



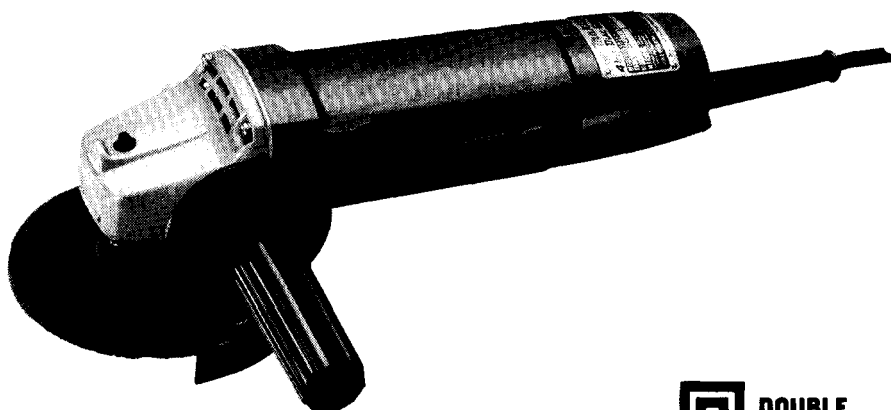
Makita

Disc Grinder

115 mm (4-1/2") MODEL 9503BH

アメリカ

INSTRUCTION MANUAL



 **DOUBLE
INSULATION**

SPECIFICATIONS

No load speed (RPM)	Overall length	Net weight	Spindle thread
10,000	260 mm (10-1/4")	2 kg (4.4 lbs)	5/8"

* 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.

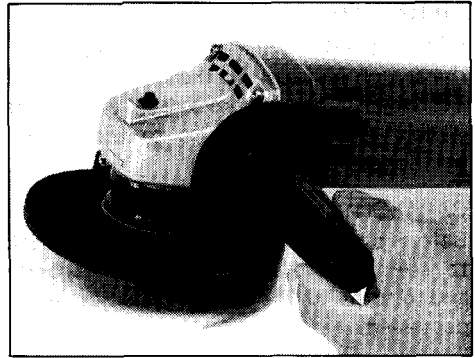
ADDITIONAL SAFETY RULES

1. Keep guards in place.
2. Use only wheels having a maximum operating speed at least as high as "No Load RPM" marked on the tool's nameplate. When using depressed center wheels, be sure to use only fiberglass-reinforced wheels.
3. Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately.
4. Use only flanges specified for this tool.
5. Be careful not to damage the spindle, the flange (especially the installing surface) or the lock nut. Damage to these parts could result in wheel breakage.
6. Hold the tool firmly.
7. Keep hands away from rotating parts.
8. Make sure the wheel is not contacting the workpiece before the switch is turned on.
9. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced wheel.
10. Use the specified surface of the wheel to perform the grinding.
11. Watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.
12. Do not leave the tool running. Operate the tool only when hand-held.
13. Do not touch the workpiece immediately after operation; it 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. The side grip can be installed on either side of the tool, whichever is convenient.

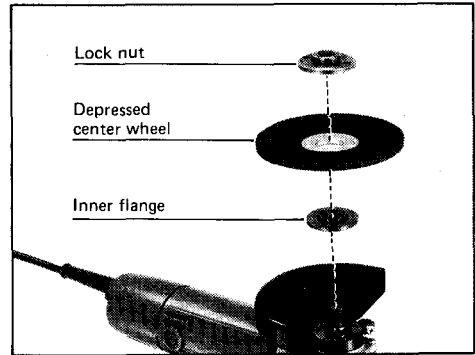


Installing or removing depressed center wheel

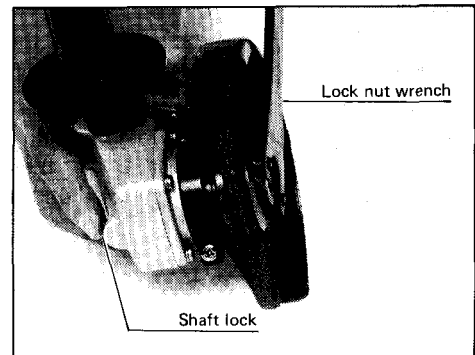
CAUTION:

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

Mount the inner flange onto the spindle. Fit the wheel on over the inner flange and screw the lock nut onto the spindle.



