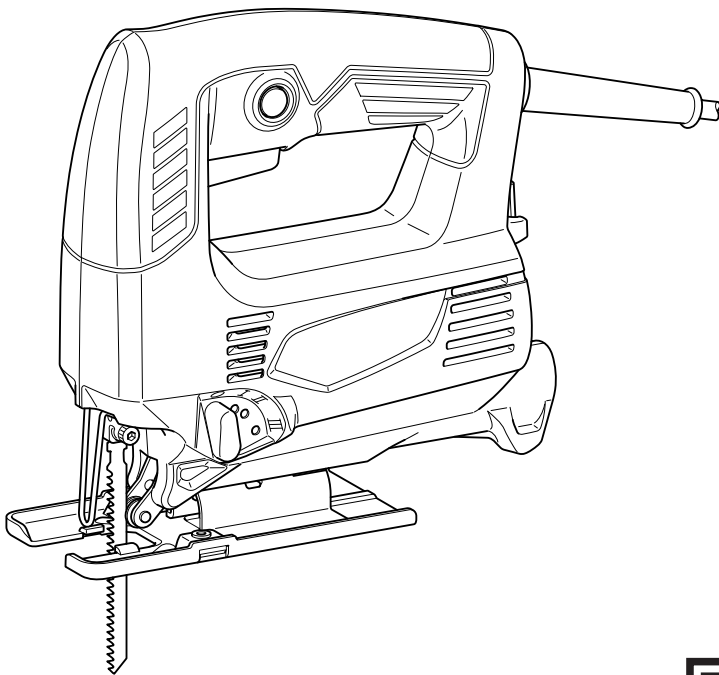
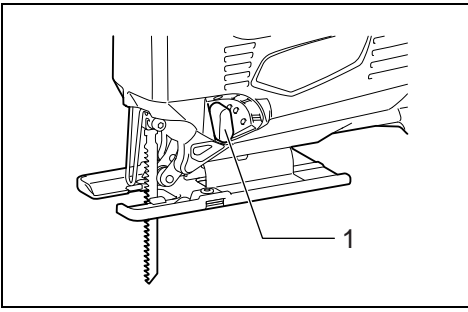
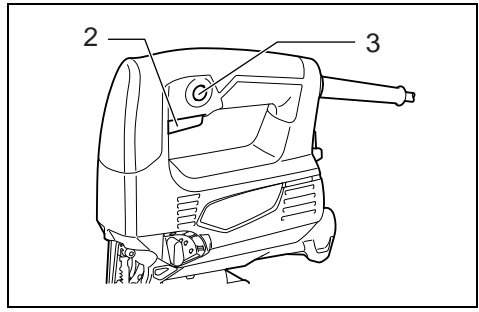


