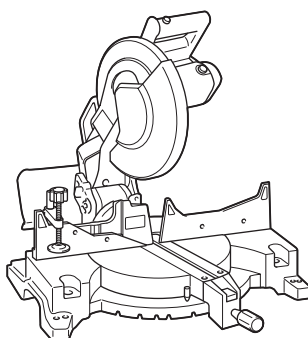


INSTRUCTION MANUAL



Compound Miter Saw

LS1221



DOUBLE INSULATION



Read before use.

SPECIFICATIONS

Model	LS1221
Blade diameter	305 mm
Hole diameter	25.4 mm or 30 mm (Country specific)
Max. kerf thickness of the saw blade	3.2 mm
Max. Miter angle	Left 48°, Right 48°
Max. Bevel angle	Left 45°
No load speed	4,000 min ⁻¹
Dimensions (L x W x H)	674 mm x 610 mm x 607 mm
Net weight	17.3 kg
Safety class	□/II









- Due to our continuing program 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 01/2014

Max. Cutting capacities (H x W)

Bevel angle	Miter angle	
	0°	45° (left and right)
0°	98 mm x 153 mm	98 mm x 107 mm
	63.5 mm x 203 mm	63.5 mm x 143 mm
45° (left)	70 mm x 149 mm	44.5 mm x 130 mm (*Left)
	44.5 mm x 200 mm	44.5 mm x 140 mm (*Right)

Symbols

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

	Read instruction manual.
	DOUBLE INSULATION
	To avoid injury from flying debris, keep holding the saw head down, after making cuts, until the blade has come to a complete stop.
	Do not place hand or fingers close to the blade.
	For your safety, remove the chips, small pieces, etc. from the table top before operation.
	Always set SUB-FENCE to left position when performing left bevel cuts. Failure to do so may cause serious injury to operator.
	To loosen the bolt, turn it clockwise.
	Only for EU countries Do not dispose of electric equipment together with household waste material! In observance of the European Directive, 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 accurate straight and miter cutting in wood. With appropriate saw blades, aluminum can also be sawed.

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 and can, therefore, also be used from sockets without earth wire.

Noise

The typical A-weighted noise level determined according to EN62841-3-9:

Sound pressure level (L_{pA}) : 92 dB(A)

Sound power level (L_{WA}) : 101 dB(A)

Uncertainty (K) : 3 dB(A)

NOTE: The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

⚠️WARNING: Wear ear protection.

⚠️WARNING: The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.

⚠️WARNING: 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).

Vibration

The vibration total value (tri-axial vector sum) determined according to EN62841-3-9:

Vibration emission (a_{hv}) : 3.0 m/s²

Uncertainty (K) : 1.5 m/s²

NOTE: The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared vibration total value(s) 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 value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.

⚠️WARNING: 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).

SAFETY WARNINGS

General power tool safety warnings

⚠️WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below 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.

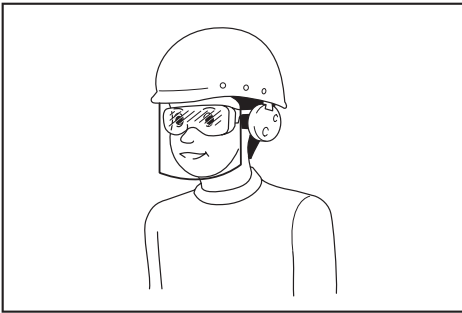
Electrical Safety

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
7. **Use of power supply via an RCD with a rated residual current of 30 mA or less is always recommended.**
8. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.** However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.
9. **Do not touch the power plug with wet hands.**
10. **If the cord is damaged, have it replaced by the manufacturer or his agent in order to avoid a safety hazard.**

Personal Safety

1. **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.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
3. **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.

4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **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.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
9. **Always wear protective goggles to protect your eyes from injury when using power tools.** The goggles must comply with ANSI Z87.1 in the USA, EN 166 in Europe, or AS/NZS 1336 in Australia/New Zealand. In Australia/New Zealand, it is legally required to wear a face shield to protect your face, too.



It is an employer's responsibility to enforce the use of appropriate safety protective equipments by the tool operators and by other persons in the immediate working area.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.
4. **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.

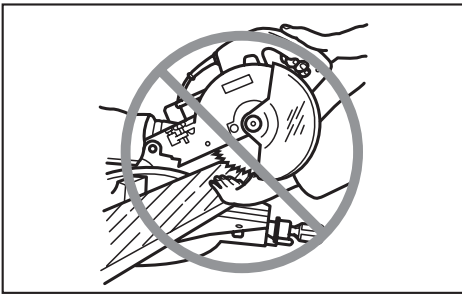
5. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.

Service

1. **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.
2. **Follow instruction for lubricating and changing accessories.**

Safety instructions for mitre saws

1. **Mitre saws are intended to cut wood or wood-like products, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.
2. **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100 mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.
3. **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut "freehand" in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.
4. **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.



5. **Do not reach behind the fence with either hand closer than 100 mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
6. **Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.
7. **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.
8. **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
9. **Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.
10. **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.** Without turning the tool "ON" and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.
11. **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
12. **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.

13. **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
14. **Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** Rods have a tendency to roll while being cut, causing the blade to "bite" and pull the work with your hand into the blade.
15. **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
16. **If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the mitre saw.
17. **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
18. **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.
19. **Only use the saw blade with the diameter that is marked on the tool or specified in the manual.** Use of an incorrectly sized blade may affect the proper guarding of the blade or guard operation which could result in serious personal injury.
20. **Only use the saw blades that are marked with a speed equal or higher than the speed marked on the tool.**
21. **Do not use the saw to cut other than wood, aluminum or similar materials.**
22. **(For European countries only) Always use the blade which conforms to EN847-1.**

Additional instructions

1. **Make workshop kid proof with padlocks.**
2. **Never stand on the tool.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
3. **Never leave the tool running unattended. Turn the power off. Do not leave tool until it comes to a complete stop.**
4. **Do not operate saw without guards in place. Check blade guard for proper closing before each use. Do not operate saw if blade guard does not move freely and close instantly. Never clamp or tie the blade guard into the open position.**
5. **Keep hands out of path of saw blade. Avoid contact with any coasting blade. It can still cause severe injury.**
6. **Always secure all moving portions before carrying the tool.**

