

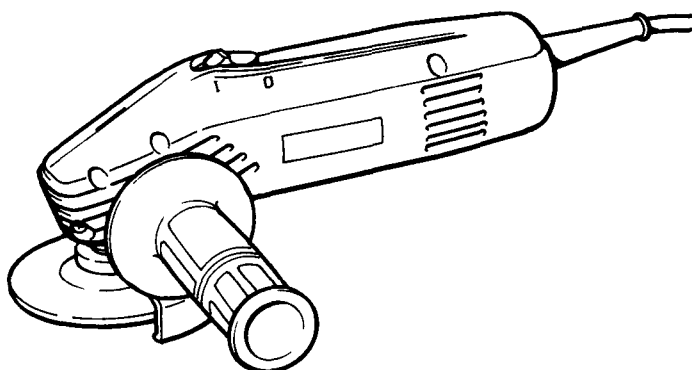
# Makita

AMERICA

## Angle Grinder

100 mm (4") MODEL N900

### INSTRUCTION MANUAL



**DOUBLE  
INSULATION**

### SPECIFICATIONS

No load speed (RPM)	Overall length	Net weight	Spindle thread
10,000	255 mm (10")	1.5 kg (3.3 lbs)	M10 x 1.25

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

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

# **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; for example, don't use circular saw for cutting tree limbs or logs.
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 tool with finger on switch. Be sure switch is OFF when plugging in.
16. **EXTENSION CORDS.** 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 SETS**

			Total Length of Cord in Feet			
			0 — 25	26 — 50	51 — 100	101 — 150
Ampere Rating More Than	—	Not More Than	A W G			
0	—	6	18	16	16	14
6	—	10	18	16	14	12
10	—	12	16	16	14	12
12	—	16	14	12	Not Recommended	

17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **STAY ALERT.** Watch what you are doing, use common sense. Don't operate tool when you are tired.
19. **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.
20. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
21. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.
22. **POLARIZED PLUGS.** To reduce the risk of electric shock, this equipment has 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 the proper outlet. Do not change the plug in any way.

**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.

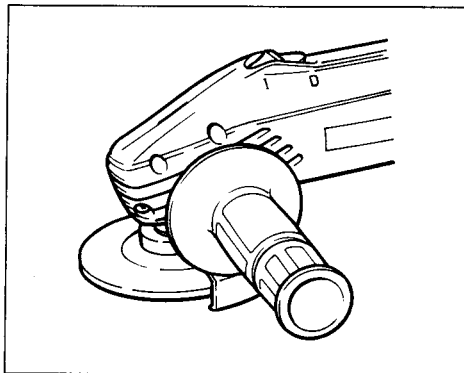
## **ADDITIONAL SAFETY RULES**

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 same grip on the tool securely.

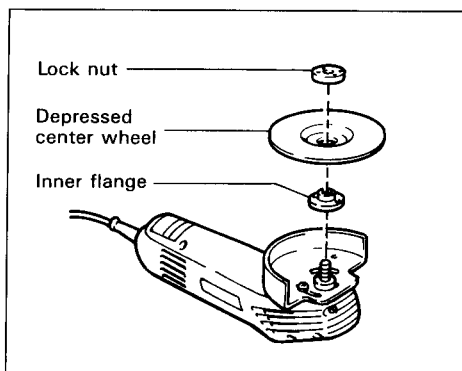


### Installing or removing depressed center wheel

#### CAUTION:

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

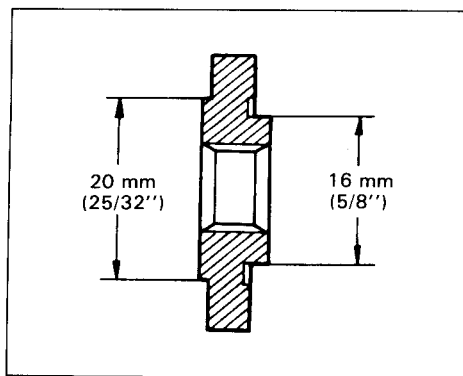
Screw the inner flange onto the spindle. Fit the wheel on over the inner flange and screw the lock nut onto the spindle.



