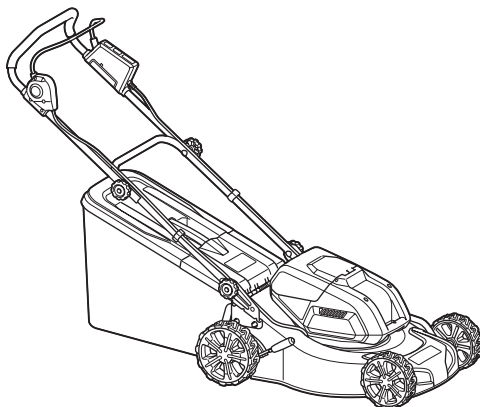


INSTRUCTION MANUAL



Cordless Lawn Mower

DLM460
DLM461



Read before use.

SPECIFICATIONS

Model:		DLM460	DLM461
Mowing width (blade diameter)		460 mm	
No load speed		2,500 min ⁻¹	
Maximum speed		3,300 min ⁻¹	
Part number of replacement mower blade		199367-2	199368-0
Dimensions (L x W x H)	during operation	L: 1,319 mm to 1,518 mm W: 532 mm H: 879 mm to 1,138 mm	
	when stored (without grass basket)	L: 1,004 mm to 1,125 mm W: 532 mm H: 533 mm to 713 mm	
Rated voltage		D.C. 36 V	
Net weight		25.3 - 27.6 kg	26.6 - 28.4 kg
Protection degree		IPX4	

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.
- The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combination, according to EPTA-Procedure 01/2014, are shown in the table.

Applicable battery cartridge

BL1815N / BL1820 / BL1820B / BL1830 / BL1830B / BL1840 / BL1840B / BL1850 / BL1850B / BL1860B

- Some of the battery cartridges listed above may not be available depending on your region of residence.

⚠ WARNING: Only use the battery cartridges listed above. Use of any other battery cartridges may cause injury and/or fire.

Symbols

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

	Take particular care and attention.
	Read instruction manual.
	Danger; be aware of thrown objects.
	The distance between the tool and bystanders must be at least 15 m.
	Never put your hands and feet near the blade under the mower. Blades continue to rotate after the motor is switched off.
	Remove the lock key before inspecting, adjusting, cleaning, servicing, leaving and storing the mower.
	Only for EU countries Do not dispose of electric equipment or battery pack together with household waste material! In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) 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 lawn mowing.

Noise

The typical A-weighted noise level determined according to EN60335-2-77:

Model DLM460

Sound pressure level (L_{pA}) : 79 dB(A)

Sound power level (L_{WA}) : 91 dB (A)

Uncertainty (K) : 3.4 dB(A)

The noise level under working may exceed 80 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 EN60335-2-77:

Model DLM460

Vibration emission (a_h): 2.5 m/s² or less
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).

EC Declaration of Conformity

For European countries only

The EC declaration of conformity is included as Annex A to this instruction manual.

SAFETY WARNINGS

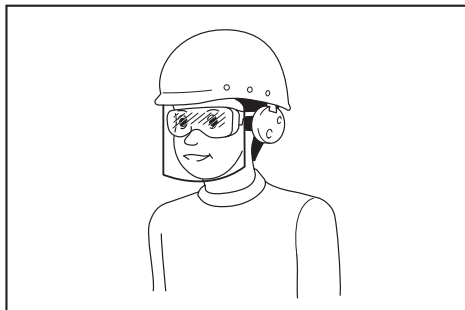
Lawn Mower Safety Instructions

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

Save all warnings and instructions for future reference.

1. Do not insert the lock key into mower until it is ready to be used.
2. Children should be supervised to ensure that they do not play with the mower.
3. Never allow children or people unfamiliar with these instructions to use the mower. Local regulations can restrict the age of the operator.
4. Never operate the mower while people, especially children, or pets are nearby.
5. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
6. While operating the mower, always wear substantial footwear and long trousers. Do not operate the mower when barefoot or wearing open sandals. Avoid wearing clothing or jewelry that is loose fitting or that has hanging cords or ties. They can be caught in moving parts.

7. 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.

8. Operate the mower only in daylight or in good artificial light.
9. Avoid operating the mower in wet grass.
10. Battery tool use and care
 - Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery cartridge may create a risk of fire when used with another battery cartridge.
 - Use power tools only with specifically designated battery cartridges. Use of any other battery cartridges may create a risk of injury and fire.
 - When battery cartridge is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
 - Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
 - Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
 - Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
 - Do not charge battery in rain, or in wet locations.
11. Always keep a firm hold on the handle.
12. Always be sure of your footing on slopes.
13. Walk, never run.
14. Don't grasp the exposed cutting blades or cutting edges when picking up or holding the mower.
15. Physical condition - Do not operate mower while under the influence of drugs, alcohol, or any medication.

