



Makita

アメリカ

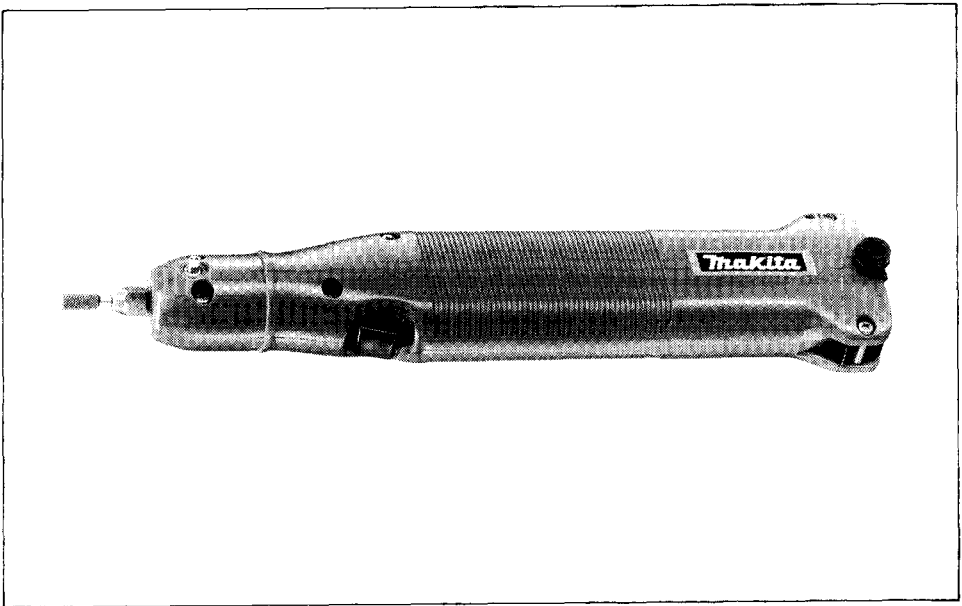
Cordless Blade Sharpener

MODEL 903D

MODEL 903DW

With Fast Charger

INSTRUCTION MANUAL



SPECIFICATIONS

• Model 903D

Collet size	No load speed (RPM)	Overall length	Net weight
3 mm or 1/8"	19,000	295 mm (11-5/8")	0.7 kg (1.5 lbs)

• Battery Cartridge 9000

• Model DC9100 Fast Charger

Voltage	Charging time	Input	Output
9.6 V	1 Hr.	A.C. only 50 Hz — 60 Hz	D.C. 9.6 V

- 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.

IMPORTANT SAFETY INSTRUCTIONS

- 1. SAVE THESE INSTRUCTIONS** — This manual contains important safety and operating instructions for battery charger.
2. Before using battery charger, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
3. **CAUTION** — To reduce risk of injury, charge only **MAKITA Battery 9000**. Other types of batteries may burst causing personal injury and damage.
4. Do not expose charger to rain or snow.
5. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
8. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size, and shape as those of plug on charger;
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is at least as large as the one specified in the table below.

TABLE 1
RECOMMENDED MINIMUM AWG SIZE FOR
EXTENSION CORDS FOR BATTERY CHARGERS

Length of Cord (Feet)	25	50	100	150
AWG Size of Cord	18	18	18	16

9. Do not operate charger with damaged cord or plug — replace them immediately.
10. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
11. Do not disassemble charger or battery cartridge; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
12. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

ADDITIONAL SAFETY RULES FOR CHARGER & BATTERY CARTRIDGE

1. Do not charge Battery Cartridge when temperature is **BELOW 10°C (50°F)** or **ABOVE 40°C (104°F)**.
2. Do not attempt to use a step-up transformer, an engine generator or DC power receptacle.
3. Do not allow anything to cover or clog the charger vents.
4. Do not short the battery cartridge:
 - (1) Do not touch the terminals with any conductive material.
 - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
 - (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
5. Do not store the tool and Battery Cartridge in locations where the temperature may reach or exceed **50°C (122°F)**.
6. Do not incinerate the Battery Cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.

