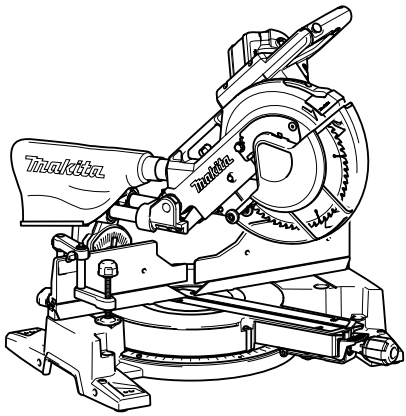
ENGLISH (Original instructions)

INSTRUCTION MANUAL

Slide Compound Miter Saw

LS1016
LS1016L



009482

DOUBLE INSULATION

IMPORTANT: Read Before Using.

ENGLISH (Original instructions)

SPECIFICATIONS

Model	LS1016/LS1016L
Blade diameter	
For all countries other than European countries	255 mm - 260 mm
For European countries	260 mm
Hole diameter	
For all countries other than European countries	25.4 mm
For European countries	30 mm

Max. Cutting capacities (H x W) with 260 mm in diameter

Miter angle	Bevel angle		
	45° (left)	0°	45° (right)
0°	42 mm x 310 mm	68 mm x 310 mm	29 mm x 310 mm
	58mm x 279 mm	91 mm x 279 mm	43 mm x 279 mm
45°(right and left)	42 mm x 218 mm	68 mm x 218 mm	29 mm X 218 mm
	58 mm x 197 mm	91 mm x 197 mm	43 mm x 197 mm
52°(right and left)	-	68 mm x 190 mm	-
		91 mm x 171 mm	
60°(right)	-	68 mm x 155 mm	-
		91 mm x 139 mm	

Special Max. Cutting capacities

Crown molding 45 ° type (with Crown molding stopper used)	168 mm
Base board (H) (with Horizontal vise used)	120 mm

No load speed (min^{-1})	3,200
Laser Type (LS1016L only)	Red Laser 650 nm, ＜1.6mW (Laser Class 2M)
Dimensions (L x W x H)	718 mm x 640 mm x 671 mm
Net weight	
For all countries other than European countries	23.7 kg
For European countries	24.2 kg
Safety class	⧈/II

• 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

END210-6

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.

· When performing slide cut, first pull carriage fully and press down handle, then push carriage toward the guide fence.

· Do not place hand or fingers close to the blade.

· Never look into the laser beam. Direct laser beam may injure your eyes.

· 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.

ENE006-1

Intended use

The tool is intended for accurate straight and miter cutting in wood. With appropriate saw blades, aluminum can also be sawed.

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.

ENA001-2

SAFETY INSTRUCTIONS

WARNING! When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before operating this product and save these instructions.

For safe operations:

1. **Keep work area clean.**
   Cluttered areas and benches invite injuries.
2. **Consider work area environment.**
   Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.
3. **Guard against electric shock.**
   Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).
4. **Keep children away.**
   Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.
5. **Store idle tools.**
   When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.
6. **Do not force the tool.**
   It will do the job better and safer at the rate for which it was intended.
7. **Use the right tool.**
   Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saws to cut tree limbs or logs.
8. **Dress properly.**
   Do not wear loose clothing or jewellery, they can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.
9. **Use safety glasses and hearing protection.**
   Also use face or dust mask if the cutting operation is dusty.
10. **Connect dust extraction equipment.**
    If devices are provided for the connection of dust extraction and collection facilities ensure these are connected and properly used.
11. **Do not abuse the cord.**
    Never carry the tool by the cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
12. **Secure work.**
    Use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the tool.
13. **Do not overreach.**
    Keep proper footing and balance at all times.
14. **Maintain tools with care.**
    Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized service facility. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean and free from oil and grease.
15. **Disconnect tools.**
    When not in use, before servicing and when changing accessories such as blades, bits and cutters.
16. **Remove adjusting keys and wrenches.**
    Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
17. **Avoid unintentional starting.**
    Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.
18. **Use outdoor extension leads.**
    When tool is used outdoors, use only extension cords intended for outdoor use.
19. **Stay alert.**
    Watch what you are doing. Use common sense. Do not operate tool when you are tired.
20. **Check damaged parts.**
    Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other

conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.

21. **Warning.**
The use of any accessory or attachment, other than those recommended in this instruction manual or the catalog, may present a risk of personal injury.
22. **Have your tool repaired by a qualified person.**
This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

ENB034-3

ADDITIONAL SAFETY RULES FOR TOOL

1. **Wear eye protection.**
2. **Keep hands out of path of saw blade. Avoid contact with any coasting blade. It can still cause severe injury.**
3. **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.**
4. **Do not perform any operation freehand.** The workpiece must be secured firmly against the turn base and guide fence with the vise during all operations. Never use your hand to secure the workpiece.
5. **Never reach around saw blade.**
6. **Turn off tool and wait for saw blade to stop before moving workpiece or changing settings.**
7. **Unplug tool before changing blade or servicing.**
8. **Always secure all moving portions before carrying the tool.**
9. **Stopper pin which locks the cutter head down is for carrying and storage purposes only and not for any cutting operations.**
10. Do not use the tool in the presence of flammable liquids or gases.
11. Check the blade carefully for cracks or damage before operation.
Replace cracked or damaged blade immediately.
12. Use only flanges specified for this tool.
13. Be careful not to damage the arbor, flanges (especially the installing surface) or bolt. Damage to these parts could result in blade breakage.
14. Make sure that the turn base is properly secured so it will not move during operation.
15. For your safety, remove the chips, small pieces, etc. from the table top before operation.
16. Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.
17. Make sure the shaft lock is released before the switch is turned on.
18. Be sure that the blade does not contact the turn base in the lowest position.
19. Hold the handle firmly. Be aware that the saw moves up or down slightly during start-up and stopping.
20. Make sure the blade is not contacting the workpiece before the switch is turned on.
21. 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.
22. Wait until the blade attains full speed before cutting.
23. Stop operation immediately if you notice anything abnormal.
24. Do not attempt to lock the trigger in the on position.
25. Be alert at all times, especially during repetitive, monotonous operations. Do not be lulled into a false sense of security. Blades are extremely unforgiving.
26. Always use accessories recommended in this manual. Use of improper accessories such as abrasive wheels may cause an injury.
27. **Do not use the saw to cut other than wood, aluminum or similar materials.**
28. **Connect miter saws to a dust collecting device when sawing.**
29. **Select saw blades in relation to the material to be cut.**
30. **Take care when slotting.**
31. **Replace the kerf board when worn.**
32. **Do not use saw blades manufactured from high speed steel.**
33. **Some dust created from operation contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:**
    - **lead from lead-based-painted material and,**
    - **arsenic and chromium from chemically-treated lumber.**