16. Keep hands and feet away from rotating blades. Caution - Blades coast after the mower is switched off.
17. Use only the manufacturer genuine blades specified in this manual.
18. Check the blades or blade bolts carefully for cracks or damage before operation. Replace cracked or damaged blades or blade bolts immediately.
19. Be sure the area is clear of other people before mowing. Stop mower if anyone enters the area.
20. Remove foreign matters such as rocks, wire, bottles, bones and large sticks from the work area before mowing to prevent personal injury or damage to the mower.
21. Stop operation immediately if you notice anything unusual. Switch off the mower and remove the key. Then inspect the mower.
22. Never attempt to make cutting height adjustments while mower is running if the mower has cutting height adjustment feature.
23. Release switch lever and wait for blade rotation to stop before crossing driveways, walks, roads, and any gravel-covered areas. Also remove the lock key if you leave the mower, reach to pick up or remove something out of your way, or for any other reason that may distract you from what you are doing.
24. Objects struck by the mower blade can cause severe injuries to persons. The lawn should always be carefully examined and cleared of all objects prior to each mowing.
25. If the mower strikes a foreign object, follow these steps:
 - Stop the mower, release the switch lever and wait until the blade comes to a complete stop.
 - Remove the lock key and the battery cartridge.
 - Thoroughly inspect the mower for any damage.
 - Replace the blade if it is damaged in any way. Repair any damage before restarting and continuing to operate the mower.
26. Check the grass basket frequently for wear or deterioration. For storage, always make sure the grass basket is empty. Replace a worn grass basket with a new factory replacement for safety.
27. Use extreme caution when reversing or pulling the mower towards you.
28. Stop the blade(s) if the mower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the mower to and from the area to be used.
29. Never operate the mower with defective guards or shields, or without safety devices, for example deflectors and/or grass basket, in place.
30. Switch on the mower carefully according to instructions and with feet well away from the blade(s).
31. Do not tilt the mower when switching on the motor, except if the mower has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part, which is away from the operator.
32. Do not start the mower when standing in front of the discharge opening.
33. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
34. Do not transport the mower while the mower is turned on.
35. Stop the mower, and remove the disabling device. Make sure that all moving parts have come to a complete stop
 - whenever you leave the mower,
 - before clearing blockages or unclogging chute,
 - before checking, cleaning or working on the mower,
 - after striking a foreign object. Repair the mower for damage and make repairs before restarting and operating the mower.
36. If the mower starts to vibrate abnormally (check immediately)
 - inspect for damage,
 - replace or repair any damaged parts,
 - check for and tighten any loose parts.
37. Be careful during adjustment of the mower to prevent entrapment of the fingers between moving blades and fixed parts of the mower.
38. Mow across the face of slopes, never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
39. Check the blade mounting bolt at frequent intervals for proper tightness.
40. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
41. Always allow the mower to cool down before storing.
42. When servicing the blades be aware that, even though the power source is switched off, the blades can still be moved.
43. Replace worn or damaged parts for safety. Use only genuine replacement parts and accessories.
44. Do not use the machine when there is a risk of lightning.
45. When you use the machine on muddy ground, wet slope, or slippery place, pay attention to your footing.
46. Avoid working in poor environment where increased user fatigue is expected.
47. Do not use the machine in bad weather where visibility is limited. Failure to do so may cause fall or incorrect operation due to low visibility.
48. Do not replace the battery in the rain.
49. Do not submerge the machine into a puddle.
50. Do not leave the machine unattended outdoors in the rain.
51. Do not insert or remove the lock key in the rain.
52. When wet leaves or dirt adhere to the suction mouth (ventilation window) due to rain, remove them.
53. Do not wash the machine with high pressure water.

54. When washing the machine, be sure to remove the battery and lock key and close the battery cover, and pour water toward the bottom of the machine to which the blade is attached.
55. When storing the machine, avoid direct sunlight and rain, and store it in a place where it does not get hot or humid.
56. Perform inspection or maintenance in a place where rain can be avoided.
57. After using the machine, remove the adhered dirt and dry the machine completely before storing. Depending on the season or the area, there is a risk of malfunction due to freezing.
58. Do not wet the terminal of battery with liquid such as water, or submerge the battery. Do not leave the battery in the rain, nor charge, use, or store the battery in a damp or wet place. If the terminal gets wet or liquid enters inside of battery, the battery may be short circuited and there is a risk of overheat, fire, or explosion.
59. After removing the battery from the machine or charger, be sure to attach the battery cover to the battery and store it in a dry place.
60. Do not replace the battery with wet hands.
61. Do not use the machine in the snow.
62. If the cut-off grass is wet, it is likely to be clogged inside of the machine. Check the condition of the machine regularly, and remove the adhered grass as necessary.

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.

Important safety instructions for battery cartridge

1. Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
2. Do not disassemble battery cartridge.
3. If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
4. If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.
5. Do not short the battery cartridge:
 - (1) Do not touch the terminals with any conductive material.
 - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
 - (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.

6. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).
7. Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
8. Be careful not to drop or strike battery.
9. Do not use a damaged battery.
10. The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.

Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.
11. Follow your local regulations relating to disposal of battery.
12. Use the batteries only with the products specified by Makita. Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.

SAVE THESE INSTRUCTIONS.

⚠CAUTION: Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

Tips for maintaining maximum battery life

1. Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
2. Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
3. Charge the battery cartridge with room temperature at 10 °C - 40 °C (50 °F - 104 °F). Let a hot battery cartridge cool down before charging it.
4. Charge the battery cartridge if you do not use it for a long period (more than six months).

ASSEMBLY

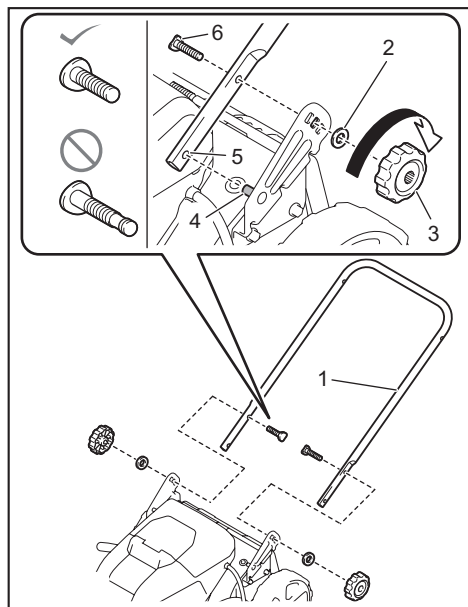
⚠ WARNING: Always be sure that the lock key and battery cartridge are removed before carrying out any work on the mower. Failure to remove the lock key and the battery cartridge may result in serious personal injury from accidental start-up.

⚠ WARNING: Never start the mower unless it is completely assembled. Operation of the tools in a partially assembled state may result in serious personal injury from accidental start-up.

