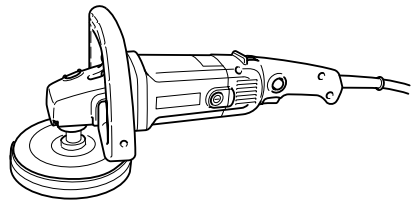




# Sander Polisher

MODEL 9227CB



003430



## I N S T R U C T I O N M A N U A L

**⚠ WARNING:**

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

# SPECIFICATIONS

Model		9227CB
Max. capacities	Wool pad	180 mm
	Abrasive disc	180 mm
No load speed (min <sup>-1</sup> )		0 - 3,000
Overall length		470 mm
Net weight		3.0 kg
Safety class		□ /II

- 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.

## Symbols

END202-1

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



.....Read instruction manual.



.....DOUBLE INSULATION



.....Wear safety glasses.

## Intended use

The tool is intended for polishing, smoothing before painting, finishing surfaces, and removing rust and paint.

## 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.

## For European countries only

### Noise and Vibration

The typical A-weighted sound pressure level is 81 dB (A).

The noise level under working may exceed 85 dB (A).

– Wear ear protection. –

The typical weighted root mean square acceleration value is not more than 2.5 m/s<sup>2</sup>.

### EC-DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product is in compliance with the following standards of standardized documents, HD400, EN50144, EN55014, EN61000 in accordance with Council Directives, 73/23/EEC, 89/336/EEC, 98/37/EC.

*Yasuhiko Kanzaki* **CE 2003**

Director

### MAKITA INTERNATIONAL EUROPE LTD.

Michigan Drive, Tongwell, Milton Keynes, Bucks MK15 8JD, ENGLAND

# SAFETY INSTRUCTIONS

ENA001-2

## **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 intended 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.

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# ADDITIONAL SAFETY RULES

ENB047-6

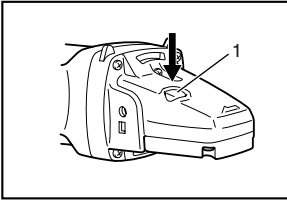
1. Always use eye and ear protection. Other personal protective equipment such as dust mask, gloves, helmet and apron should be worn.
2. Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.
3. Accessories must be rated for at least the speed recommended on the tool warning label. Wheels and other accessories running over rated speed can fly apart and cause injury. Maximum operating speed of accessories should be higher than the highest no load speed marked on the tool's name-plate.
4. Check the backing pad carefully for cracks, damage or deformity before operation. Replace cracked, damaged or deformed pad immediately.
5. Check that the workpiece is properly supported.
6. Hold the tool firmly.
7. Keep hands away from rotating parts.
8. Make sure the abrasive disc or wool bonnet is not contacting the workpiece before the switch is turned on.
9. When sanding metal surfaces, watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.
10. Do not leave the tool running. Operate the tool only when hand-held.
11. Pay attention that the wheel continues to rotate after the tool is switched off.
12. Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.
13. 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.
14. Do not use the tool on any materials containing asbestos.
15. Do not use water or grinding lubricant.
16. Ventilate your work area adequately when you perform sanding operations.
17. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
18. Always use the correct dust mask/respirator for the material and application you are working with when sanding.
19. 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.

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# SAVE THESE INSTRUCTIONS

# FUNCTIONAL DESCRIPTION

003432



1. Shaft lock

**⚠ CAUTION:**

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

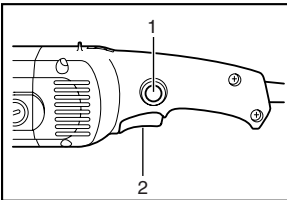
### Shaft lock

**⚠ 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.

003435



1. Lock button  
2. Switch trigger

### Switch action

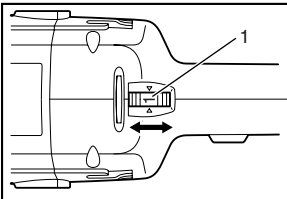
**⚠ CAUTION:**

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

To start the tool, simply pull the switch trigger. Tool speed is increased by increasing pressure on the switch trigger. Release the switch trigger to stop. For continuous operation, pull the switch trigger and then push in the lock button.

To stop the tool from the locked position, pull the switch trigger fully, then release it.

003440



1. Speed adjusting dial

### Speed adjusting dial

The tool speed can be changed by turning the speed adjusting dial to a given number setting from 1 to 6. (At the time when the switch trigger is fully pulled.) Higher speed is obtained when the dial is turned in the direction of number 6. And lower speed is obtained when it is turned in the direction of number 1. Refer to the table for the relationship between the number settings on the dial and the approximate tool speed.

**⚠ CAUTION:**

- If the tool is operated continuously at low speeds for a long time, the motor will get overloaded, resulting in tool malfunction.
- The speed adjusting dial can be turned only as far as 6 and back to 1. Do not force it past 6 or 1, or the speed adjusting function may no longer work.