    Your risk from these exposures varies, depending on how often you do this type of

work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

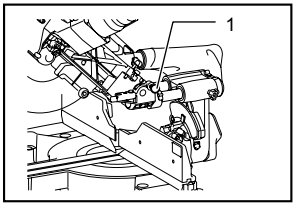
34. **To reduce the emitted noise, always be sure that the blade is sharp and clean.**
35. **The operator is adequately trained in the use, adjustment and operation of the machine.**
36. **Use correctly sharpened saw blades. Observe the maximum speed marked on the saw blade.**
37. **Refrain from removing any cut-offs or other parts of the workpiece from the cutting area whilst the tool is running and the saw head is not in the rest position.**

SAVE THESE INSTRUCTIONS.

INSTALLATION

Bench mounting

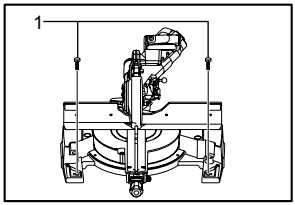
When the tool is shipped, the handle is locked in the lowered position by the stopper pin. Release the stopper pin by lowering the handle slightly and pulling the stopper pin.



1. Stopper pin

009483

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 injury.



1. Hex bolt

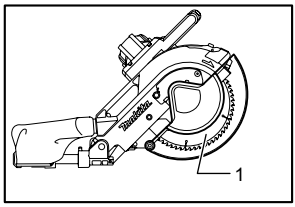
009484

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

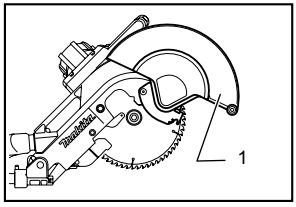
009485

When lowering the handle, the blade guard rises automatically. The blade guard 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 socket wrench to loosen the hex bolt holding the center cover. Loosen the hex bolt by turning it counterclockwise and raise the blade guard and center cover.

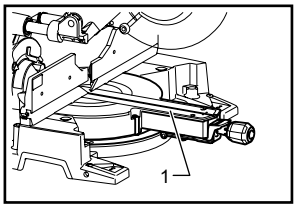


1. Blade guard

009486

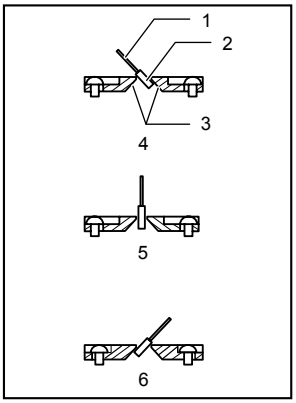
With the blade guard so positioned, cleaning can be more completely and efficiently accomplished. When cleaning is complete, reverse procedure above and secure bolt. Do not remove spring holding blade guard. If guard becomes discolored through age or UV light exposure, contact a Makita service center for a new guard. DO NOT DEFEAT OR REMOVE GUARD.

Positioning kerf board



009488

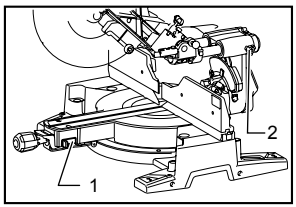
1. Kerf board



001538

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



009496

1. Lock lever
2. Screw

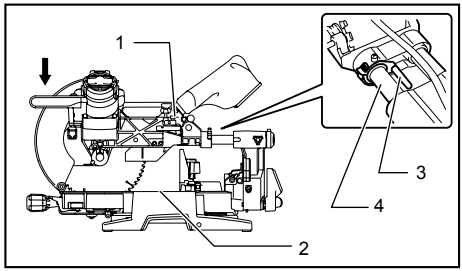
First, unplug the tool. Loosen all the screws (2 each on left and right) securing the kerf boards. Re-tighten them only to the extent that the kerf boards can still be easily moved by hand. Lower the handle fully and push in the stopper pin to lock the handle in the lowered position. Loosen the locking screw counterclockwise which secures the upper slide poles and also push forward the lock lever which secures the lower slide poles. Pull the carriage toward you fully. Adjust the kerf boards so that the kerf boards just contact the sides of the blade teeth. Tighten the front screws (do not tighten firmly). Push the carriage toward the guide fence fully and adjust the kerf boards so that the kerf boards just contact the sides of blade teeth. Tighten the rear 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.

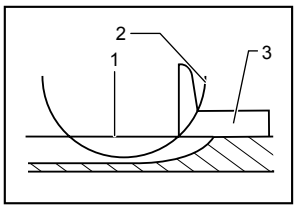
Maintaining maximum cutting capacity

Unplug the tool before any adjustment is attempted. This tool is factory adjusted to provide the maximum cutting capacity for a 260 mm saw blade.
When installing a new blade, always check the lower limit position of the blade and if necessary, adjust it as follows:



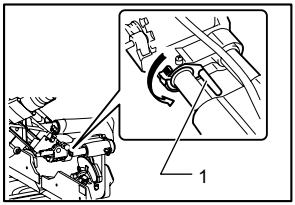
1. Adjusting bolt
2. Turn base
3. Stopper lever
4. Slide pipe

009518



009737

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



1. Stopper lever

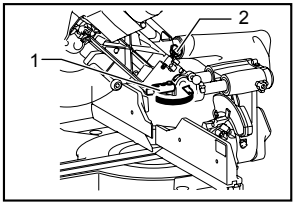
009736

First, unplug the tool. Lower the stopper lever to position the saw blade as shown in the figure. Push the carriage toward the guide fence fully and lower the handle completely. Use the socket 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.
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.
After adjustment, always return the stopper lever to the original position by turning it counterclockwise.