Installing the handle

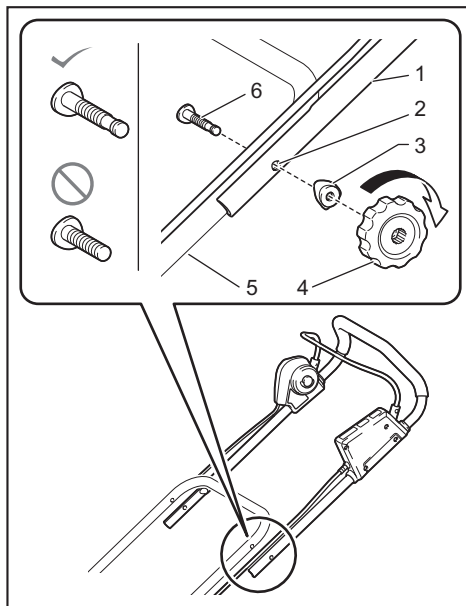
NOTICE: When installing handles, position the cords so that they are not caught by anything between the handles. If the cord is damaged, the mower switch may not work.

1. Attach the lower handle so that the holes in the handle fit in the protrusions on the mower body. Insert the bolts from inside, then attach washer A from outside, and then tighten the thumb nuts.



- 1. Lower handle 2. Washer A 3. Thumb nut
4. Protrusion 5. Hole 6. Bolt

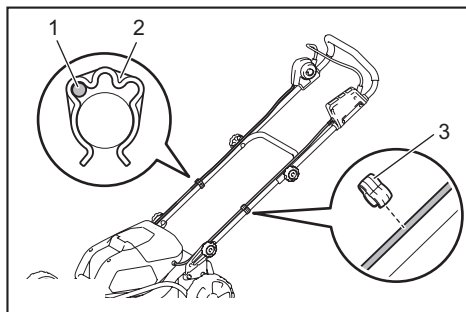
2. Align the hole in the lower handle with the hole in the upper handle, then insert the bolts from inside, then attach washer B from outside, and then tighten the thumb nuts.



- 1. Upper handle 2. Hole 3. Washer B 4. Thumb nut
5. Lower handle 6. Bolt

⚠ CAUTION: Hold the upper handle firmly so that it does not drop off your hand. Otherwise, the handle may fall and cause an injury.

3. Attach holder A and holder B to the handle. Position the cords as shown in the figure.



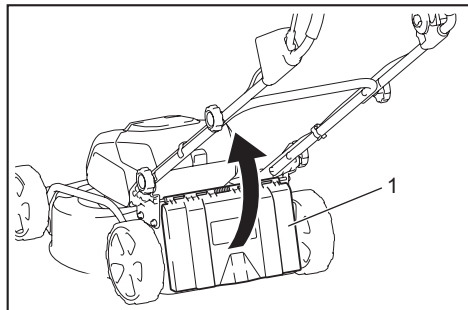
- 1. Cord 2. Holder A 3. Holder B

NOTE: When attaching holder A, be sure to fix the cord with the holder as shown in the figure.

Removing the mulching attachment

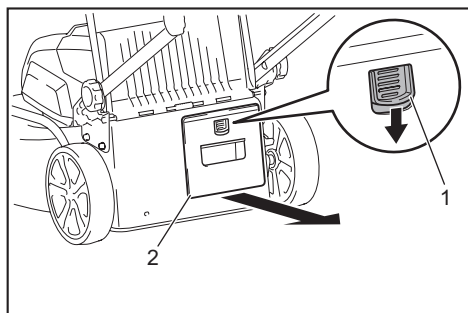
For DLM460

1. Open the rear cover.



- 1. Rear cover

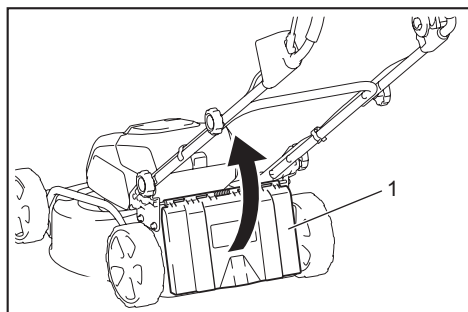
2. Remove the mulching attachment while holding down the lever.



- 1. Lever 2. Mulching attachment

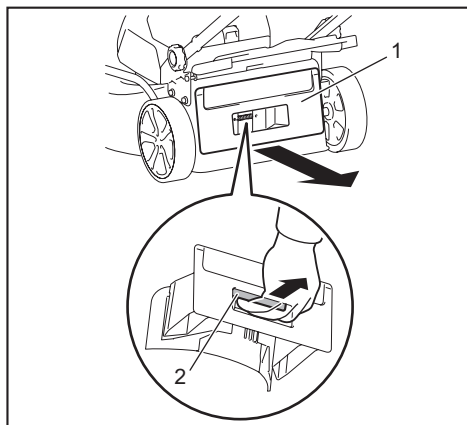
For DLM461

1. Open the rear cover.



- 1. Rear cover

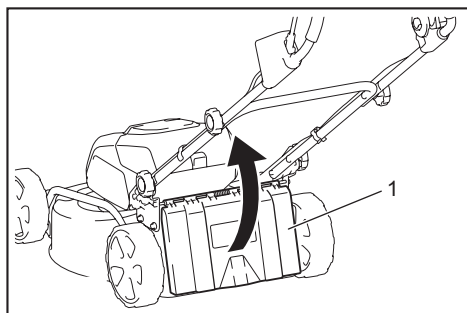
2. Remove the mulching attachment while pulling the lever.



