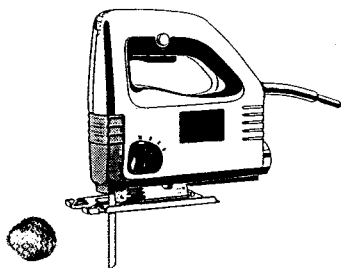


**ST 500
STE 500
STEP 500**



Instruction for use

Please read and save these instruction.

Gebrauchsanleitung

Bitte lesen und aufbewahren.

Instruction d'utilisation

Prière de lire et de conserver.

Istruzioni d'uso

Si prega di leggere le istruzioni e di conservare.

Instrucciones de uso

Lea y conserve estas instrucciones por favor.

Instruções de serviço

Por favor leia e conserve em seu poder.

Gebruiksaanwijzing

Lees en let goed op deze advizen.

Brugsanvisning

Vær venligt at læse og opbevare.

Bruksanvisning

Var god läs och tag tillvara dessa instruktioner.

Käyttöohje

Lue ja säilytä.

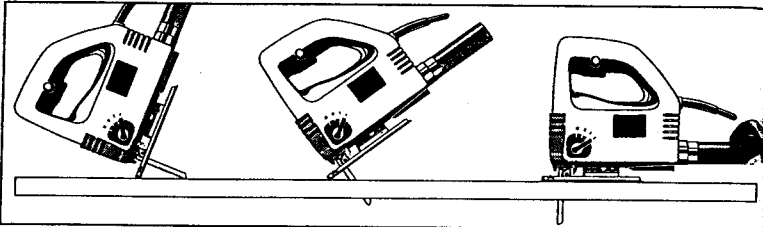
AEG

Plunge cuts

Plunge cuts without pre-drilling a hole are possible with soft materials (wood, light building materials for walls). Harder materials (metals) must first be drilled with a hole corresponding to the size of the saw blade.

Move the base plate to the rearmost setting in order to obtain the best possible cutting angle for starting the cut. (see section "Adjusting the base plate")

1. Set the pendulum stroke at the pendulum stroke control to "0".
2. Without switching the machine on, place it with the front edge of the base plate at the cutting point.
3. Switch the machine on and carefully lower the saw blade already running into the material.

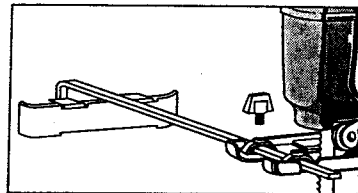


Parallel guide and circle cutting guide (Accessory)

Assembly of parallel guide

Push the parallel guide, with the contact surface facing downwards, through the lugs in the base plate and fasten it in position with the capstand-headed screw.

For cutting from the left or from the right, push the parallel guide in from the appropriate side.

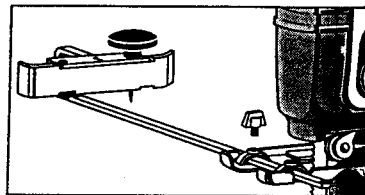


Cutting a circle

Push the parallel guide, with the contact surface facing upwards, through the lugs in the base plate and fasten it in position with the capstand-headed screw.

Tighten the centre point into the parallel guide from the top.

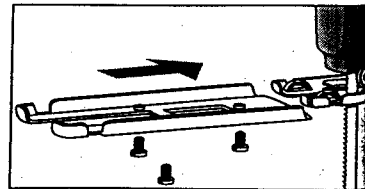
Ensure that the saw blade and the circle centre point form one single line.



Plastic protection shoe (Accessory)

Use plastic protection shoe to avoid scratching of delicate surfaces. Attach it to the base plate by pushing the shoe onto the plate (as illustrated) and secure with 3 screws.

Further accessories with part numbers are shown in our catalogues.



Service

Use only AEG accessories and spare parts. Should components need to be replaced which have not been described, please contact one of our AEG service agents (see our list of guarantee/service addresses).

