

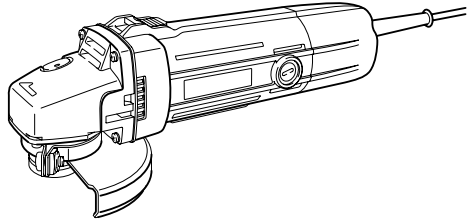


Angle Grinder

M962

M963

M964



003565



DOUBLE INSULATION

⚠ WARNING:

For your personal safety, READ and UNDERSTAND before using.
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

ENGLISH SPECIFICATIONS

Model	M962	M963	M964
Wheel diameter	100 mm	115 mm	125 mm
Spindle thread	M10 x 1.5	M14 x 2	M14 x 2
No load speed (min ⁻¹)	12,000	10,000	10,000
Overall length	266 mm	266 mm	266 mm
Net weight	1.5 kg	1.5 kg	1.5 kg
Safety class	II/III		

- Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- Note: Specifications may differ from country to country.

END202-2

Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



- Read instruction manual.



- DOUBLE INSULATION



- Wear safety glasses.



- Only for EU countries
Do not dispose of electric equipment together with household waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE048-1

Intended use

The tool is intended for grinding, sanding and cutting of metal and stone materials without the use of water.

ENF002-1

Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

ENA001-2

SAFETY INSTRUCTIONS

WARNING! When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before operating this product and save these

instructions.

For safe operations:

1. **Keep work area clean.**
Cluttered areas and benches invite injuries.
2. **Consider work area environment.**
Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.
3. **Guard against electric shock.**
Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).
4. **Keep children away.**
Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.
5. **Store idle tools.**
When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.
6. **Do not force the tool.**
It will do the job better and safer at the rate for which it was intended.
7. **Use the right tool.**
Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saws to cut tree limbs or logs.
8. **Dress properly.**
Do not wear loose clothing or jewellery, they can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.
9. **Use safety glasses and hearing protection.**
Also use face or dust mask if the cutting operation is dusty.
10. **Connect dust extraction equipment.**
If devices are provided for the connection of dust extraction and collection facilities ensure these are connected and properly used.
11. **Do not abuse the cord.**

Never carry the tool by the cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

12. **Secure work.**

Use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the tool.

13. **Do not overreach.**

Keep proper footing and balance at all times.

14. **Maintain tools with care.**

Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized service facility. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean and free from oil and grease.

15. **Disconnect tools.**

When not in use, before servicing and when changing accessories such as blades, bits and cutters.

16. **Remove adjusting keys and wrenches.**

Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

17. **Avoid unintentional starting.**

Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.

18. **Use outdoor extension leads.**

When tool is used outdoors, use only extension cords designed for outdoor use.

19. **Stay alert.**

Watch what you are doing. Use common sense. Do not operate tool when you are tired.

20. **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, free running 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 in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.

21. **Warning.**

The use of any accessory or attachment, other than those recommended in this instruction manual or the catalog, may present a risk of personal injury.

22. **Have your tool repaired by a qualified person.**

This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

ENB031-6

ADDITIONAL SAFETY RULES

1. **Always use eye and ear protection. Other personal protective equipment such as dust mask, gloves, helmet and apron should be worn.**
2. **Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.**
3. **Keep guards in place.**
4. **Use only wheels with correct size and wheels having a maximum operating speed at least as high as the highest No Load Speed marked on the tool's nameplate. When using depressed center wheels, be sure to use only fiberglass-reinforced wheels.**
5. **Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately.**
6. **Observe the instructions of the manufacturer for correct mounting and use of wheels. Handle and store wheels with care.**
7. **Do not use separate reducing bushings or adaptors to adapt large hole abrasive wheels.**
8. **Use only flanges specified for this tool.**
9. **Do not damage the spindle, the flange (especially the installing surface) or the lock nut. Damage to these parts could result in wheel breakage.**
10. **For tools intended to be fitted with threaded hole wheel, ensure that the thread in the wheel is long enough to accept the spindle length.**
11. **Before using the tool on an actual workpiece, test run the tool at the highest no load speed for at least 30 seconds in a safe position. Stop immediately if there is any vibration or wobbling that could indicate poor installation or a poorly balanced wheel. Check the tool to determine the cause.**
12. **Check that the workpiece is properly supported.**
13. **Hold the tool firmly.**
14. **Keep hands away from rotating parts.**
15. **Make sure the wheel is not contacting the workpiece before the switch is turned on.**
16. **Use the specified surface of the wheel to perform the grinding.**
17. **Do not use cutting off wheel for side grinding.**
18. **Watch out for flying sparks. Hold the tool so**

that sparks fly away from you and other persons or flammable materials.

19. Pay attention that the wheel continues to rotate after the tool is switched off.
20. Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.
21. Position the tool so that the power cord always stays behind the machine during operation.
22. If working place is extremely hot and humid, or badly polluted by conductive dust, use a short-circuit breaker (30 mA) to assure operator safety.
23. Do not use the tool on any materials containing asbestos.
24. Do not use water or grinding lubricant.
25. Ensure that ventilation openings are kept clear when working in dusty conditions. If it should become necessary to clear dust, first disconnect the tool from the mains supply (use non metallic objects) and avoid damaging internal parts.
26. When use cut-off wheel, always work with the dust collecting wheel guard required by domestic regulation.
27. Cutting discs must not be subjected to any lateral pressure.