⚠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.

Stopper arm

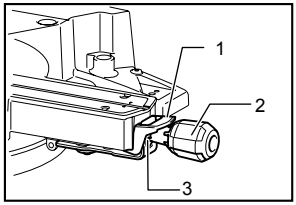


1. Stopper arm
2. Adjusting screw

009487

The lower limit position of the blade can be easily adjusted with the stopper arm. To adjust it, rotate the stopper arm in the direction of the arrow as shown in the figure. Adjust the adjusting screw so that the blade stops at the desired position when lowering the handle fully.

Adjusting the miter angle



1. Lock lever
2. Grip
3. Cam

009517

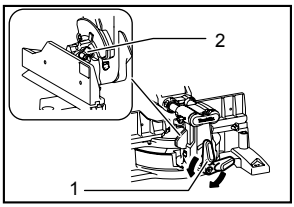
Push the grip so that the cams engages and turn it clockwise until it stops. Turn the turn base while pressing down the lock lever. When you have moved the grip to the position where the pointer points to the desired angle on the miter scale, turn the grip to 90° counterclockwise to lock the turn base.

⚠CAUTION:

- When turning the turn base, be sure to raise the handle fully.
- After changing the miter angle, always secure the turn base by turning the grip to 90° counterclockwise.

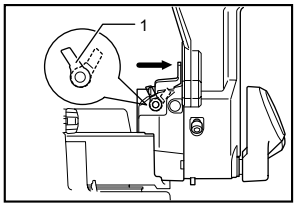
Adjusting the bevel angle

To adjust the bevel angle, loosen the lever at the rear of the tool counterclockwise. Push the latch lever forward as shown in the figure fully while supporting the weight of the saw head so as to release the pressure on the lock pin.
When tilting the carriage to the right, tilt the carriage to the left slightly after loosening the lever and press the releasing button. With the releasing button being pressed, tilt the carriage to the right.



1. Lever
2. Latch lever

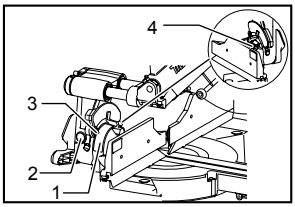
009489



1. Latch lever

010322

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. Scale plate
2. Release button
3. Pointer
4. Latch lever

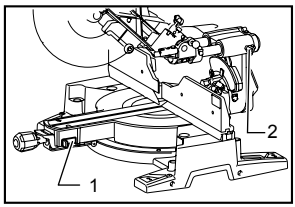
009513

When the latch lever is pulled toward yourself, the saw blade can be locked using positive stops at the right and left 22.5 ° and 33.9 ° angle to the base surface.
When the latch lever is pushed forward as shown in the figure, the saw blade can be locked at an desired angle within the specified bevel angle range.

⚠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.

Slide lock adjustment



1. Lock lever
2. Screw

009496

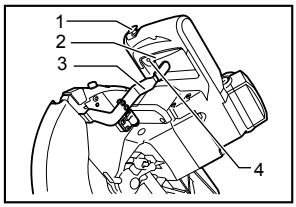
To lock the lower slide pole, pull the lock lever toward yourself.
To lock the upper slide pole, turn the locking screw clockwise.

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.
- Do not pull the switch trigger hard without pressing in the lock-off button. This can cause switch breakage.

For European countries

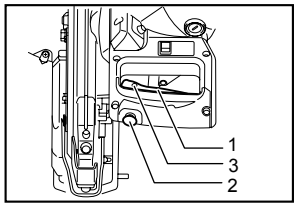


1. Lock-off button
2. Switch trigger
3. Lever
4. Hole for padlock

009886

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

For all countries other than European countries



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

009491

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 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.
- 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.
- For your safety, this tool is equipped with a lock-off button which prevents the tool from unintended starting. NEVER use the tool if it runs when you simply pull the switch trigger without pressing the lock-off button. Return tool to a Makita service center for proper repairs BEFORE further usage.
- NEVER tape down or defeat purpose and function of lock-off button.

Electronic function

Constant speed control

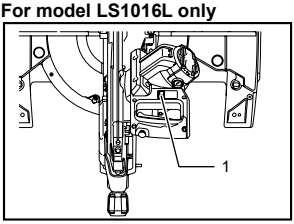
- Possible to get fine finish, because the rotating speed is kept constantly even under the loaded condition.

Soft start feature

- Soft start because of suppressed starting shock.

Laser beam action

For model LS1016L only



009492

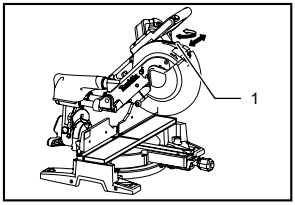
1. Switch for laser

⚠CAUTION:

- Never look into the laser beam. Direct laser beam may injure your eyes.
- LASER RADIATION, DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS, CLASS 2M LASER PRODUCT.

To turn on the laser beam, press the upper position (I) of the switch. Press the lower position (O) to turn off.

Laser line can be shifted to either the left or right side of the saw blade by adjusting the adjusting screw as follows.



009493

1. Adjusting screw

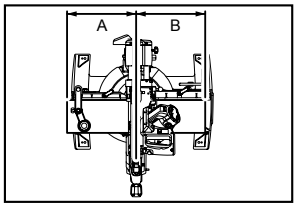
1. Loosen the adjusting screw by turning it counterclockwise.
2. With the adjusting screw loosened, slide the adjusting screw to the right or left as far as it goes.
3. Tighten the adjusting screw firmly at the position where it stops sliding.

Laser line is factory adjusted so that it is positioned within 1 mm from the side surface of the blade (cutting position).

NOTE:

- When laser line is dim and almost or entirely invisible because of the direct sunlight in the indoor or outdoor window-by work, relocate the work area to a place not exposed to the direct sunlight.

Aligning the laser line



009494

Laser line can be shifted to either the left or right side of the blade according to the applications of cutting. Refer to explanation titled "Laser beam action" regarding its shifting method.