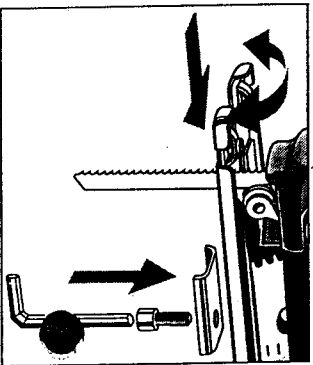
If needed, an exploded view of the tool can be ordered. Please state the ten-digit No. as well as the machine type printed on the label and order the drawing at your local service agents or directly at: Atlas Copco Elektrowerkzeuge GmbH, Postfach 320, D-71361 Winnenden.

The base plate can be tilted or moved backward or forward.

Setting an angle ⇄ For angle cuts and bevels. Loosen the fixing screw, pull the base plate out of the mounting, set it at the required angle (15°, 30°, 45°), push it back into the mounting and tighten the fixing screw again. Angles other than 45° can be set by not pushing the base plate back into the mounting. The angle can be read off the scale. For very exact angle cuts it is recommended to make a test cut.

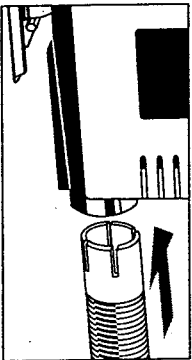
Moving the base plate ⇄ For plunge cuts or cuts in corners. Loosen the fixing screw, push the base plate to the rear and tighten the fixing screw again. The base plate in this position is fixed at the 0° setting.

Moving back ⇄ For cutting a hole with a short saw blade and sawing near the edge. Take the fixing screw out, push the base plate to the rear and screw the fixing screw tightly into the rear hole. In this position the base plate can also be off-set in longitudinal direction.

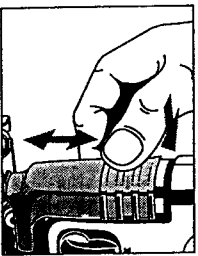


Only operate the machine with suitable sawdust removal.

The integrated suction channel has the standardized internal diameter of 30 mm. Use the suction hose (Id. No. 330 412) from our range of accessories to connect it to a household vacuum cleaner or to an wet-and-dry vacuum cleaner.



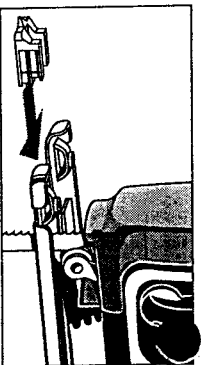
1. Push in and turn the suction hose into the suction channel until it fits firmly.
2. Push the transparent cover downwards to ensure optimum sawdust removal.



Anti-splintering device (Accessory)

The anti-splintering device almost entirely prevents the edge of the wood from splintering.

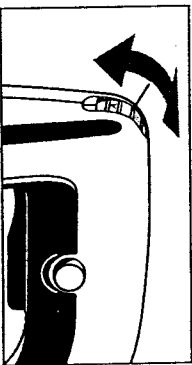
Place the anti-splintering device as shown in the illustration with the smooth side downwards and flush with the base plate (this is only possible with the base plate in the forward position).



Adjusting the stroke rate (only for STE 500, STEP 500)

The stroke-rate (= movements per minute of the saw blade) can be infinitely varied by means of the adjustment wheel.

The letters A to G are printed on the speed control, meaning:
A = lowest stroke rate
G = highest stroke rate



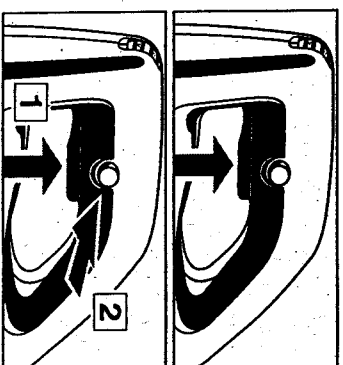
The stroke rate appropriate to the material being worked on can be taken from the following table, and the corresponding letter shown on the setting wheel.