MT431

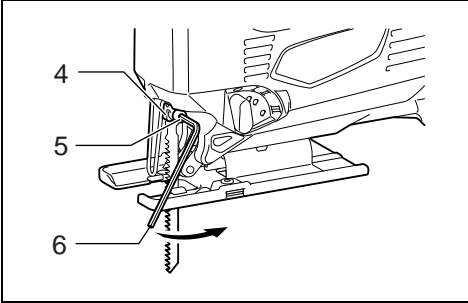




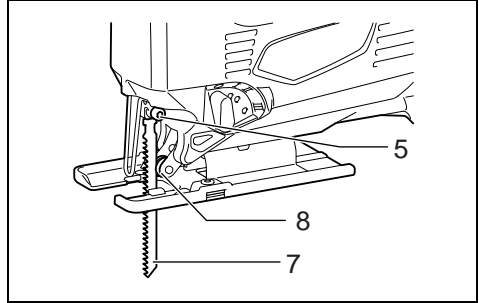
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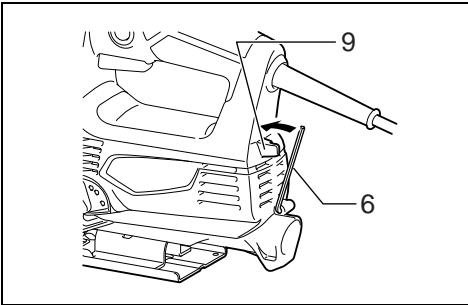
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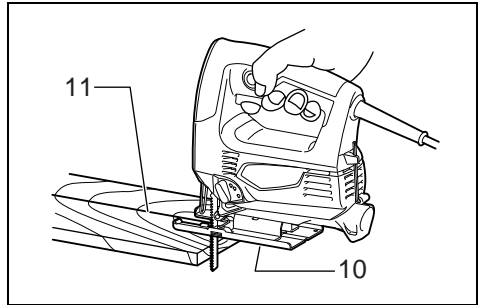
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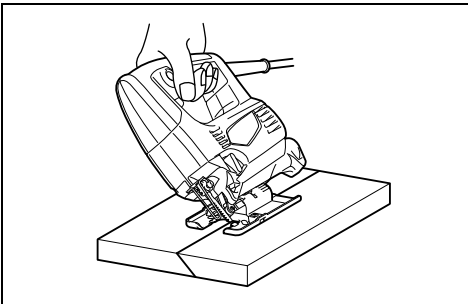
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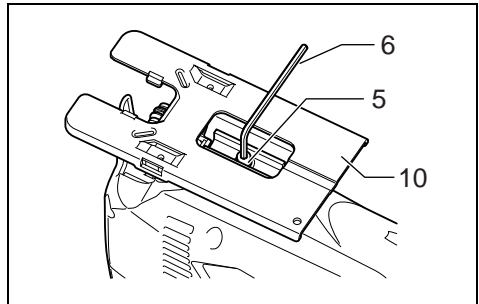
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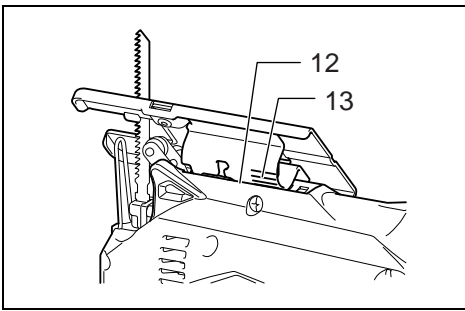
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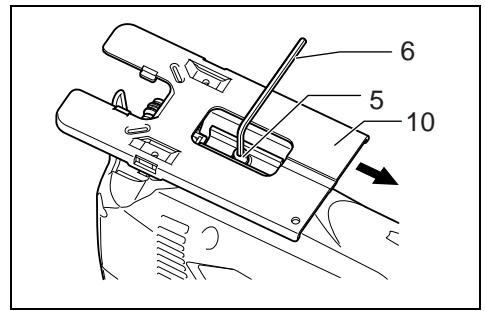
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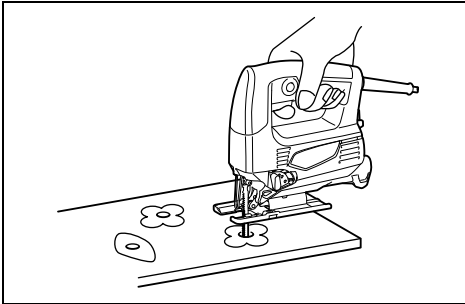
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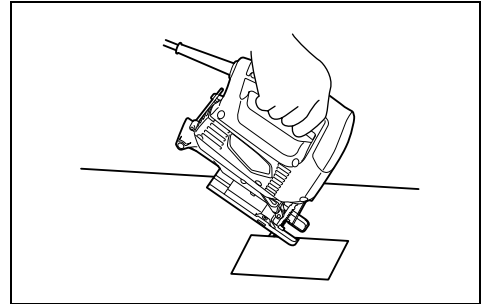
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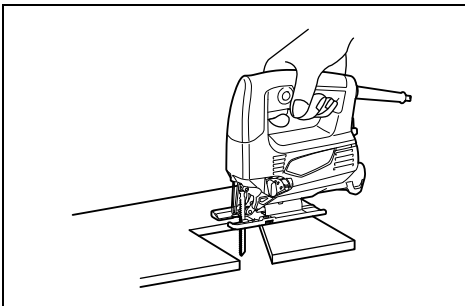
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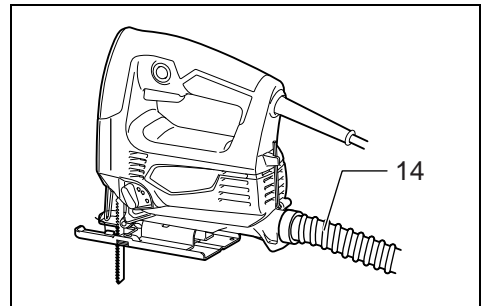
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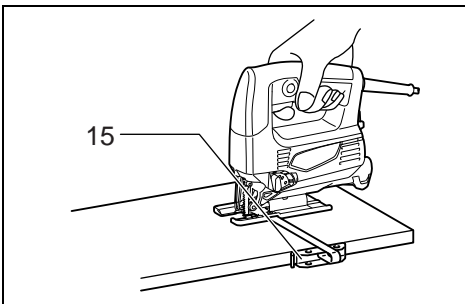
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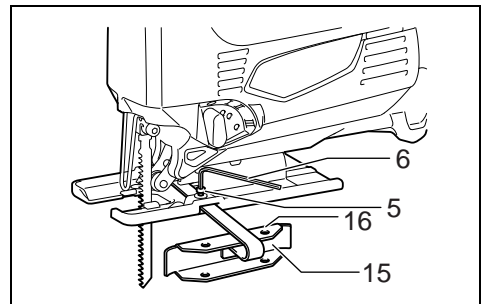
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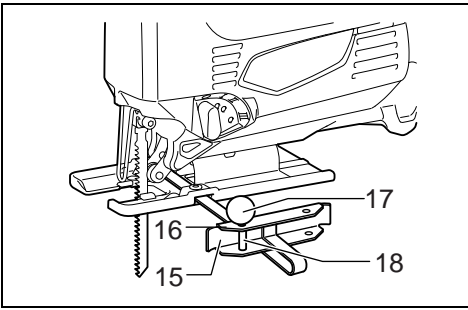
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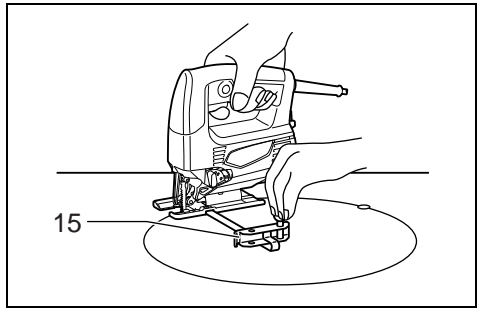
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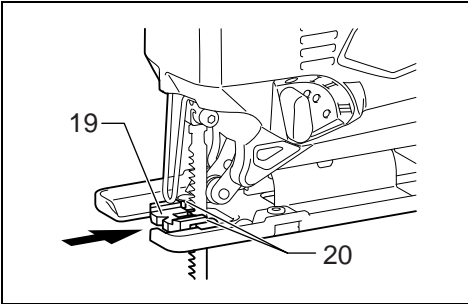
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18