003441

Number	min <sup>-1</sup> (RPM)
1	600
2	900
3	1,500
4	2,100
5	2,700
6	3,000

# ASSEMBLY

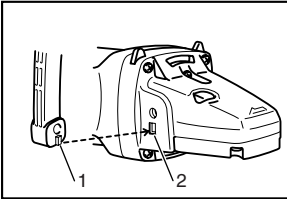
**⚠ CAUTION:**

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

## Installing loop handle

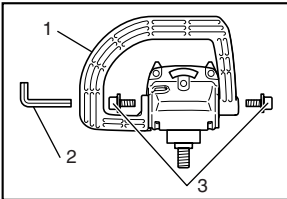
Always install the loop handle on the tool before operation. Hold the tool's switch handle and the loop handle firmly with both hands during operation. Install the loop handle so that its protrusion will fit into the matching hole in the gear housing.

003448



1. Protrusion of loop handle
2. Matching hole in gear housing

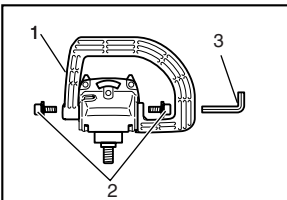
003449



1. Loop handle
2. Hex wrench
3. Bolt

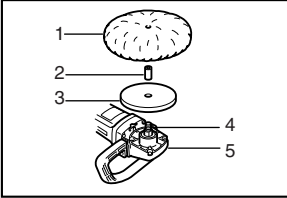
Install the bolts and tighten them with the hex wrench. The loop handle can be installed in two different directions as shown in the figures whichever is convenient for your work.

003450



1. Loop handle
2. Bolt
3. Hex wrench

004423



1. Wool pad
2. Sleeve 18
3. Backing pad
4. Spindle
5. Shaft lock

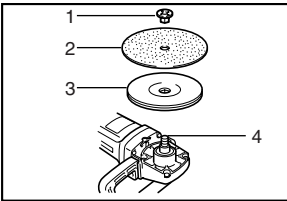
### Installing or removing the wool pad

To install the wool pad, first remove all dirt or foreign matter from the backing pad. Press the shaft lock and screw the backing pad onto the spindle. Insert the sleeve 18 into the center hole of the backing pad.

Using the sleeve 18 as a positioning guide, install the wool pad on the backing pad with the sleeve 18 inserted through the center hole of the wool pad. Then remove the sleeve 18 from the backing pad.

To remove the wool pad, just tear it off the backing pad. Then unscrew the backing pad while pressing the shaft lock.

003457



1. Lock nut
2. Abrasive disc
3. Rubber pad
4. Spindle

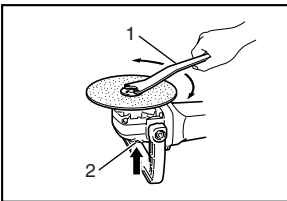
### Installing or removing abrasive disc

#### NOTE:

- Use sander accessories specified in this manual. These must be purchased separately.

Mount the rubber pad onto the spindle. Fit the abrasive disc on the rubber pad and screw the lock nut onto the spindle.

003458



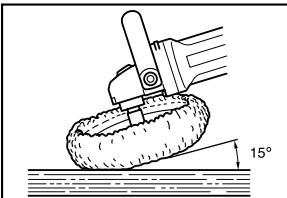
1. Lock nut wrench
2. Shaft lock

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 disc, follow the installation procedure in reverse.

## OPERATION

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### Polishing operation

#### ⚠ CAUTION:

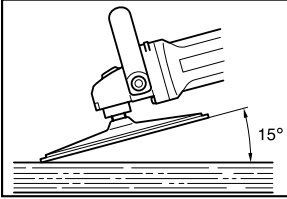
- Always wear safety glasses or a face shield during operation.

Hold the tool firmly. Turn the tool on and then apply the wool bonnet to the workpiece.

In general, keep the wool bonnet at an angle of about 15 degrees to the workpiece surface.

Apply slight pressure only. Excessive pressure will result in poor performance and premature wear to wool bonnet.

003473



## Sanding operation

### ⚠ CAUTION:

- Always wear safety goggles or a face shield during operation.
- Never switch on the tool when it is in contact with the workpiece, it may cause an injury to operator.
- Never run the tool without the abrasive disc. You may seriously damage the pad.

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

In general, keep the abrasive disc at an angle of about 15 degrees to the workpiece surface.

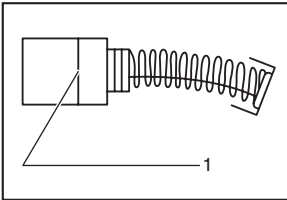
Apply slight pressure only. Excessive pressure will result in poor performance and premature wear to abrasive disc.

## MAINTENANCE

### ⚠ CAUTION:

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

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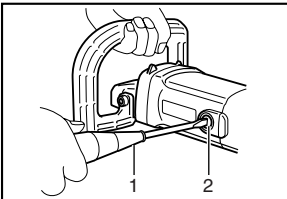


1. Limit mark

## Replacing carbon brushes

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.

003483



1. Screwdriver

2. Brush holder cap

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 Service Centers, always using Makita replacement parts.



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## 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. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita service center.

- Sponge pad (Hook & loop)
- Backing pad 165 (Hook & loop)
- Abrasive discs
- Wool bonnet 180
- Rubber pad 170
- Lock nut 48
- Lock nut wrench 28
- Sleeve 18
- Side grip (auxiliary handle)
- Loop handle
- Head cover
- Wool pad 180 (Hook & loop)



# Memo

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Makita Corporation Anjo, Aichi, Japan