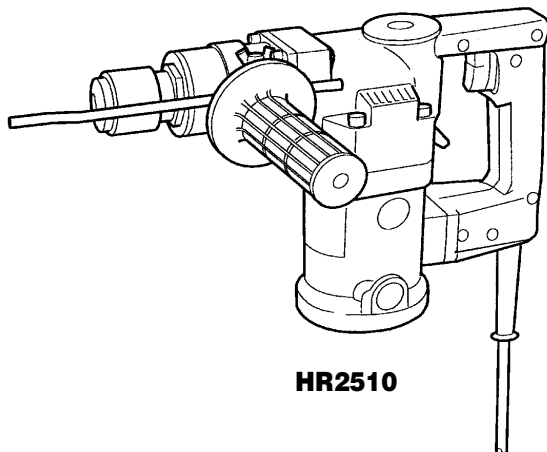


Makita[®]

Rotary Hammer

18 mm HR1820

25 mm HR2510



HR2510



**DOUBLE
INSULATION**

SPECIFICATIONS

Model	HR1820	HR2510
Capacities		
Wood	15 mm	30 mm
Steel	10 mm	13 mm
Concrete	18 mm	25 mm
No load speed (min ⁻¹)	0 – 1,000	0 – 800
Blows per minute	0 – 3,500	0 – 3,000
Overall length	321 mm	330 mm
Net weight	3.1 kg	4.2 kg

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

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.

For European countries only

Noise and Vibration of Model HR2510

The typical A-weighted noise levels are
sound pressure level: 90 dB (A)
sound power level: 103 dB (A)
– Wear ear protection. –

The typical weighted root mean square acceleration value is 8 m/s².

EC-DECLARATION OF CONFORMITY

The undersigned, Yasuhiko Kanzaki, authorized by Makita Corporation, 3-11-8 Sumiyoshi-Cho, Anjo, Aichi, 446-8502 Japan declares that this product
(Serial No. : series production)

manufactured by Makita Corporation in Japan is in compliance with the following standards or standardized documents,

HD400, EN50144, EN55014, EN61000

in accordance with Council Directives, 73/23/EEC, 89/336/EEC and 98/37/EC.

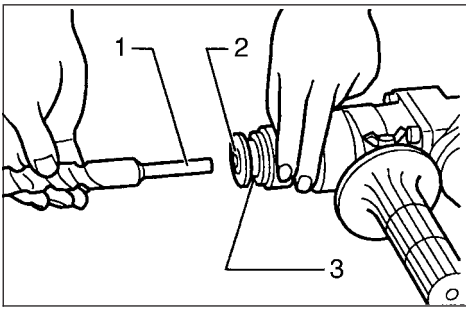
Yasuhiko Kanzaki **CE 94**



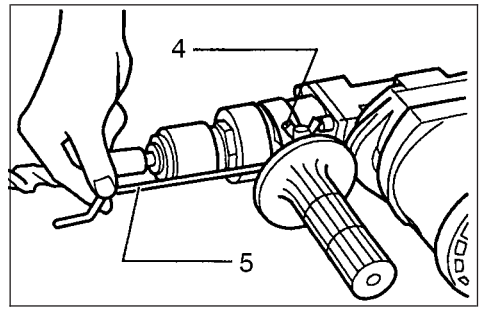
Director

MAKITA INTERNATIONAL EUROPE LTD.

