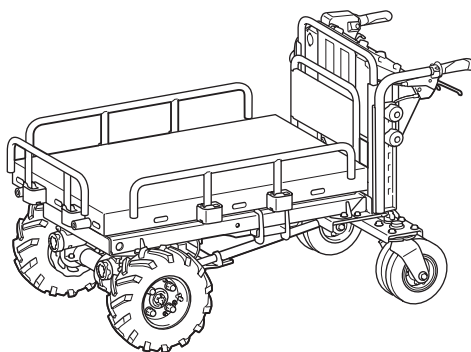


INSTRUCTION MANUAL



Battery Powered Wheelbarrow

DCU601



Read before use.

SPECIFICATIONS

Model:		DCU601
Dimensions (L x W x H) *1		1,400 mm x 730 mm x 820 - 1,030 mm
Traveling speed	Forward	5.0 / 3.5 / 1.5 km/h
	Reverse	1.0 km/h
Maximum load capacity	On flat ground	300 kg
	On slope (3 ° - 12 °)	180 kg
Maximum climbing capacity		12°
Minimum turning radius *2		1,150 mm
Brake		Hand brake and support brake
Tire	Front wheel	Pneumatic tire
	Rear wheel	Pneumatic tire
Rated voltage		D.C. 36 V
Net weight		144 - 145 kg
Protection degree		IPX4

*1. The maximum height when the carrier is lifted is 1,020 mm, requiring a space of 1,260 mm above the machine.

*2. Outer diameter when turning with front wheel as axis.

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

Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820B / BL1830B / BL1840B / BL1850B / BL1860B
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF / DC18SH / DC18WC





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






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

⚠ WARNING: Never use Portable Power Pack PDC1200 or PDC01 with this product. Using them together may cause personal injury or malfunction.

Symbols

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

	Read instruction manual.
	Do not change direction on slopes.
	This machine cannot be used on public roads.
	Do not load or unload objects on slopes.

	Do not use the machine for transporting people.
	Do not lift the carrier on slopes.
	Load objects on the carrier evenly. Do not load objects unevenly or only on front side.
	Pinch and crush hazard. Keep hands clear during operation. Do not put your hands or part of your body into the moving parts.
	Maximum load capacity: 300 kg on flat ground and 180 kg on slopes (up to 12°).



Do not directly look into lamps.



Do not wash the machine with high pressure washer.



Keep bystanders away from the machine during operation.



Do not operate the machine around uneven surfaces.



Do not operate the machine when the carrier is not returned completely.



Always wear non-slip and protective footwear.



Lock the brake before pulling out the neutral change lever.



Lock the brake before returning the neutral change lever.



Air pressure: front tire 280 kPa and rear tire 525 kPa.



When a beep sound is emitted, lock the brake lever.



When you release the switch trigger, lock the brake lever.



To cancel the beep sound, release the switch trigger and pull the brake lever.



Only for EU countries
Due to the presence of hazardous components in the equipment, waste electrical and electronic equipment, accumulators and batteries may have a negative impact on the environment and human health. Do not dispose of electrical and electronic appliances or batteries with household waste!
In accordance with the European Directive on waste electrical and electronic equipment and on accumulators and batteries and waste accumulators and batteries, as well as their adaptation to national law, waste electrical equipment, batteries and accumulators should be stored separately and delivered to a separate collection point for municipal waste, operating in accordance with the regulations on environmental protection. This is indicated by the symbol of the crossed-out wheeled bin placed on the equipment.



Guaranteed sound power level according to EU Outdoor Noise Directive.



Sound power level according to Australia NSW Noise Control Regulation.

Intended use

The machine is intended for loading, carrying, and lifting up objects with battery powered assistance.

Noise

The typical A-weighted noise level determined according to EN62841-1 and EN12053 as applicable:
Sound pressure level (L_{pA}): 70 dB(A) or less
Uncertainty (K): 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 EN62841-1:
Work mode: operation without load
Vibration emission (a_h): 2.5 m/s^2 or less
Uncertainty (K): 1.5 m/s^2

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).

Declarations of Conformity

For European countries only

The Declarations of conformity are included in Annex A to this instruction manual.