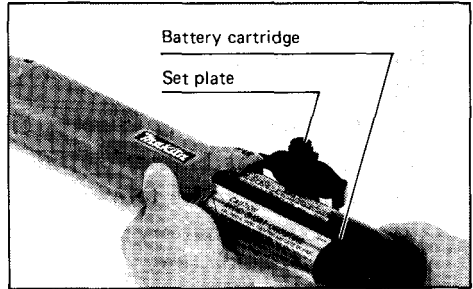
ADDITIONAL SAFETY RULES

1. Be aware that this tool is always in an operating condition, because it does not have to be plugged into an electrical outlet.
2. Use only wheel points having a maximum operating speed at least as high as "No Load RPM" marked on the tool's nameplate.
3. Check the wheel point carefully for cracks or damage before operation. Replace cracked or damaged wheel point immediately.
4. Hold the tool firmly.
5. Keep hands away from rotating parts.
6. Before using the tool on an actual workpiece, let it run for more than one minute. (When mounting a new wheel point, let it run for more than three minutes.) Watch for vibration or wobbling that could indicate poor installation or a poorly balanced wheel point.
7. Watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.
8. Do not leave the tool running. Operate the tool only when hand-held.
9. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
10. Do not use water or grinding lubricant.
11. Do not use this tool as cutter.
12. Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.

SAVE THESE INSTRUCTIONS.

Installing or removing battery cartridge

- Always switch off the tool before insertion or removal of the battery cartridge.
- To remove the battery cartridge, pull out the set plate on the tool and grasp both sides of the cartridge while withdrawing it from the barrel.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Snap the set plate back into place. Be sure to close the set plate fully before using the tool.



- Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

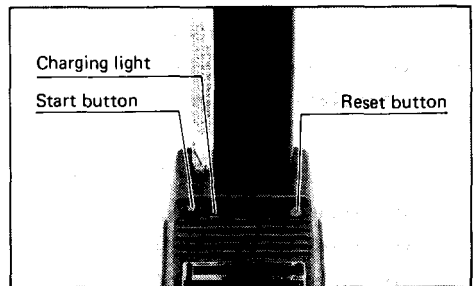
Charging

Plug the fast charger into your power source. Insert the battery cartridge so that the plus and minus terminals on the battery cartridge are on the same sides as their respective markings on the fast charger. Insert the cartridge fully into the port so that it rests on the charger port floor.

Press the start button (red). The charging light will come on and charging will begin.

If the charging light does not come on, press the reset button (yellow) first, then the start button (red). If the charging light goes out within 10 seconds even after pressing the reset button and start button a couple of times, the battery cartridge is dead. (CAUTION: Wait for more than 5 seconds after the charging light goes out to press the reset button again.) Replace it with a new one. When the charging light goes out after about one hour, you may remove the fully charged battery cartridge.

After charging, unplug the charger from the power source.



CAUTION:

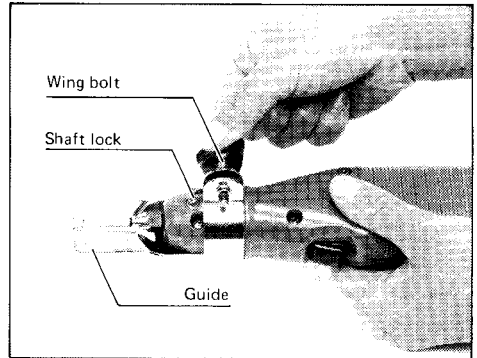
- Your new battery cartridge is not charged. You will need to charge it before use.
- Do not keep the button pressed in with tape, etc., or the circuit will not function properly. Also, a malfunction of the charger may result possibly causing overheating, etc.
- If you try to charge a cartridge from a just-operated tool, sometimes the charging light will not come on. If this occurs, let the cartridge cool off for a while. Then re-insert it and try to charge it once more.
- When you charge a new battery cartridge or a battery cartridge which has not been used for a long period, it may not accept a full charge. This is a normal condition and does not indicate a problem. You can recharge the battery cartridge fully after discharging it completely a couple of times.
- If you wish to charge two battery cartridges, allow 15 minutes between chargings on the fast charger.