NOTE:

- Use wood facing against the guide fence when aligning the cutting line with the laser line at the side of guide fence in compound cutting (bevel angle 45 degrees and miter angle right 45 degrees).

A) When you obtain correct size on the left side of workpiece

- Shift the laser line to the left of the blade.

B) When you obtain correct size on the right side of workpiece

- Shift the laser line to the right of the blade.

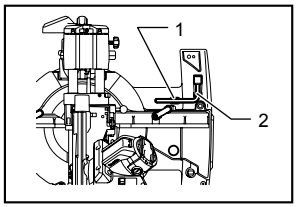
Align the cutting line on your workpiece with the laser line.

ASSEMBLY

⚠CAUTION:

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

Socket wrench storage



009495

1. Wrench holder
2. Socket wrench

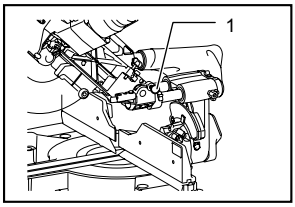
The socket wrench is stored as shown in the figure. When using the socket wrench, pull it out of the wrench holder. After using the socket wrench, return it to the wrench holder.

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 socket wrench provided to install or remove the blade. Failure to do so may result in overtightening or insufficient tightening of the hex bolt. This could cause an injury.

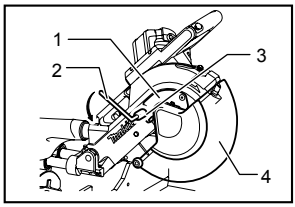
Lock the handle in the raised position by pushing in the stopper pin.



1. Stopper pin

009483

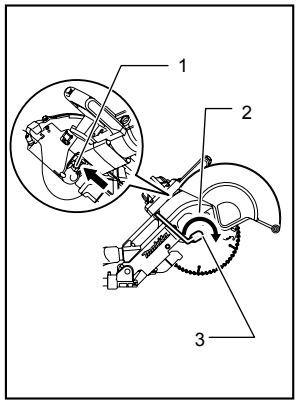
To remove the blade, use the socket wrench to loosen the hex bolt holding the center cover by turning it counterclockwise. Raise the blade guard and center cover.



1. Center cover
2. Socket wrench
3. Hex bolt
4. Blade guard

009497

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



1. Shaft lock
2. Blade case
3. Hex bolt

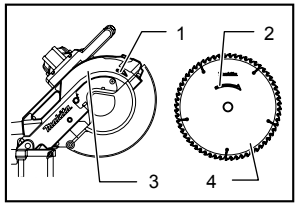
009498

NOTE:

- When inner flange is removed mistakenly, be sure to install it on the spindle with its protrusion facing the spindle.
- Before mounting the blade onto the spindle, always be sure that the correct ring for the arbor hole of the blade you intend to use is installed between the inner and outer flanges.

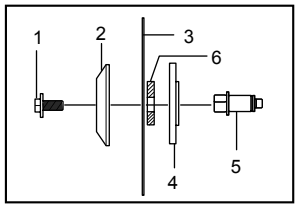
To install the blade, mount it carefully onto the spindle, making sure that the direction of the arrow on the surface of the blade matches the direction of the arrow on the blade case.

Install the outer flange and hex bolt, and then use the socket wrench to tighten the hex bolt (left-handed) securely counterclockwise while pressing the shaft lock.



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

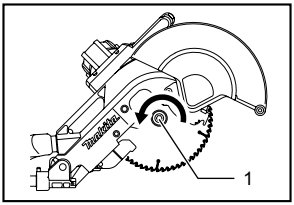
009500



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

009925

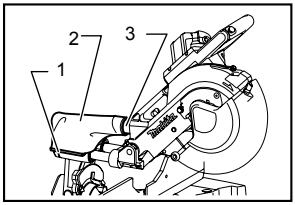
Return the blade guard and center cover to its original position. Then tighten the hex bolt clockwise to secure the center cover. Release the handle from the raised position by pulling the stopper pin. Lower the handle to make sure that the blade guard moves properly. Make sure shaft lock has released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



1. Hex bolt

009524

Dust bag



1. Fastener
2. Dust bag
3. Dust nozzle

009501

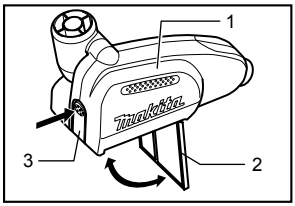
The use of the dust bag makes cutting operations clean and dust collection easy. To attach the dust bag, fit it onto the dust nozzle.

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.

NOTE:

If you connect a vacuum cleaner to your saw, more efficient and cleaner operations can be performed.

Dust box (Optional accessory)



1. Dust box
2. Cover
3. Button

006793

Insert the dust box into the dust nozzle.

Empty the dust box at the earliest possible.

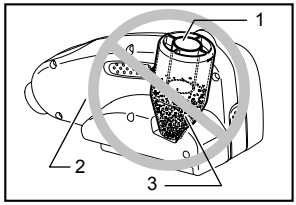
To empty the dust box, open the cover by pushing the button and throw away sawdust. Return the cover to the original position and it locks. Dust box can easily be removed by pulling out while turning it near the dust nozzle on the tool.

NOTE:

- If you connect a Makita vacuum cleaner to this tool, more efficient and cleaner operations can be performed.

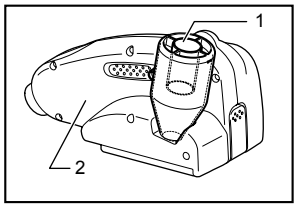
⚠CAUTION:

- Empty the dust box before collected sawdust level reaches the cylinder part.



1. Cylinder part
2. Dust box
3. Sawdust

006792



1. Cylinder part
2. Dust box

006794

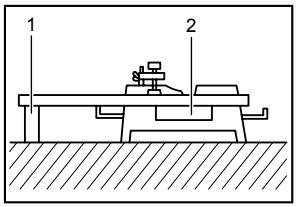
Securing workpiece

⚠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.



