinkelborr</b>	<b>Bruksanvisning</b>
<b>N</b>	<b>Vinkelboremaskin</b>	<b>Bruksanvisning</b>
<b>FIN</b>	<b>Kulmaporakone</b>	<b>Käyttöohje</b>
<b>GR</b>	<b>Γωνιακό τρυπάνι</b>	<b>Οδηγίες χρήσεως</b>

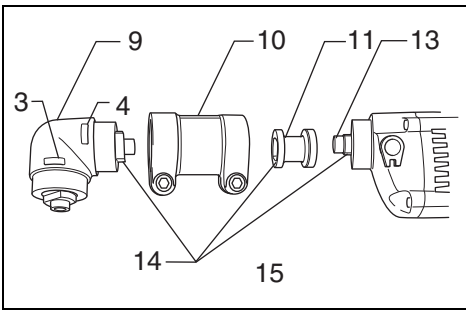
## DA4000LR



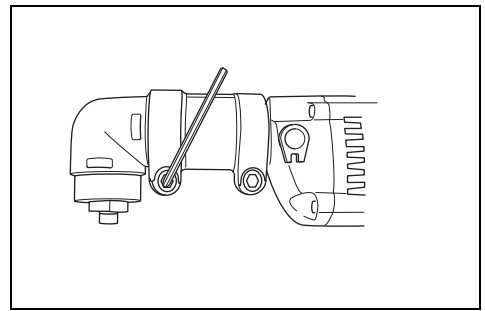


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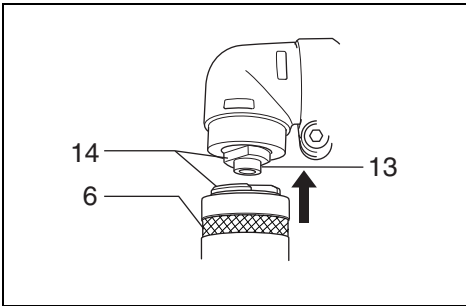
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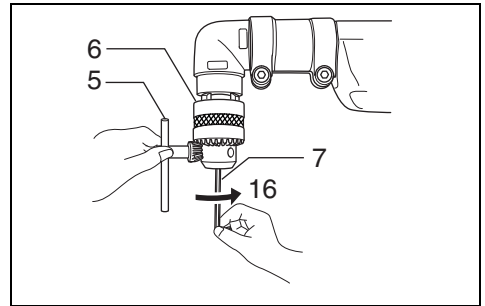
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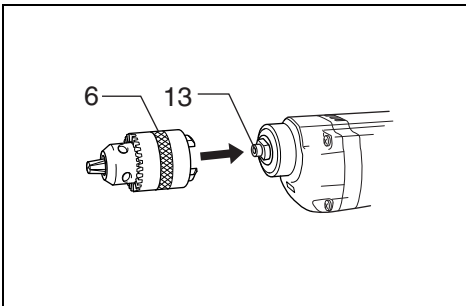
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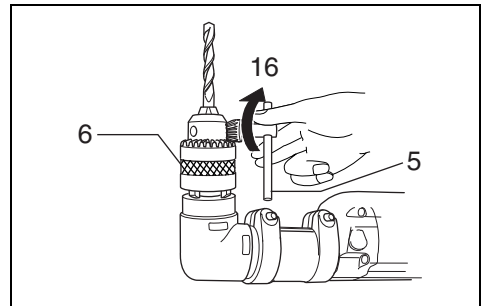
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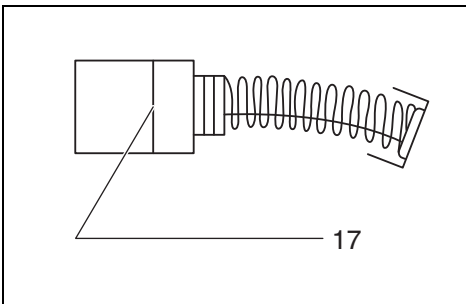
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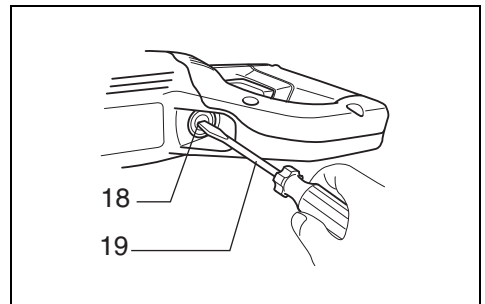
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14



15




16

**Explanation of general view**

1 Switch trigger	8 Loosen	15 For higher speed operation
2 Reversing switch lever	9 Angle housing	16 Tighten
3 High	10 Joint	17 Limit mark
4 Low	11 Socket	18 Brush holder cap
5 Chuck key	12 Bolt	19 Screwdriver
6 Drill chuck	13 Spindle	
7 Hex wrench	14 Two faces	

**SPECIFICATIONS**

<b>Model</b>	<b>DA4000LR</b>
Capacities	
Steel .....	13 mm
Wood .....	38 mm
No load speed (min <sup>-1</sup> )	
High .....	0 – 900
Low .....	0 – 400
Overall length .....	413 mm
Net weight .....	4.0 kg
Safety class .....	 II

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

**Intended use**


This tool is intended for drilling in wood, metal and plastic.

**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. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

GEA010-1

**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.**

**DRILL SAFETY WARNINGS**

GEB001-6

- 1. Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
- 2. Hold power tool by insulated gripping surfaces, 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 could give the operator an electric shock.
- 3. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
- 4. Hold the tool firmly.**
- 5. Keep hands away from rotating parts.**
- 6. Do not leave the tool running. Operate the tool only when hand-held.**

- 7. Do not touch the drill bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.**
- 8. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.**

**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.

**FUNCTIONAL DESCRIPTION**

**CAUTION:**

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

**Switch action (Fig. 1)**

**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 start the tool, simply pull the switch trigger. Tool speed is increased by increasing pressure on the switch trigger. Release the switch trigger to stop.