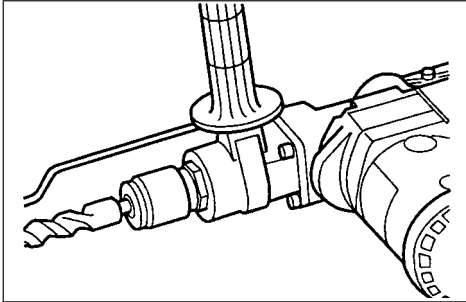
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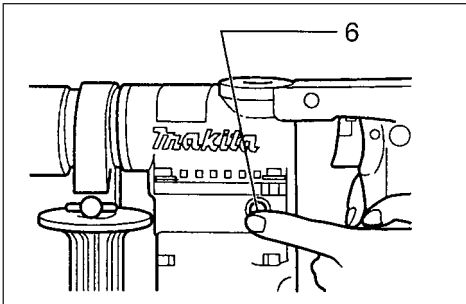
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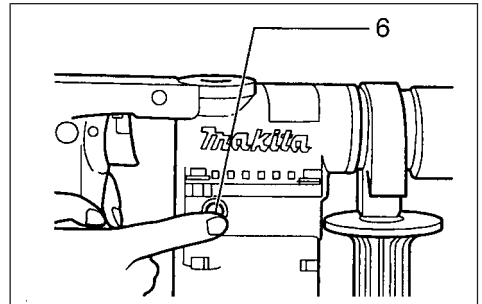
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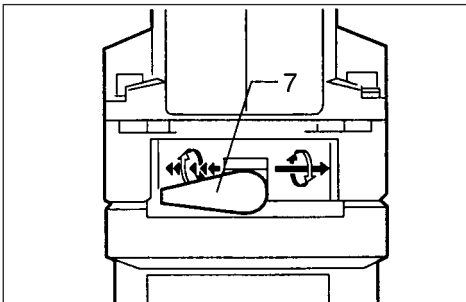
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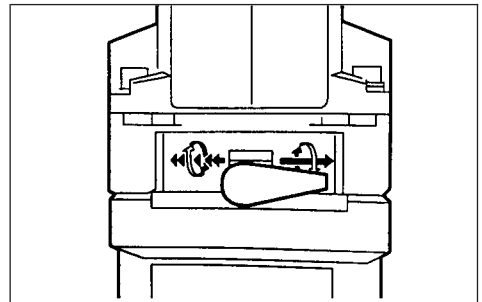
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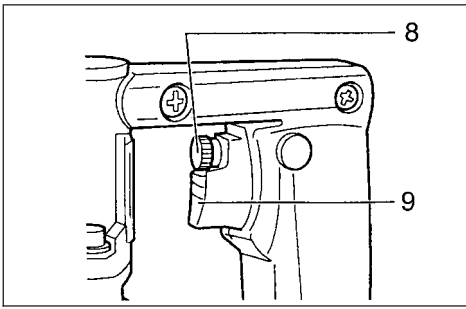
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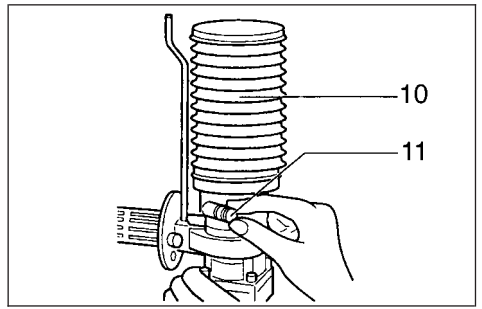
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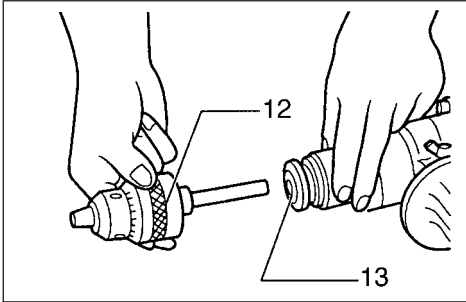
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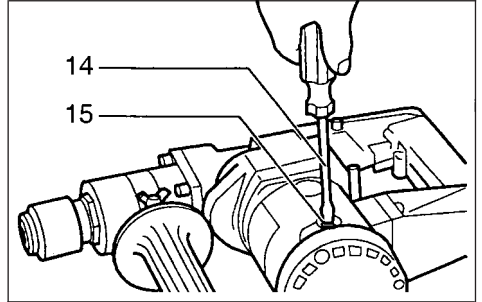
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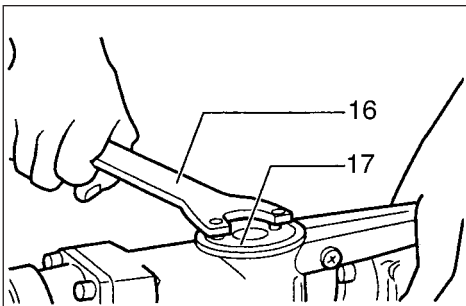
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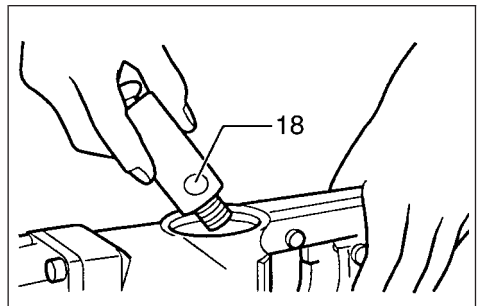
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Symbols

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



Read instruction manual.