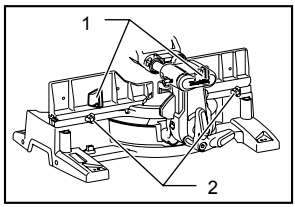
1. Support
2. Turn base

001549

Fence adjustment

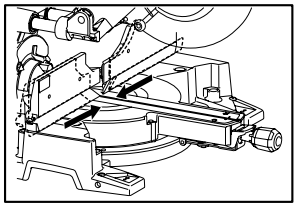
⚠WARNING:

- Before operating the tool, make sure that the upper and lower fences are secured firmly.
- Before bevel-cutting, make sure that no part of the tool contacts the upper and lower fences when lowering the handle fully and pulling or pushing the carriage all the way.



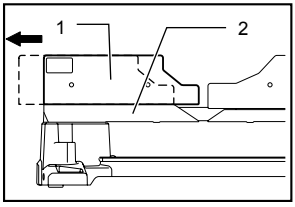
1. Lever
2. Clamping screw

009508



009611

Sliding the fences to inside by loosening the clamping screw only before miter-cutting allows support of workpiece close to the saw blade.



1. Upper fence
2. Lower fence

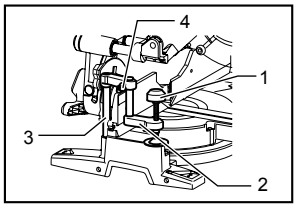
009519

To adjust the fences before bevel-cutting, loosen a lever and slide the upper fence outward. Make a dry run with the saw turned off and check clearance.
Adjust the fence to be as close to the blade as practical to provide maximum workpiece support, without interfering with arm up and down movement. Tighten lever securely. When the bevel operations are complete, don't forget to relocate the fence.

NOTE:

- For easy tightening/loosening, the position of the lever can be changed according to your need by pulling it up.

Vertical vise



1. Vise knob
2. Vise arm
3. Vise rod
4. Screw

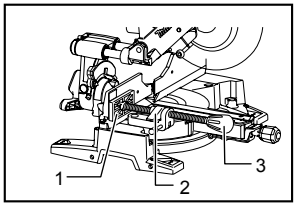
009502

The vertical vise can be installed in two positions on either the left or right side of the base. Insert the vise rod into the hole in the base.
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 carriage, 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 fully and pulling or pushing the carriage 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.
Turning the vise knob to 90° counterclockwise allows the vise knob to be moved up and down, facilitating the quick setting of workpiece. To secure the workpiece after setting, turn it the vise knob clockwise.

⚠CAUTION:

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

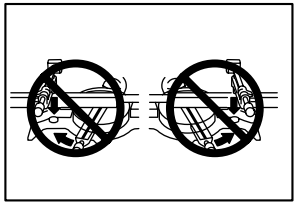
Horizontal vise (optional accessory)



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

009606

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.



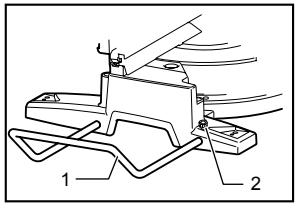
005232

By flipping the vise nut 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 215 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.
- When cutting out thin workpiece, such as base boards, against the fence, always use the horizontal vise.

Holders (Optional accessory)



1. Holder
2. Screw

009607

The holders can be installed on either side as a convenient means of holding workpieces horizontally. Slip the holder rods into the holes in the base and adjust their length according to the workpiece to be held. Then tighten the holders securely with the screws.

⚠CAUTION:

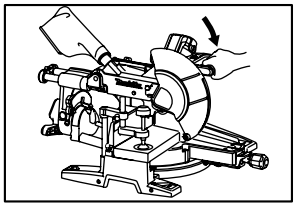
- Always support long workpieces level with the top surface of the turn base for accurate cuts and to prevent dangerous loss of control of the tool.

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.
- During a slide cut, gently push the carriage toward the guide fence without stopping. If the carriage movement is stopped during the cut, a mark will be left in the workpiece and the precision of the cut will be impaired.

1. Press cutting (cutting small workpieces)



009503

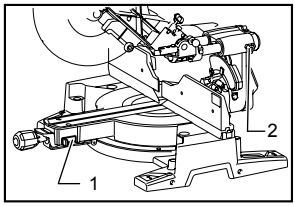
Workpieces up to 68 mm high and 160 mm wide can be cut in the following way.

After turning the stopper lever clockwise and sliding the carriage to your desired position, push the carriage toward the guide fence fully and tighten the locking screw clockwise and pull the lock lever toward yourself to secure the carriage. 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.

⚠CAUTION:

- Firmly tighten the locking screw clockwise and pull the lock lever toward yourself so that the carriage will not move during operation. Insufficient tightening may cause unexpected kickback of the blade. Possible serious PERSONAL INJURY may result.

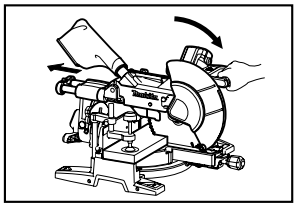
2. Slide (push) cutting (cutting wide workpieces)



1. Lock lever
2. Screw

009496

Loosen the locking screw counterclockwise and also push forward the lock lever so that the carriage can slide freely. Secure the workpiece with the vise.



009504

Pull the carriage toward you fully. Switch on the tool without the blade making any contact and wait until the blade attains full speed. Press down the handle and PUSH THE CARRIAGE TOWARD THE GUIDE FENCE AND THROUGH 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.

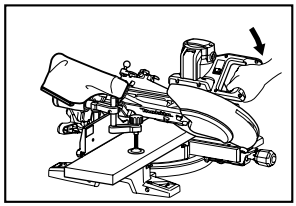
⚠CAUTION:

- Whenever performing the slide cut, FIRST PULL THE CARRIAGE TOWARD YOU FULLY and press down the handle to the fully lowered position, then PUSH THE CARRIAGE TOWARD THE GUIDE FENCE. NEVER START THE CUT WITH THE CARRIAGE NOT FULLY PULLED TOWARD YOU. If you perform the slide cut without pulling the carriage fully or if you perform the slide cut toward your direction, the blade may kickback unexpectedly with the potential to cause serious PERSONAL INJURY.
- Never perform the slide cut with the handle locked in the lowered position by pressing the stopper pin.
- Never loosen the knob which secures the carriage while the blade is rotating. This may cause serious injury.

