

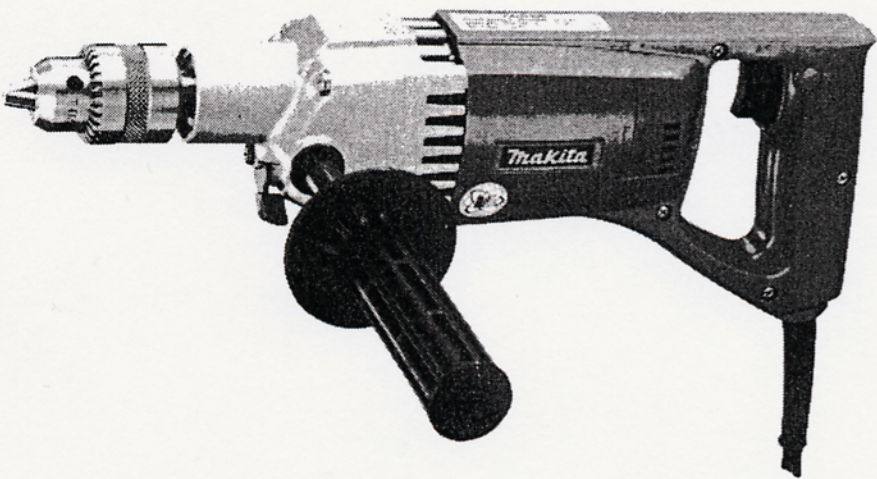


Makita

Diamond Core Hammer Drill

MODEL 8406

INSTRUCTION MANUAL



**DOUBLE
INSULATION**

SPECIFICATIONS

Capacities				No load speed (RPM)	Blows per minute	Overall length	Net weight
Concrete		Metal	Wood				
With diamond core bit	With tungsten-carbide tipped bit						
152mm (6")	20mm (3/4")	13mm (1/2")	30mm (1-1/8")	0 - 1,500	0 - 22,500	400mm (15-3/4")	3.5kg (7.7lbs)

- Manufacturer reserves the right to change specifications without notice.
- Note: Specifications may differ from country to country.

IMPORTANT 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 INSTRUCTIONS.

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
2. **CONSIDER WORK AREA ENVIRONMENT.** Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain. Don't use tool in presence of flammable liquids or gases.
3. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Don't let visitors contact tool or extension cord.
4. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place – out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate which it was intended.
6. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
7. **DRESS PROPERLY.** Don't wear loose clothing or jewellery. 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.
8. **USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty.
9. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
10. **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.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **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.
13. **DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
14. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. **AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is OFF when plugging in.
16. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

17. **STAY ALERT.** Watch what you are doing, use common sense. Don't operate tool when you are tired.
18. **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 authorized service center. Don't use tool if switch does not turn it on and off.
19. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
20. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in **SERIOUS INJURY** to the user – as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL.** Using a power source with voltage less than the nameplate rating is harmful to the motor.

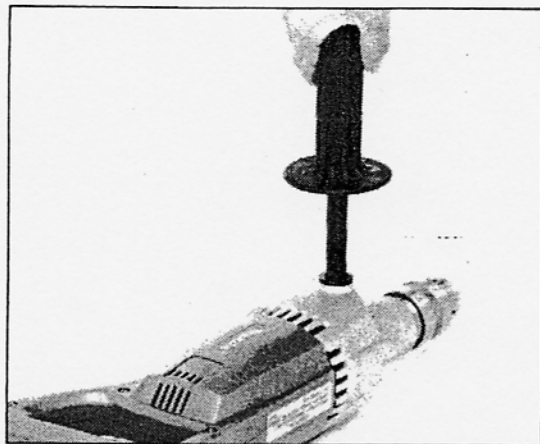
ADDITIONAL SAFETY RULES

1. Wear a hard hat (safety helmet), safety glasses and/or face shield. It is also highly recommended that you wear a dust mask and ear protectors.
2. 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.
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 with both hands. Always use the side grip.
5. Keep hands away from rotating parts.
6. Do not leave the tool running. Operate the tool only when hand-held.
7. When drilling 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 into a "live" wire.
8. Do not touch the bit or the workpiece immediately after operations; they may be extremely hot and could burn your skin.

SAVE THESE INSTRUCTIONS.

Installing side grip

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



WARNING

Hammer or percussion action must not be used when drilling with diamond core drills.

Installing or removing diamond core bit or drill bit

CAUTION:

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

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.

Switch action

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

CAUTION:

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



Torque limiter

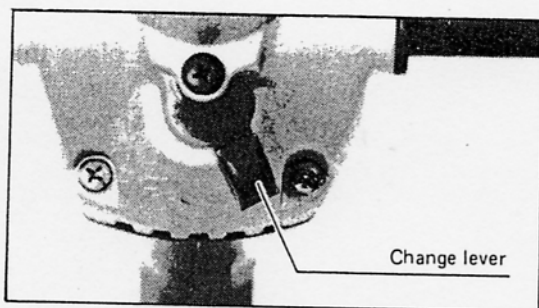
This tool is equipped with a clutch-type torque limiter. The clutch will slip when a certain torque level is reached, causing the motor to disengage from the output shaft. When this happens, the chuck will stop turning.

CAUTION:

- Do not continue to operate the tool for more than two seconds while the clutch is slipping.
- Do not let the torque limiter actuate too frequently.


Selecting action mode

For "rotation with hammering", move the change lever to the  position. For "rotation only", move the change lever to the  position.



Diamond core drilling

CAUTION:

- When performing diamond core drilling operation, always set the change lever to the  position to use "rotation only" action. If performing diamond core drilling operation with "rotation with hammering" action, the diamond core bit may be damaged.

The drilling efficiency and service life of the bit varies greatly depending on the kind of condition of the material to be drilled. In general, hard materials may dull the bit soon and soft materials such as "green" concrete or concrete blocks may shorten the service life of the bit.


When diamond core drilling adopt the following procedure:-

1. Pilot drill wall first with 13.0mm (1/2") masonry bit.
2. Then follow through with Makita Core Drill.
3. Hammer or percussion action must not be used when drilling with diamond core drill.
4. Make sure chuck is tight.
5. Make sure swarf is cleared at regular intervals. A build up of swarf will cause over-heating and extensive clutch wear, together with possible loss of segments.
6. Rotate core bit when entering or exiting hole.
7. Try to ensure constant level of machine.
8. Don't force bit, let it do the work. This will prolong life of bit and reduce breakage.
9. If bit starts to vibrate reduce pressure.
10. Treat your bit with respect, don't put a wrench on it and replace in box after use. Remember it is a Diamond Bit.


NOTE

No pilot hole is required for 22mm and 28mm diameter core drills.

Hammer drilling (with tungsten-carbide tipped bit)

When drilling in concrete, granite, tile, etc., with a tungsten-carbide tipped bit, set the change lever to the  position to use "rotation with hammering" action.

Drilling (with a conventional drill bit)

When drilling in wood, metal or plastic materials, set the change lever to the  position to use "rotation only" action.

1. Drilling in wood

When drilling in wood, 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.

2. Drilling in metal

To prevent the bit from slipping when starting a hole, make an indentation with a centerpunch 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 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.
- Always secure small workpieces in a vice or similar hold-down device.

MAINTENANCE

CAUTION:

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

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