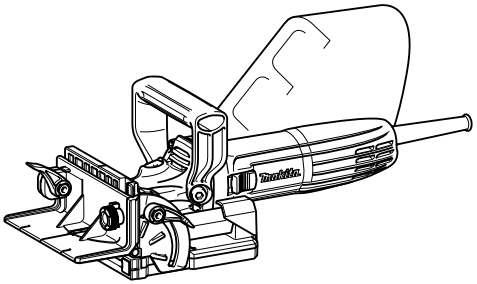
INSTRUCTION MANUAL

Plate Joiner

PJ7000



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DOUBLE INSULATION

IMPORTANT: Read Before Using.

ENGLISH (Original instructions)

SPECIFICATIONS

Model		PJ7000
Blade size	Plate joiner blade (Outer dia. x Width x Arbor dia.)	100 mm x 4 mm x 22 mm (4" x 5/32 " x 7/8")
Max. grooving depth		20 mm (25/32")
No load speed (RPM)		11,000/min.
Overall length		302 mm (11-7/8")
Net weight		2.5 kg (5.5 lbs)

• Due to our continuing programme of research and development, the specifications herein are subject to change without notice.

• Specifications may differ from country to country.

• Weight according to EPTA-Procedure 01/2003

GEA008-2

General Power Tool Safety Warnings

⚠ **WARNING Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

1. **Keep work area clean and well lit.** Cluttered or 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 children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

4. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
5. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or 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 for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
8. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
9. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.

Personal safety

10. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
12. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. .** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
13. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
14. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
15. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes,

jewellery or long hair can be caught in moving parts.

16. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

Power tool use and care

17. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
18. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
19. **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
20. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
21. **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
22. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
23. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

Service

24. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
25. **Follow instruction for lubricating and changing accessories.**
26. **Keep handles dry, clean and free from oil and grease.**

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			
		120V	25 ft.	50 ft.	100 ft.	150 ft.
		220V - 240V	50 ft.	100 ft.	200 ft.	300 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	

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PLATE JOINER SAFETY WARNINGS

1. **Blades must be rated for at least the speed marked on the tool.** Blades running over rated speed can fly apart and cause injury.
2. **Always use the guard.** The guard protects the operator from broken blade fragments and unintentional contact with the blade.
3. **Hold power tool by insulated gripping surfaces, because the blade may contact its own cord.** Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
4. **Use only the blades specified for this tool.**
5. **Never operate the tool with the blade locked in exposed position or without the blade cover**

secured properly in place.
6. **Make sure that the blade slides smoothly before operation.**
7. **Check the blades carefully for cracks or damage before operation. Replace cracked or damaged blades immediately.**
8. **Make sure that the flange fits in the arbor hole when installing the blade.**
9. **Inspect for and remove all nails or foreign matter from the workpieces before operation.**
10. **Always place the workpieces on a stable workbench.**
11. **Secure the workpieces firmly with clamp or vise.**
12. **NEVER wear gloves during operation.**
13. **Hold the tool firmly with both hands.**
14. **Keep your hands and body away from the grooving area.**
15. **Run the tool for a while without the blade pointing toward anybody. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced blade.**
16. **Never reach your hands underneath the workpieces while the blade is rotating.**
17. **Do not leave the tool running unattended.**
18. **Always be sure that the tool is switched off and unplugged before making any adjustments or replacing the blade.**
19. **Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.**
20. **Do not use blunt or damaged blades.**
21. **Do not use the tool with damaged guards.**

SAVE THESE INSTRUCTIONS.

⚠WARNING:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

USD201-2

Symbols

The followings show the symbols used for tool.

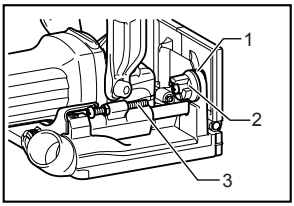
V	•	volts
A	•	amperes
Hz	•	hertz
∼	•	alternating current
n_o	•	no load speed
⧈	•	Class II Construction
... /min r /min	•	revolutions or reciprocation per minute

FUNCTIONAL DESCRIPTION

⚠CAUTION:

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

Adjusting the depth of groove



1. Pointer
2. Stopper
3. Adjusting screw

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6 grooving depths can be preset according to the size of biscuit to be used.

Refer to the table below for the correspondence between the sizes marked on the stopper and the biscuit size. Fine adjustments to the grooving depth can be made by turning the adjusting screw after loosening the hex nut. This may become necessary after the blade has been resharpened a few times.