To tighten the lock nut, press the shaft lock firmly so that the spindle cannot revolve, then use the lock nut wrench and securely tighten clockwise.



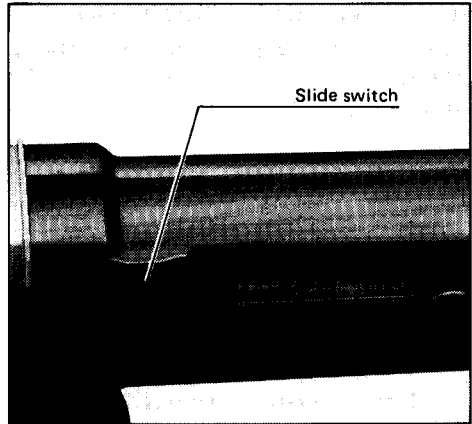
To remove the wheel, follow the installation procedure in reverse.

Switch action

Slide the slide switch forward to start, and the switch will lock in the "ON" position. To stop, lightly depress the rear of the switch, and it will return to the "OFF" position.

CAUTION:

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

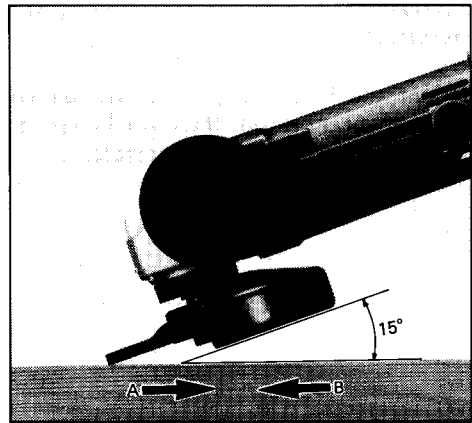


Operation

Hold the tool firmly. Turn the tool on and then apply the wheel or disc to the workpiece.

In general, keep the edge of the wheel or disc at an angle of about 15° to the workpiece surface.

During the break-in period with a new wheel, do not work the grinder in the B direction or it will cut into the workpiece. Once the edge of the wheel has been rounded off by use, the wheel may be worked in both A and B directions.



WARNING:

- It should never be necessary to force the tool. The weight of the tool applies adequate pressure. Forcing and excessive pressure could cause dangerous wheel breakage.
- Continued use of a worn-out wheel may result in wheel explosion and serious personal injury. Depressed center wheel should not be used after it has been worn down to 90 mm (3-1/2") in diameter. Use of the wheel after this point is unsafe and it should be removed from service and rendered unusable by intentional destruction.

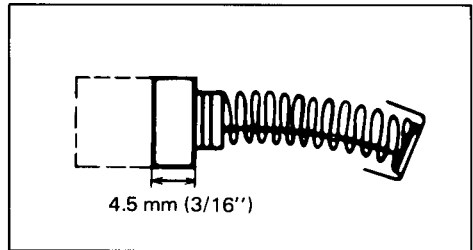
MAINTENANCE

CAUTION:

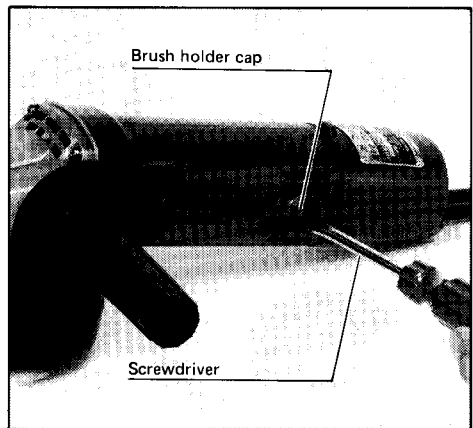
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

Replacing carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to about 4.5 mm (3/16") or less. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only Makita carbon brushes.



Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.

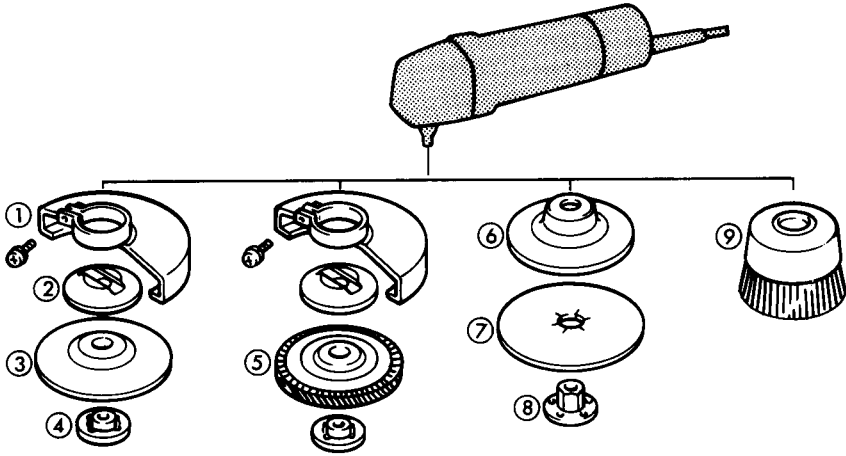


To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

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.



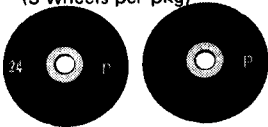
① **Wheel cover**
Part No. 164751-0



② **Inner flange 82**
Part No. 224178-7



③ **Depressed center wheels**
(5 wheels per pkg)



④ **Lock nut 5/8-40**
Part No. 224509-0



Part No.	Size (mm)	Grit
741423-0	115 x 6 x 22	24
741424-8	(4-1/2" x 1/4" x 7/8")	36

⑤ **Multi disc**



⑥ **Rubber pad 115**
Part No. 743036-3



Part No.	Size (mm)	Grit
794332-2	115 x 17 x 22.2 (4-1/2" x 11/16" x 7/8")	60

- ⑦ **Abrasive discs**
(10 disc per pkg)