Installing or removing wheel point

CAUTION :

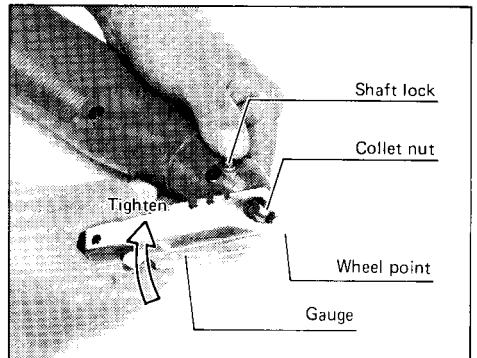
Always be sure that the tool is switched off and the battery cartridge is removed before installing or removing the wheel point.

Remove the guide from the tool when it is installed on the tool. Loosen the wing bolt and pull the guide off the front end of the tool.

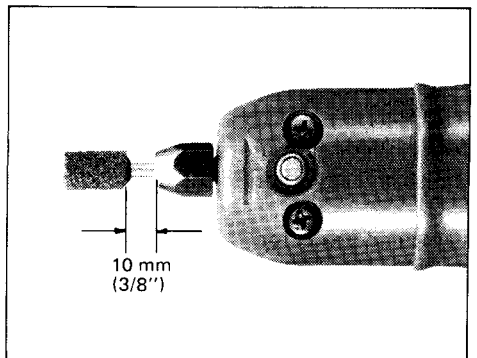


Press the shaft lock to lock the spindle in place. Loosen the collet nut and insert the wheel point into the collet nut.

Use the gauge (the gauge has a hex hole which can be used as a wrench) to tighten the collet nut securely.



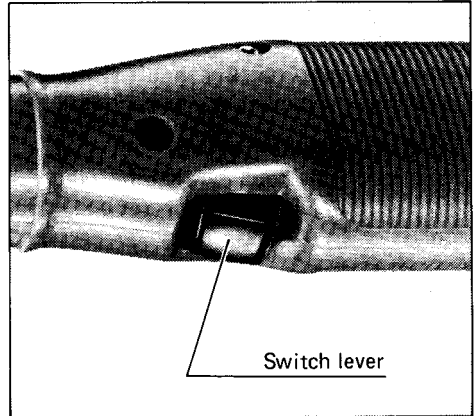
The wheel point should not be mounted more than 10 mm (3/8") from the collet nut. Exceeding this distance could cause vibration or a broken shaft.



To remove the wheel point, follow the installation procedures in reverse.

Switch action

To start the tool, simply depress the switch lever. Release the switch lever to stop.

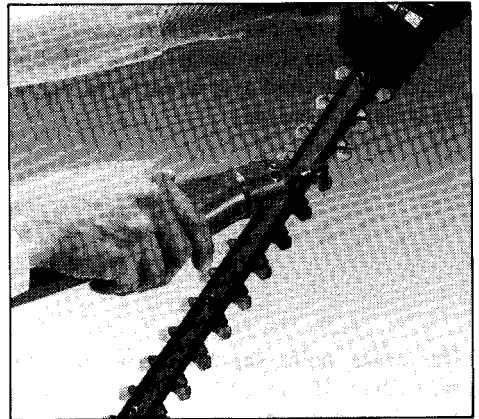


CAUTION:

Before inserting the battery cartridge into the tool, always check to see that the switch lever actuates properly and returns to the "OFF" position when released.

Operation

Switch on the tool and wait until the wheel point attains full speed. Then apply the wheel point to the blade gently. To sharpen the blade, move the tool while maintaining the angle of the wheel point in relation to the blade.