7. Stopper pin which locks the cutter head down is for carrying and storage purposes only and not for any cutting operations.
8. Check the blade carefully for cracks or damage before operation. Replace cracked or damaged blade immediately. Gum and wood pitch hardened on blades slows saw and increases potential for kickback. Keep blade clean by first removing it from tool, then cleaning it with gum and pitch remover, hot water or kerosene. Never use gasoline to clean blade.
9. Use only flanges specified for this tool.
10. Be careful not to damage the arbor, flanges (especially the installing surface) or bolt. Damage to these parts could result in blade breakage.
11. Make sure that the turn base is properly secured so it will not move during operation. Use the holes in the base to fasten the saw to a stable work platform or bench. NEVER use tool where operator positioning would be awkward.
12. Make sure the shaft lock is released before the switch is turned on.
13. Be sure that the blade does not contact the turn base in the lowest position.
14. Hold the handle firmly. Be aware that the saw moves up or down slightly during start-up and stopping.
15. Make sure the blade is not contacting the workpiece before the switch is turned on.
16. 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 blade.
17. Stop operation immediately if you notice anything abnormal.
18. Do not attempt to lock the trigger in the "ON" position.
19. Always use accessories recommended in this manual. Use of improper accessories such as abrasive wheels may cause an injury.
20. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

Additional safety rules for the laser

1. **LASER RADIATION, DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS, CLASS 2M LASER PRODUCT.**

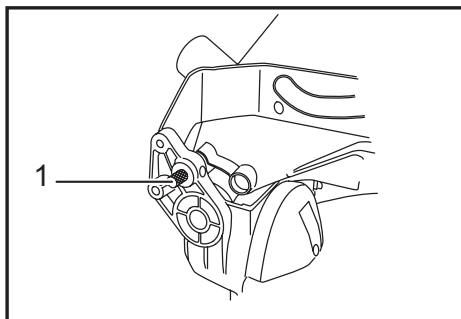
SAVE THESE INSTRUCTIONS.

⚠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.

INSTALLATION

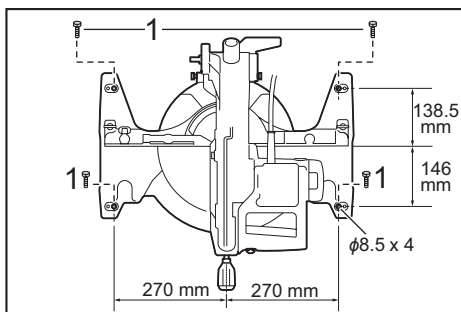
Bench mounting

When the tool is shipped, the handle is locked in the lowered position by the stopper pin. Release the stopper pin by lowering the handle slightly and pulling the stopper pin.



► 1. Stopper pin

This tool should be bolted with four bolts to a level and stable surface using the bolt holes provided in the tool's base. This will help prevent tipping and possible personal injury.



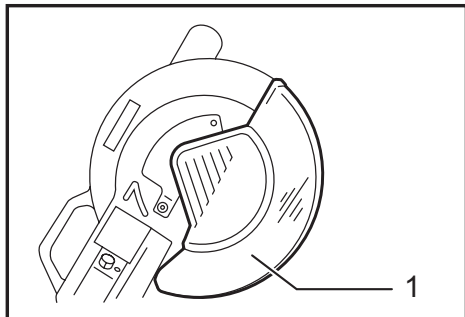
► 1. Bolt

FUNCTIONAL DESCRIPTION

CAUTION:

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

Blade guard



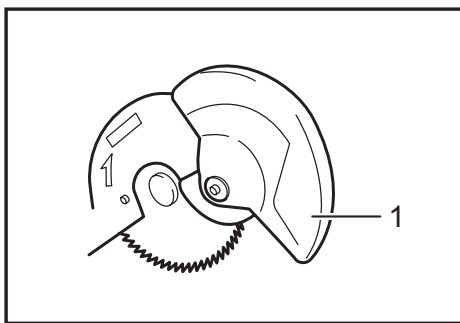
► 1. Blade guard

When lowering the handle, the blade guard rises automatically. The guard is spring loaded so it returns to its original position when the cut is completed and the handle is raised. NEVER DEFEAT OR REMOVE THE BLADE GUARD OR THE SPRING WHICH ATTACHES TO THE GUARD.

In the interest of your personal safety, always maintain the blade guard in good condition. Any irregular operation of the blade guard should be corrected immediately. Check to assure spring loaded return action of guard. NEVER USE THE TOOL IF THE BLADE GUARD OR SPRING ARE DAMAGED, FAULTY OR REMOVED. DOING SO IS HIGHLY DANGEROUS AND CAN CAUSE SERIOUS PERSONAL INJURY.

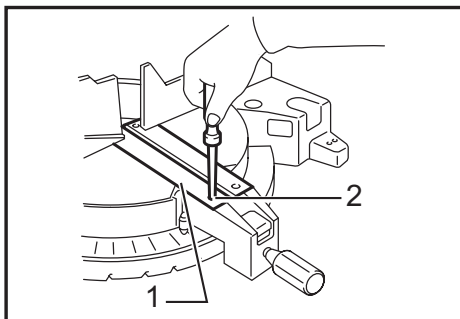
If the see-through blade guard becomes dirty, or sawdust adheres to it in such a way that the blade and/or workpiece is no longer easily visible, unplug the saw and clean the guard carefully with a damp cloth. Do not use solvents or any petroleum-based cleaners on the plastic guard.

If the blade guard is especially dirty and vision through the guard is impaired, use the supplied hex wrench to loosen the hex socket bolt holding the center cover. Loosen the hex socket bolt by turning it counterclockwise and raise the blade guard and center cover. With the blade guard so positioned, cleaning can be more completely and efficiently accomplished. When cleaning is complete, reverse procedure above and secure bolt. Do not remove spring holding blade guard. If guard becomes discolored through age or UV light exposure, contact a Makita service center for a new guard. DO NOT DEFEAT OR REMOVE GUARD.