Material	Stroke rate
Wood	G
Steel	D-E
Aluminium	D-E
Rubber	A-C

On-off switch

Intermittant use
Switching on: Press trigger switch
Switching off: Release trigger switch

Continuous use
Switching on: Press the On-/off switch and then the locking button, after that release on-off switch.
Switching off: Press the On-/off switch and then release.



Adjusting the pendulum stroke (only for STEP 500)

By adjusting the pendulum action the speed of ent is increased or decreased. As a rule of thumb:

Soft material Large pendulum stroke
Hard material Small or no pendulum stroke
Clean cut surface No pendulum stroke

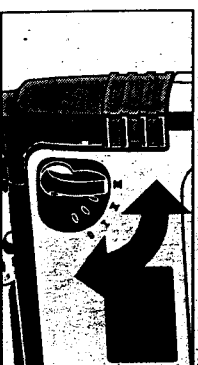
The appropriate degree of pendulum effect can be taken from the following chart and compared with the marking at the pendulum stroke lever.

Material Degree of swing action

Wood	I - III
Plastic	I
Aluminium	0 - I
Steel	0
Ceramics	0
Rubber	0

The stroke rate shown in the chart is only a suggestion for your general guidance!

The stroke rate can be set on the stroke rate control even while the motor is running.



Hints on operation

Hints



1. Set the stroke and pendulum stroke according to the material to be cut.
2. Position the machine with the front part of the base plate on the material, and switch on.
3. Press the machine downwards onto the material and guide it along the cutting line. Do not press down too hard on the piece you are cutting. Light pressure on the saw blade is sufficient to achieve the optimum rate of sawing. When cutting along a score line, use the marking on the anti-splintering device as an optical guide. To obtain a perfectly straight cut, clamp a strip of wood as a guide along the material or use the parallel guide (accessory). For cutting at an angle, or cutting a bevel, adjust the base plate For sawing close to the edge, set the base plate at its rearmost position.

To avoid vibration, clamp metal sheets onto a wooden base. To saw metal, use cooling agents along the cutting line (oil, white spirit).

ENGINE



0612013

Jig Saw

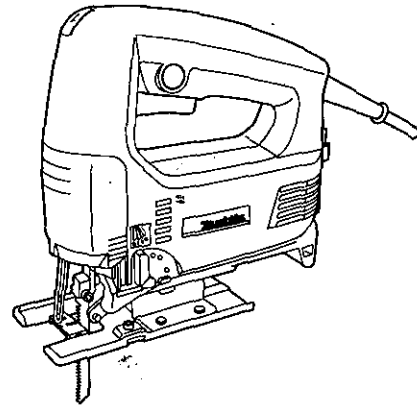
MODEL 4324

Machine Type : Jig Saw

Machine Type NO 612

Manual NO. 421

Risk/A No. 246



002699



INSTRUCTION MANUAL

⚠ WARNING:

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

SPECIFICATIONS

Model	4324	
Length of stroke	Wood	18 mm
	Mild steel	65 mm
Max. cutting capacities	Mild steel	6 mm
		500 - 3.100
Strokes per minute (min ⁻¹)	207 mm (Steel base type)	
Overall length	214 mm (Aluminum base type)	
Net weight	1.9 kg (Steel base type)	
Safety class	1.9 kg (Aluminum base type)	
	II / III	

• 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

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



Read instruction manual.



DOUBLE INSULATION



Only for EU countries

Do not dispose of electric equipment together with household waste material

In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for the sawing of wood, plastic and metal materials.

As a result of the extensive accessory and saw blade program, the tool can be used for many purposes and is very well suited for curved or circular cuts.

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 82 dB (A).

Uncertainty is 3 dB(A).

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

– Wear ear protection.

The typical weighted root mean square acceleration value is 9 m/s².

These values have been obtained according to EN60745.

EC-DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product is in compliance with the following standards of standardized documents, EN60745, EN55014, EN61000 in accordance with Council Directives, 89/336/EEC, 98/37/EC.