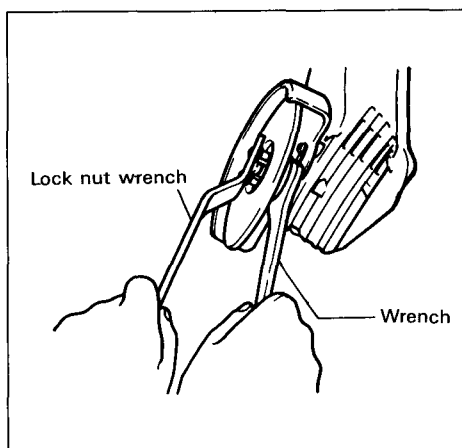
#### CAUTION:

When installing the depressed center wheel, screw the inner flange onto the spindle so that the side with hub 16 mm (5/8") in outer diameter faces toward the depressed center wheel.

When installing the diamond wheel or abrasive disc, screw the inner flange onto the spindle so that the side with hub 20 mm (25/32") in outer diameter faces toward the diamond wheel or abrasive disc.



To tighten the lock nut, hold the spindle with the wrench so that it cannot revolve, then use the lock nut wrench and securely tighten clockwise.



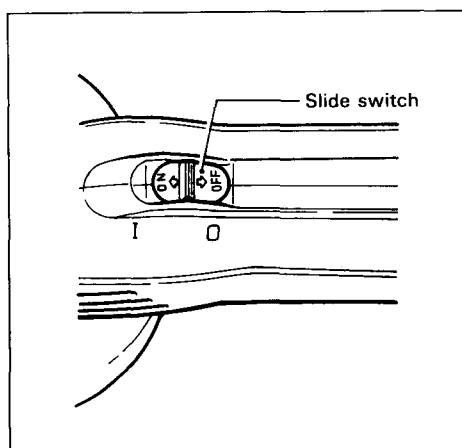
**CAUTION:**

Use only the Makita wrench and lock nut wrench provided to install or remove the wheel. Failure to do so may result in overtightening or insufficient tightening of the lock nut. This could cause an injury.

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

**Switch action**

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



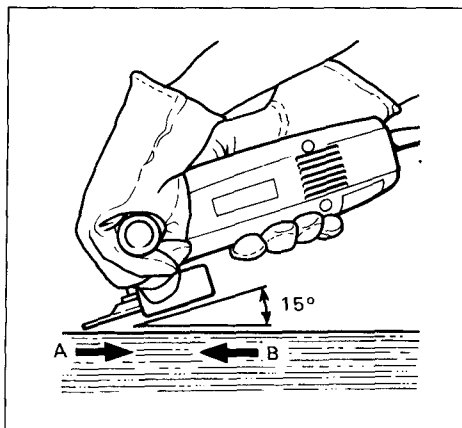
**CAUTION:**

- Before plugging in the tool, always check to see that the switch actuates properly and returns to the "OFF" position when depressed.
- Be sure to clean the tool often to prevent dust/dirt/abrasive material build-up from interfering with the smooth operation of the switch.

## Operation

Hold the tool firmly. Turn the tool on and wait until the wheel or disc attains full speed. Then apply the wheel or disc to the workpiece. In general, keep the edge of the wheel or disc at an angle of about  $15^\circ$  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.

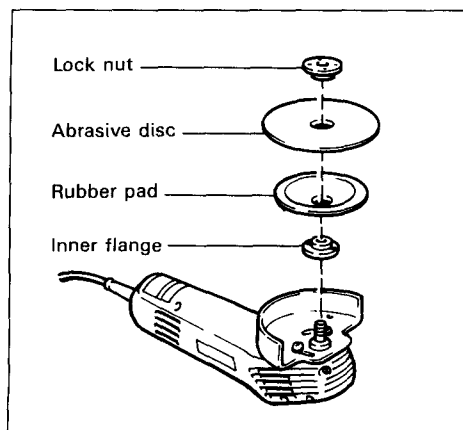


### WARNING:

- 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 75 mm (3") in diameter. Use of the wheel after this point is unsafe and it should be removed from service and rendered unusable by intentional destruction.

### Abrasive disc (optional accessory)

Install the abrasive disc on the tool as shown in the figure. Tighten the lock nut securely with the wrench and lock nut wrench.



