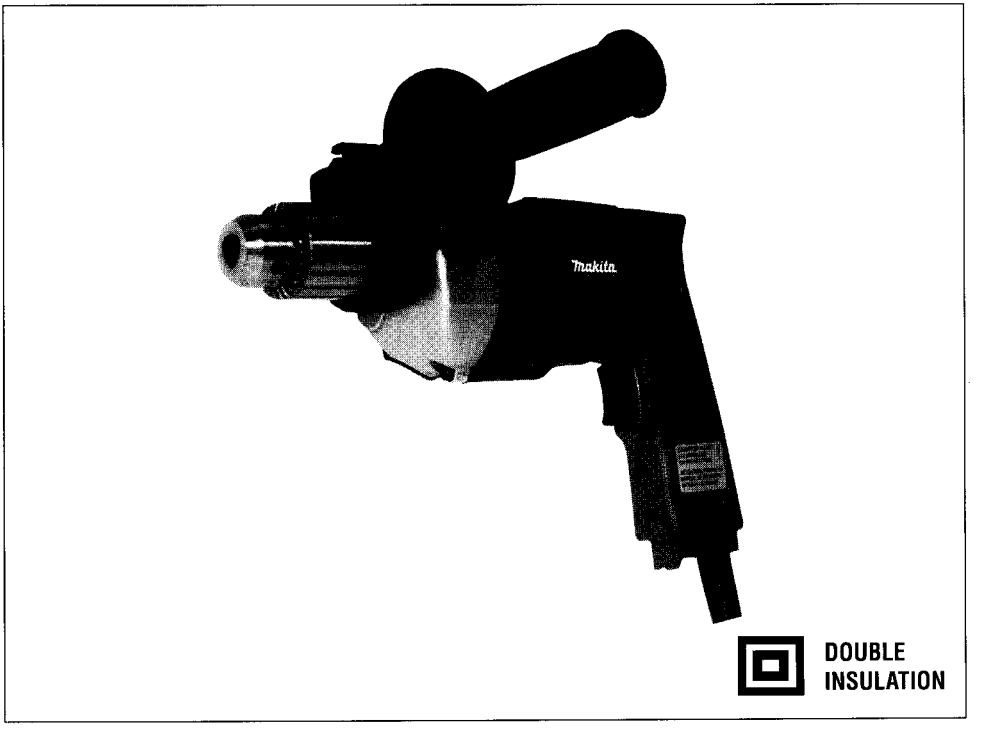
Drill

13 mm (1/2") MODEL 6302H
Variable speed / Reversing

13 mm (1/2") MODEL 6303H
Variable speed / Reversing

INSTRUCTION MANUAL



SPECIFICATIONS

Model	Drilling capacities		No load speed (RPM)	Overall length	Net weight
	Steel	Wood			
6302H	13 mm (1/2")	36 mm (1-3/8")	0 – 550	285 mm (11-1/4")	2.2 kg (4.8 lbs)
6303H	13 mm (1/2")	36 mm (1-3/8")	0 – 850	285 mm (11-1/4")	2.2 kg (4.8 lbs)

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

GENERAL SAFETY RULES

(For All Tools)

WARNING! Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

READ ALL INSTRUCTIONS.

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to loose control.

ELECTRICAL SAFETY

4. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation ⧈ eliminates the need for the three wire grounded power cord and grounded power supply system.
5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
6. **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electrical shock.
7. **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
8. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These cords are rated for outdoor use and reduce the risk of electric shock.

PERSONAL SAFETY

9. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

11. **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
12. **Remove adjusting keys or switches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

15. **Use clamps or other practical way to secure and support the work-piece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
18. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may *become hazardous when used on another tool.*

SERVICE

23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
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. 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.

SYMBOLS

Listed below are symbols commonly used on tools.