- 1. Mulching attachment 2. Lever

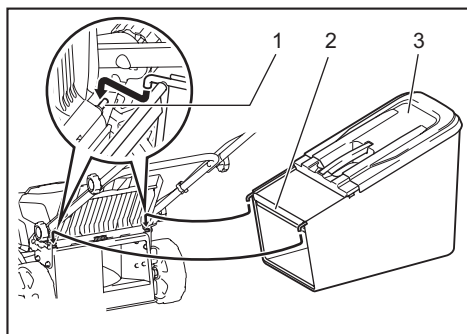
Installing the grass basket

1. Open the rear cover.



- 1. Rear cover

2. Hook the grass basket on the rod of the mower body as shown in the figure.



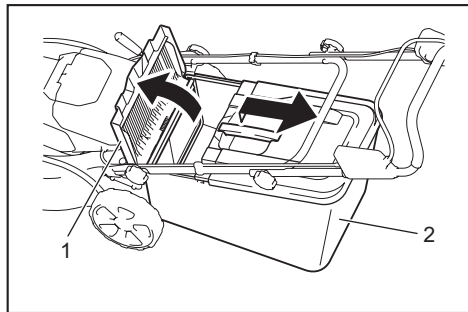
- 1. Rod 2. Guard 3. Grass basket

NOTICE: Make sure that the guard on the grass basket is facing downward. Otherwise, the grass basket may not catch all of cut-off grass.

Attaching the mulching attachment

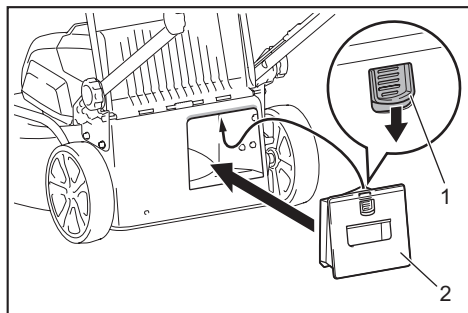
For DLM460

1. Open the rear cover, and then remove the grass basket.



► 1. Rear cover 2. Grass basket

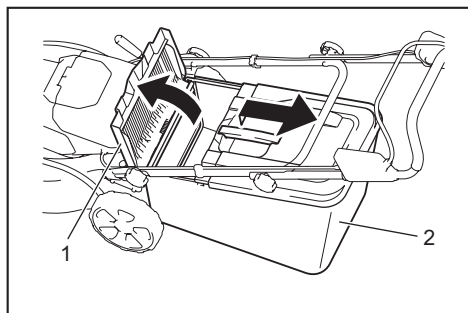
2. Attach the mulching attachment while holding down the lever, and then release the lever to lock the mulching attachment.



► 1. Lever 2. Mulching attachment

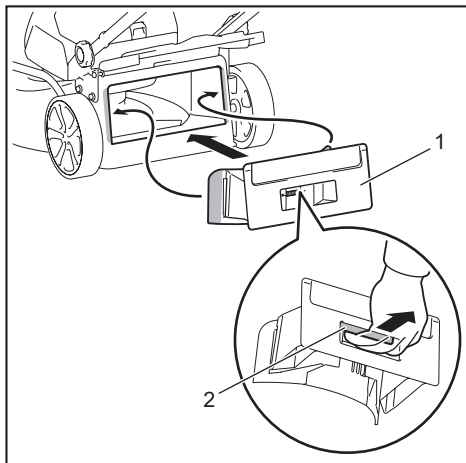
For DLM461

1. Open the rear cover, and then remove the grass basket.



► 1. Rear cover 2. Grass basket

2. Attach the mulching attachment while pulling the lever, and then release the lever to lock the mulching attachment.



► 1. Mulching attachment 2. Lever

FUNCTIONAL DESCRIPTION

Installing or removing battery cartridge

CAUTION: Always switch off the tool before installing or removing of the battery cartridge.

CAUTION: Hold the tool and the battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

CAUTION: Make sure that you lock the battery cover before use. Otherwise, mud, dirt, or water may cause damage to the product or the battery cartridge.

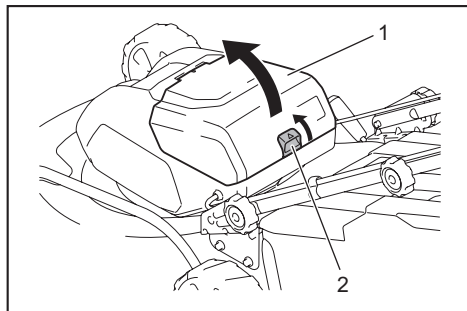
CAUTION: Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

CAUTION: Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

NOTE: The tool does not work with only one battery cartridge.

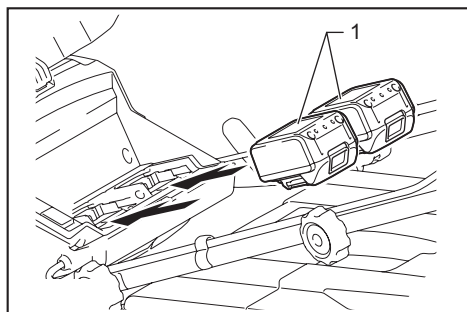
To install the battery cartridge;

1. Pull up the locking lever, and then open the battery cover.



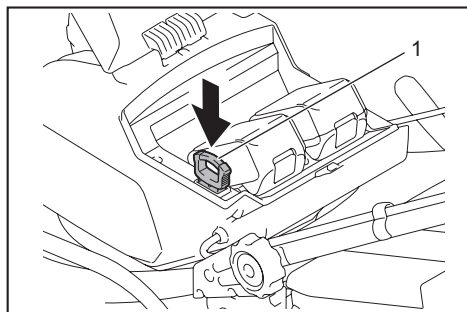
► 1. Battery cover 2. Locking lever

2. Align the tongue on the battery cartridge with the slot on the mower then slide the cartridge until it locks in place with a little click.