DOUBLE INSULATION

1 Key groove	7 Change lever	13 Drill holder
2 Red dot	8 Speed control screw	14 Screwdriver
3 Change ring	9 Switch trigger	15 Brush holder cap
4 Wing bolt	10 Dust collector	16 Lock nut wrench
5 Depth gauge	11 Metal retainer	17 Crank cap
6 Push rod	12 Drill chuck	18 Hammer grease

SAFETY INSTRUCTIONS

Warning! When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following.

Read all these instructions before attempting to operate this product and save these instructions.

For safe operation:

1. Keep work area clean

Cluttered areas and benches invite injuries.

2. Consider work area environment

Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Don't use power tools in presence of flammable liquids or gases.

3. Guard against electric shock

Prevent body contact with grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

4. Keep children away

Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.

5. Store idle tools

When not in use, tools should be stored in dry, high, or locked-up place, out of the reach of children.

6. Don't force tool

It will do the job better and safer at the rate for which it was intended.

7. Use right tool

Don't force small tools or attachments to do the job of a heavy duty tool. Don't use tools for purposes not intended; for example, don't use circular saw for cutting tree limbs or logs.

8. Dress properly

Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

9. Use safety glasses and hearing protection

Also use face or dust mask if cutting operation is dusty.

10. Don't abuse cord

Never carry tool by cord or yank it to disconnect it from receptacle. Keep cord from heat, oil and sharp edges.

11. Secure work

Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.

12. Don't overreach

Keep proper footing and balance at all times.

13. Maintain tools with care

Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.

14. Disconnect tools

When not in use, before servicing, and when changing accessories such as blades, bits and cutters.

15. Remove adjusting keys and wrenches

Form the habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

16. Avoid unintentional starting

Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.

17. Outdoor use extension cords

When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

18. Stay alert

Watch what you are doing. Use common sense. Do not operate tool when you are tired.

19. Check damaged parts

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by and authorized service center. Do not use tool if switch does not turn it on and off.

20. Warning

The use of any other accessory or attachment other than recommended in this operating instruction or the catalog may present a risk of personal injury.

21. Have your tool repaired by an expert

This electric appliance is in accordance with the relevant safety rules. Repairing of electric appliances may be carried out only by experts otherwise it may cause considerable danger for the user.

ADDITIONAL SAFETY RULES

1. Wear a hard hat (safety helmet), safety glasses and/or face shield. It is also highly recommended that you wear a dust mask, ear protectors and thickly padded gloves.
2. Be sure the bit is secured in place before operation.
3. Under normal operation, the tool is designed to produce vibration. The screws can come loose easily, causing a breakdown or accident. Check tightness of screws carefully before operation.
4. In cold weather or when the tool has not been used for a long time, let the tool warm up for several minutes by operating it under no load. This will loosen up the lubrication. Without proper warm-up, hammering operation is difficult.
5. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
6. Hold the tool firmly with both hands.
7. Keep hands away from moving parts.
8. Do not leave the tool running. Operate the tool only when hand-held.
9. Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
10. When drilling or chipping into walls, floors or wherever "live" electrical wires may be encountered, **DO NOT TOUCH ANY METAL PARTS OF THE TOOL!**
Hold the tool by the insulated grasping surfaces to prevent electric shock if you drill or chip into a "live" wire.
11. Do not touch the bit or parts close to the bit immediately after operation; they may be extremely hot and could burn your skin.

SAVE THESE INSTRUCTIONS.

OPERATING INSTRUCTIONS

Bit grease

Coat the bit shank head beforehand with a small amount (about 0.5 – 1 g) of bit grease. This chuck lubrication assures smooth action and longer service life.

Installing or removing drill bit (Fig. 1)

Important:

Always be sure that the tool is switched off and unplugged before installing or removing the bit.

To install the bit, press the change ring in the direction of the arrow, align the key groove in the bit shank with the red dot and insert the bit. Now release the change ring. If the change ring does not return to its original position easily, turn the bit slightly in either direction. To remove the bit, press the change ring in the direction of the arrow and the bit will slip out.