V .....volts
A .....amperes
Hz .....herts
kg .....kilograms
h .....hours
min .....minutes
s .....seconds

 .....alternating current

 .....direct current

n_0 .....no load speed

 .....alternating or direct current

 .....Class II Construction

 .....splash-proof construction

 .....watertight construction

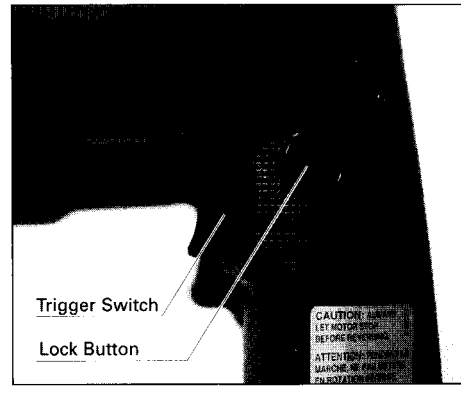
.../min .....revolutions or reciprocation per minute

 .....number of blows

FUNCTIONAL DESCRIPTION

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.

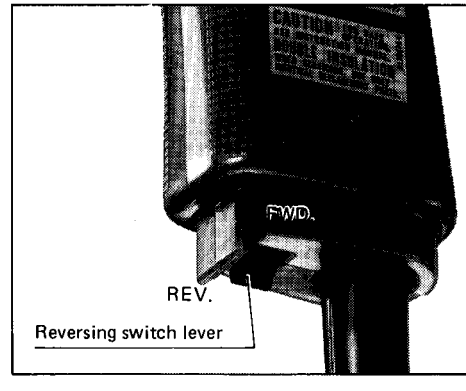


CAUTION:

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.

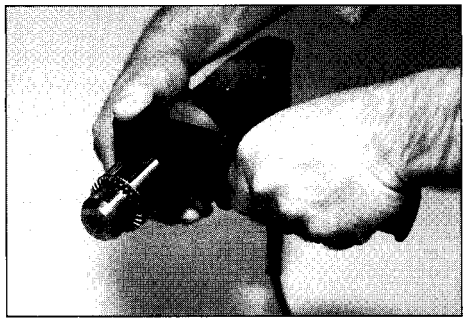


CAUTION:

- 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.

ASSEMBLY

Side grip (auxiliary handle)



Always use the side grip to ensure operating safety. Install the side grip so that the teeth on the grip fit in between the protrusions on the tool barrel. Then tighten the grip by turning clockwise at the desired position. It may be swung 360° so as to be secured at any position. To remove the side grip, loosen it by turning counterclockwise. Then push the grip base away from the tool barrel to disengage it.

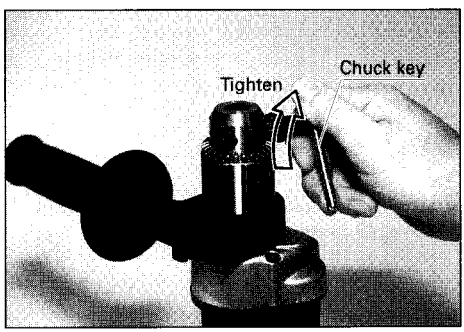
Installing or removing drill bit

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.



OPERATION

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 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 break through. Hold the tool firmly and exert care when the bit begins to break though the workpiece.
- Always grip the small workpiece firmly with a vise or a holding means.
- A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool will pull away easily unless you hold it firmly before starting the tool.

MAINTENANCE

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

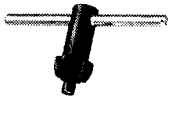
To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

ACCESSORIES

The accessories listed in this manual are available at an extra cost from your Makita distributor or Makita factory service center. Service centers are listed on the warranty card packed with your tool.

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.