SAFETY WARNINGS

General power tool safety warnings

⚠️WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

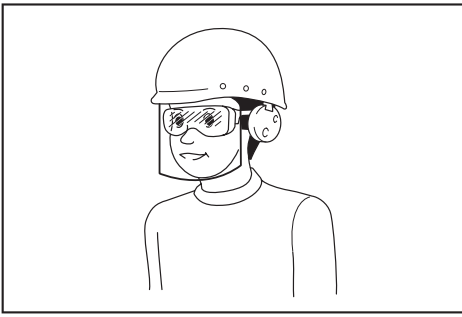
Electrical safety

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
2. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

4. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
5. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
7. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.** However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal safety

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
9. **Always wear protective goggles to protect your eyes from injury when using power tools. The goggles must comply with ANSI Z87.1 in the USA, EN 166 in Europe, or AS/NZS 1336 in Australia/New Zealand. In Australia/New Zealand, it is legally required to wear a face shield to protect your face, too.**



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

Power tool use and care

1. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.

Battery tool use and care

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designed battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When battery pack 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.
4. **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.
5. **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
2. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. **Follow instruction for lubricating and changing accessories.**

Battery powered wheelbarrow safety warnings

1. **While operating the machine, always wear non-slip and protective footwear.** Non-skid, closed-toed safety boots and shoes will reduce the risk of injury.
2. **Inspect pathway before hauling objects/materials.** Familiarizing yourself with the pathway and ensuring it is wide enough to safely navigate the machine under load will help reduce losing control of the machine.
3. **Use extreme caution on slippery, loose and unstable terrain.** Wet and slippery surfaces, such as wet grassy areas, snow or ice, and loose and unstable terrain, such as sand or gravel surfaces, may cause the machine to lose traction and may adversely affect steering, braking and stability.

4. **Do not operate the machine on excessively steep slopes.** This reduces the risk of loss of control, slipping and falling which may result in personal injury. Slopes greater than the maximum recommended grade and side grades may increase the risk of instability and may adversely affect the ability to stop safely.
 5. **When working on slopes, always be sure of your footing, always work across the face of slopes, never up or down, and exercise extreme caution when changing direction.** This reduces the risk of loss of control, slipping and falling which may result in personal injury.
 6. **Whenever possible, use level areas for stopping, loading and unloading and never leave machine unattended on a slope.** The machine is more unstable when resting on a slope than when resting on a level surface.
 7. **When leaving the machine unattended, set parking brake once the machine is located in a safe stopping area.** The parking brake prevents unwanted movement of the front wheel and can improve stability.
 8. **Ensure that ramps are clean, strong and secure.** In order to reduce the risk of injury, all ramps must be clear of loose debris and strong enough to withstand the weight of anticipated loads that will be moved over them. They must have adequate blocking underneath and to both sides to eliminate deflections and side-to-side movement under load. All ramps must be wide enough to have sure footing while hauling loads across them.
 9. **Never operate the machine in an overloaded condition.** Make sure the machine has the proper capacity rating for the objects or materials that have to be hauled. Excessive loads will make the machine more difficult to maneuver and stop, will increase stopping time and distance, and will increase the risk of instability.
 10. **Never operate your machine in an over stacked condition.** Stacking material above the tray rim or over the sides of the tray can cause the machine to be uncontrollably out of balance and control.
 11. **Use containers and tie-downs to secure loads.** Loose and/or insecure loads are more likely to shift which can result in loss of stability and control.
 12. **Always maintain a firm grip on handles.** Loss of control can increase the risk of personal injury.
 13. **Remove safety key when not in use.** The safety key prevents unwanted, powered use of the machine, such as by children or other untrained or unauthorized persons. Without the key, electric power cannot be turned "on".
 14. **This machine cannot be used on public roads.** Use of the wheelbarrow on a public road is unlawful and could result in local jurisdiction penalties in addition it could result in personal injury.
 15. **Use a sturdy plate with anti-slip and detachment prevention function when loading and/or unloading this machine for transportation, or moving this machine between different levels. Make sure the plate inclination does not exceed 12°, and operate the machine slowly and carefully. Unstable and quick operation may result in overturn and/or falling.**
 16. **Do not disassemble, repair, or modify this machine.**
- Preparation**
1. **Before operating the machine, make sure that there are no people around the machine.**
 2. **Before operating the machine, perform the inspections referring to the section for maintenance.**
- Operation**
1. **When operating the machine, stand behind the machine and hold the handles with both hands firmly.**
 2. **Do not operate the machine while riding on the machine.**
 3. **Do not allow others to ride on the machine.**
 4. **When operating the machine in reverse and walking backward, watch behind you and watch your step, and be careful not to slip or trip.**
 5. **Do not use the machine when visibility is poor because there is a risk of striking obstacles.**
 6. **When operating the machine on rough ground or going over the level difference of the road, decrease speed and exercise caution.**
 7. **When using the machine, avoid soft ground to prevent overturn due to the shoulder of the road collapsing.**
 8. **Do not operate the machine on slopes greater than 12°.**
 9. **If you find an abnormality, stop the machine on flat ground. Before inspecting the machine, lock the brake lever, and then turn the power off.**
 10. **When operating the machine near walls, be careful not to get your hands caught between the handle and the wall.**
 11. **Do not use the machine in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.**
 12. **Do not touch the metal parts during use or after use as they may get hot enough to cause burns due to sunlight.**
 13. **Be careful not to entangle the cords with the load or obstacles.**
 14. **When crossing a wooden bridge, etc., make sure that the sum of the weight of product, load capacity, and operator's weight does not exceed the weight limit of the bridge, and cross the bridge carefully at a constant speed.**
 15. **Wear the gloves when operating the machine in low temperature environments.** Touching the metal parts with bare hands may cause your hands to stick.
 16. **If there are people or obstacles in the direction of travel, avoid them in advance.**
 17. **When you use the machine on muddy ground, wet slope, or slippery place, pay attention to your footing.**
 18. **Do not submerge the machine into a puddle.**
 19. **When you leave the machine while working, be sure to completely return the carrier to its original position, and lock the brake lever and remove the lock key.**