## **MAINTENANCE**

### **CAUTION:**

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

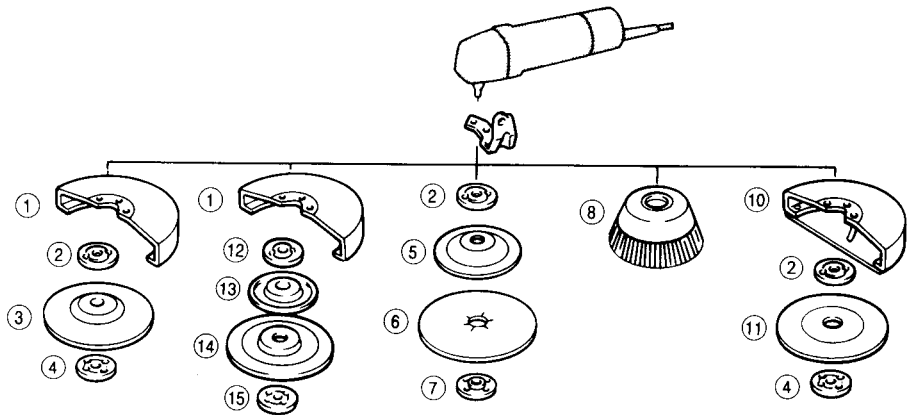
To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.



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.



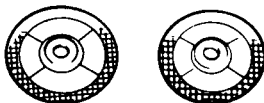
① Wheel cover  
Part No. 344257-6



② Inner flange 35  
Part No. 224291-1



③ Depressed center wheels



③ Multi-disc



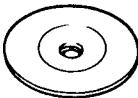
Part No.	Size (mm)	Grit	Wheels per pkg.
741402-8-1	100 x 4 x 16 (4'' x 3/16'' x 5/8'')	24	1
741402-8			5
741405-2-1			1
741405-2P		36	5

Part No.	Size (mm)	Grit
742038-0A	100 x 13 x 16 (4'' x 1/2'' x 5/8'')	40
742038-0B		60
742038-0C		80
742038-0D		100

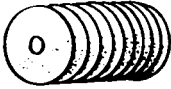
④ Lock nut 10—35  
Part No. 224545-6



⑤ Rubber pad 76  
Part No. 743009-6



⑥ Abrasive discs



Part No.	Diameter	Grit	Qty. per pkg.
742036-0-3	4"	24	3
742037-8-3		36	
742038-6-3		50	
742039-4-3		80	
742087-3-3		100	
742040-9-3		120	
742036-A-5	4"	24	5
742037-A-5		36	
742038-A-5		50	
742039-A-5		80	
742087-A-5		100	
742040-A-5		120	

⑦ Lock nut 10 – 30  
(For abrasive disc)  
Part No. 224501-6



⑧ Wire cup brush 75  
Part No. 743201-4



⑧ Wire bevel brush 85  
Part No. 743203-0



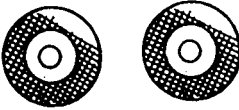
⑨ Grip holder  
Part No. 164329-9



⑩ Wheel guard assembly  
(For cut-off wheel)  
Part No. 122363-5



⑪ Cut-off wheel

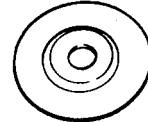


Part No.	Size (mm)	Grit	Wheels per pkg.	For use
724104-110	100 x 2.5 x 16 (4" x 3/32" x 5/8")	36	10	For masonry and concrete.
724107-510	100 x 2 x 16 (4" x 5/64" x 5/8")	46	10	For steel and cast iron.

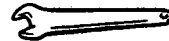
⑫ Inner flange 30  
(For flex wheel)  
Part No. 224278-3



⑬ Plastic pad  
(For flex wheel)  
Part No. 743009-1A



• Wrench 14  
Part No. 781007-2



⑭ Flex wheel



Part No.	Size (mm)	Grit	Wheels per pkg.
741404-OBP	100 x 3.2 x 16 (4" x 1/8" x 5/8")	AC46	10
741404-OCF		AC60	10
741438-7P		GC60	5
741404-ODP		AC80	10
741404-OPF		AC120	10