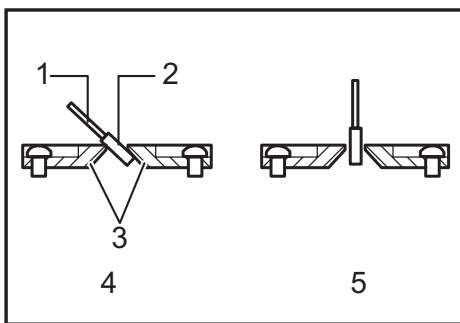


► 1. Blade guard

Positioning kerf board



► 1. Kerf board 2. Screw



► 1. Saw blade 2. Blade teeth 3. Kerf board 4. Left bevel cut 5. Straight cut

This tool is provided with the kerf boards in the turn base to minimize tearing on the exit side of a cut. The kerf boards are factory adjusted so that the saw blade does not contact the kerf boards. Before use, adjust the kerf boards as follows:

First, unplug the tool. Loosen all the screws (2 each on left and right) securing the kerf boards. Re-tighten them only to the extent that the kerf boards can still be easily moved by hand. Lower the handle fully and push in the stopper pin to lock the handle in the lowered position. Adjust the kerf boards so that the kerf boards just contact the sides of the blade teeth. Tighten all the screws (do not tighten firmly). After adjusting the kerf boards, release the stopper pin and raise the handle. Then tighten all the screws securely.

CAUTION:

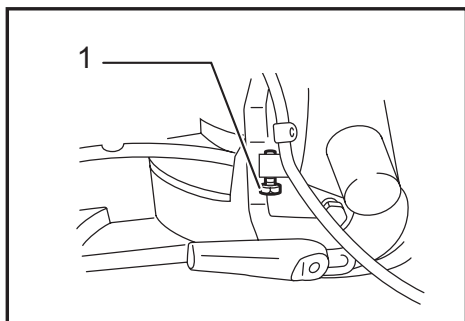
- Before and after changing the bevel angle, always adjust the kerf boards as described above.

Maintaining maximum cutting capacity

This tool is factory adjusted to provide the maximum cutting capacity for a 305 mm saw blade.

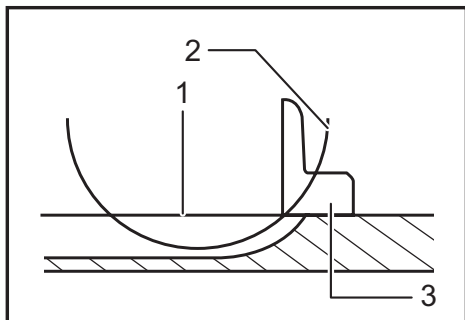
When installing a new blade, always check the lower limit position of the blade and if necessary, adjust it as follows:

First, unplug the tool. Lower the handle completely. Use the hex wrench to turn the adjusting bolt until the periphery of the blade extends slightly below the top surface of the turn base at the point where the front face of the guide fence meets the top surface of the turn base.



► 1. Adjusting bolt

With the tool unplugged, rotate the blade by hand while holding the handle all the way down to be sure that the blade does not contact any part of the lower base. Re-adjust slightly, if necessary.

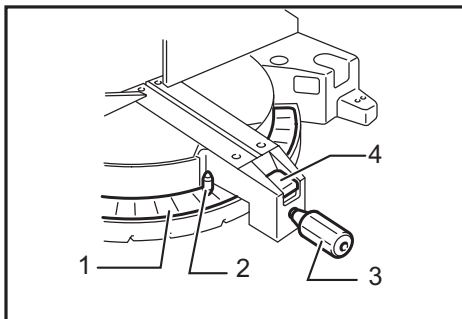


► 1. Top surface of turn base 2. Periphery of blade 3. Guide fence

CAUTION:

- After installing a new blade, always be sure that the blade does not contact any part of the lower base when the handle is lowered completely. Always do this with the tool unplugged.

Adjusting the miter angle



► 1. Miter scale 2. Pointer 3. Grip 4. Lock lever

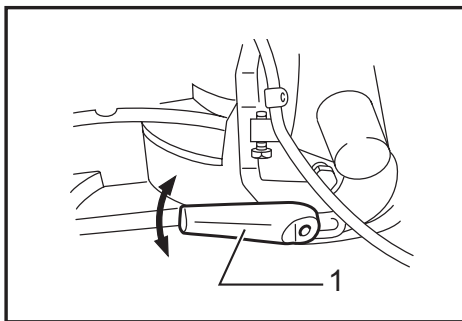
Loosen the grip by turning counterclockwise. Turn the turn base while pressing down the lock lever. When you have moved the grip to the position where the pointer points to the desired angle on the miter scale, securely tighten the grip clockwise.

CAUTION:

- When turning the turn base, be sure to raise the handle fully.
- After changing the miter angle, always secure the turn base by tightening the grip firmly.

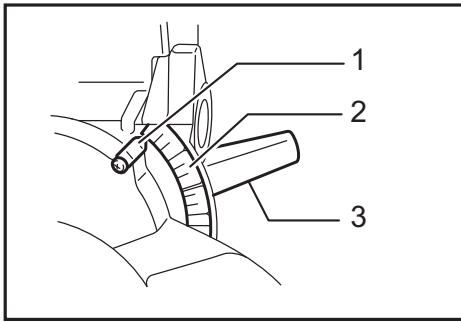
Adjusting the bevel angle

To adjust the bevel angle, loosen the lever at the rear of the tool counterclockwise.



► 1. Lever

Push the handle to the left to tilt the saw blade until the pointer points to the desired angle on the bevel scale. Then tighten the lever clockwise firmly to secure the arm.



► 1. Pointer 2. Bevel scale 3. Lever

CAUTION:

- When tilting the saw blade, be sure to raise the handle fully.
- After changing the bevel angle, always secure the arm by tightening the lever clockwise.
- When changing bevel angles, be sure to position the kerf boards appropriately as explained in the "Positioning kerf boards" section.

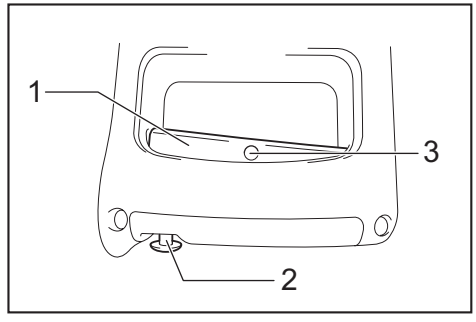
Switch action

WARNING: Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released. Do not pull the switch trigger hard without pressing in the lock-off button. This can cause switch breakage. Operating a tool with a switch that does not actuate properly can lead to loss of control and serious personal injury.