Adjusting depth of drilling (Fig. 2)

Loosen the wing bolt and adjust the depth gauge to the desired depth. After adjusting, tighten the wing bolt.


Side grip (auxiliary handle) (Fig. 3)

The side grip swings around to either side, allowing easy handling of the tool in any position. Loosen the side grip by turning it counterclockwise, swing it to the desired position and then tighten it by turning clockwise.


Selecting action mode

For HR1820 (Fig. 4 & 5)

Rotation with hammering:

For drilling in concrete, granite, tile, etc., press the push rod in the  direction. (Fig. 4)

Rotation only:


For drilling in wood or metal, press the push rod in the  direction. (Fig. 5)

CAUTION:


To avoid rapid wear on the mode change mechanism, be sure to press the push rod as far as it will go.

For HR2510 (Fig. 6 & 7)

Rotation with hammering:

For drilling in concrete, granite, tile, etc., rotate the change lever to the  position. (Fig. 6)

Rotation only:

For drilling in wood or metal, rotate the change lever to the  position. (Fig. 7)

CAUTION:

To avoid rapid wear on the mode change mechanism, be sure that the change lever is always positively located in one of the two action mode positions.

Switch action (Fig. 8)

CAUTION:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.
- Do not tape, tie or otherwise secure the trigger in the "ON" position.

To start the tool simply pull the trigger. Tool speed is increased by increasing pressure on the trigger. Release the trigger to stop. A speed control screw is provided so that maximum tool speed can be limited (variable). Turn the speed control screw clockwise for higher speed, and counterclockwise for lower speed.

Hammer drilling operation

Position the bit at the location for the hole, then pull the trigger.

Do not force the tool. Light pressure gives best results. Keep the tool in position and prevent it from slipping away from the hole.

Do not apply more pressure when the hole becomes clogged with chips or particles. Instead, run the tool at an idle, then remove from the hole. By repeating this several times, the hole will be cleaned out.

CAUTION:

When the bit begins to break through concrete or if the bit strikes reinforcing rods embedded in concrete, the tool may react dangerously. Maintain good balance and safe footing while holding the tool firmly with both hands to prevent dangerous reaction.

Dust collector (Fig. 9)

Use the dust collector for safe, sanitary overhead operations. Install the bit, then attach the dust collector on the end by turning and applying pressure. Then secure it by turning the metal retainer clockwise.

CAUTION:

Empty the dust collector of its contents after drilling every 2 or 3 holes.

Drilling in wood or metal (Fig. 10)

For HR1820

Set the push rod for "rotation only". Use the optional drill chuck and chuck adapter for drilling up to 10 mm in metal and up to 15 mm in wood. To install the drill chuck and chuck adapter, refer to "Installing or removing drill bit".

For HR2510

Set the change lever for "rotation only". Use the optional drill chuck and chuck adapter for drilling up to 13 mm in metal and up to 30 mm in wood. To install the drill chuck and chuck adapter, refer to "Installing or removing drill bit".

CAUTION:

When the drill chuck is installed on this tool, do not use "rotation with hammering" action. The drill chuck and chuck adapter may be damaged.

MAINTENANCE

CAUTION:

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

Replacement of carbon brushes (Fig. 11)

Whenever carbon brushes must be replaced, they cut out the tool automatically. When this occurs, replace both carbon brushes at the same time. Use only identical carbon brushes.

Lubrication (Fig. 12 & 13)

This tool requires no hourly or daily lubrication because it has a grease-packed lubrication system. Lubricate the tool every time the carbon brushes are replaced.

Run the tool for several minutes to warm it up. Switch off and unplug the tool. Remove the crank cap using a Makita lock nut wrench 35 (optional accessory). Rest the tool on the table with the bit end pointing upwards. This will allow the old grease to collect inside the crank housing. Wipe out the old grease inside and replace with a fresh grease (60 g). Use only Makita genuine grease (optional accessory). Filling with more than the specified amount of grease (approx. 60 g) can cause faulty hammering action or tool failure. Fill only with the specified amount of grease. Reinstall the crank cap and tighten with the lock nut wrench. Do not tighten the crank cap excessively. It is made of resin and is subject to breakage.

To maintain product safety and reliability, repairs, maintenance or adjustment should be carried out by a Makita Authorized Service Center.

Makita Corporation

Anjo, Aichi, Japan

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