3. Miter cutting

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

4. Bevel cut



009505

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. Make sure the carriage is pulled all the way back toward the operator. 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 and PUSH THE CARRIAGE TOWARD THE GUIDE FENCE 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.

⚠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 down the handle, apply pressure in parallel with the blade. If a force is applied perpendicularly to the turn base or if the pressure direction is changed during a cut, the precision of the cut will be impaired.
- Always slide or remove the upper fence so that it does not interfere any part of the carriage when performing bevel cuts.

5. 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.

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

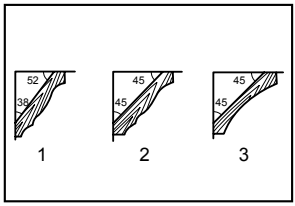
009713

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

6. Cutting crown and cove moldings

Crown and cove moldings can be cut on a compound miter saw with the moldings laid flat on the turn base.

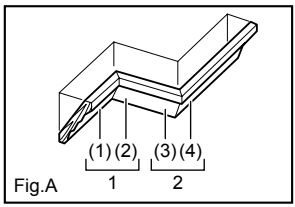
There are two common types of crown moldings and one type of cove moldings; 52/38° wall angle crown molding, 45° wall angle crown molding and 45° wall angle cove molding. See illustrations.



1. 52/38 ° type crown molding
2. 45 ° type crown molding
3. 45 ° type cove molding

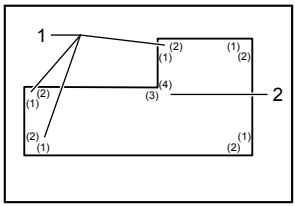
001555

There are crown and cove molding joints which are made to fit "Inside" 90° corners ((1) and (2) in Fig. A) and "Outside" 90° corners ((3) and (4) in Fig. A).



1. Inside corner
2. Outside corner

001556



1. Inside corner
2. Outside corner

001557

Measuring

Measure the wall length and adjust workpiece on table to cut wall contact edge to desired length. Always make sure that cut workpiece length **at the back of the workpiece** is the same as wall length. Adjust cut length for angle of cut. Always use several pieces for test cuts to check the saw angles.

When cutting crown and cove moldings, set the bevel angle and miter angle as indicated in the table (A) and position the moldings on the top surface of the saw base as indicated in the table (B).

In the case of left bevel cut

Table (A)

	Molding position in Fig. A	Bevel angle		Miter angle	
		52/38° type	45° type	52/38° type	45° type
For inside corner	(1)	Left 33.9°	Left 30°	Right 31.6°	Right 35.3°
	(2)			Left 31.6°	Left 35.3°
For outside corner	(3)				
	(4)			Right 31.6°	Right 35.3°

006361

Table (B)

	Molding position in Fig. A	Molding edge against guide fence	Finished piece
For inside corner	(1)	Ceiling contact edge should be against guide fence.	Finished piece will be on the Left side of blade.
	(2)	Wall contact edge should be against guide fence.	
For outside corner	(3)		Finished piece will be on the Right side of blade.
	(4)	Ceiling contact edge should be against guide fence.	

006362

Example:

In the case of cutting 52/38° type crown molding for position (1) in Fig. A:

- Tilt and secure bevel angle setting to 33.9° LEFT.
- Adjust and secure miter angle setting to 31.6° RIGHT.
- Lay crown molding with its broad back (hidden) surface down on the turn base with its CEILING CONTACT EDGE against the guide fence on the saw.
- The finished piece to be used will always be on the LEFT side of the blade after the cut has been made.

In the case of right bevel cut

Table (A)

	Molding position in Fig. A	Bevel angle		Miter angle	
		52/38° type	45° type	52/38° type	45° type
For inside corner	(1)	Right 33.9°	Right 30°	Right 31.6°	Right 35.3°
	(2)			Left 31.6°	Left 35.3°
For outside corner	(3)				
	(4)			Right 31.6°	Right 35.3°

006363

Table (B)

	Molding position in Fig. A	Molding edge against guide fence	Finished piece
For inside corner	(1)	Wall contact edge should be against guide fence.	Finished piece will be on the Right side of blade.
	(2)	Ceiling contact edge should be against guide fence.	
For outside corner	(3)		Finished piece will be on the Left side of blade.
	(4)	Wall contact edge should be against guide fence.	

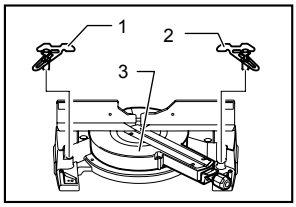
006364

Example:

In the case of cutting 52/38° type crown molding for position (1) in Fig. A:

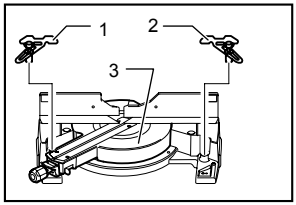
- Tilt and secure bevel angle setting to 33.9° RIGHT.
- Adjust and secure miter angle setting to 31.6° RIGHT.
- Lay crown molding with its broad back (hidden) surface down on the turn base with its WALL CONTACT EDGE against the guide fence on the saw.
- The finished piece to be used will always be on the RIGHT side of the blade after the cut has been made.

Crown molding stoppers (optional accessories) allow easier cuts of crown molding without tilting the saw blade. Install them on the base as shown in the figures.



009521

1. Crown molding stopper L (Optional accessory)
2. Crown molding stopper R (Optional accessory)
3. Turn base

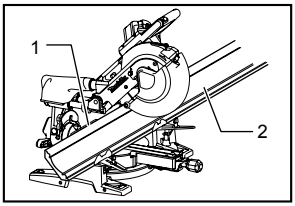


009522

1. Crown molding stopper L
2. Crown molding stopper R
3. Turn base

Fig. B: At right 45° miter angle
Fig. C: At left 45° miter angle

Position crown molding with its WALL CONTACT EDGE against the guide fence and its CEILING CONTACT EDGE against the crown molding stoppers as shown in the figure. Adjust the crown molding stoppers according to the size of the crown molding. Tighten the screws to secure the crown molding stoppers. Refer to the table (C) for the miter angle.