► 1. Battery cartridge

3. Insert the lock key in the place shown in the figure as far as it will go.



► 1. Lock key

4. Close the battery cover and push it until it is latched with the locking lever.

To remove the battery cartridge from the mower;

1. Pull up the battery cover locking lever and open the battery cover.
2. Pull out the battery cartridge from the mower while sliding the button on the front of the cartridge.
3. Pull out the lock key.
4. Close the battery cover.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload protection

When the battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops and the main power lamp blinks in green. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat protection

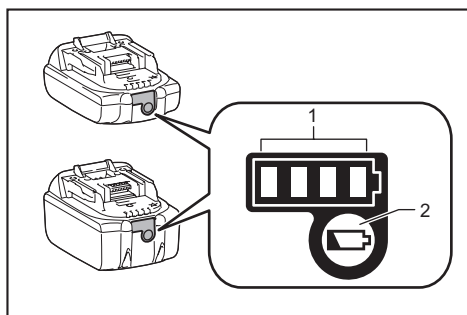
When the tool or battery is overheated, the tool stops automatically and the main power lamp lights up in red. In this case, let the tool and battery cool before turning the tool on again.

Overdischarge protection

When the battery capacity is not enough, the tool stops automatically and the main power lamp blinks in red. In this case, remove the battery from the tool and charge the battery cartridges or change the battery cartridges to fully charged ones.

Indicating the remaining battery capacity

Only for battery cartridges with the indicator



► 1. Indicator lamps 2. Check button

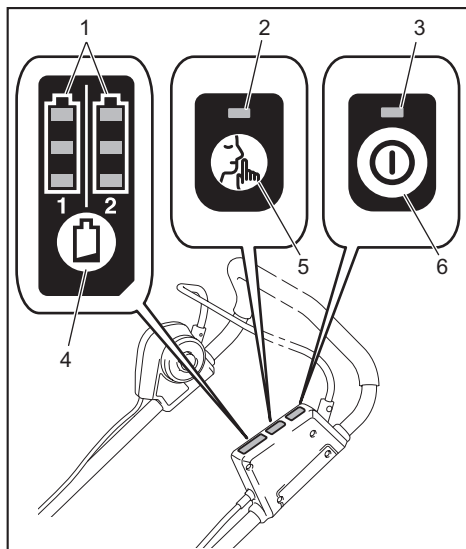
Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

Indicator lamps			Remaining capacity
Lighted	Off	Blinking	
■	□	▧	75% to 100%
■ ■ ■ ■			
■ ■ ■ ■	□		50% to 75%
■ ■ ■ ■	□ □		25% to 50%
■ ■ ■ ■	□ □ □ □		0% to 25%
▧ □ □ □	□ □ □ □		Charge the battery.
■ ■ □ □	□ □ □ □		The battery may have malfunctioned.
□ □ ■ ■	□ □ □ □	↑ ↓	

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Control panel

The control panel has the main power switch, the mode switching button, and the indicator of remaining battery capacity.



- 1. Battery indicator 2. Mode switching lamp 3. Main power lamp 4. Check button 5. Mode switching button 6. Main power switch

Main power switch

⚠ WARNING: Always turn off the main power switch when not in use.

To turn on the machine, press the main power switch. The main power lamp lights up in green. To turn off the machine, press the main power switch again.

NOTE: If the main power lamp lights up in red or blinks in red or green, refer to the instructions for tool/battery protection system.

NOTE: This machine employs the auto power-off function. To avoid unintentional start up, the main power switch will automatically shut down when the switch lever is not pulled for a certain period after the main power switch is turned on.

Mode switching button

You can switch the operating mode by pressing the mode switching button. When the machine is turned on, the machine starts up in the normal mode. When you press the mode switching button, the machine shifts to the energy-saving mode and the mode switching lamp lights up in green. In the energy-saving mode, you can decrease the noise at mowing. When you press the mode switching button again, the machine returns to the normal mode.

Indicating the remaining battery capacity

Press the check button to indicate the remaining battery capacities. The battery indicators correspond to each battery.

Battery indicator status		Remaining battery capacity
On	Off	
		50% - 100%
		20% - 50%
		0% - 20%

Switch action

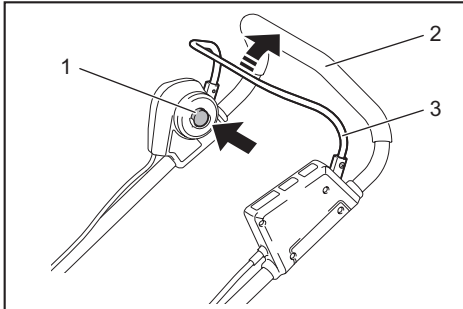
⚠ WARNING: Before installing the battery cartridge, always check to see that the switch lever actuates properly and returns to the original position when released. Operating a tool with a switch that does not actuate properly can lead to loss of control and serious personal injury.

NOTE: The mower does not start without pressing the switch button even the switch lever is pulled.

NOTE: Mower may not start due to the overload when you try to mow long or dense grass at a time. Increase the mowing height in this case.

This mower is equipped with the interlock switch and handle switch. If you notice anything unusual with either of these switches, stop operation immediately and have them checked by your nearest Makita Authorized Service Center.

1. Install the battery cartridges. Insert the lock key into the interlock switch and then close the battery cover.
2. Press the main power switch.
3. Press the switch button and hold it.
4. Grab the upper handle and pull the switch lever.



- 1. Switch button 2. Upper handle 3. Switch lever

NOTE: If the lock key is not inserted, the power lamp blinks in green when you pull the switch lever.

5. Release the switch button as soon as the motor starts running. The mower will continue to run until you release the switch lever.
6. Release the switch lever to stop the motor.

Adjusting the mowing height

⚠ WARNING: Never put your hand or leg under the mower body when adjusting the mowing height.

⚠ WARNING: Always make sure that the lever fits in the groove properly before operation.

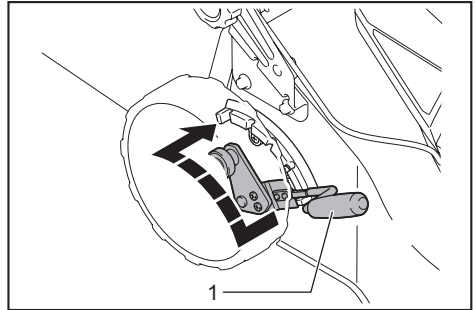
For DLM460

The mowing height can be adjusted in the range of between 20 mm and 75 mm.

