Cordless Driver Drill MODEL 6012HD

MODEL 6012HD MODEL 6012HDW

With Fast Charger and Carrying Case

INSTRUCTION MANUAL



SPECIFICATIONS

Model 6012HD

Capacities					No load speed	Overall	Net	
Steel	Wood	Wood screw	Machine screw	Nuts	(RPM)	length	weight 1.6 kg (3.5 lbs)	
6.5 mm (1/4'')	15 mm (5/8'')	5.1 mm x 55 mm (3/16'' x 2-1/8'')	6 mm (1/4'')	6 mm (1/4'')	400 / 1,100	261 mm (10-1/4'')		
Battery C	artridge 900	0 • Model DC970	0 Fast Charger					
Voltage			Input		Output		Charging time	
9.6 V		A.C. only !	.C. only 50 Hz — 60 Hz		D.C. 7.2 V, 9.6 V		1 Hr.	

* 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.
- 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 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.
- 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. Always cover the battery terminals with the battery cover when the battery cartridge is not used.
- 5. A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
 - (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.
- 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.

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.
- 2. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
- 3. Hold the tool firmly.
- 4. Keep hands away from rotating parts.
- 5. 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 only by the insulated grasping surfaces to prevent electric shock if you drill into a "live" wire.
- 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.

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 markings 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.

- •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.

Bit installation & removal

CAUTION:

Always set the Forward-Reverse switch lever to NEUTRAL when installing, removing or adjusting bits or accessories.

Chuck

When installing a drill bit, notice that there are three holes in the chuck at which you must use the key for tightening. Insert the chuck key in any of the 3 holes and turn to the left (counterclockwise) to release jaws of chuck. Insert the bit and tighten with chuck key to the right. Tighten evenly at all three holes in sequence.

• After use, re-attach the clip-on chuck key in the hole for it on top of the tool.



Switch operation

CAUTION:

When releasing the trigger, check to be sure that it springs out to its original released position.

The tool starts when the trigger is pulled and stops when it is released. To reverse the rotation, use the reversing switch lever equipped just above and in front of the trigger switch. However, when changing the rotational direction, be sure the trigger switch is released (OFF) and check the rotational direction. Keep the reversing switch lever in the neutral position whenever you are not using the tool.



Drill

drillina.

• Punch a small hole in the metal to prevent the bit from skitterring when starting to drill a hole.

• Use machine oil on the bit to facilitate

- Pressing down too hard on the tool will not speed up the drilling. In fact, this
- Pressing down too hard on the tool will not speed up the drilling. In fact, this undue pressure will only serve to damage the tip of your drill bit, decrease your drilling performance and shorten the service of the tool.
- There is a tremendous force exerted on the tool/bit at the time of hole break through. Grip the drill firmly and exert care when the bit begins to break through the materials.

Screw

Match your bit to your screw.

1. Phillips bits

Phillips bit No. 2-65 mm is standard equipped. Select your screws and nominal diameter with the chart on the right.

ltem	Nominal diameter (mm)			
Bit No.	Wood screw	Machine screw		
No. 1	2.1 – 2.7 (3/32'' – 1/8'')	M2 – M2.6 (3/32'' – 1/8'')		
No. 2	3.1 – 4.8 (1/8'' – 3/16'')	M3 – M5.5 (1/8'' – 7/32'')		
No. 3	5.1 (13/64'')	M6 (1/4'')		

2. Slotted bits

Unless you use a bit that fits properly the slot on the head of the screw, the slot will be damaged and the screw will not fasten. If the bit fails to match the slot, use a grinder or some such tool to trim the bit to fit the slot.

NOTE : Rest the tool for 15 minutes when changing battery for continuous operation.

Speed changeover

• To change the speed, turn the speed change knob 180° while the drill is running. Be sure that the speed change knob is turned to the correct speed setting before you begin operation. See arrow indication. Use the right speed for the job.



Fastening torque adjustment

• Just turn the fastening torque adjust knob on the tool in order to select any of 5 different fastening torques. Make sure that the arrow points to the right torque before you begin the job. Torques are numbered from 1 to 5 in the order of strength. Set to 5 for use as a drill. The torque setting for number 5 is designed for drilling, and to protect the motor from burn out, so it can slip when a very high torque is applied.



Grip

• The grip shown on the right is recommended. However, grip the tool firmly with both hands when drilling a largediameter hole.



• The hole on the heel of the tool is a convenient way to carry it by a cord, hook or other means.



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



 Charger 12V for car Model DC9112



- Chuck key S10
 Part No. 763419-1
- 1 hour fast charge nickel cadmium battery Part No. 632007-4

Makita Battery cartridge 9000 (9.6 V)







• Bits

	Size	Part No.
Phillips	#2	784214-0A
	#3	784215-0A
Slotted	#5F	784010-0A
	#7F	784011-0A
Square drill bit		784606-0A

• Rubber pad assembly Part No. 123001-2



Wool bonnet
 Part No. 743401-6



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



• Foam polishing pad Part No. 743023-2



12

• 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 Part No. 823033-3E (Genuine leather)



• Tool carrying case Part No. 823085-7 (Steel case) Part No. 824145-8 (Plastic case)



CORDLESS DRIVER DRILL Model 6012HD



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

MODEL 6012HD

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
MAC	MACHINE		MACHINE		
1	11	Pan Head Screw M5x18	25	4	Steel Ball 4.8
2	1	Drill Chuck \$10	26	1	Clutch Cam
3	1	Spindle	27	1	Conical Compression Spring 16-21
4	1	Pin 3	28	1	Disc
5	1	Ball Bearing 6000LLB	29	1	Thrust Needle Gauge 1023
6	1 1	Stop Ring E - 9	30	1	Flat Washer 8
7	1	Compression Spring 10	31	1	Slider
8	1	Thin Washer 10	32	1	Pin 3
9	1	Spur Gear 78	33	1	Gear 12-28
10	1	Ring 16	34	1	Plane Bearing 4
11	1	Spur Gear 93	35	1	Shifter
12	1 1	Thin Washer 10	36	1	Leaf Spring
13	1	Compression Spring 10	37	1	Holder 6
14	1	Flat Washer 5	38	1	DC Motor 9.6 V
15	1	Plane Bearing 5	39	1	Switch
16	1	Shift Knob Supporter	40	1	Housing Set (With Item 55)
17	1	Compression Spring 3	41	1	Battery 9000
18	1	Steel Ball 4.8	42	1	Name Plate
19	1	Shift Knob	43	8	Pan Head Screw M4x22 (With Washer)
20	1	Retaining Ring S 6	44	1	Sleeve 5
21	1	Flat Washer 14	45	1	Set Plate
22	1	Ball Bearing 626LLB	54	1	Compression Spring 8
23	1	Flat Washer 6	55	1	Housing Set (With Item 40)
24	1	Spur Gear 89			

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



The <u>only</u> way to dispose of a Makita battery is to recycle it. The law prohibits any other method of disposal.



To recycle the battery:

- 1. Remove the battery from the tool.
- 2. a). Take the battery to your nearest Makita Factory Service Center or
 - b). Take the battery to your nearest Makita Authorized Service Center or Distributor that has been designated as a Makita battery recycling location.

• Call your nearest Makita Service Center or Distributor to determine the location that provides Makita battery recycling. See your local Yellow Pages under ''Tools-Electric''.



Makita Corporation

3-11-8, Sumiyoshi-cho, Anjo, Aichi 446 Japan

8835441065