Size on stopper	0	10	20	S	D	MAX
Biscuit size	0	10	20	—	—	—
Depth of groove	8 mm (0.3")	10 mm (0.4")	12.3mm (0.48")	13 mm (0.51")	14.7mm (0.58")	20 mm (0.8")

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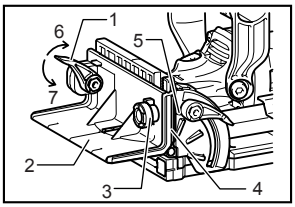
Angle guide

The angle guide height can be moved up and down to adjust the position of the blade in relation to the top of the workpiece.



1. Lock lever
2. Angle guide
3. Knob
4. Scale
5. Pointer
6. Tighten
7. Loosen

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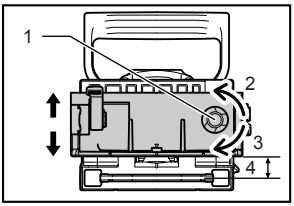
To adjust the angle guide height, loosen the lock lever

down and rotate the knob until the pointer points to the desired scale graduation marked on the angle guide.
Then tighten the lock lever up to secure the angle guide. The scale on the angle guide indicates the distance from the top of the workpiece to the center of the blade thickness.



1. Knob
2. Down
3. Up
4. Center of blade thickness

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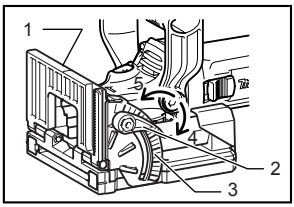
The angle guide is removable from the fence according to the need of your work. To remove the angle guide, loosen the lock lever and turn the knob clockwise until it comes out of the upper end of the fence.

Fence

NOTE:

- Remove the angle guide according to the need of your work when using the tool with the angle of the fence adjusted to other than 0 °. When you need to use the angle guide under the above condition, be sure to adjust the depth of groove to get a proper depth.

The angle of the fence can be adjusted between 0° and 90° (positive stops at 0°, 45° and 90°). To adjust the angle, loosen the lock lever and tilt the fence until the pointer points to the desired graduation on the angle scale. Then tighten the lock lever to secure the fence.



1. Fence
2. Lock lever
3. Angle scale
4. Tighten
5. Loosen

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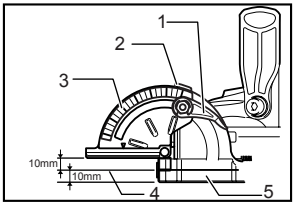
When the fence is set at 90°, both the distance from the center of the blade thickness to the fence and the distance from the center of the blade thickness to the bottom of the blade cover are 10 mm (0.4").



1. Lock lever
2. Pointer
3. Angle scale
4. Center of blade thickness
5. Blade cover

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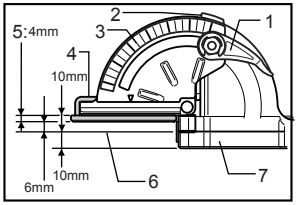
Set plate

Use the set plate as shown in the figures when cutting slots in thin workpieces.



1. Lock lever
2. Pointer
3. Angle scale
4. Set plate
5. Thickness of set plate
6. Center of blade thickness
7. Blade cover

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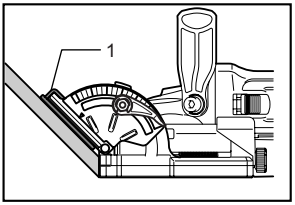

1. Set plate

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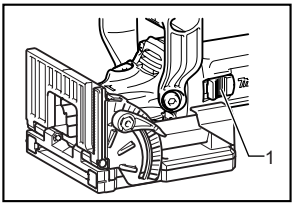
Switch action



1. Slide switch

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⚠**CAUTION:**

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

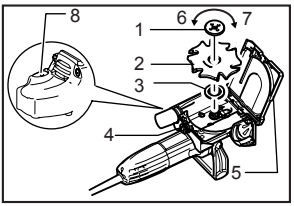
To start the tool, slide the slide switch toward the "I (ON)" position. For continuous operation, press the front of the slide switch to lock it.
To stop the tool, press the rear of the slide switch, then slide it toward the "O (OFF)" position.