For DLM461

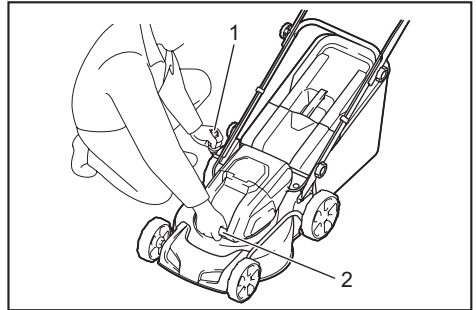
The mowing height can be adjusted in the range of between 16 mm and 71 mm.

Remove the lock key, and then pull the mowing height adjusting lever outward of the mower body and move it to your desired mowing height.



- 1. Mowing height adjusting lever

Hold the front grip with one hand, and then move the mowing height adjusting lever with the other hand.



- 1. Mowing height adjusting lever 2. Front grip

NOTE: The mowing height figures should be used just as a guideline. Depending on the conditions of the lawn or the ground, the actual lawn height may become slightly different from the set height.

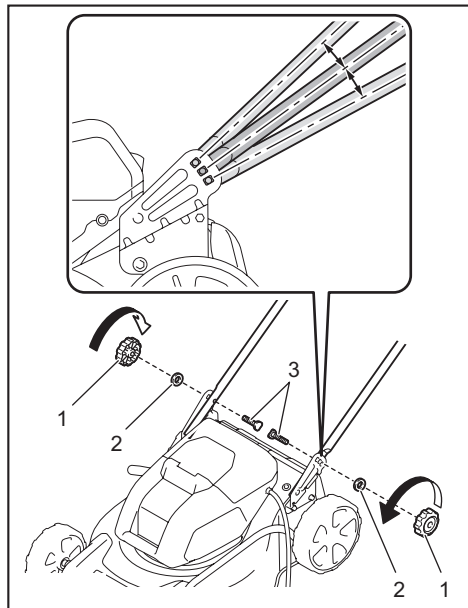
NOTE: Try a test mowing of grass in a less conspicuous place to get your desired height.

Adjusting the handle height

CAUTION: Before removing the bolts, hold the upper handle firmly. Otherwise, the handle may fall and cause an injury.

The handle height can be adjusted in three levels.

1. Loosen the thumb nuts of the lower handle, and then remove the bolts, washer, and thumb nuts.



► 1. Thumb nut 2. Washer 3. Bolt

2. Adjust the handle height.
3. Insert the bolts from inside, then attach washers from outside, and then tighten the thumb nuts.

Using mulching attachment

The mulching attachment allows you to return the cut grass to the ground without gathering the cut grass in the grass basket. When you operate the machine with the mulching attachment, be sure to remove the grass basket.

Electronic function

The machine is equipped with the electronic functions for easy operation.

- Constant speed control
Electronic speed control for obtaining constant speed. Possible to get fine finish, because the rotating speed is kept constant even under load condition.
- Soft start
The soft-start function minimizes start-up shock, and makes the machine start smoothly.

OPERATION

Mowing

WARNING: Before mowing, clear away sticks and stones from mowing area. Furthermore, clear away any weeds from mowing area in advance.

WARNING: Always wear the safety goggles or safety glasses with side shields when operating the mower.

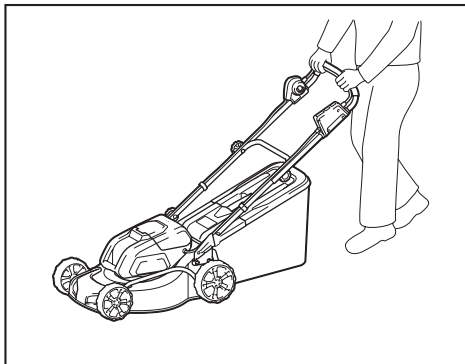
CAUTION: If the cut grass or foreign object blocks up inside of the mower body, be sure to remove the lock key and battery cartridge and wear gloves before removing the grass or foreign object.

NOTICE: Use this machine for mowing lawn only. Do not mow weeds with this machine.

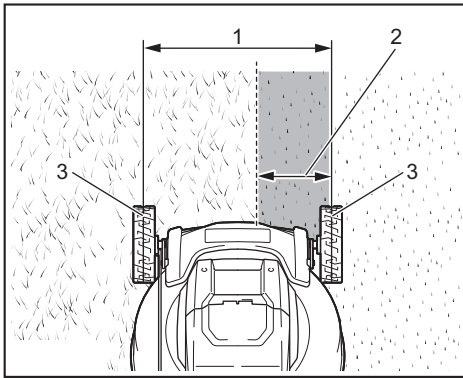


Firmly hold the handle with both hands when mowing.

The mowing speed guideline is approximately 1 meter per 4 seconds.

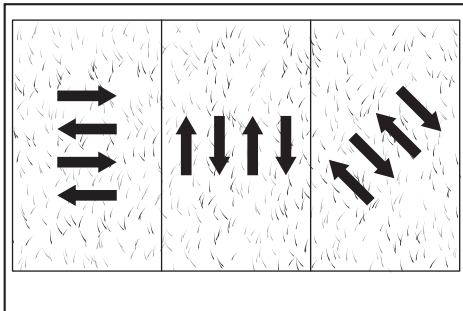


The center lines of the front wheels are guidelines to mowing width. Using the center lines as guidelines, mow in strips. Overlap by one half to one third the previous strip to mow the lawn evenly.



► 1. Mowing width 2. Overlapping area 3. Center line

Change the mowing direction each time to prevent the grass grain pattern from forming in just one direction.