⑮ Lock nut 10 – 30  
(For flex wheel)  
Part No. 224541-4



• Lock nut wrench 20  
Part No. 782401-1

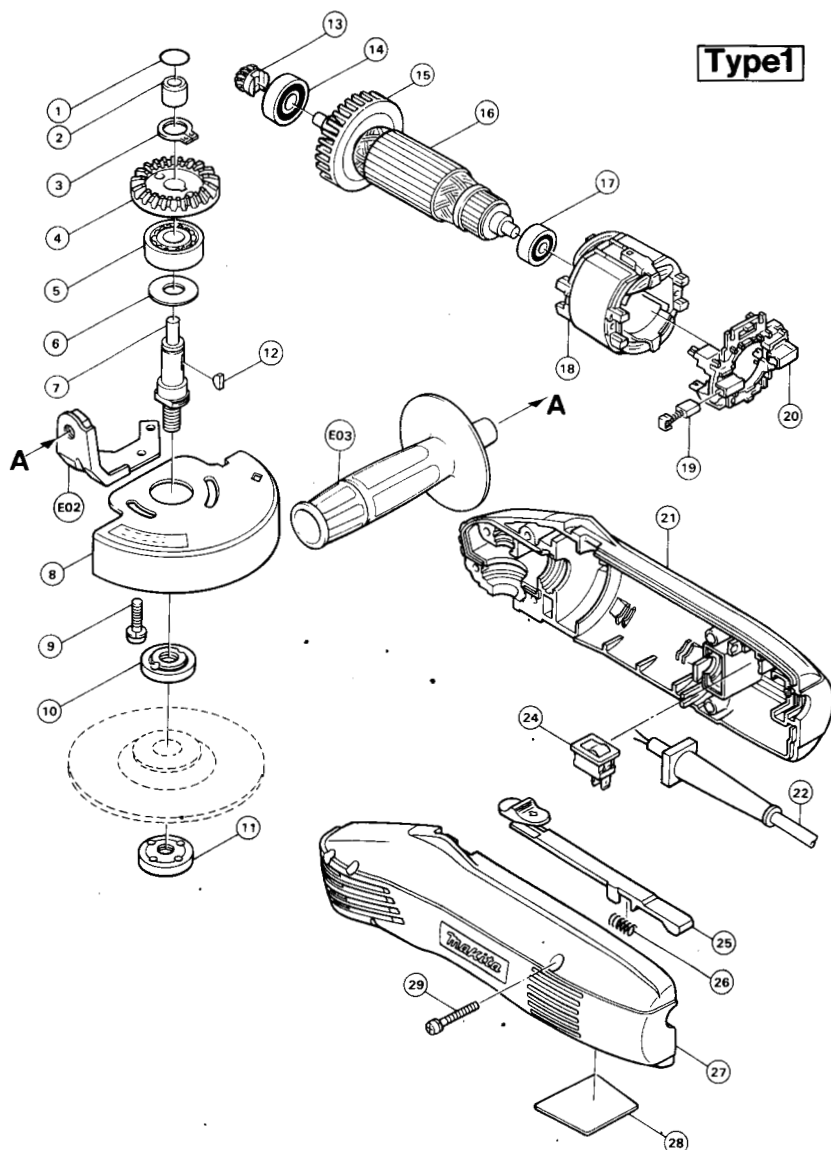


• Grip 36  
Part No. 273506-3



# **100 mm (4")** **ANGLE GRINDER** **Model N900**

**Type1**



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

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<b>MACHINE</b>			<b>MACHINE</b>		
1	1	O Ring 11	16	1	ARMATURE ASSEMBLY (With Item 14 - 17)
2	1	Needle Bearing 810	17	1	Ball Bearing 627LLB
3	1	Retaining Ring S-12	18	1	Field
4	1	Spiral Bevel Gear 36	19	2	Carbon Brush
5	1	Ball Bearing 6201LB	20	1	Terminal Base Complete
6	1	Flat Washer 12	21	1	Housing Set (With Item 27)
7	1	Spindle	22	1	Cord
8	1	Wheel Cover	24	1	Switch
9	2	Pan Head Screw M5x20 (With Washer)	25	1	Switch Lever
10	1	Inner Flange 30	26	1	Compression Spring 6
11	1	Lock Nut 10-30	27	1	Housing Set (With Item 21)
12	1	Woodruff Key 3	28	1	Name Plate
13	1	Spiral Bevel Gear 11	29	6	Pan Head Screw M4x30 (With Washer)
14	1	Ball Bearing 6000LB	E02	1	Grip Holder
15	1	Fan 52	E03	1	Grip 36

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.

**MAKITA MANUFACTURING EUROPE LTD**  
**TELFORD, SHROPSHIRE, U.K.**

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