Yasuhiko Kanzaki/ CE 2005

Director

MAKITA INTERNATIONAL EUROPE LTD.

Michigan Drive, Tongwell, Milton Keynes, Bucks MK15.

8JD, ENGLAND

Responsible manufacturer:

Makita Corporation Aijo Aichi Japan

GENERAL SAFETY RULES

GEA001-3

⚠ WARNING:

Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

- Work area safety**
 - Keep work area clean and well lit. Cluttered and dark areas invite accidents.
 - 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.
 - Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
- Electrical safety**
 - 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.
 - 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.
 - Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
 - 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.
 - 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.
- Personal safety**
 - 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.
 - Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
 - Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
 - 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.
 - Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
 - 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.
 - If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.
 - Power tool use and care
 - 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.
 - 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.
 - 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.

19. 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.
20. Maintain power tools. Check for misalignment or blinding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
21. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
22. Use the power tool, accessories and tool bits etc. in accordance with these instructions and in the manner intended for the particular type of power tool, 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

23. 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.
24. Follow instruction for lubricating and changing accessories.
25. Keep handles dry, clean and free from oil and grease.

GEB016-1

SPECIFIC SAFETY RULES

- DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to jig saw safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.
1. Hold power tools 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. Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
 3. Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
 4. Avoid cutting nails. Inspect workpiece for any nails and remove them before operation.
 5. Do not cut oversize workpiece.

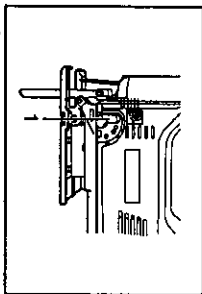
6. Check for the proper clearance beyond the workpiece before cutting so that the blade will not strike the floor, workbench, etc.
7. Hold the tool firmly.
8. Make sure the blade is not contacting the workpiece before the switch is turned on.
9. Keep hands away from moving parts.
10. Do not leave the tool running. Operate the tool only when hand-held.
11. Always switch off and wait for the blade to come to a complete stop before removing the blade from the workpiece.
12. Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
13. Do not operate the tool at no-load unnecessarily.
14. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
15. Always use the correct dust mask/respirator for the material and application you are working with.

SAVE THESE INSTRUCTIONS.

⚠ WARNING:

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

FUNCTIONAL DESCRIPTION



1. Cutting action changing lever

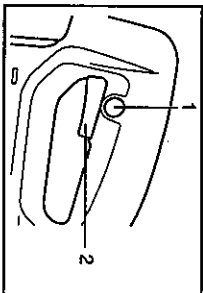
- **CAUTION:** Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Selecting the cutting action

This tool can be operated with an orbital or a straight line (up and down) cutting action. The orbital cutting action thrusts the blade forward on the cutting stroke and greatly increases cutting speed. To change the cutting action, just turn the cutting action changing lever to the desired cutting action position. Refer to the table to select the appropriate cutting action.

Position	Cutting action	Applications
0	Straight line cutting action	For cutting mild steel, stainless steel and plastics. For clean cuts in wood and plywood.
I	Small orbit cutting action	For cutting mild steel, aluminum and hard wood.
II	Medium orbit cutting action	For cutting wood and plywood.
III	Large orbit cutting action	For fast cutting in aluminum and mild steel. For fast cutting in wood and plywood.

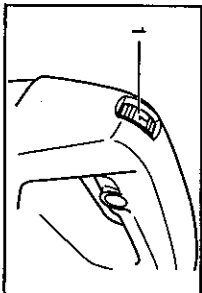
006582



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. 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.



1. Speed adjusting dial

Speed adjusting dial

The tool speed can be infinitely adjusted between 500 and 3,100 strokes per minute by turning the adjusting dial. Higher speed is obtained when the dial is turned in the direction of number 6; lower speed is obtained when it is turned in the direction of number 1. Refer to the table to select the proper speed for the workpiece to be cut. However, the appropriate speed may differ with the type or thickness of the workpiece. In general, higher speeds will allow you to cut workpieces faster but the service life of the blade will be reduced.