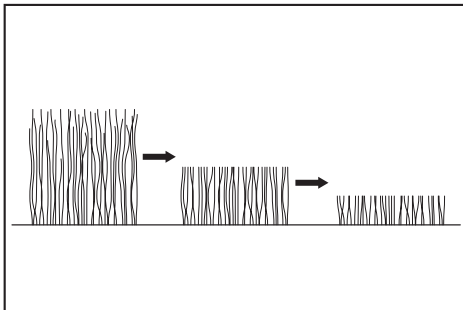


Periodically check the grass basket for mowed grass. Empty the grass before it becomes full. Before every periodical check, be sure to stop the mower then remove the lock key and the battery cartridge.

NOTE: Using the mower with the grass basket full prevents smooth blade rotation and places an extra load on the motor, which may cause breakdown.

Mowing a long-grass lawn

Do not try to cut long grass all at once. Instead, mow the lawn in steps. Leave a day or two between mowings until the lawn becomes evenly short.

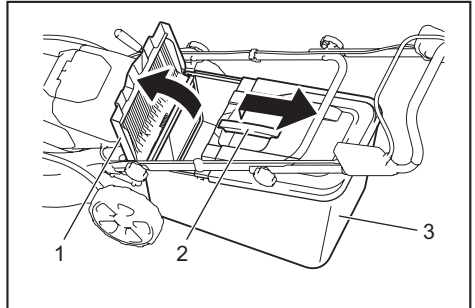


NOTE: Mowing long grass to a short length all at once may cause the grass to die. The cut grass may also block up inside of the mower body.

Emptying the grass basket

⚠WARNING: To reduce a risk of accident, regularly check the grass basket for any damage or weakened strength. Replace the grass basket if necessary.

1. Release the switch lever.
2. Remove the lock key.
3. Open the rear cover and take out the grass basket by holding the handle.



► 1. Rear cover 2. Handle 3. Grass basket

4. Empty the grass basket.

MAINTENANCE

⚠WARNING: Always be sure that the lock key and battery cartridge are removed from the mower before storing or carrying the mower or attempting to perform inspection or maintenance.

⚠WARNING: Always remove the lock key when the mower is not in use. Store the lock key in a safe place out of reach of children.

⚠WARNING: Wear gloves when performing inspection or maintenance.

⚠WARNING: Always wear the safety goggles or safety glasses with side shields when performing inspection or maintenance.

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

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

Maintenance

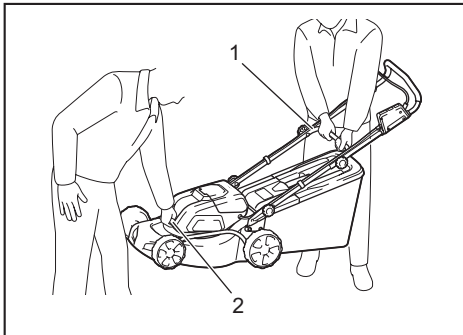
1. Remove the lock key and battery cartridges, and then close the battery cover.
2. Put the mower on its side and clean grass clippings accumulated on the underside of mower deck.
3. Pour water toward the bottom of the machine to which the blade is attached.

NOTICE: Do not wash the machine with high pressure water.

4. Check all nuts, bolts, knobs, screws, fasteners etc. for tightness.
5. Inspect moving parts for damage, breakage, and wear. Damaged or missing parts should be repaired or replaced.
6. Store the mower in a safe place out of the reach of children.

Carrying the mower

When carrying the mower, hold the front grip and lower handle with two people as shown in the figure.

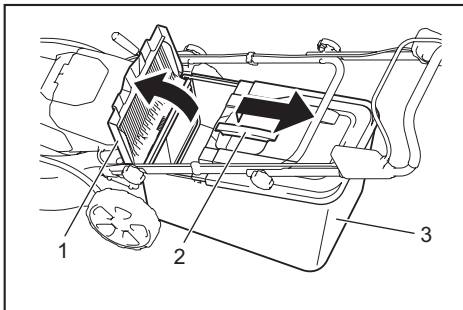


- 1. Lower handle 2. Front grip

Storing

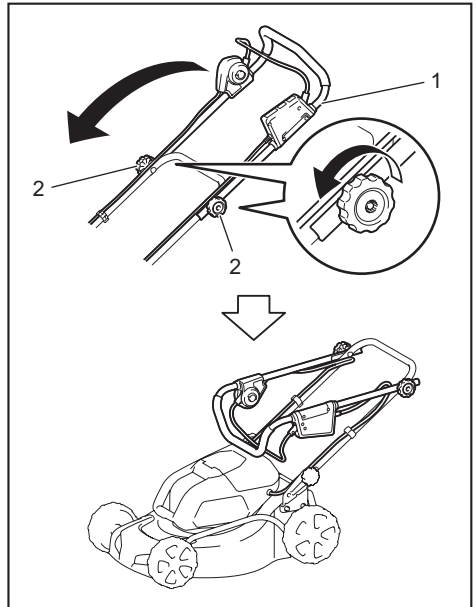
Store mower indoors in a cool, dry and locked place. Don't store the mower and charger in locations where the temperature may reach or exceed 40 °C (104 °F).

1. Open the rear cover and take out the grass basket by holding the handle.



- 1. Rear cover 2. Handle 3. Grass basket

2. Loosen the thumb nuts and fold the upper handle.



- 1. Upper handle 2. Thumb nut

Removing or installing the mower blade

⚠ WARNING: Always remove the lock key and battery cartridge when removing or installing the blade. Failure to remove the lock key and battery cartridge may cause a serious injury.

⚠ WARNING: The blade coasts for a few seconds after releasing the switch. Do not start any operation until the blade comes to a complete stop.

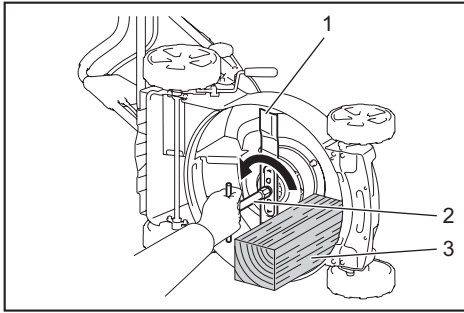
⚠ WARNING: Always wear gloves when handling the blade.