CAUTION:

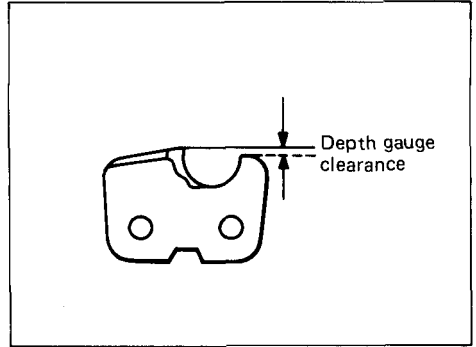
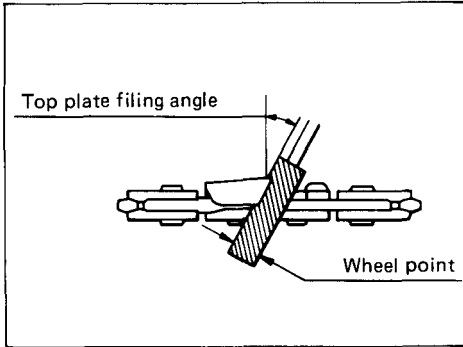
Apply light pressure on the tool. Excessive pressure on the tool will only cause a poor finish and actuation of the overload protector.

Overload protector

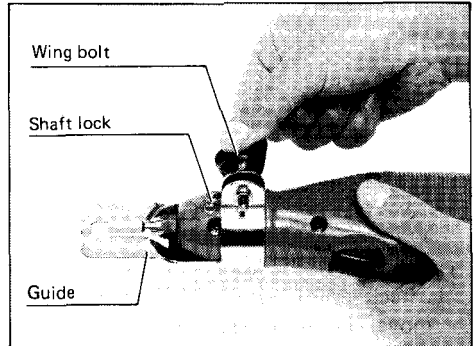
The overload protector automatically cuts out to break the circuit whenever heavy work is prolonged. When this occurs, release the switch lever and withdraw the tool from the blade. Wait until the motor cools down and then resume operation.

Chain blade sharpening attachment

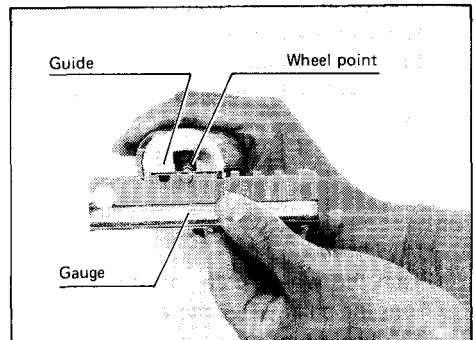
1. Read the instruction manual of your chain saw to determine the size of wheel point, the top plate filing angle (30° or 35°) and the depth gauge clearance [0.025" (0.64 mm), 0.030" (0.76 mm), 0.035" (0.89 mm) or 0.040" (1.02 mm)] before use.



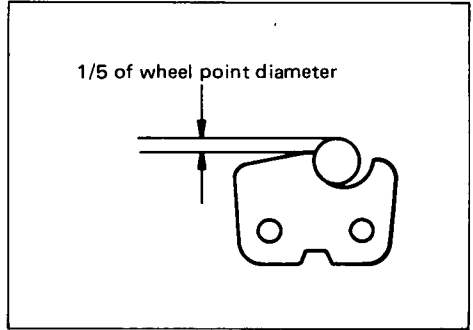
2. Three sizes of wheel points are available: $5/32''$ (4.0 mm), $3/16''$ (4.8 mm) and $7/32''$ (5.5 mm). Select a proper wheel point for chain cutters to be sharpened.
3. Attach the guide to the tool as shown in the figure after installing the wheel point. Semi-tighten the wing bolt to the extent that the guide can be turned.



4. Place the guide on the gauge as shown in the figure and turn the guide until the wheel point fits into the appropriate wheel size slot in the gauge. (The wheel point will raise up out of the bottom of the slot by turning the guide counter-clockwise). After adjusting the wheel point to fit into the slot, tighten the wing bolt securely.



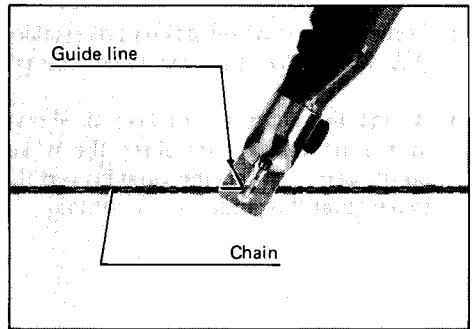
This will allow approx. 1/5 of the wheel point diameter to protrude above the chain cutters as chain manufacturers recommend.