006563

Workpiece to be cut	Number on adjusting dial
Wood	5-6
Mild steel	3-6
Stainless steel	3-4
Aluminium	3-6
Plastics	1-4

⚠ CAUTION:

- If the tool is operated continuously at low speeds for a long time, the motor will get overloaded and heated up.
- 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.

⚠ CAUTION:

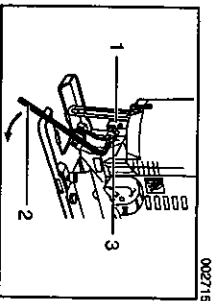
- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Installing or removing saw blade

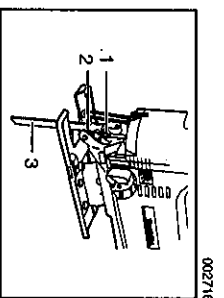
⚠ CAUTION:

- Always clean out all chips or foreign matter adhering to the blade and/or blade holder. Failure to do so may cause insufficient tightening of the blade, resulting in a serious personal injury.
- Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
- Always secure the blade firmly. Insufficient tightening of the blade may cause blade breakage or serious personal injury.

To install the blade, loosen the bolt counterclockwise on the blade holder with the hex wrench.



1. Blade holder
2. Hex wrench
3. Bolt



1. Bolt
2. Roller
3. Blade

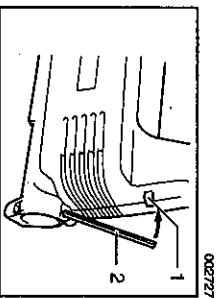
With the blade teeth facing forward, insert the blade into the blade holder as far as it will go. Make sure that the back edge of the blade fits into the roller. Then tighten the bolt clockwise to secure the blade.
To remove the blade, follow the installation procedure in reverse.

NOTE:

- Occasionally lubricate the roller.

Hex wrench storage

When not in use, store the hex wrench as shown in the figure to keep it from being lost.

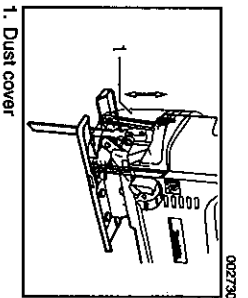


1. Hook
2. Hex wrench

Dust cover

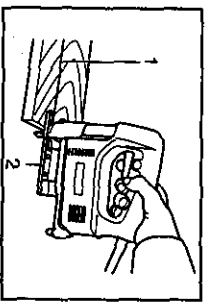
⚠ CAUTION:

- Always wear safety goggles even when operating the tool with the dust cover lowered.
Lower the dust cover to prevent chips from flying. However, when making bevel cuts, raise it all the way.



1. Dust cover

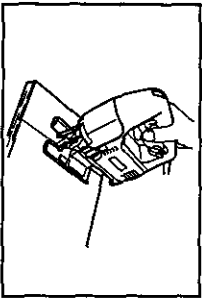
OPERATION



1. Cutting line
2. Base

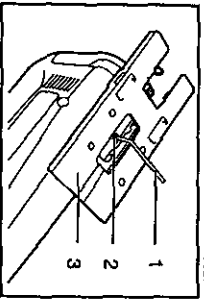
- CAUTION:**
- Always hold the base flush with the workpiece. Failure to do so may cause blade breakage, resulting in a serious injury.
 - Advance the tool very slowly when cutting curves or scrolling. Forcing the tool may cause a slanted cutting surface and blade breakage.
- Turn the tool on without the blade making any contact and wait until the blade attains full speed. Then rest the base flat on the workpiece and gently move the tool forward along the previously marked cutting line.

Bevel cutting



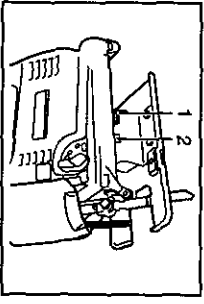
- CAUTION:**
- Always be sure that the tool is switched off and unplugged before tilting the base.
 - Raise the dust cover all the way before making bevel cuts.
- With the base tilted, you can make bevel cuts at any angle between 0° and 45° (left or right).