WARNING: NEVER use tool without a fully operative switch trigger. Any tool with an inoperative switch is HIGHLY DANGEROUS and must be repaired before further usage or serious personal injury may occur.

WARNING: NEVER defeat the lock-off button by taping down or some other means. A switch with a negated lock-off button may result in unintentional operation and serious personal injury.

WARNING: NEVER use the tool if it runs when you simply pull the switch trigger without pressing the lock-off button. A switch in need of repair may result in unintentional operation and serious personal injury. Return tool to a Makita service center for proper repairs BEFORE further usage.



► 1. Switch trigger 2. Lock-off button 3. Hole for padlock

To prevent the switch trigger from being accidentally pulled, a lock-off button is provided. To start the tool, press in the lock-off button and pull the switch trigger. Release the switch trigger to stop. A hole is provided in the switch trigger for insertion of a padlock to lock the tool off.

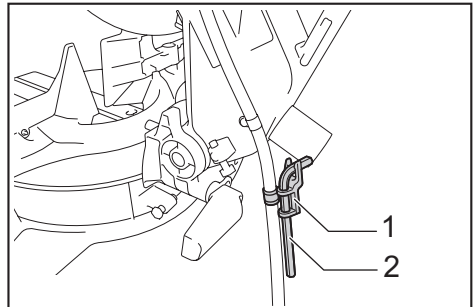
WARNING: Do not use a lock with a shank or cable any smaller than 6.35 mm in diameter. A smaller shank or cable may not properly lock the tool in the off position and unintentional operation may occur resulting in serious personal injury.

ASSEMBLY

CAUTION:

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

Hex wrench storage



► 1. Wrench holder 2. Hex wrench

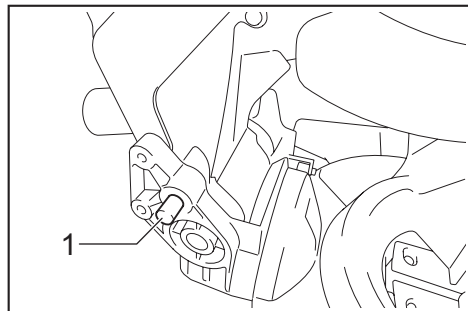
The hex wrench is stored as shown in the figure. When the hex wrench is needed it can be pulled out of the wrench holder. After using the hex wrench it can be stored by returning it to the wrench holder.

Installing or removing saw blade

⚠ CAUTION:

- Always be sure that the tool is switched off and unplugged before installing or removing the blade.
- Use only the Makita hex wrench provided to install or remove the blade. Failure to do so may result in overtightening or insufficient tightening of the hex socket bolt. This could cause an injury.

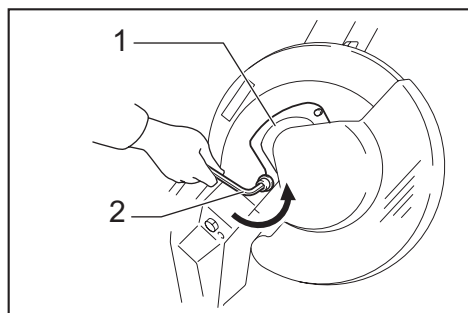
Lock the handle in the raised position by pushing in the stopper pin.



- 1. Stopper pin

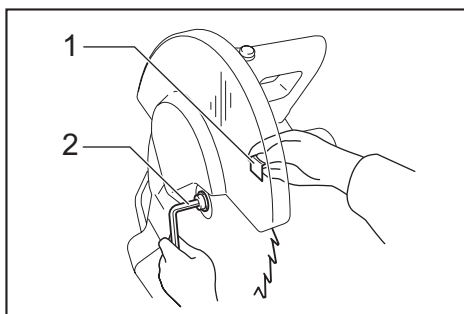
Removing the blade

To remove the blade, use the hex wrench to loosen the hex socket bolt holding the center cover by turning it counterclockwise. Raise the blade guard and center cover.



- 1. Center cover 2. Hex wrench

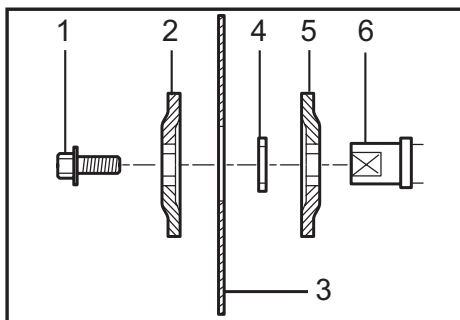
Press the shaft lock to lock the spindle and use the hex wrench to loosen the hex socket bolt clockwise. Then remove the hex socket bolt, outer flange and blade.



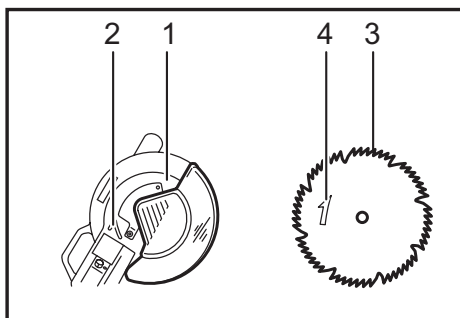
- 1. Shaft lock 2. Hex wrench

Installing the blade

To install the blade, mount it carefully onto the spindle, making sure that the direction of the arrow on the surface of the blade matches the direction of the arrow on the blade case. Install the outer flange and hex socket bolt, and then use the hex wrench to tighten the hex socket bolt (left-handed) securely counterclockwise while pressing the shaft lock.



