Cordless Hammer Drill

MODEL 8400D MODEL 8400DW With Fast Charger

INSTRUCTION MANUAL



SPECIFICATIONS

• Model 8400D

Capacities				No load speed	Blows	Overall	Net	
Steel	Wood	Concrete	V	Vood screw	(RPM)	per minute	length	weight
10 mm (3/8'')	12 mm (1/2'')	10 mm (3/8'')	3.8 mm x 20 mm (1/8'' x 3/4'')		900	10,000	260 mm (10-1/4'')	1.7 kg (3.7 lbs)
Battery	Cartridge 9	000		Model DC97	00 Fast Cha	rger		
Voltage		Charging time		Input			Output	
9.6 V		1 Hr.		A.C. only 50 Hz – 60 Hz			D.C. 7.2 V - 9.6 V	

* Manufacturer reserves the right to change specifications without notice.

* Note: Specifications may differ from country to country.

IMPORTANT SAFETY INSTRUCTIONS (For All Tools)

WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFE-TY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, AND PER-SONAL INJURY, INCLUDING THE FOLLOWING:

READ ALL INSTRUCTIONS.

- 1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
- 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 for 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 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.
- 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.
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- 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.

IMPORTANT SAFETY INSTRUCTIONS

1. **SAVE THESE INSTRUCTIONS** – This manual contains important safety and operating instructions for battery charger.

2. Before using battery charger, read all instructions and cautionary markings

- on (1) battery charger, (2) battery, and (3) product using battery.
- 3. CAUTION To reduce risk of injury, charge only MAKITA Battery 7000, 9000 or 9100. Other types of batteries may burst causing personal injury and damage.
- 4. Do not expose charger to rain or snow.
- 5. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
- 6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
- 7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- 8. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size, and shape as those of plug on charger;
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is at least as large as the one specified in the table below.

TABLE 1 RECOMMENDED MINIMUM AWG SIZE FOR EXTENSION CORDS FOR BATTERY CHARGERS

Length of Cord (Feet)	25	50	100	150
AWG Size of Cord	18	18	18	16

- 9. Do not operate charger with damaged cord or plug replace them immediately.
- 10. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
- 11. Do not disassemble charger or battery cartridge; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- 12. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

ADDITIONAL SAFETY RULES FOR CHARGER & BATTERY CARTRIDGE

- 1. Do not charge Battery Cartridge when temperature is BELOW 10°C (50°F) or ABOVE 40°C (104°F).
- 2. Do not attempt to use a step-up transformer, an engine generator or DC power receptacle.
- 3. Do not allow anything to cover or clog the charger vents.
- 4. 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.

- 5. Do not store the tool and Battery Cartridge in locations where the temperature may reach or exceed 50°C (122°F).
- 6. 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.

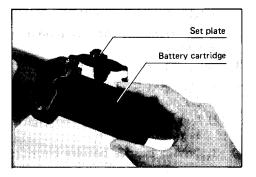
ADDITIONAL SAFETY RULES

- 1. Be aware that this tool is always in an operating condition, because it does not have to be plugged into an electrical outlet.
- 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.
- 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. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
- 5. Hold the tool firmly.
- 6. Keep hands away from rotating parts.
- 7. Do not leave the tool running. Operate the tool only when hand-held.
- 8. 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.
- 9. Do not touch the bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.

SAVE THESE INSTRUCTIONS.

Installing or removing battery cartridge

- Always switch off the tool before insertion or removal of the battery cartridge.
- To remove the battery cartridge, pull out the set plate on the tool and grasp both sides of the cartridge while withdrawing it from the barrel.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Snap the set plate back into place. Be sure to close the set plate fully before using the tool.

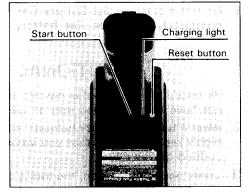


• Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

Charging

Plug the fast charger into your power source. Insert the battery cartridge so that the plus and minus terminals on the battery cartridge are on the same sides as their respective makrings on the fast charger. Insert the cartridge fully into the port so that it rests on the charger port floor.

Press the start button (red). The charging light will come on and charging will begin. If the charging light does not come on, press the reset button (yellow) first, then the start button (red). If the charging light



goes out within 10 seconds even after pressing the reset button and start button a couple of times, the battery cartridge is dead. (CAUTION: Wait for more than 5 seconds after the charging light goes out to press the reset button again.) Replace it with a new one. When the charging light goes out after about one hour, you may remove the fully charged battery cartridge.

After charging, unplug the charger from the power source.

CAUTION:

- Your new battery cartridge is not charged. You will need to charge it before use.
- Do not keep the button pressed in with tape, etc. or the circuit will not function properly. Also, a malfunction of the charger may result possibly causing overheating, etc.
- If you try to charge a cartridge from a just-operated tool, sometimes the charging light will not come on. If this occurs, let the cartridge cool off for a while. Then re-insert it and try to charge it once more.

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- When you charge a new battery cartridge or a battery cartridge which has not been used for a long period, it may not accept a full charge. This is a normal condition and does not indicate a problem. You can recharge the battery cartridge fully after discharging it almost completely a couple of times.
- If you wish to charge two battery cartridges, allow 15 minutes between chargings on the fast charger.

Selecting action mode

Rotation with hammering:

For drilling in brick, concrete block, etc., move the change lever to the CONC position. Be sure to use a concrete and masonry drilling bit.

Rotation only:

For drilling in wood, metal or plastic materials, move the change lever to the *QPP* position. Use a conventional bit for drilling in wood or metal.

