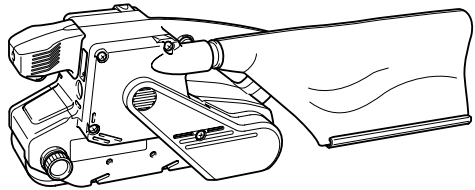




Belt Sander

76 mm (3")
MODEL 9902
76 mm (3")
MODEL 9903
76 mm (3")
MODEL 9920

100 mm (4")
MODEL 9404



003359



INSTRUCTION MANUAL

⚠ WARNING:

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

SPECIFICATIONS

Model	9902	9903	9920	9404
Belt size	76 mm x 533 mm (3" x 21")	76 mm x 533 mm (3" x 21")	76 mm x 610 mm (3" x 24")	100 mm x 610 mm (4" x 24")
Belt speed	440 m (1,440 ft.) /min.	210 - 440 m (690 - 1,440 ft.) /min.		
Overall length	296 mm (11-5/8")		334 mm (13-1/8")	
Net weight	4.3 kg (9.5 lbs)	4.3 kg (9.5 lbs)	4.5 kg (9.9 lbs)	4.7 kg (10.3 lbs)

- Manufacturer reserves the right to change specifications without notice.
- Specifications may differ from country to country.

GENERAL SAFETY RULES

USA002-2

(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

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 lose 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.

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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. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric 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 wrenches 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. Ordinary eye or sun glasses are NOT eye protection.

Tool Use and Care

15. **Use clamps or other practical way to secure and support the workpiece 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 tools 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.

USE PROPER EXTENSION CORD: Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Table 1: Minimum gage for cord

Ampere Rating		Volts	Total length of cord in feet			
		120 V	25 ft.	50 ft.	100 ft.	150 ft.
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

SPECIFIC SAFETY RULES

USB007-3

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to sander safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

1. Hold tool by insulated gripping surfaces when performing an operation where the cutting tool 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 use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
3. Hold the tool firmly with both hands.
4. Make sure the belt is not contacting the workpiece before the switch is turned on.
5. Keep hands away from rotating parts.
6. Do not leave the tool running. Operate the tool only when hand-held.
7. This tool has not been waterproofed, so do not use water on the workpiece surface.
8. Ventilate your work area adequately when you perform sanding operations.
9. Use of this tool to sand some products, paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.

SAVE THESE INSTRUCTIONS


⚠ WARNING:
MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

SYMBOLS


USD204-1

The followings show the symbols used for tool.

V volts

 alternating current

A amperes

 Class II Construction

Hz hertz

m/min meter per minute

FUNCTIONAL DESCRIPTION

⚠ CAUTION:

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

Switch action

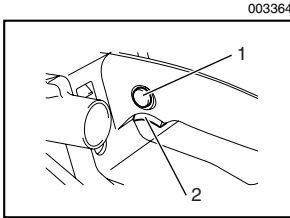
⚠ CAUTION:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the “OFF” position when released.
- Switch can be locked in “ON” position for ease of operator comfort during extended use. Apply caution when locking tool in “ON” position and maintain firm grasp on tool.

To start the tool, simply pull 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.



- 003364
1. Lock button
 2. Switch trigger

Speed adjusting dial

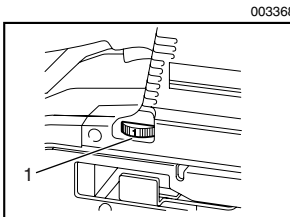
For 9903, 9920 and 9404

The belt speed can be infinitely adjusted between 210 m (690 ft.) and 440 m (1,440 ft.) per minute by turning the speed adjusting dial to a given number setting from 1 to 5. Higher speed is obtained when the dial is turned in the direction of number 5; lower speed is obtained when it is turned in the direction of number 1.

Select the proper speed for the workpiece to be sanded.

⚠ 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 5 and back to 1. Do not force it past 5 or 1, or the speed adjusting function may no longer work.