- 1. Hex socket bolt 2. Outer flange 3. Saw blade
4. Ring 5. Inner flange 6. Spindle

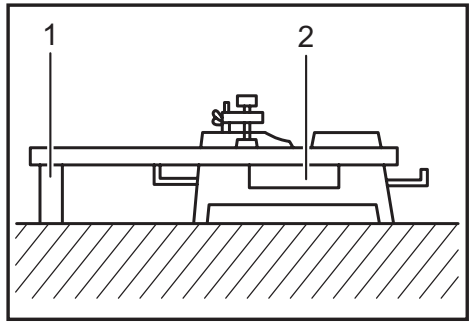
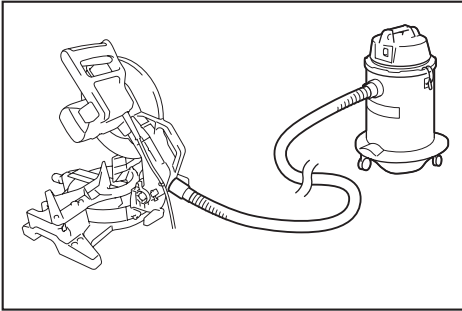


- 1. Blade case 2. Arrow 3. Saw blade 4. Arrow

Return the blade guard and center cover to its original position. Then tighten the hex socket bolt clockwise to secure the center cover. Release the handle from the raised position by pulling the stopper pin. Lower the handle to make sure that the blade guard moves properly. Make sure shaft lock has released spindle before making cut.

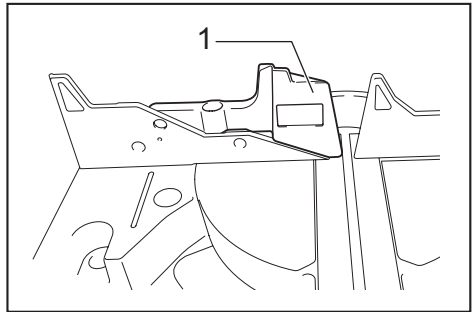
Connecting a vacuum cleaner

When you wish to perform clean cutting operation, connect a Makita vacuum cleaner.



► 1. Support 2. Turn base

Sub-fence



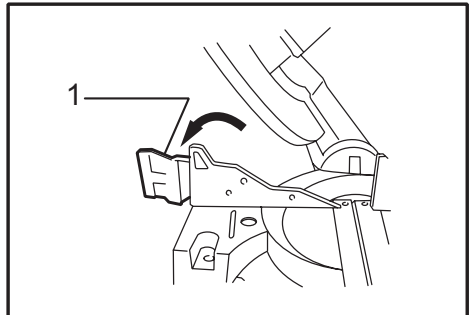
► 1. Sub-fence

This tool is equipped with the sub-fence which should ordinarily be positioned as shown in the figure.

However, when performing left bevel cuts, set it to the left position as shown in the figure.

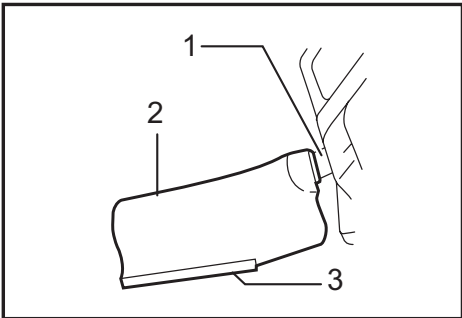
⚠ CAUTION:

- When performing left bevel cuts, flip the fence over to the left position as shown in the figure. Otherwise, it will contact the blade or a part of the tool, causing possible serious injury to the operator.



► 1. Sub-fence

Dust bag



► 1. Dust nozzle 2. Dust bag 3. Fastener

The use of the dust bag makes cutting operations clean and dust collection easy. To attach the dust bag, fit it onto the dust nozzle.

When the dust bag is about half full, remove the dust bag from the tool and pull the fastener out. Empty the dust bag of its contents, tapping it lightly so as to remove particles adhering to the insides which might hamper further collection.

Securing workpiece

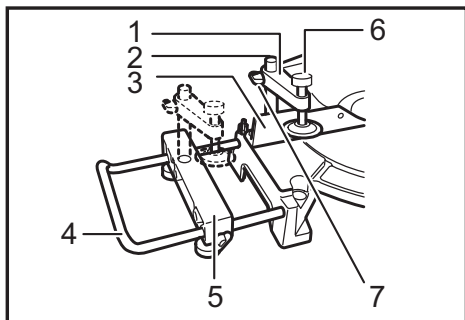
⚠ WARNING:

- It is extremely important to always secure the workpiece properly and tightly with the vise. Failure to do so can cause the tool to be damaged and/or the workpiece to be destroyed. PERSONAL INJURY MAY ALSO RESULT. Also, after a cutting operation, DO NOT raise the blade until the blade has come to a complete stop.

⚠ CAUTION:

- When cutting long workpieces, use supports that are as high as the top surface level of the turn base. Do not rely solely on the vertical vise and/or horizontal vise to secure the workpiece. Thin material tends to sag. Support workpiece over its entire length to avoid blade pinch and possible KICKBACK.

Vertical vise



- 1. Vise arm 2. Vise rod 3. Guide fence 4. Holder
5. Holder assembly 6. Vise knob 7. Screw

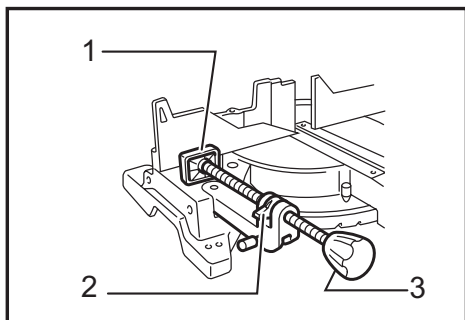
The vertical vise can be installed in two positions on either the left or right side of the guide fence or the holder assembly (optional accessory). Insert the vise rod into the hole in the guide fence or the holder assembly and tighten the screw to secure the vise rod. Position the vise arm according to the thickness and shape of the workpiece and secure the vise arm by tightening the screw. If the screw to secure the vise arm contacts the guide fence, install the screw on the opposite side of vise arm. Make sure that no part of the tool contacts the vise when lowering the handle all the way. If some part contacts the vise, re-position the vise.

Press the workpiece flat against the guide fence and the turn base. Position the workpiece at the desired cutting position and secure it firmly by tightening the vise knob.

CAUTION:

- The workpiece must be secured firmly against the turn base and guide fence with the vise during all operations.