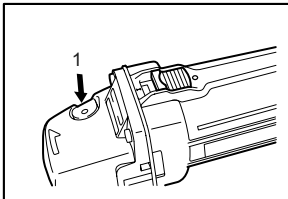
SAVE THESE INSTRUCTIONS.

FUNCTIONAL DESCRIPTION

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Shaft lock



1. Press

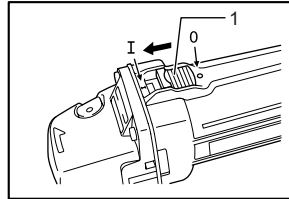
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⚠CAUTION:

- Never actuate the shaft lock when the spindle is moving. The tool may be damaged.

Press the shaft lock to prevent spindle rotation when installing or removing accessories.

Switch action



1. Slide switch lever

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⚠CAUTION:

- Before plugging in the tool, always check to see that the switch lever actuates properly and returns to the "O(OFF)" position when the rear of the switch lever is depressed.

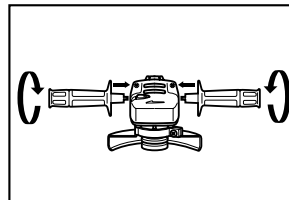
To start the tool, slide the switch lever toward the "I (ON)" position. For continuous operation, press the front of the switch lever to lock it. To stop the tool, press the rear of the switch lever, then slide it toward "O (OFF)" position.

ASSEMBLY

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Installing side grip



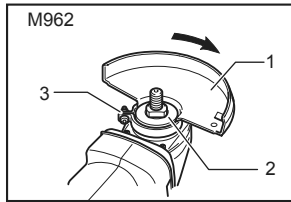
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⚠CAUTION:

- Always be sure that the side grip is installed securely before operation.

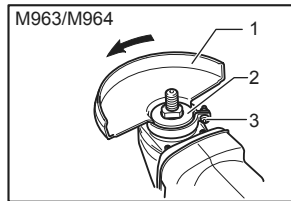
Screw the side grip securely on the position of the tool as shown in the figure.

Installing the wheel guard



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1. Wheel guard
2. Bearing box
3. Screw

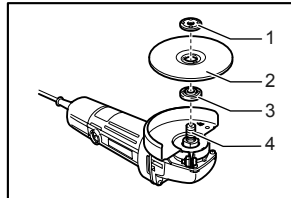


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1. Wheel guard
2. Bearing box
3. Screw

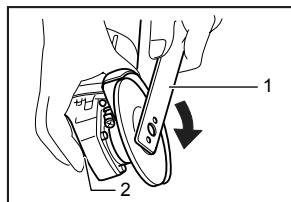
Mount the wheel guard with the tab on the wheel guard band aligned with the notch on the bearing box. Then rotate the wheel guard 180° clockwise (for MT951) or counterclockwise (for MT952 and MT953 and MT957). Be sure to tighten the screw securely.

Installing or removing depressed center wheel (optional accessory)



003959

1. Lock nut
2. Depressed center wheel
3. Inner flange
4. Spindle



001649

1. Lock nut wrench
2. Shaft lock

⚠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. (THE SIDE WITH THE RUBBER SURFACE SHOULD CONTACT THE WHEEL for rubber molded inner flange only.) 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.

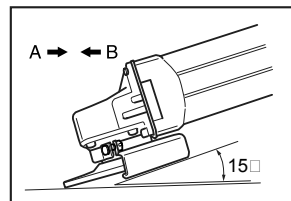
To remove the wheel, follow the installation procedure in reverse.

OPERATION

⚠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.

Grinding and sanding operation



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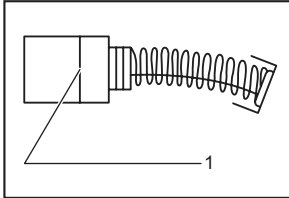
Hold the tool firmly. Turn the tool on and then apply the wheel or disc to the workpiece. In general, keep the edge of the wheel or disc at an angle of about 15° to the workpiece surface. During the break-in period with a new wheel, do not work the tool in the B direction or it will cut into the workpiece. Once the edge of the wheel has been rounded off by use, the wheel may be worked in both A and B directions.

MAINTENANCE

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Replacement of carbon brushes

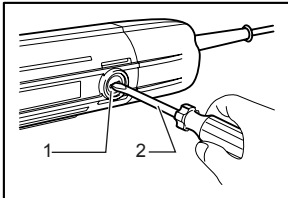


1. Limit mark

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Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical 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.



1. Brush holder cap
2. Screwdriver

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To maintain product safety and reliability, repairs, maintenance or adjustment should be carried out by Makita Authorized Service Center.

Makita Corporation