1. Guide fence
2. Crown molding

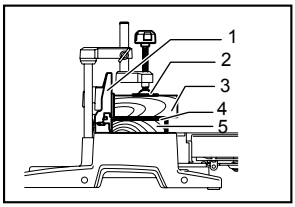
009520

Table (C)

	Position in Fig. A	Miter angle	Finished piece
For inside corner	(1)	Right 45°	Save the right side of blade
	(2)	Left 45°	Save the left side of blade
For outside corner	(3)		Save the right side of blade
	(4)	Right 45°	Save the left side of blade

006365

1. Cutting aluminum extrusion



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

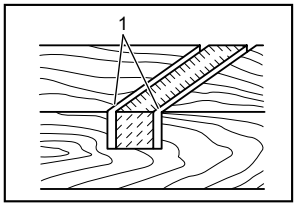
009523

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.

2. Groove cutting



1. Cut grooves with blade

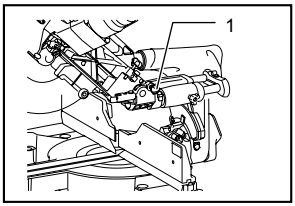
001563

A dado type cut can be made by proceeding as follows:
Adjust the lower limit position of the blade using the adjusting screw and the stopper arm to limit the cutting depth of the blade. Refer to "Stopper arm" section described previously.
After adjusting the lower limit position of the blade, cut parallel grooves across the width of the workpiece using a slide (push) cut as shown in the figure. Then remove the workpiece material between the grooves with a chisel. Do not attempt to perform this type of cut using wide (thick) blades or with a dado blade. Possible loss of control and injury may result.

⚠CAUTION:

- Be sure to return the stopper arm to the original position when performing other than groove cutting.

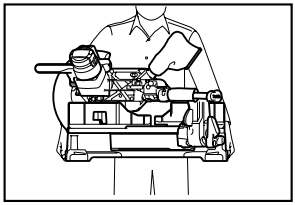
Carrying tool



1. Stopper pin

009483

Make sure that the tool is unplugged. Secure the blade at 0° bevel angle and the turn base at right miter angle fully. Secure the slide poles so that the lower slide pole is locked in the position of the carriage fully pulled to operator and the upper poles are locked in the position of the carriage fully pushed forward to the guide fence (refer to the section titled "Slide lock adjustment ".) 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.



009506

⚠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.

⚠CAUTION:

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

Adjusting the cutting angle

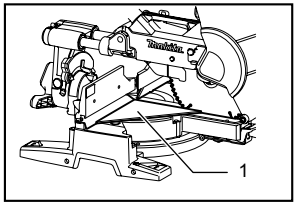
This tool is carefully adjusted and aligned at the factory, but rough handling may have affected the alignment. If your tool is not aligned properly, perform the following:

1. Miter angle

Push the carriage toward the guide fence and tighten the locking screw clockwise and pull the lock lever toward yourself to secure the carriage.

Turn the grip counterclockwise 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 sockets bolts securing the guide fence using the socket wrench.

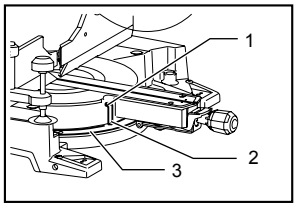
Lower the handle fully and lock it in the lowered position by pushing in the stopper pin. Square the side of the blade with the face of the guide fence using a triangular rule, try-square, etc. Then securely tighten the hex socket bolts on the guide fence in the order from the right side.



009509

1. Triangular rule

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°.



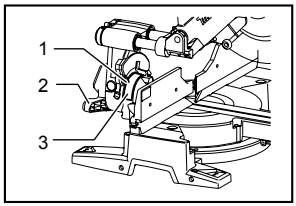
009525

1. Screw
2. Pointer
3. Miter scale

2. Bevel angle

Push the latch lever forward fully to release the positive stops.

(1) 0° bevel angle

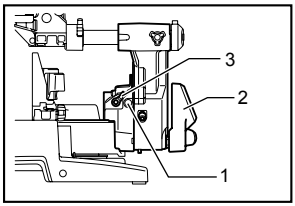


009512

1. Pointer
2. Lever
3. Bevel scale plate

Push the carriage toward the guide fence and tighten the locking screw clockwise and pull the lock lever toward yourself to secure the carriage. 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.

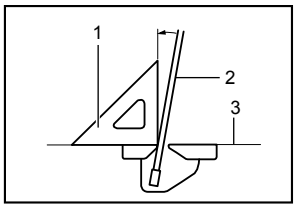
Turn the hex socket bolt on the right side of the arm holder two or three revolutions counterclockwise to tilt the blade to the right.



009511

1. 0˚ Angle adjusting bolt
2. Lever
3. Latch lever

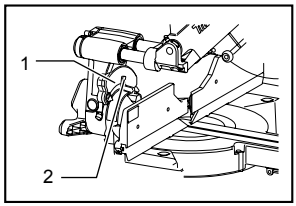
Carefully square the side of the blade with the top surface of the turn base using the triangular rule, try-square, etc. by turning the hex socket bolt on the right side of the arm holder clockwise. Then tighten the lever securely.



001819

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

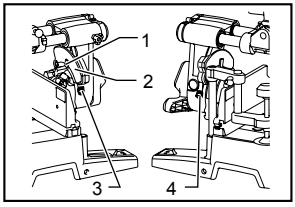
Make sure that the pointers on the arm holder point to 0° on the bevel scale plate on the arm. If they do not point to 0°, loosen the screws which secure the pointers and adjust them so that they will point to 0°.



009490

1. Bevel scale plate
2. Pointer

(2) 45° bevel angle



009608

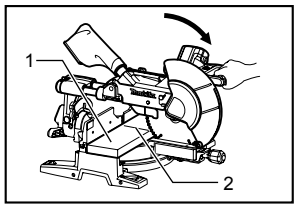
1. Pointer
2. Scale plate
3. Left 45˚ bevel angle adjusting bolt
4. Right 45˚ bevel angle adjusting bolt

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 arm holder points to 45° on the bevel scale on the arm. If the pointer does not point to 45°, turn the left 45° bevel angle adjusting bolt on the side of the arm until the pointer points to 45°.