Horizontal vise (optional accessory)



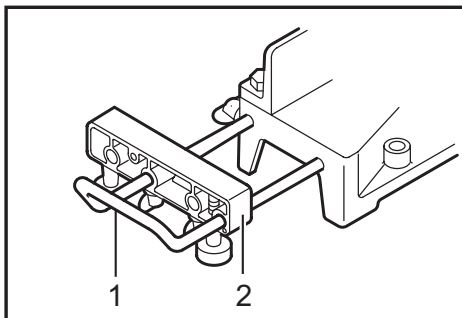
- 1. Vise plate 2. Vise nut 3. Vise knob

The horizontal vise can be installed in two positions on either the left or right side of the base. When performing 15° or greater miter cuts, install the horizontal vise on the side opposite the direction in which the turn base is to be turned. By flipping the direction to the left, the vise is released, and rapidly moves in and out. To grip the workpiece, push the vise knob forward until the vise plate contacts the workpiece and flip the vise nut to the right. Then turn the vise knob clockwise to secure the workpiece. The maximum width of workpiece which can be secured by the horizontal vise is 200 mm.

CAUTION:

- Always rotate the vise nut to the right fully when securing the workpiece. Failure to do so may result in insufficient securing of the workpiece. This could cause the workpiece to be thrown, cause damage to the blade or cause the loss of control, which can result in PERSONAL INJURY.

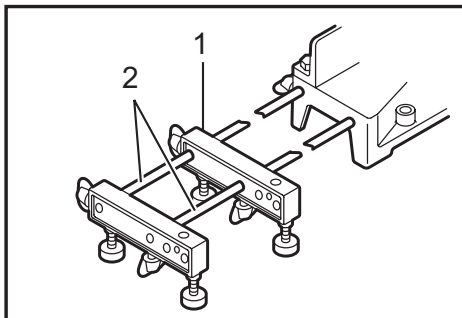
Holder and holder assembly (optional accessories)



- 1. Holder 2. Holder assembly

The holders and the holder assembly can be installed on either side as a convenient means of supporting workpieces horizontally. Install them as shown in the figure. Then tighten the screws firmly to secure the holders and the holder assembly.

When cutting long workpieces, use the holder-rod assembly (optional accessory). It consists of two holder assemblies and two rods 12.



- 1. Holder assembly 2. Rod 12

CAUTION:

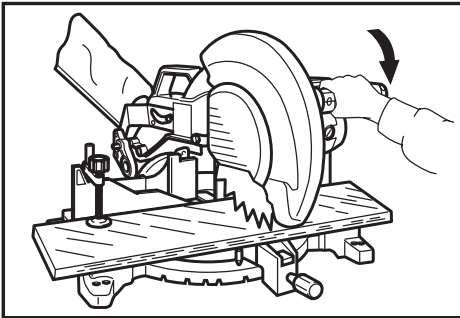
- Always support long workpieces level with the top surface of the turn base for accurate cuts and to prevent dangerous loss of control of the tool.

OPERATION

⚠ CAUTION:

- Before use, be sure to release the handle from the lowered position by pulling the stopper pin.
- Make sure the blade is not contacting the workpiece, etc. before the switch is turned on.
- Do not apply excessive pressure on the handle when cutting. Too much force may result in overload of the motor and/or decreased cutting efficiency. Push down handle with only as much force as is necessary for smooth cutting and without significant decrease in blade speed.
- Gently press down the handle to perform the cut. If the handle is pressed down with force or if lateral force is applied, the blade will vibrate and leave a mark (saw mark) in the workpiece and the precision of the cut will be impaired.

Press cutting

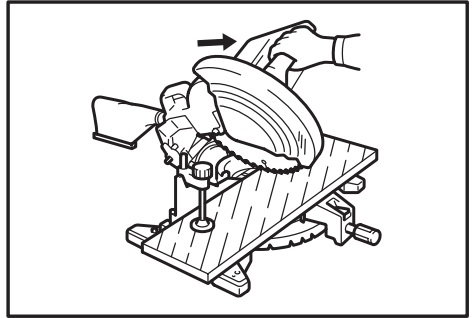


Secure the workpiece with the vise. Switch on the tool without the blade making any contact and wait until the blade attains full speed before lowering. Then gently lower the handle to the fully lowered position to cut the workpiece. When the cut is completed, switch off the tool and **WAIT UNTIL THE BLADE HAS COME TO A COMPLETE STOP** before returning the blade to its fully elevated position.

Miter cutting

Refer to the previously covered "Adjusting the miter angle".

Bevel cut



Loosen the lever and tilt the saw blade to set the bevel angle (Refer to the previously covered "Adjusting the bevel angle"). Be sure to retighten the lever firmly to secure the selected bevel angle safely. Secure the workpiece with a vise. Switch on the tool without the blade making any contact and wait until the blade attains full speed. Then gently lower the handle to the fully lowered position while applying pressure in parallel with the blade. When the cut is completed, switch off the tool and **WAIT UNTIL THE BLADE HAS COME TO A COMPLETE STOP** before returning the blade to its fully elevated position.

⚠ CAUTION:

- Always be sure that the blade will move down to bevel direction during a bevel cut. Keep hands out of path of saw blade.
- During a bevel cut, it may create a condition whereby the piece cut off will come to rest against the side of the blade. If the blade is raised while the blade is still rotating, this piece may be caught by the blade, causing fragments to be scattered which is dangerous. The blade should be raised **ONLY** after the blade has come to a complete stop.
- When pressing the handle down, apply pressure parallel to the blade. If the pressure is not parallel to the blade during a cut, the angle of the blade might be shifted and the precision of the cut will be impaired.
- Always set the sub-fence to the left position when performing left bevel cuts.

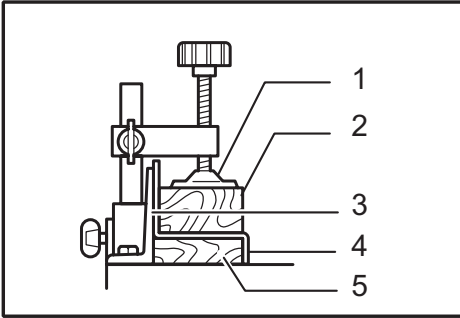
Compound cutting

Compound cutting is the process in which a bevel angle is made at the same time in which a miter angle is being cut on a workpiece. Compound cutting can be performed at angle shown in the table.