Loosen the bolt on the back of the base with the hex wrench. Move the base so that the bolt is positioned in the center of the cross-shaped slot in the base.

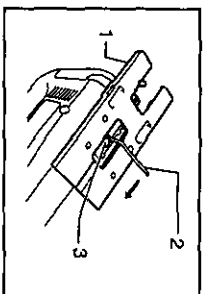


1. Hex wrench
2. Bolt
3. Base

Tilt the base until the desired bevel angle is obtained. The edge of the motor housing indicates the bevel angle by graduations. Then tighten the bolt to secure the base.



1. Graduation
2. Edge



1. Base
2. Hex wrench
3. Bolt

Front flush cuts

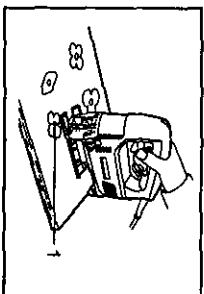
Loosen the bolt on the back of the base with the hex wrench and slide the base all the way back. Then tighten the bolt to secure the base.

Cutouts

Cutouts can be made with either of two methods A or B.

A) Boring a starting hole

For internal cutouts without a lead-in cut from an edge, pre-drill a starting hole 12 mm or more in diameter. Insert the blade into this hole to start your cut.



1. Starting hole

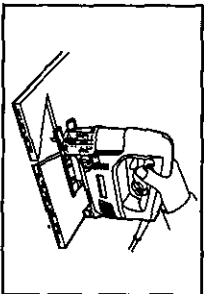
B) Plunge cutting

You need not bore a starting hole or make a lead-in cut if you carefully do as follows.

- (1) Tilt the tool up on the front edge of the base with the blade point positioned just above the workpiece surface.
- (2) Apply pressure to the tool so that the front edge of the base will not move when you switch on the tool and gently lower the back end of the tool slowly.
- (3) As the blade pierces the workpiece, slowly lower the base of the tool down onto the workpiece surface.
- (4) Complete the cut in the normal manner.

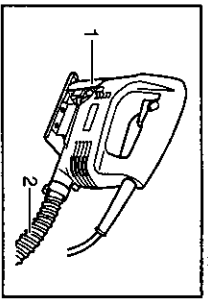
Finishing edges

To trim edges or make dimensional adjustments, run the blade lightly along the cut edges.



Metal cutting

Always use a suitable coolant (cutting oil) when cutting metal. Failure to do so will cause significant blade wear. The underside of the workpiece can be greased instead of using a coolant.



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Dust extraction

Clean cutting operations can be performed by connecting this tool to a Makita vacuum cleaner. Insert the hose of the vacuum cleaner into the hole at the rear of the tool. Lower the dust cover before operation.

NOTE:

- Dust extraction cannot be performed when making bevel cuts.

1. Dust cover
2. Hose

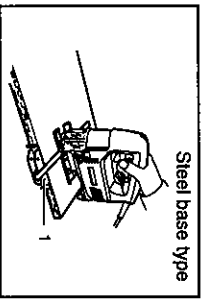
Rip fence (optional accessory)

CAUTION:

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

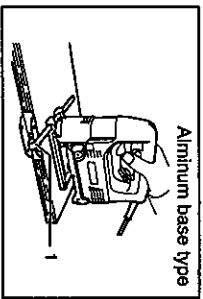
1. Straight cuts

When repeatedly cutting widths of 160 mm or less, use of the rip fence will assure fast, clean, straight cuts.