To adjust right 45° bevel angle, perform the same procedure described above.

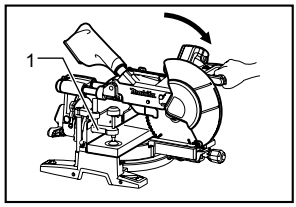
Adjusting the position of laser line

For model LS1016L only



009526

1. Workpiece
2. Laser line



009527

1. Vertical vise

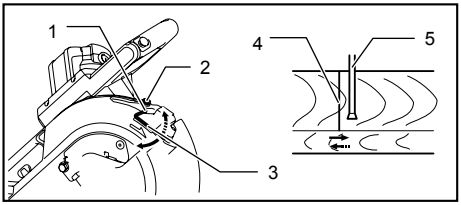
⚠WARNING:

- As the tool is plugged when adjusting the position of laser line, take a full caution especially at switch action. Pulling the switch trigger accidentally cause an accidental start of the tool and personal injury.

⚠CAUTION:

- Never look into the laser beam directly. Direct laser beam causes damage to your eyes.
- LASER RADIATION
  Do not stare into beam.
- Never apply a blow or impact to the tool. A blow or impact causes the incorrect position of laser line, damage to the laser beam emitting part or a short life of the tool.

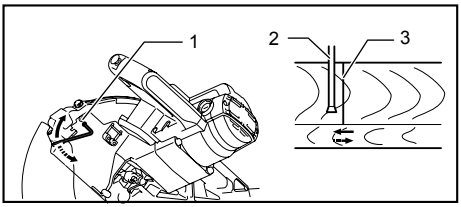
When adjusting the laser line appears on the left side of the saw blade



1. Screw to change the movable range of the adjusting screw
2. Adjusting screw
3. Hex wrench
4. Laser line
5. Saw blade

009514

When adjusting the laser line appears on the right side of the saw blade



1. Adjusting screw
2. Saw blade
3. Laser line

009515

For both adjustments, do as follows.

1. Make sure that the tool is unplugged.
2. Draw the cutting line on the workpiece and place it on the turn table. At this time, do not secure the workpiece with a vise or similar securing device.
3. Lower the blade by lowering the handle and just check to see where the cutting line and the position of the saw blade is. (Decide which position to cut on the line of cut.)
4. After decision the position to be cut, return the handle to the original position. Secure the workpiece with the vertical vise without shifting the workpiece from the pre-checked position.
5. Plug the tool and turn on the laser switch.
6. Adjust the position of laser line as follows.

The position of laser line can be changed as the movable range of the adjusting screw for the laser is changed by turning two screws with a hex wrench. (The movable range of laser line is factory adjusted within 1 mm from the side surface of blade.)

To shift the laser line movable range further away from the side surface of blade, turn the two screws counterclockwise after loosening the adjusting screw. Turn these two screws clockwise to shift it closer to the side surface of the blade after loosening the adjusting screw.

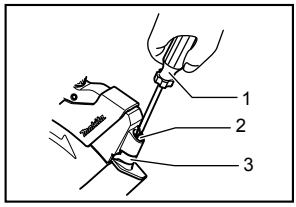
Refer to the section titled "Laser line action" and adjust the adjusting screw so that the cutting line on your workpiece is aligned with the laser line.

NOTE:

- Check the position of laser line regularly for accuracy .
- Have the tool repaired by Makita authorized service center for any failure on the laser unit.

Cleaning of the lens for the laser light

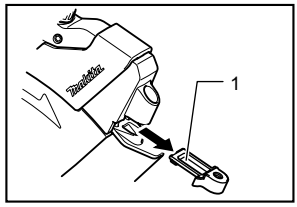
For model LS1016L only



1. Screwdriver
2. Screw (one piece only)
3. Lens for the laser light

009609

If the lens for the laser light becomes dirty, or sawdust adheres to it in such a way that the laser line is no longer easily visible, unplug the saw and remove and clean the lens for the laser light carefully with a damp, soft cloth. Do not use solvents or any petroleum-based cleaners on the lens.



1. Lens for the laser light

009610

To remove the lens for the laser light, remove the saw blade before removing the lens according to the instructions in the section titled "Installing or removing saw blade".

Loosen but do not remove the screw which secures the lens using a screwdriver.

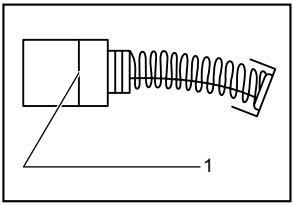
Pull out the lens as shown in the figure.

NOTE:

- If the lens does not come out, loosen the screw further and pull out the lens again without removing

the screw.

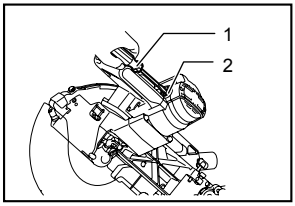
Replacing carbon brushes



1. Limit mark

001145

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.



1. Screwdriver
2. Brush holder cap

009516

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.
After replacing brushes, plug in the tool and break in brushes by running tool with no load for about 10 minutes. Then check the tool while running and electric brake operation when releasing the switch trigger. If electric brake is not working well, ask your local Makita service center for repair.

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.
- When storing the tool, pull the carriage toward you fully so that the slide pole is thoroughly inserted into the turn base.

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.

ACCESSORIES

⚠CAUTION:

- These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

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

- Steel & Carbide-tipped saw blades

Miter saw blades	For smooth and precise cutting in various materials.
Combination	General purpose blade for fast and smooth rip, crosscuts and miters.
Crosscutting	For smoother cross grain cuts. Slices cleanly against the grain.
Fine cross cuts	For sand-free cuts cleanly against the grain.
Non-ferrous metals miter saw blades	For miters in aluminum, copper, brass, tubing, and other non-ferrous metals.

006526

- Vise assembly (Horizontal vise)
- Vertical vise
- Socket wrench 13
- Holder
- Dust bag
- Crown molding stopper set
- Triangular rule
- Dust box
- Hex wrench (for LS1016L)

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