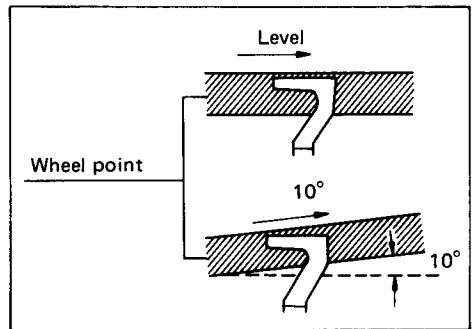
NOTE :

Always check the protrusion of the wheel point using the gauge after tightening the wing bolt securely because the guide may move when you tighten the wing bolt securely.

Place the wheel point on the chain so that the wheel point fits into the chain cutter and the guide line (30° or 35°) on the guide is parallel to the chain.



Switch on the tool and wait until the wheel point attains full speed. Then move the tool back and forth several times while maintaining the wheel point level or at 10° in relation to the chain. (Refer to the instruction manual of your chain saw whether you should maintain the wheel point level or maintain it at 10°.)

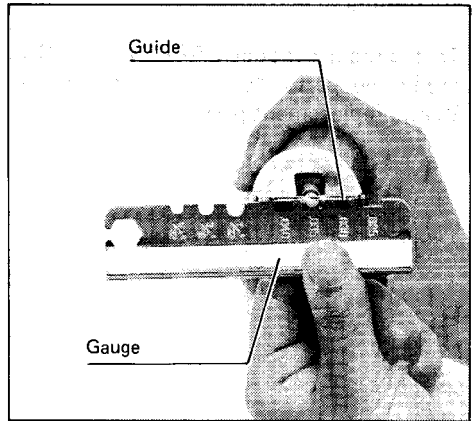


CAUTION:

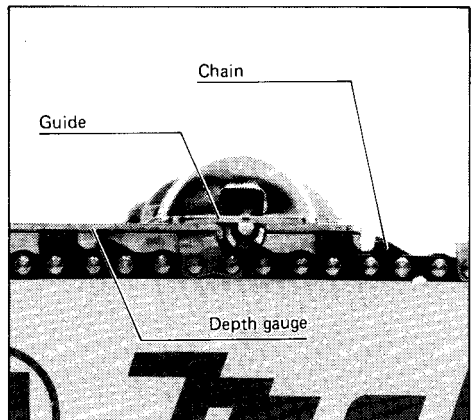
Place the wheel point on the chain before switching on and remove the wheel point from the chain after the wheel point has come to a complete stop. Otherwise the rotating wheel point may damage the chain cutters.

5. The depth gauges (or "rakers") of the chain cutter should be checked every third or fourth chain sharpening and lowered if found to be too high.

To do this, place the guide on the gauge as shown in the figure and turn the gauge until the wheel point fits into the appropriate depth gauge slot in the gauge.



Hang the gauge on the chain and push the gauge against the guide bar. Place the guide on the gauge and switch on the tool. Move the tool left and right to grind away excess height of the depth gauge.



MAINTENANCE

CAUTION:

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

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

ACCESSORIES

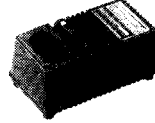
CAUTION:

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.