20. **Do not leave the machine unattended while objects are loaded on the carrier.**
21. **Do not lift or lower the carrier in windy conditions.** Doing so may make the machine unstable, and it may cause an accident.
22. **Do not lift or lower the carrier in locations where the ceiling is low or where there is an obstruction in the upward direction of the machine.** Doing so may cause an accident.

Operation on slopes

1. **Do not cross on slopes.**
2. **Stop before the downhill, and be sure to decrease speed and exercise caution.**
3. **If the speed is too fast when traveling downhill, the beep sound is emitted. In this case, slow down using the brake.**
4. **Exercise caution when starting or stopping the machine on slopes.**
5. **As the loads become less stable on slopes, firmly secure the loads with ropes.**
6. **As the machine becomes unstable depending on the condition of the road, keep the load to a minimum.**
7. **As the view is obscured on slopes, keep the height of the load to a minimum.**
8. **Never stop the machine on slopes. Stop the machine on flat ground, and lock the brake lever, and then turn the power off.**
9. **Do not change the direction or speed mode on steep slopes.**
10. **Do not release the switch trigger on upward slopes.** The machine may go in reverse and cause an accident.
11. **Make sure that the remaining battery capacity is enough before operating on slopes. If the remaining battery capacity is not enough, charge the battery or replace it with a charged one.**
12. **When starting the machine on slopes, do not place your foot behind the rear wheel since the machine moves back a few centimeters.**

Loading objects

1. **Do not overload objects. When loading objects, be sure to follow the instructions and load limits in the manual.**
2. **Since the larger the load, the more difficult it is to operate the machine, keep the load within the range that does not affect the operation.**
3. **Firmly secure the objects with ropes.**
4. **Load the objects within the carrier.** If the objects protrude from the carrier, there is a risk of accidents due to the objects falling or contact obstacles such as walls.
5. **Be sure that loaded objects are below eye level.** If the load is too high, it is dangerous because the view is obscured. Also, there is a risk of overturning and injury because the load is likely to be unbalanced.
6. **Load the objects on the carrier evenly.** If the objects are loaded unevenly, there is a risk of overturning and injury because the load is likely to be unbalanced.
7. **Be sure to load heavy objects first to keep balance.**

8. **Load and unload objects on flat ground. Never load or unload objects on slope.**