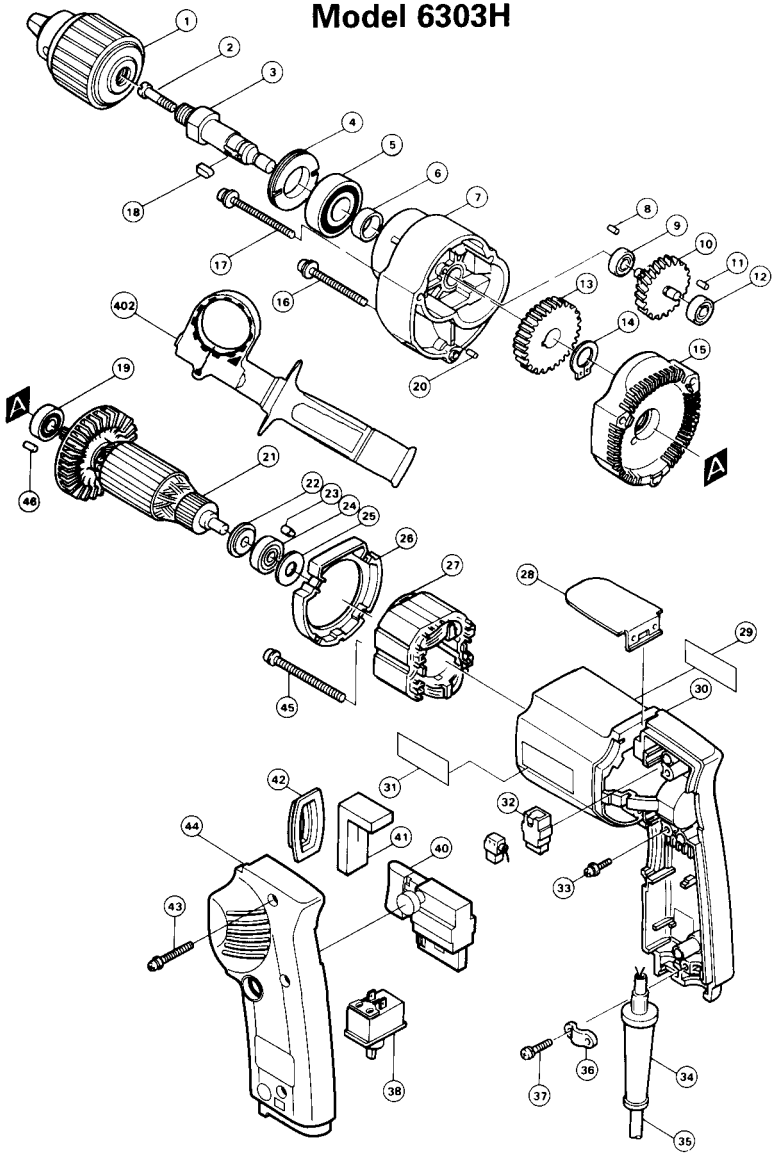
- **Chuck key**
  Part No. 763434-5



- **Grip assembly**
  Part No. 122593-8

- **Depth gauge**
  Part No. 415486-9

13 mm (1/2")
DRILL
Model 6302H
Model 6303H



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

ITEM NO.	NO. USED	DESCRIPTION
MACHINE		
1	1	Drill Chuck
2	1	Flat Head Screw M6x22
3	1	Spindle
4	1	Bearing Retainer 22–36
5	1	Ball Bearing 6202LLB
6	1	Ring 15
7	1	Gear Housing
8	1	Rubber Pin 4
9	1	Ball Bearing 606
10	1	Gear Complete
		7–46 For Model 6302H
		10–46 For Model 6303H
11	1	Rubber Pin 4
12	1	Ball Bearing 626
13	1	Spur Gear
		52 For Model 6302H
		49 For Model 6303H
14	1	Retaining Ring S–14
15	1	Gear Housing Cover
16	1	Pan Head Screw M4x50 (With Washer)
17	2	Pan Head Screw M4x50 (With Washer)
18	1	Key 5
19	1	Ball Bearing 608LB
20	1	Spring Pin 3x8
21	1	Armature
22	1	Insulation Washer
MACHINE		
23	1	Rubber Pin 4
24	1	Ball Bearing 627LB
25	1	Flat Washer 14
26	1	Baffle Plate
27	1	Field
28	1	Hook
29	1	Name Plate
30	1	Motor Housing
31	1	Makita Label
32	2	Carbon Brush
33	1	Pan Head Screw M1x14 (With Washer)
34	1	Cord Guard
35	1	Cord
36	1	Strain Relief
37	2	Pan Head Screw M4x18 (With Washer)
38	1	Switch
40	1	Switch
41	1	Sponge Sheet
42	1	Dust Cover
43	3	Pan Head Screw M4x28 (With Washer)
44	1	Handle Cover
45	2	Pan Head Screw M4x55 (With Washer)
46	1	Rubber Pin 4x10
402	1	Grip assembly

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 of America
2650 Buford Hwy., Buford GA 30518

884244-060

PRINTED IN USA
MCA 8/95
1999-04-4D