Removing the mower blade

For DLM460

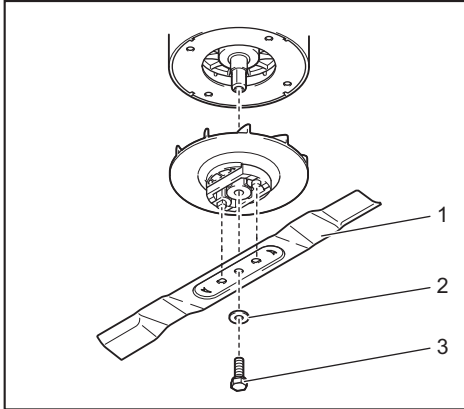
1. Put the mower on its side so that the mowing height adjusting lever comes to the upper side.
2. To lock the blade, insert a lumber or similar into the mower.

3. Turn the bolt counterclockwise with the wrench.



► 1. Mower blade 2. Wrench 3. Lumber

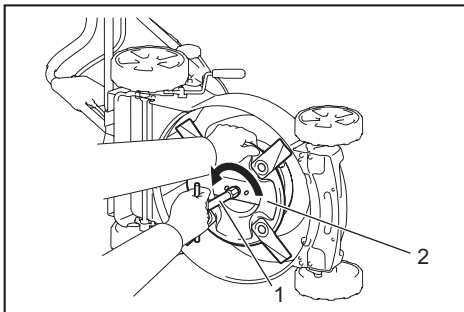
4. Remove the bolt, washer, mower blade in order.



► 1. Mower blade 2. Washer 3. Bolt

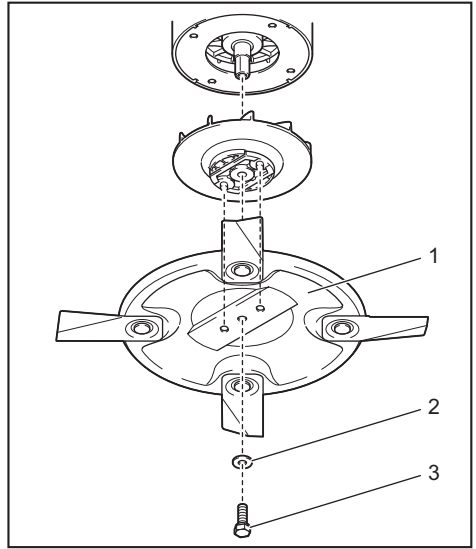
For DLM461

- Put the mower on its side so that the mowing height adjusting lever comes to the upper side.
- Turn the bolt counterclockwise with the wrench while holding the base plate.



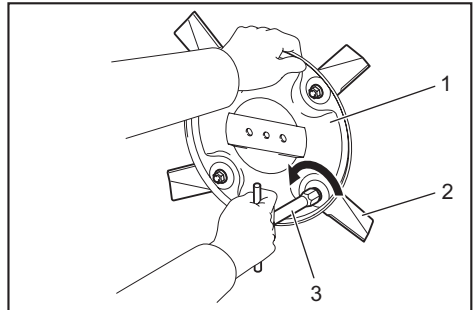
► 1. Wrench 2. Base plate

3. Remove the bolt, washer, base plate in order.



► 1. Base plate 2. Washer 3. Bolt

4. To remove the individual blade, turn the bolt counterclockwise with the wrench while holding the base plate.



► 1. Base plate 2. Mower blade 3. Wrench

Installing the mower blade

To install the mower blade, take the removal procedure in reverse.

⚠WARNING: Install the blade carefully. It has a top/bottom facing. Place the blade so that the rotational direction arrow faces outward.

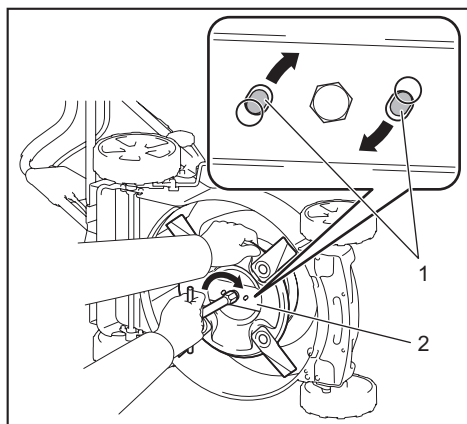
⚠WARNING: Tighten the bolt clockwise firmly to secure the blade.

⚠WARNING: Make sure that the blade and all the fixing parts are installed correctly and tightened securely.

⚠WARNING: When you replace the blades, always follow the instructions provided in this manual.

For DLM461

NOTICE: When installing the mower blade, slide the mower blade as shown in the figure so that the protrusions touch the mower blade.



► 1. Protrusion 2. Mower blade

TROUBLESHOOTING

Before asking for repairs, conduct your own inspection first. If you find a problem that is not explained in the manual, do not attempt to dismantle the tool. Instead, ask Makita Authorized Service Centers, always using Makita replacement parts for repairs.

State of abnormality	Probable cause (malfunction)	Remedy
Mower does not start.	Two battery cartridges are not installed.	Install the charged battery cartridges.
	Battery problem (under voltage)	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
	The lock key is not inserted.	Insert the lock key.
Motor stops running after a little use.	Battery's charge level is low.	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
	Cutting height is too low.	Raise the cutting height.
Motor does not reach maximum RPM.	Battery cartridge is installed improperly.	Install the battery cartridge as described in this manual.
	Battery power is dropping.	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Cutting tool does not rotate: ⇒ stop the mower immediately!	Foreign object such as a branch is jammed near the blade.	Remove the foreign object.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Abnormal vibration: ⇒ stop the mower immediately!	Blade is imbalanced, excessively or unevenly worn.	Replace the blade.

OPTIONAL ACCESSORIES

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

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

- Mower blade
- Makita genuine battery and charger

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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