Installing or removing drill bit or driver bit

CAUTION:

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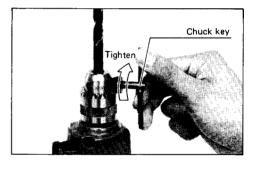
Always be sure that the tool is switched off and the battery cartridge is removed before installing or removing the bit.

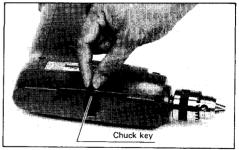
To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise.

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.

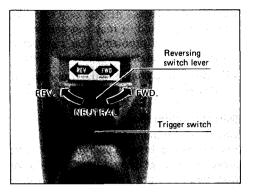
After use, return the chuck key to the storage cavity on the tool.





Switch action

Move the reversing switch lever to the "FWD" position for clockwise rotation or the "REV" position for counterclockwise. To start the tool, simply pull the trigger. Release the trigger to stop. When the reversing switch lever is in the neutral position, the tool will not start even if you pull the trigger.



CAUTION:

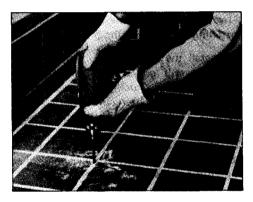
- Before inserting the battery cartridge into the tool, always check to see that the trigger switch actuates properly and returns to the "OFF" position when released.
- Always check the direction of rotation before drilling.
- Use the reversing switch lever only when the tool comes to a complete stop. Changing the direction of rotation before the tool stops may ruin the tool.
- When not operating the tool, keep the reversing switch lever in the neutral position.

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.



Drilling operation

• 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.

• 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.
- 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 hole it firmly.
- Always secure small workpieces in a vise or similar hold-down device.

Selecting correct phillips bit

Use the chart to determine the best size driver bit for the size of screw that you wish to use.

Item	Nominal Diameter (mm)				
Bit No.	Wood screw				
No. 1	2.1 - 2.7 (3/32'' - 1/8'')				
No. 2	3.1 - 3.8 (1/8'' - 5/32'')				

Selecting slotted bit

Use a slotted bit that properly fits the screw slot. Use of a bit that is too small will damage the screw and/or bit.

CAUTION:

If the tool is operated continuously until the battery cartridge has discharged, allow the tool to rest for 15 minutes before proceeding with a fresh battery.

MAINTENANCE

CAUTION:

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

To maintain product SAFETY and RELIABILITY, repairs, maintenance or adjustment should be performed by Makita Authorized or Factory 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. The accessories or attachments should be used only in the proper and intended manner.

Fast charger Model DC9700



• Makita Battery cartridge 9000 (9.6 V) 1-hour fast charge nickel cadmium battery Part No. 632007-4



Tool holster

has some bits storage space. Use holster to carry drill only after removing bit. Also, keep the reversing switch lever in neutral position when carrying in the holster. Part No. 823033-3B



 Charger 12V for car Model DC9112



 Chuck key S10 Part No. 763415-9



• Tool carrying case Part No. 823098-8



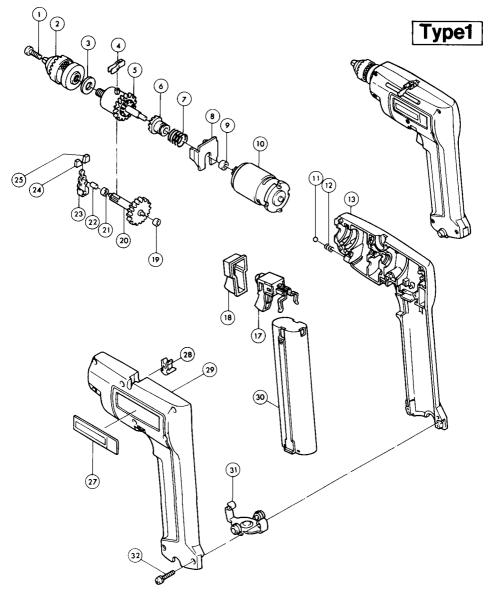
• Battery holster Holds with extra battery Part No. 823033-3C



• Keyless drill chuck Part No. 192034-8



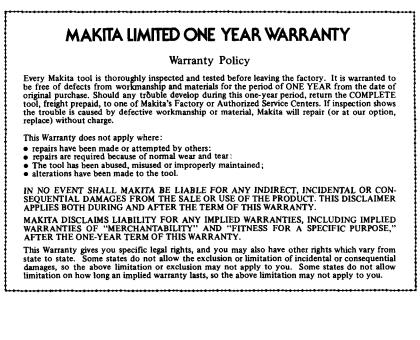




Note: The switch and other part configurations may differ from country to country.

NODEL ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	Oct.~06'87 U
MAC	HINE		MAC	HINE	
1	1	Pan Head Screw M5x18	18	1 1	Dust Cover
2	1	Drill Chuck S10	19	1	Plane Bearing 4
3	1	Rubber Plate	20	1	Gear 17 – 76
4	1	Guide Plate	21	1	Plane Bearing 4
5	1	Spindle	22	1	Pin 6
6	1	Clutch Cam	23	1	Change Lever
7	1	Compression Spring 17	24	3	Rubber Plug
8	1	Retainer	25	1	Rubber Plug
9	1	Plane Bearing 6	27	1	Name Plate
10	1	Motor	28	1	Holder 6
11	1	Steel Ball 4.8	29	1	Housing Set (With Item 13)
12	1	Compression Spring 4	30	1	Battery 9000 (9.6 V.)
13	1	Housing Set (With Item 29)	31	1	Set Plate
17	1	Switch	32	8	Pan Head Screw M4x22 (With Washer)

Note: The switch and other part specifications may differ from country to country.



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