Bevel angle	Miter angle
45°	Left and Right 0° - 45°

When performing compound cutting, refer to "Press cutting", "Miter cutting" and "Bevel cut" explanations.

Cutting aluminum extrusion



- 1. Vise 2. Spacer block 3. Guide fence 4. Aluminum extrusion 5. Spacer block

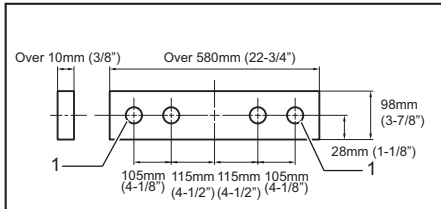
When securing aluminum extrusions, use spacer blocks or pieces of scrap as shown in the figure to prevent deformation of the aluminum. Use a cutting lubricant when cutting the aluminum extrusion to prevent build-up of the aluminum material on the blade.

CAUTION:

- Never attempt to cut thick or round aluminum extrusions. Thick aluminum extrusions may come loose during operation and round aluminum extrusions cannot be secured firmly with this tool.

Wood facing

Use of wood facing helps to assure splinter-free cuts in workpieces. Attach a wood facing to the guide fence using the holes in the figure. See the figure concerning the dimensions for a suggested wood facing.

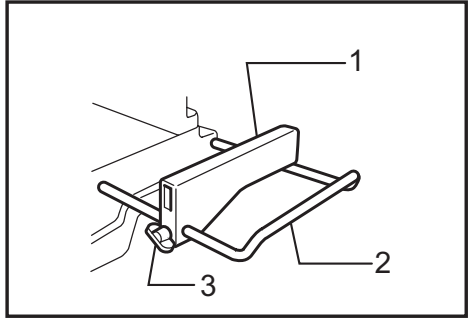


- 1. Hole

CAUTION:

- Use straight wood of even thickness as the wood facing.
- Use screws to attach the wood facing to the guide fence. The screws should be installed so that the screw heads are below the surface of the wood facing.
- When the wood facing is attached, do not turn the turn base with the handle lowered. The blade and/or the wood facing will be damaged.

Cutting repetitive lengths



- 1. Set plate 2. Holder 3. Screw

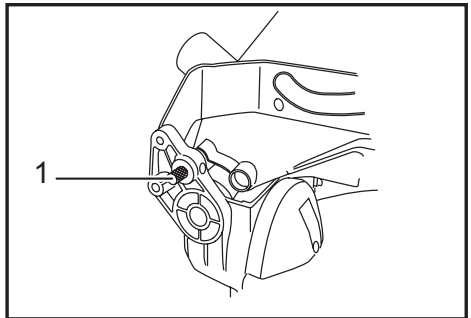
When cutting several pieces of stock to the same length, ranging from 295 mm to 440 mm, use of the set plate (optional accessory) will facilitate more efficient operation. Install the set plate on the holder as shown in the figure.

Align the cutting line on your workpiece with either the left or right side of the groove in the kerf board, and while holding the workpiece from moving, move the set plate flush against the end of the workpiece. Then secure the set plate with the screw. When the set plate is not used, loosen the screw and turn the set plate out of the way.

NOTE:

- Use of the holder-rod assembly (optional accessory) allows cutting repetitive lengths up to 2,200 mm approximately.

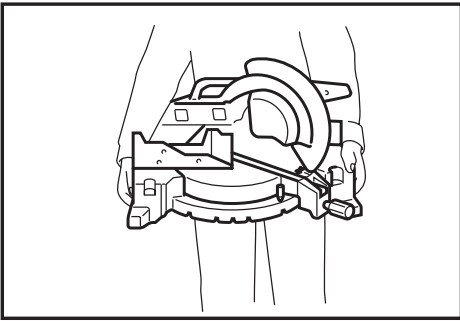
Carrying tool



- 1. Stopper pin

Make sure that the tool is unplugged. Secure the blade at 0° bevel angle and the turn base at right miter angle fully. Lower the handle fully and lock it in the lowered position by pushing in the stopper pin.

Carry the tool by holding both sides of the tool base as shown in the figure. If you remove the holders, dust bag, etc., you can carry the tool more easily.



CAUTION:

- Always secure all moving portions before carrying the tool.
- Stopper pin is for carrying and storage purposes only and not for any cutting operations.

MAINTENANCE

CAUTION:

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

WARNING:

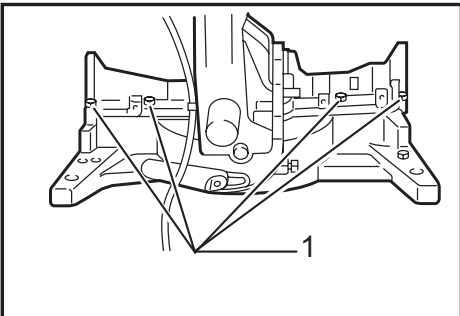
- Always be sure that the blade is sharp and clean for the best and safest performance.

NOTICE: Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

Adjusting the cutting angle

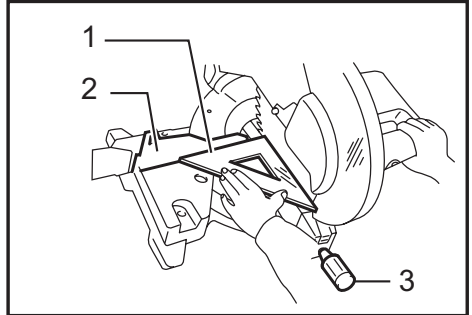
This tool is carefully adjusted and aligned at the factory, but rough handling may have affected the alignment. If your tool is not aligned properly, perform the following:

Miter angle



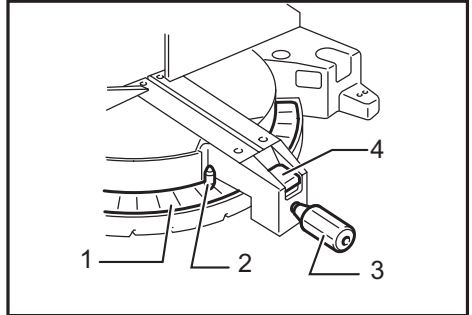
► 1. Hex socket bolt

Loosen the grip which secures the turn base. Turn the turn base so that the pointer points to 0° on the miter scale. Then turn the turn base slightly clockwise and counterclockwise to seat the turn base in the 0° miter notch. (Leave as it is if the pointer does not point to 0°.) Loosen the hex socket bolts securing the guide fence using the hex wrench. Lower the handle fully and lock it in the lowered position by pushing in the stopper pin. Square the side of the blade with the face of the guide fence using a triangular rule, try-square, etc. Then securely tighten the hex socket bolts on the guide fence in the order from the right side.