115 mm (4-1/2") diameter

Part No.	Grit
742082-3	24
742083-1	30
742084-9	50
742085-7	80
742086-5	120

- **Grip 26**
Part No. 273485-5



- **Steel carrying case**
Part No. 823120-1



- ⑧ **Lock nut 5/8-48**
(For abrasive disc)
Part No. 224517-1



- ⑨ **Wire cup brush**
Part No. 743205-6

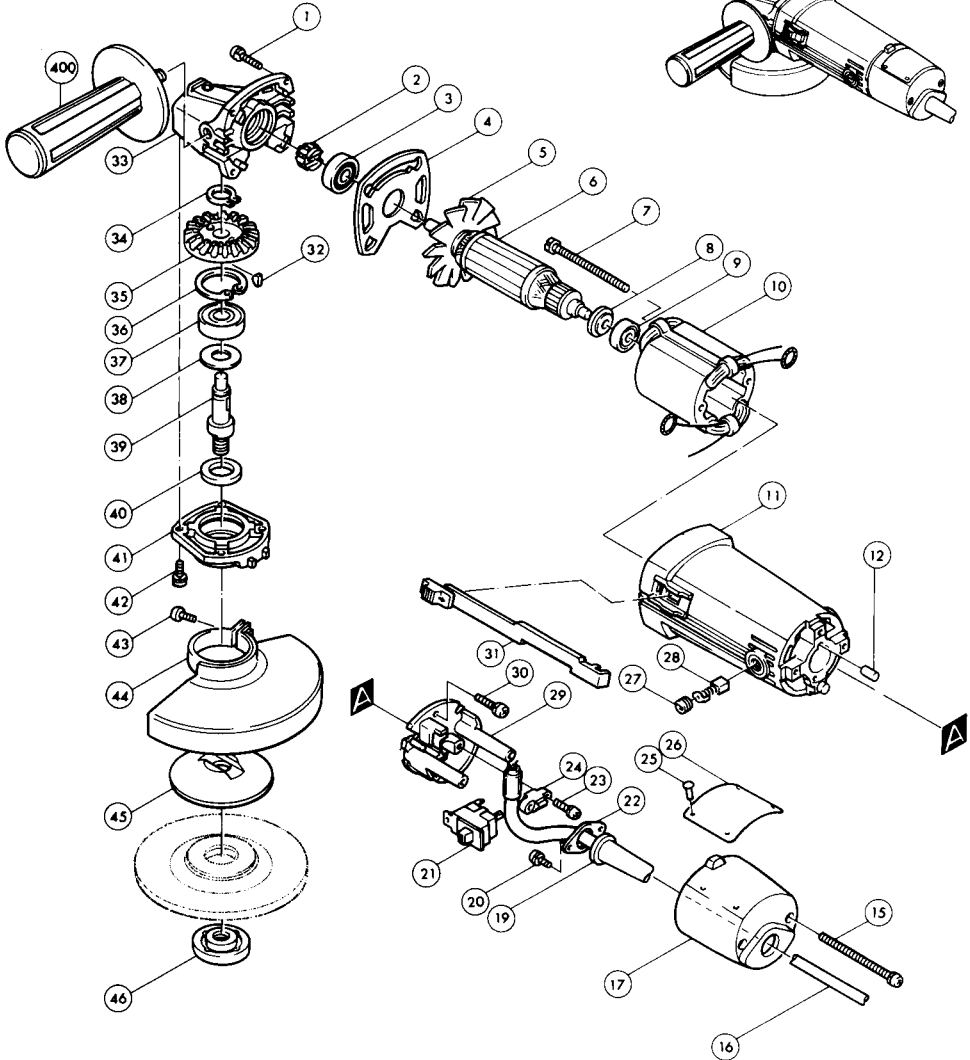


- **Lock nut wrench 28**
Part No. 782413-4





115 mm (4-1/2") DISC GRINDER Model 9503BH

Type1


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

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
MACHINE			MACHINE		
1	4	Pan Head Screw M4x20 (With Washer)	26	1	Name Plate
2	1	Spiral Bevel Gear 11	27	2	Brush Holder Cap
3	1	Ball Bearing 6000LB	28	2	Carbon Brush
4	1	Plate	29	1	Switch Holder
5	1	Fan 60	30	2	Pan Head Screw M4x18 (With Washer)
6	1	ARMATURE ASSEMBLY (With Item 5, 6, 8 & 9)	31	1	Switch Lever
7	2	Hex. Bolt M4x70 (With Washer)	32	1	Woodruff Key 3
8	1	Insulation Washer	33	1	Gear Housing
9	1	Ball Bearing 627LB	34	1	Retaining Ring S - 12
10	1	FIELD ASSEMBLY	35	1	Spiral Bevel Gear 36
11	1	Motor Housing	36	1	Retaining Ring R - 32
12	1	Rubber Pin 4	37	1	Ball Bearing 6201LB
15	2	Pan Head Screw M4x60 (With Washer)	38	1	Flat Washer 12
16	1	Cord	39	1	Spindle
17	1	Rear Cover	40	1	Felt Ring 18
19	1	Cord Guard	41	1	Bearing Box
20	2	Pan Head Screw M4x8 (With Washer)	42	4	Pan Head Screw M4x14 (With Washer)
21	1	Switch	43	1	Pan Head Screw M5x14 (With Washer)
22	1	Set Plate	44	1	Wheel Cover
23	2	Pan Head Screw M4x14 (With Washer)	45	1	Inner Flange 82
24	1	Strain Relief	46	1	Lock Nut 5/8 - 40
25	4	Rivet 0-5	400	1	Grip 26

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.



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