

Makita

アメリカ

2-Speed Drill

13 mm (1/2") MODEL 6310
Variable speed / Reversing

INSTRUCTION MANUAL



 **DOUBLE INSULATION**

SPECIFICATIONS

Speed	Drilling capacities		No load speed (RPM)	Overall length	Net weight
	Steel	Wood			
High	8 mm (5/16")	20 mm (3/4")	0 - 2,000	310 mm (12-3/16")	2 kg (4.4 lbs)
Low	13 mm (1/2")	32 mm (1-1/4")	0 - 700	310 mm (12-3/16")	2 kg (4.4 lbs)

- * 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 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 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.

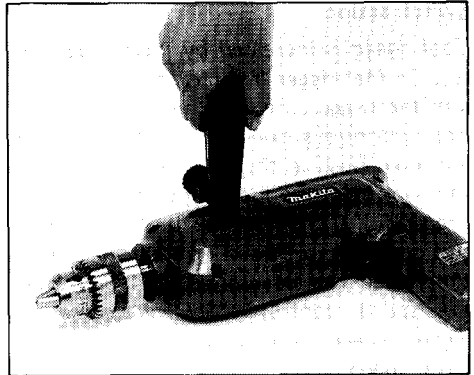
ADDITIONAL SAFETY RULES

- 1. Always be sure you have a firm footing.
Be sure no one is below when using the tool in high locations.**
- 2. Hold the tool firmly.**
- 3. Keep hands away from rotating parts.**
- 4. 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.**
- 5. Do not leave the tool running. Operate the tool only when hand-held.**
- 6. 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 side grip (auxiliary handle)

Screw the side grip on the tool securely.



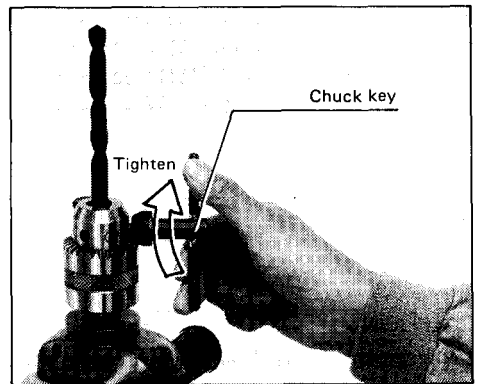
Installing or removing drill bit

CAUTION:

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

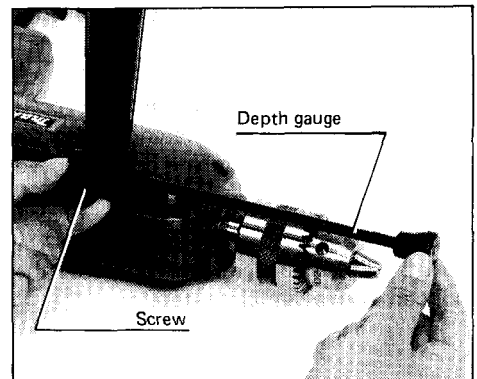
To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise. Be sure to tighten all three chuck holes evenly.

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



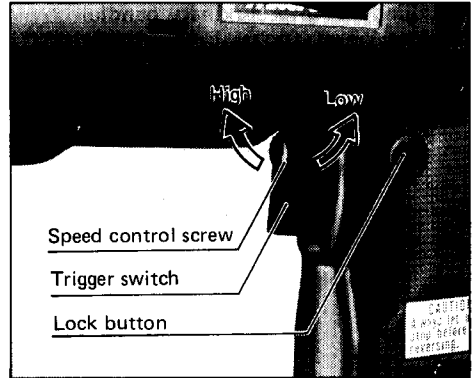
Adjusting depth of drilling

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



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. For continuous operation, pull the trigger and then push in the lock button. To stop the tool from the locked position, pull the trigger fully, then release it. 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.

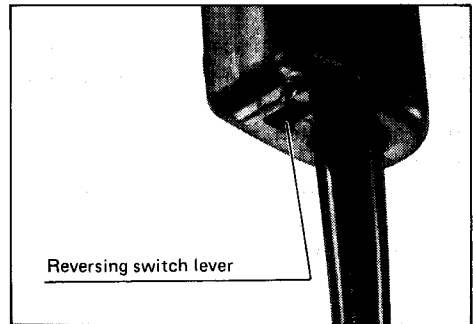


CAUTION:

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

Reversing switch action

This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the "FWD" position for clockwise rotation or the "REV" position for counterclockwise.



CAUTION:

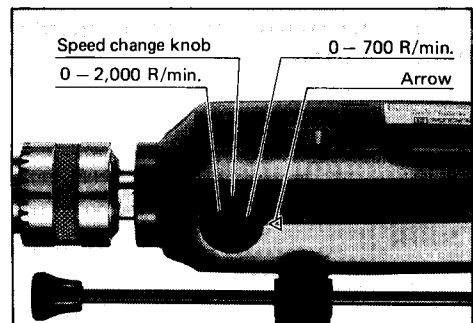
- Always check the direction of rotation before drilling.
- Use the reversing switch only when the tool comes to a complete stop. Changing the direction of rotation before the tool stops may ruin the tool.

Speed change

To change the tool speed, turn the speed change knob so that the reference arrow on the tool body points to the desired speed indication.

CAUTION:

Turn the speed change knob only after the tool comes to a complete stop.



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 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 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.

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.

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.

- **Depth gauge assembly**
Part No. 122395-2



- **Chuck key S13**
Part No. 763411-7



- **Grip 34**
Part No. 273406-7



ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<u>MACHINE</u>			<u>MACHINE</u>		
1	1	Name Plate	24	1	Thin Washer 18
2	1	Housing Set (With Item 42)	25	1	Compression Spring 18
3	1	Cord	26	1	Flat Washer 6
4	1	Cord Guard	27	1	Plane Bearing 6
5	1	Strain Relief	28	2	Carbon Brush
6	2	Pan Head Screw M4x18 (With Washer)	29	1	Terminal Base Complete
7	1	Switch	30	1	FIELD ASSEMBLY
9	1	Leaf Spring	31	1	Ball Bearing 627LLB
10	1	Switch	32	1	Pin 5
11	1	Drill Chuck S13	33	1	ARMATURE ASSEMBLY (With Item 31 & 33 -- 35)
12	1	Flat Head Screw M6x22	34	1	Fan 52
13	1	Spindle	35	1	Ball Bearing 627LLB
14	1	Ball Bearing 6002LLB	36	1	Retaining Ring S-6
15	1	Retaining Ring S-15	37	1	Ball Bearing 626LLB
16	1	Flat Washer 15	38	1	Gear Complete 9-20-45
17	1	Compression Spring 18	39	1	Needle Bearing
18	1	Thin Washer 18	40	1	Shifter
19	1	Spur Gear 53	41	1	Leaf Spring
20	1	Thin Washer 18	42	1	Housing Set (With Item 2)
21	1	Ring 18	43	1	Terminal Cap
22	1	Thin Washer 18	44	9	Pan Head Screw M4x28 (With Washer)
23	1	Spur Gear 42			

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



MAKITA LIMITED ONE YEAR WARRANTY

Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others;
- repairs are required because of normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Makita Corporation

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