**Reversing switch action (Fig. 2)**

This tool has a reversing switch to change the rotational direction. Move the reversing switch lever to the "A" side for clockwise (forward) rotation or the position "B" side for counterclockwise (reverse) rotation.

**CAUTION:**

- Always check the rotational direction before operation.
- Use the reversing switch only after the tool comes to a complete stop. It will damage the tool to change the rotational direction before the tool stops.

**ASSEMBLY**

**CAUTION:**

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

**Installing side grip (auxiliary handle)**

**CAUTION:**

- Always use the side grip and hold it with both hands to ensure operating safety.

### Use of it with angle attachment (Fig. 3)

Screw the side grip for the angle attachment on the angle housing. Then tighten the side grip by turning clockwise at the desired position.

### Use of it without angle attachment (Fig. 4)

Screw the side grip on the tool barrel securely. The side grip can be installed on either side of the tool, whichever is convenient.

### Installing or removing angle attachment

The angle head has a spindle on each end. For higher speed operation, attach the drill chuck to the end marked "HIGH". The higher speed is better suited for drilling smaller diameter holes.

For lower speed operation, attach the drill chuck to the end marked "LOW". The lower speed is best utilized for drilling larger diameter holes. (Fig. 5)

The tool is factory assembled with the chuck on spindle end marked "HIGH". To change to the "LOW" speed, proceed as follows:

To remove the drill chuck, first open the chuck jaws completely and place the chuck key in one of the key holes. (Fig. 6)

Remove the chuck remaining bolt through the chuck opening by turning it counterclockwise with the hex wrench. (Fig. 7)

#### CAUTION:

- The drill chuck and the bolt are assembled each other. Turn the bolt counterclockwise about 10 times so that they can be removed together.

Loosen the bolts of the joint by the hex wrench and remove the angle housing, the joint and the socket. (Fig. 8)

To install the socket and the joint, fit the socket to the spindle so that the two faces are fitted perfectly. Then install the joint. For higher speed operation, fit the angle housing marked "LOW" to the joint. For lower speed operation, fit the angle housing marked "HIGH" to the joint. (Fig. 9)

Rotate the angle housing to the desired position. Tighten the bolt with the hex wrench firmly. And retighten the another bolt firmly again. (Fig. 10)

#### CAUTION:

- Be sure to tighten the two bolts firmly, or it may present a risk of injury to persons.

Slide the drill chuck to the spindle so that the two faces are fitted perfectly. Holding the drill chuck with the chuck key, tighten the bolt (for installing the drill chuck) clockwise with the hex wrench firmly. (Fig. 11 & 12)

The tool may be converted to a conventional straight drive drill by installing the drill chuck without the angle attachment. (Fig. 13)

### Installing or removing drill bit (Fig. 14)

To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise. Be sure to tighten all three chuck holes evenly.

To remove the bit, turn the chuck key counterclockwise in just one hole, then loosen the chuck by hand.

After using the chuck key, be sure to return to the original position.

## OPERATION

### Holding tool

When drilling a large hole with a hole saw, etc., the side grip (auxiliary handle) should be used as a brace to maintain safe control of the tool.

### Drilling operation

#### Drilling in wood

When drilling in wood, the best results are obtained with wood drills equipped with a guide screw. The guide screw makes drilling easier by pulling the bit into the workpiece.

#### Drilling in metal

To prevent the bit from slipping when starting a hole, make an indentation with a center-punch and hammer at the point to be drilled. Place the point of the bit in the indentation and start drilling.

Use a cutting lubricant when drilling metals. The exceptions are iron and brass which should be drilled dry.

#### CAUTION:

- Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the tool.
- There is a tremendous twisting force exerted on the tool/bit at the time of hole breakthrough. Hold the tool firmly and exert care when the bit begins to break through the workpiece.
- A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.
- Always secure small workpieces in a vise or similar hold-down device.
- Avoid drilling in material that you suspect contains hidden nails or other things that may cause the bit to bind or break.

## MAINTENANCE

#### CAUTION:

- Always be sure that the tool is switched off and unplugged 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 (Fig. 15 & 16)

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.

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

ENH101-13

### 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.

- Drill bits
- Angle attachment
- Chuck key
- Grip assembly (for angle attachment)
- Side grip
- Extension attachment
- Depth gauge assembly
- Plastic carrying case

ENG104-2

### Noise

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

Sound pressure level ( $L_{pA}$ ): 80 dB (A)

Uncertainty (K): 3 dB (A)

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

**Wear ear protection.**

ENG202-3

### Vibration

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

Work mode: drilling into metal

Vibration emission ( $a_{h,D}$ ): 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).

For European countries only

### EC Declaration of Conformity

**We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):**

Designation of Machine:

Angle Drill

Model No./ Type: DA4000LR

are of series production and

**Conforms to the following European Directives:**

98/37/EC until 28th December 2009 and then with

2006/42/EC from 29th December 2009

And are manufactured in accordance with the following standards or standardised documents:

EN60745

The technical documentation is kept by our authorised representative in Europe who is:

Makita International Europe Ltd.

Michigan Drive, Tongwell,

Milton Keynes, MK15 8JD, England

30th January 2009



Tomoyasu Kato  
Director

Makita Corporation  
3-11-8, Sumiyoshi-cho,  
Anjo, Aichi, JAPAN