► 1. Triangular rule 2. Guide fence 3. Grip

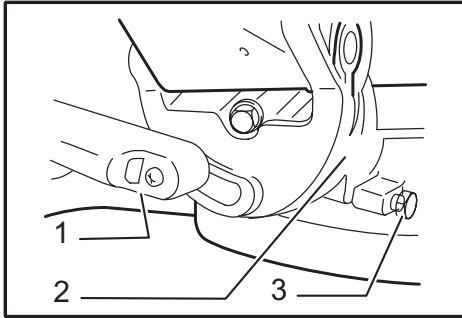
Make sure that the pointer points to 0° on the miter scale. If the pointer does not point to 0°, loosen the screw which secures the pointer and adjust the pointer so that it will point to 0°.



► 1. Miter scale 2. Pointer 3. Grip 4. Lock lever

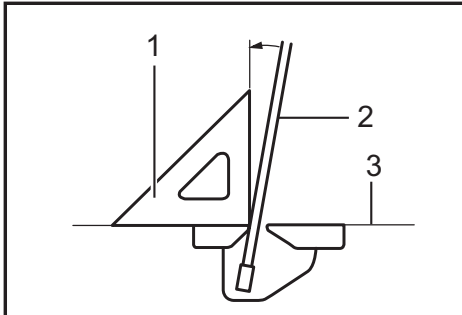
Bevel angle

0° bevel angle



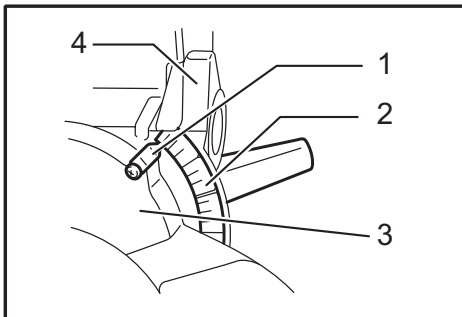
► 1. Lever 2. Turn base 3. 0° bevel angle adjusting bolt

Lower the handle fully and lock it in the lowered position by pushing in the stopper pin. Loosen the lever at the rear of the tool. Turn the 0° bevel angle adjusting bolt on the left side of the turn base two or three revolutions counterclockwise to tilt the blade to the right. Carefully square the side of the blade with the top surface of the turn base using the triangular rule, try-square, etc. by turning the 0° bevel angle adjusting bolt clockwise. Then tighten the lever securely.



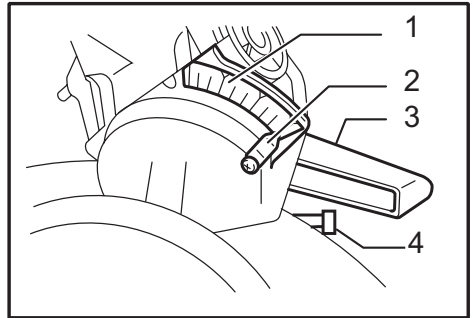
► 1. Triangular rule 2. Saw blade 3. Top surface of turn table

Make sure that the pointer on the turn base points to 0° on the bevel scale on the arm. If it does not point to 0°, loosen the screw which secures the pointer and adjust the pointer so that it will point to 0°.



► 1. Pointer 2. Bevel scale 3. Turn base 4. Arm

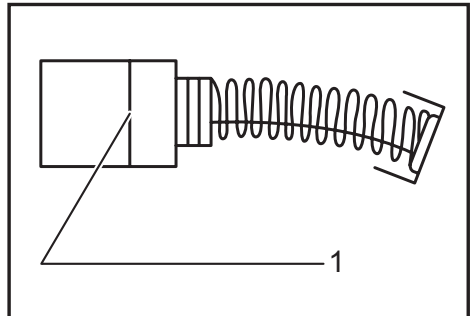
45° bevel angle



► 1. Bevel scale 2. Pointer 3. Lever 4. 45° bevel angle adjusting bolt

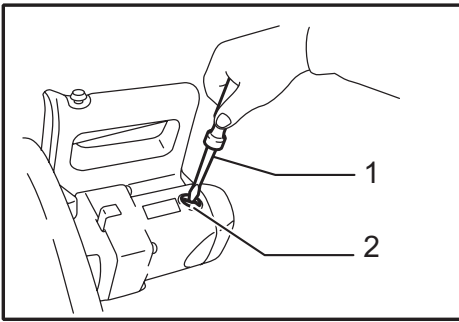
Adjust the 45° bevel angle only after performing 0° bevel angle adjustment. To adjust left 45° bevel angle, loosen the lever and tilt the blade to the left fully. Make sure that the pointer on the turn base points to 45° on the bevel scale on the arm. If the pointer does not point to 45°, turn the 45° bevel angle adjusting bolt on the right side of the arm until the pointer points to 45°.

Replacing carbon brushes



► 1. Limit mark

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes. Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



► 1. Screwdriver 2. Brush holder cap

After use

- After use, wipe off chips and dust adhering to the tool with a cloth or the like. Keep the blade guard clean according to the directions in the previously covered section titled "Blade guard". Lubricate the sliding portions with machine oil to prevent rust.
- To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

⚠WARNING: These Makita accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments may result in serious personal injury.

⚠WARNING: Only use the Makita accessory or attachment for its stated purpose. Misuse of an accessory or attachment may result in serious personal injury.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Steel & Carbide-tipped saw blades
(Refer to our website or contact your local Makita dealer for the correct saw blades to be used for the material to be cut.)
- Vise assembly (Horizontal vise)
- Vertical vise
- Hex wrench
- Holder set
- Holder assembly
- Holder rod assembly
- Set plate
- Dust bag
- Elbow
- Triangular rule

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

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