Transportation of machine

1. **Use the ladder rails that are at least 4 times as long as the height of the truck bed, with fixtures suitable for the bed, with a non-slip surface and sufficient width, and capable of withstanding the weight of the machine and operator. Read the instruction manual of the ladder rails carefully before use.**
2. **Before loading the machine, unload all objects from the machine and remove mud and other debris from the tires. Install the ladder rails on a flat and stable surface.**
3. **Before loading or unloading the machine, make sure that there are no people around the machine and the ladder rails. Load or unload the machine at low speed, taking care to prevent the machine from falling off the ladder rails, and not to hit your head on the ceiling of the truck. Use extreme caution when loading or unloading the machine backward.**
4. **When transporting the machine, lock the brake lever, turn the power off, remove the batteries and lock key, and fix the machine securely.**

Maintenance and storage

1. **Before storage or attempting to perform inspections or maintenance, always be sure to stop the machine on flat ground and lock the brake lever, and turn off the machine, and remove the lock key and battery cartridges.**
2. **Do not leave the machine unattended outdoors in the rain.**
3. **When storing the machine, avoid direct sunlight and rain, and store it in a place where it does not get hot or humid.**
4. **This machine is equipped with a hydraulic unit on the underside of the carrier to automatically lift or lower the carrier. Do not modify the hydraulic unit, or do not loosen the mounting bolts of the unit or the adjustment screws of the relief valve. It is very dangerous as it may cause accidents or malfunctions.**

Battery tool use and care

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When battery pack 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.
4. **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.**

5. **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Electrical and battery safety

1. **Do not dispose of the battery(ies) in a fire.**
The cell may explode. Check with local codes for possible special disposal instructions.
2. **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.
3. **Do not charge battery in rain, or in wet locations.**
4. **Do not charge the battery outdoors.**
5. **Do not handle charger, including charger plug, and charger terminals with wet hands.**
6. **Do not replace the battery in the rain.**
7. **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.
8. **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.**
9. **Do not replace the battery with wet hands.**
10. **Avoid dangerous environment. Don't use the machine in damp or wet locations or expose it to rain.** Water entering the machine will increase the risk of electric shock.
11. **If the battery cartridge gets wet, drain the water inside and then wipe it with a dry cloth. Dry the battery cartridge completely in a dry place before use.**

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 or tamper with the battery cartridge.** It may result in a fire, excessive heat, or explosion.
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 and use 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. **Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge.** Such conduct may result in a fire, excessive heat, or explosion.
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. **When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. 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.

13. **If the tool is not used for a long period of time, the battery must be removed from the tool.**
14. **During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.**
15. **Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.**
16. **Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge.** It may cause heating, catching fire, burst and malfunction of the tool or battery cartridge, resulting in burns or personal injury.
17. **Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines.** It may result in a malfunction or breakdown of the tool or battery cartridge.
18. **Keep the battery away from children.**

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. **When not using the battery cartridge, remove it from the tool or the charger.**
5. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