ASSEMBLY

⚠**CAUTION:**

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

Removing or installing the blade



1. Lock nut
2. Plate joiner blade
3. Inner flange
4. Clamp screw
5. Blade cover
6. Loosen
7. Tighten
8. Shaft lock

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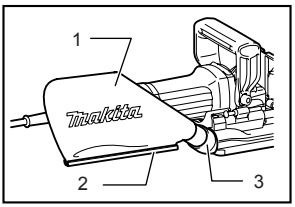
⚠**CAUTION:**

- When installing the plate joiner blade, mount the inner flange with the side marked "22" facing toward you.

To remove the blade, loosen the clamp screw and open the blade cover. Push the shaft lock and loosen the lock nut using the lock nut wrench. To install the blade, first mount the inner flange.
Then mount the blade and the lock nut. Securely tighten the lock nut using the lock nut wrench. Close the blade cover and tighten the clamp screw to secure the blade cover.

⚠**CAUTION:**

- Use only Makita lock nut wrench provided to remove or install the blade.
- Always check the depth of groove after replacing the blade. Reajust it if necessary.



1. Dust bag
2. Fastener
3. Dust nozzle

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To attach the dust bag, fit it onto the dust nozzle. If the dust bag becomes an obstacle to your work, turn the dust nozzle to change the dust bag position.

When the dust bag is about half full, switch off and unplug the tool. Remove the dust bag from the tool and pull the bag's fastener out. Empty the dust bag by tapping it lightly to remove as much of the dust as possible.

NOTE:

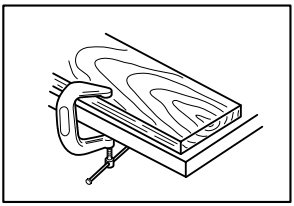
- If you connect a Makita vacuum cleaner to your plate joiner, more efficient and cleaner operations can be performed.

OPERATION

How to make joints

⚠**WARNING:**

- Always clamp the workpiece to the workbench before each operation.



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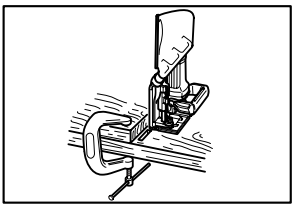

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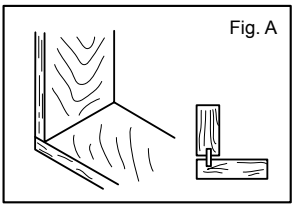
Corner Joint (Fig. A)



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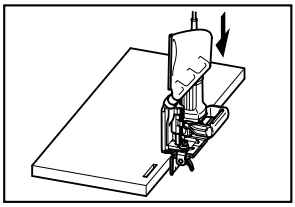

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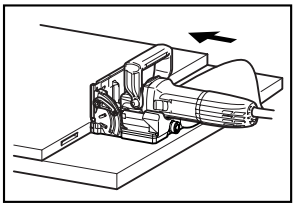

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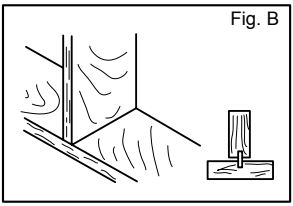
T-Butt Joint (Fig. B)



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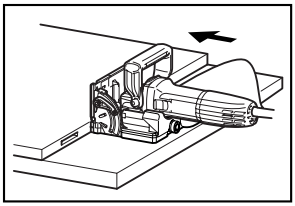

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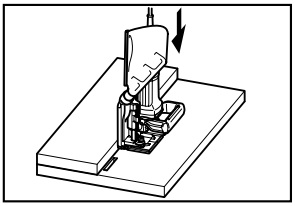

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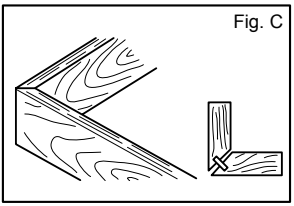
Miter Joint (Fig. C)



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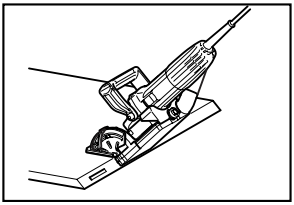

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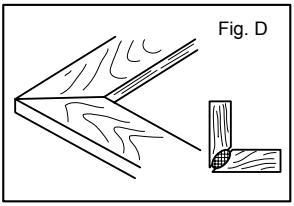
Frame Joint (Fig. D)



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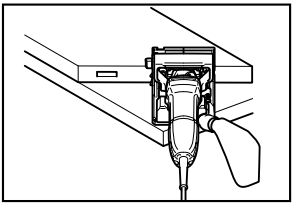