- 003368
1. Speed adjusting dial

ASSEMBLY

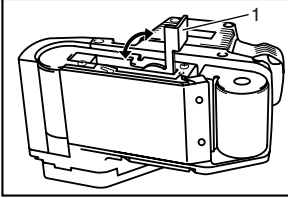
⚠ CAUTION:

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

Installing or removing abrasive belt

Pull the lever all the way out and install the belt over the rollers, then return the lever to the original position.

003501

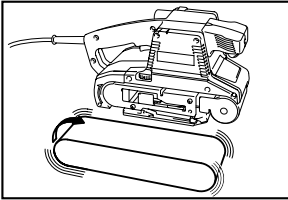


1. Lever

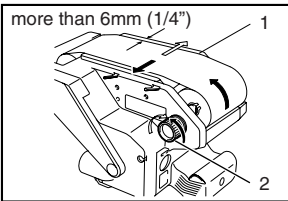
⚠ CAUTION:

- When installing the belt, make sure that the direction of the arrow on the back of the belt corresponds to the one on the tool itself.

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003380

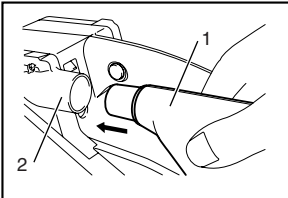


1. Steel plate
2. Adjusting knob

Adjusting belt tracking

Switch on the tool and make sure that the belt is aligned properly. If the edge of the belt extends beyond the edge of the base or the edge of the belt retracts more than 6 mm (1/4") away from the edge of the base, use the adjusting knob to adjust the belt tracking.

003385

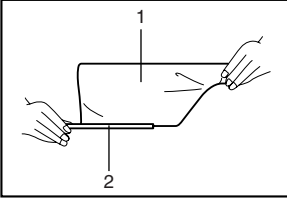


1. Dust bag
2. Dust spout

Dust bag

Attach the dust bag onto the dust spout. The dust spout is tapered. When attaching the dust bag, push it onto the dust spout firmly as far as it will go to prevent it from coming off during operation.

003389



1. Dust bag
2. Fastener

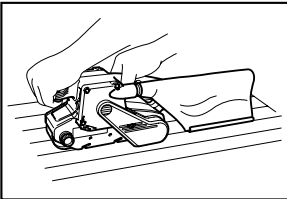
When the dust bag is about half full, remove the dust bag from the tool and pull the fastener out. Empty the dust bag of its contents, tapping it lightly so as to remove particles adhering to the insides which might hamper further collection.

NOTE:

- If you connect a Makita vacuum cleaner to this tool, more efficient and cleaner operations can be performed.

OPERATION

003391



Sanding operation

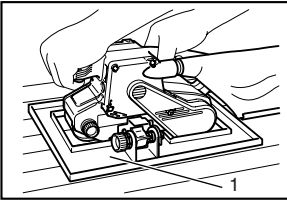
⚠ CAUTION:

- The tool should not be in contact with the workpiece surface when you turn the tool on or off. Otherwise a poor sanding finish or damage of the belt may result.

Hold the tool firmly with both hands. Turn the tool on and wait until it attains full speed. Then gently place the tool on the workpiece surface. Keep the belt flush with the workpiece at all times and move the tool back and forth.

Never force the tool. The weight of the tool applies adequate pressure. Excessive pressure may cause stalling, overheating of the motor, burning of the workpiece and possible kick-back.

003394



1. Sanding shoe

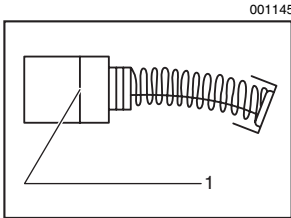
Sanding shoe (optional accessory)

The sanding shoe readily allows you to sand workpieces more evenly.

MAINTENANCE

⚠ CAUTION:

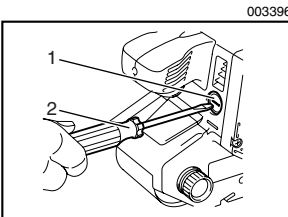
- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.



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.



1. Brush holder cap
2. Screwdriver

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. 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.

- Abrasive belts
- Sanding shoe
- Dust bag