19

Explanation of general view

1 Cutting action changing lever	8 Roller	15 Rip fence (Guide rule)
2 Switch trigger	9 Hook	16 Fence guide
3 Lock button	10 Base	17 Threaded knob
4 Blade holder	11 Cutting line	18 Pin
5 Bolt	12 Edge	19 Anti-splintering device
6 Hex wrench	13 Graduation	20 Protrusions
7 Blade	14 Hose	

SPECIFICATION

Model		MT431
Length of stroke		18 mm
Blade type		B type
Max. cutting capacities	Wood	65 mm
	Mild steel	6 mm
Strokes per minute (min ⁻¹)		0 – 3,100
Overall length		214 mm
Net weight		1.9 kg
Safety class		II / I

- 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

GEB016-3

ENE019-1

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.

ENF002-1

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.

GEA010-1

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.

JIG SAW SAFETY WARNINGS

- 1. Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- 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:

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.

FUNCTIONAL DESCRIPTION

⚠️ CAUTION:

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

Selecting the cutting action (Fig. 1)

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.
		For fast cutting in aluminum and mild steel.
III	Large orbit cutting action	For fast cutting in wood and plywood.

Switch action (Fig. 2)

⚠️ 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. Tool speed is increased by increasing pressure on the switch trigger. Release the switch trigger to stop.

For continuous operation, pull the switch trigger and push in the lock button and then release the switch trigger.

To stop the tool from the locked position, pull the switch trigger fully, then release it.

ASSEMBLY

⚠️ 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 (Fig. 3 & 4)

⚠️ 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.
- Use only B type blades. Using blades other than B type blades causes insufficient tightening of the blade, resulting in a serious personal injury.

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

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 (Fig. 5)

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

OPERATION

⚠️ 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. (Fig. 6)

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). (Fig. 7)

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. (Fig. 8) 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. (Fig. 9)

Front flush cuts (Fig. 10)

Loosen the bolt on the back of the tool 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. (Fig. 11)

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. (Fig. 12)
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 (Fig. 13)

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.

Dust extraction (Fig. 14)

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.

NOTE:

- Dust extraction cannot be performed when making bevel cuts.

Rip fence (optional accessory)

CAUTION:

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

1) Straight cuts (Fig. 15 & 16)

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

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.

2) Circular cuts (Fig. 17 & 18)

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.

Anti-splintering device for steel base (optional accessory) (Fig. 19)

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.

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.

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.

Noise

The typical A-weighted noise level determined according to EN60745:

Sound pressure level (L_{pA}): 82 dB (A)

Sound power level (L_{WA}): 93 dB (A)

Uncertainty (K): 3 dB (A)

Wear ear protection

ENG900-1

Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

Work mode: cutting boards

Vibration emission ($a_{h,CW}$): 8.0 m/s²

Uncertainty (K): 1.5 m/s²

Work mode: cutting sheet metal

Vibration emission ($a_{h,CM}$): 5.0 m/s²

Uncertainty (K): 1.5 m/s²

ENG901-1

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

⚠ WARNING:

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

For European countries only**EC Declaration of Conformity**

We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):

Designation of Machine:

Jig Saw

Model No./ Type: MT431

are of series production and

Conforms to the following European Directives:

2006/42/EC

And are manufactured in accordance with the following standards or standardised documents:

EN60745

The technical documentation is kept by our authorized representative in Europe who is:

Makita International Europe Ltd.

Michigan Drive, Tongwell,

Milton Keynes, MK15 8JD, England

11.11.2009



Tomoyasu Kato
Director

Makita Corporation
3-11-8, Sumiyoshi-cho,
Anjo, Aichi, JAPAN