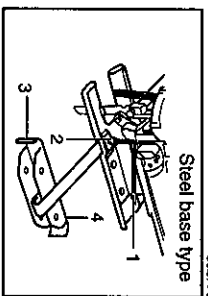
002775

1. Rip fence (Guide rule)



005453

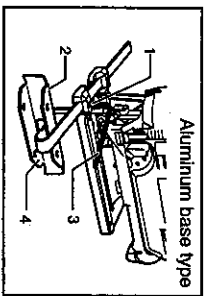
1. Rip fence (Guide rule)



002776

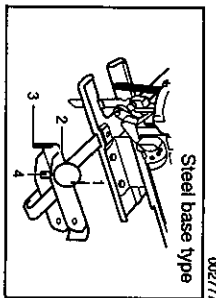
To install, insert the rip fence into the rectangular hole on the side of the base with the fence guide facing down. Slide the rip fence to the desired cutting width position, then tighten the bolt to secure it.

1. Hex wrench
2. Bolt
3. Rip fence (Guide rule)
4. Guide facing



005454

1. Bolt
2. Fence guide
3. Hex wrench
4. Rip fence (Guide rule)

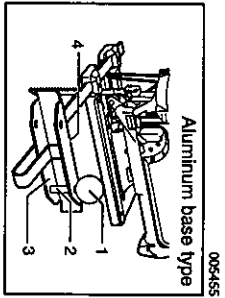


1. Threaded knob
2. Guide facing
3. Rip fence (Guide rule)
4. Pin

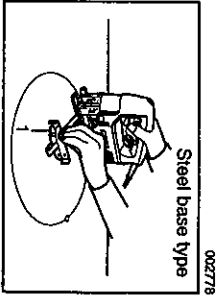
2. Circular cuts
 When cutting circles or arcs of 170 mm or less in radius, install the rip fence as follows.
 Insert the rip fence into the rectangular hole on the side of the base with the fence guide facing up. Insert the circular guide pin through either of the two holes on the fence guide. Screw the threaded knob onto the pin to secure the pin.
 Now slide the rip fence to the desired cutting radius, and tighten the bolt to secure it in place. Then move the base all the way forward.

NOTE:

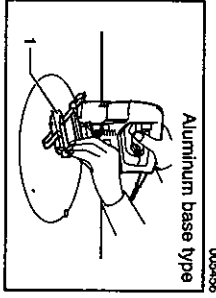
- Always use blades No. B-17, B-18, B-26 or B-27 when cutting circles or arcs.



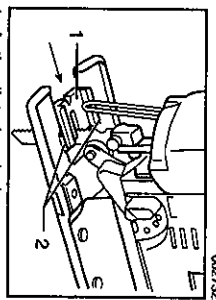
1. Threaded knob
2. Circular guide pin
3. Rip fence (Guide rule)
4. Fence guide



1. Rip fence (Guide rule)



1. Rip fence (Guide rule)



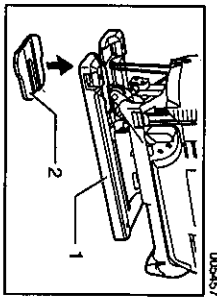
1. Anti-splintering device
2. Protrusions

Anti-splintering device for steel base (optional accessory)

For splinter-free cuts, the anti-splintering device can be used. To install the anti-splintering device, move the base all the way forward and insert it between the two protrusions of the base.

NOTE:

- The anti-splintering device cannot be used when making bevel cuts.



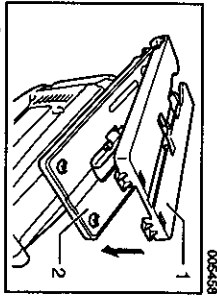
1. Aluminum base
2. Anti-splintering device

Anti-splintering device for aluminum base (Optional accessory)

For splinter-free cuts, the anti-splintering device can be used. To install the anti-splintering device, move the tool base all the way forward and fit it from the back of tool base. When you use the cover plate, install the anti-splintering device onto the cover plate.

CAUTION:

- The anti-splintering device cannot be used when making bevel cuts.



1. Cover plate
2. Aluminum base

Cover plate for aluminum base (Optional accessory)

Use the cover plate when cutting decorative veneers, plastics, etc. It protects sensitive or delicate surfaces from damage. Fit it on the back of the tool base.

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 Service Centers, always using Makita replacement parts.