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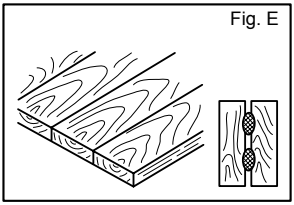
Edge-To-Edge Joint (Fig. E)



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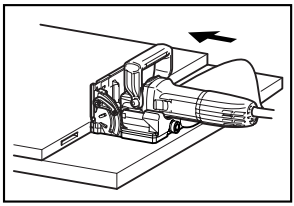

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To make joints, proceed as follows:

1. Fit the two workpieces together as they will appear in the finished joint position.
2. Mark the center of the intended biscuit grooves on the workpiece using a pencil.

NOTE:
The center of grooves should be at least 50 mm (2") from the outer edge of the workpieces.
Allow 100 mm - 150 mm (4" - 6") between grooves in multiple biscuit application.

3. **For Corner Joint and T-Butt Joint only**
   Clamp the vertical workpiece to the workbench.
   For Miter Joint only
   Clamp one workpiece to the workbench with the mitered edge facing up.
   For Frame Joint and Edge-To-Edge Joint only
   Clamp one workpiece to the workbench.
4. Set the depth of cut according to the size of biscuit to be used. Refer to the table in the "Adjusting the depth of cut" section.
5. Adjust the angle guide height so that the blade is centered in the board thickness.
6. Align the center mark on the base with the pencil line on the workpiece.
7. Switch on the tool and gently push it forward to extend the blade into the workpiece.
8. Gently return the tool to the original position after the adjusting screw reaches the stopper.
9. **For Corner Joint and T-Butt Joint only**
   Clamp the horizontal workpiece to the workbench.
   For Miter Joint only
   Clamp the other workpiece to the workbench with the mitered edge facing up.
   For Frame Joint and Edge-To-Edge Joint only
   Clamp the other workpiece to the workbench.
10. **For Corner Joint only**
    Place the tool on the workpiece so that the blade is facing down.
    For T-Butt Joint only
    Remove the angle guide from the tool. Place the tool on the workpiece so that the blade is facing down.
11. Repeat the steps 6 - 8 to groove in the horizontal or the other workpiece.

If you do not need to center the blade in the board thickness, proceed as follows:

For Corner Joint, Miter Joint, Frame Joint and Edge-To-Edge Joint only

- Remove the angle guide from the tool. Set the fence at 90° for Corner Joint, Frame Joint and Edge-To-Edge Joint or at 45° for Miter Joint.
- Follow steps 1 - 11 excluding steps 5 and 10 described above.

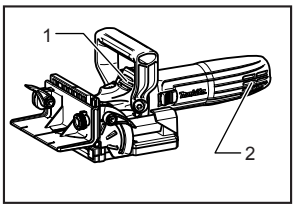
For T-Butt Joint only

- Fit the two workpieces together as they will appear in the finished joint position.
- Lay the vertical workpiece on the horizontal one. Clamp both workpieces to the workbench.
- Remove the angle guide from the tool.
- Follow the steps 2, 4, 6, 7, 8 and 11 described above.

MAINTENANCE

⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.



1. Exhaust vent
2. Inhalation vent

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The tool and its air vents have to be kept clean. Regularly clean the tool's air vents or whenever the vents start to become obstructed.
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.

OPTIONAL 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.

- Angle guide
- Dust bag
- Set plate 4
- Lock nut wrench 20
- Plate joiner blade 100-4
- Other plate joiner blades

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They 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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< USA only >

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
• lead from lead-based paints,
• crystalline silica from bricks and cement and other masonry products, and
• arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

< USA solamente >

ADVERTENCIA

Algunos tipos de polvo creados por el lijado, serrado, amolado, taladrado, y otras actividades de la construccion contienen sustancias quimicas reconocidas por el Estado de California como causantes de cancer, defectos de nacimiento y otros peligros de reproduccion. Algunos ejemplos de estos productos quimicos son:
• plomo de pinturas a base de plomo,
• silice cristalino de ladrillos y cemento y otros productos de albanileria, y
• arsenico y cromo de maderas tratadas quimicamente.

El riesgo al que se expone variara, dependiendo de la frecuencia con la que realice este tipo de trabajo. Para reducir la exposicion a estos productos quimicos: trabaje en un area bien ventilada, y pongase el equipo de seguridad indicado, tal como esas mascaras contra el polvo que estan especialmente disenadas para filtrar particulas microscopicas.

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