- **Battery cartridge 9000**
Part No. 632007-4



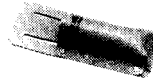
- **Fast charger**
Model DC9100



- **12 V Fast charger**
Model DC9012



- **Battery holster**
Holster holds extra battery.
Part No. 823033-3C



- **Gauge**
Part No. 762015-2



- **Guide**
Part No. STEX 122399



- **Wheel point**



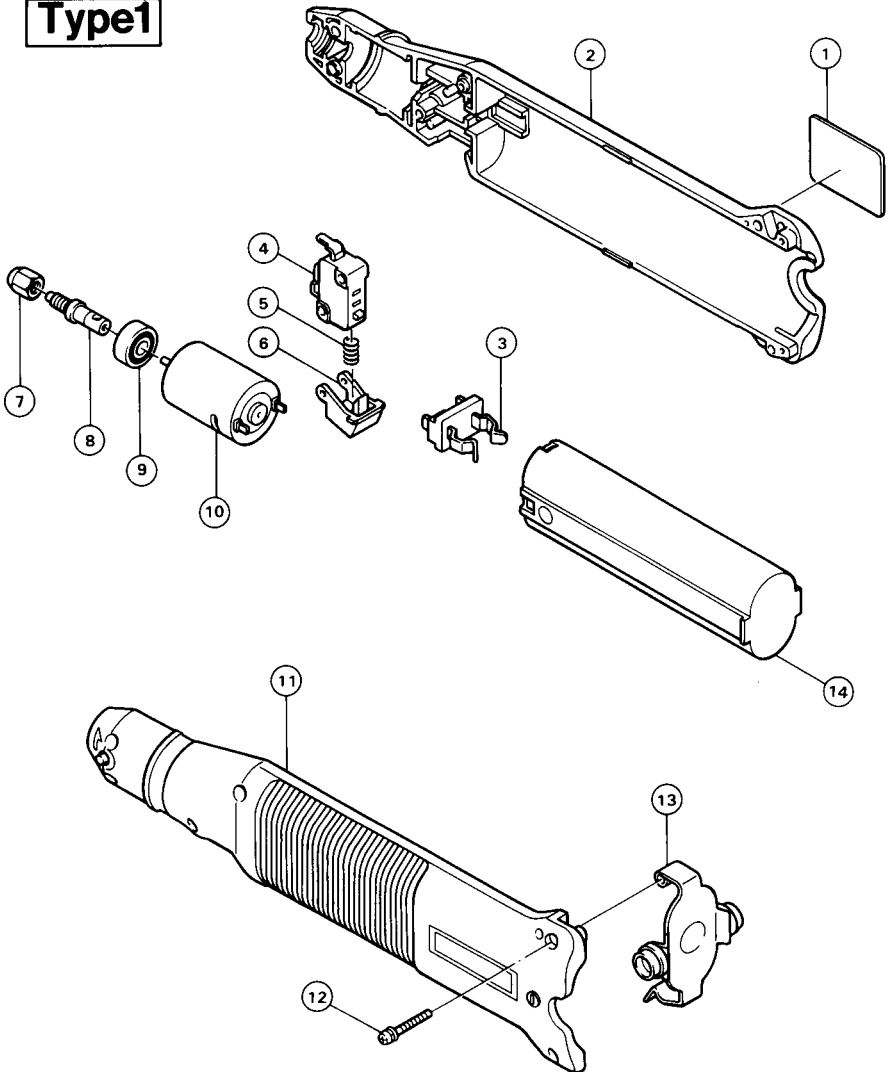
Part No.	Wheel diameter (mm)	Overall length (mm)	Abrasive material
741603-8	5 (3/16")	43 (1-11/16")	A
741604-6	6 (1/4")		
741607-0	5 (3/16")	43 (1-11/16")	WA
741608-8	6 (1/4")		
● 741622-4	4 (5/32")	46 (1-13/16")	PA
741618-5			
● 741623-2	4.8 (3/16")		
741619-3			
● 741624-0	5.5 (7/32")		
741620-8			

- 1/8" shank size
- A — To grind mild steel, carbon steel etc.
- WA — To grind hardened and special steels.
- PA — To grind alloy steel and carbon steel for tool.



CORDLESS BLADE SHARPENER Model 903D

Type1



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

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<u>MACHINE</u>			<u>MACHINE</u>		
1	1	Name Plate	8	1	Collet Body 3 mm
2	1	Housing Set (With Item 11)	9	1	Ball Bearing 607LLB
3	1	Battery Holder	10	1	DC Motor 9.6 V
4	1	Switch	11	1	Housing Set (With Item 2)
5	1	Compression Spring 6	12	6	Pan Head Screw M4x22 (With Washer)
6	1	Switch Lever	13	1	Set Plate
7	1	Collet Nut 3	14	1	Battery 9000

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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