PARTS DESCRIPTION

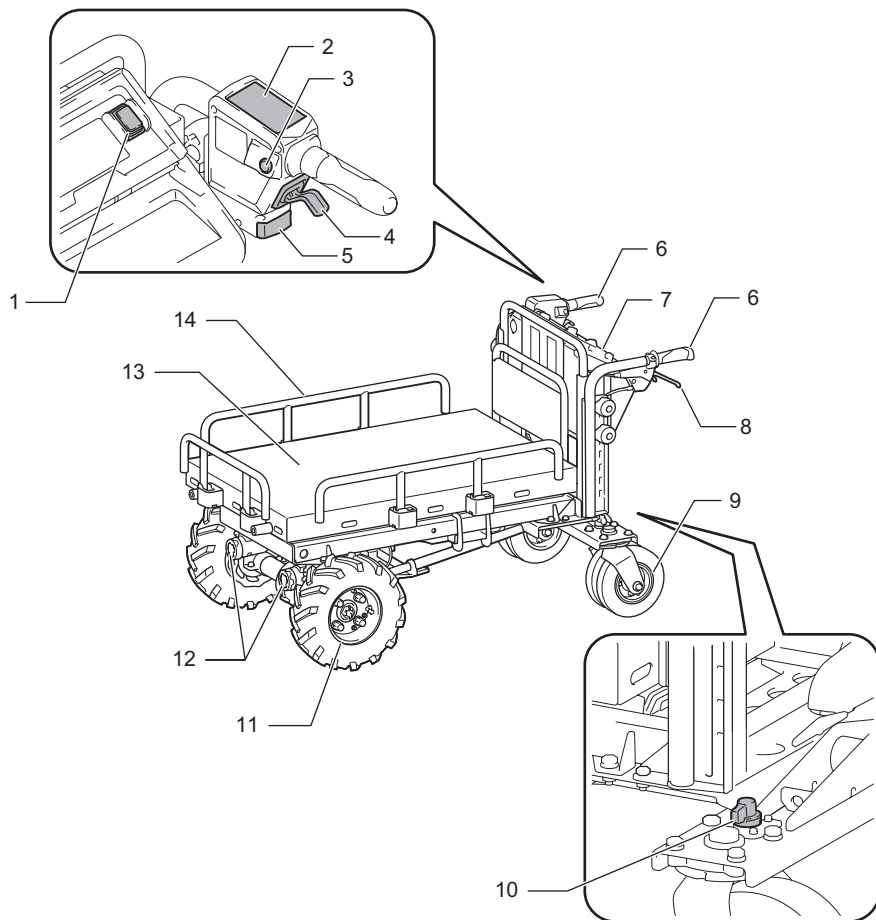


Fig.1

1	Up-and-down switch	2	Control panel	3	Beep button	4	Switch trigger
5	Rear lamp	6	Handle	7	Battery box	8	Brake lever
9	Rear wheel	10	Rear wheel lock	11	Front wheel	12	Front lamp
13	Carrier	14	Guard frame	-	-	-	-

FUNCTIONAL DESCRIPTION

Installing or removing battery cartridge

CAUTION: Always switch off the machine and lock the brake lever before installing or removing of 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 machine, 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.

CAUTION: Do not use the high-temperature battery cartridge. When the high-temperature battery cartridge is used, the machine stops automatically before a short beep sound is emitted, and may cause an injury.

CAUTION: Be careful not to pinch your fingers when opening or closing the battery cover.

NOTICE: Make sure that the cover of the battery box is closed securely before use. Otherwise, mud, dirt, or water may cause damage to the product or the battery cartridge.

Installing the battery cartridge

1. Pull up the lock lever, and then open the cover of the battery box.

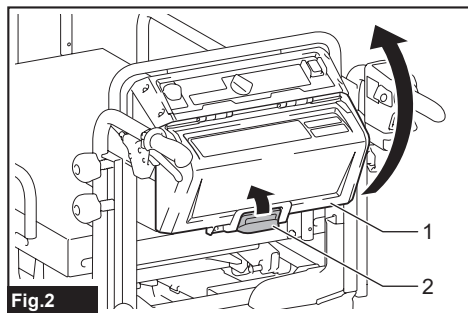


Fig.2

- 1. Cover 2. Lock lever

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

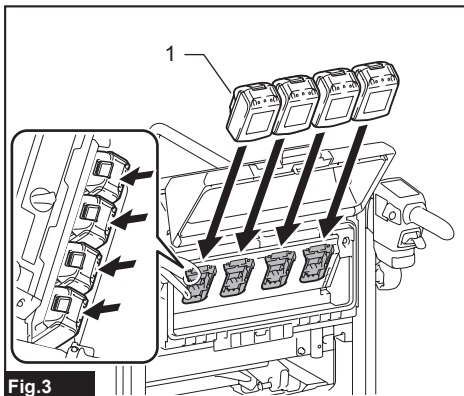


Fig.3

- 1. Battery cartridge

3. Insert the lock key in the place shown in the figure as far as it will go, and turn it clockwise.

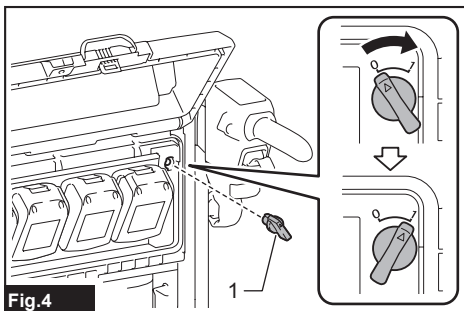


Fig.4

- 1. Lock key

NOTE: To turn the lock key, insert the lock key completely.

4. Close the cover of the battery box.

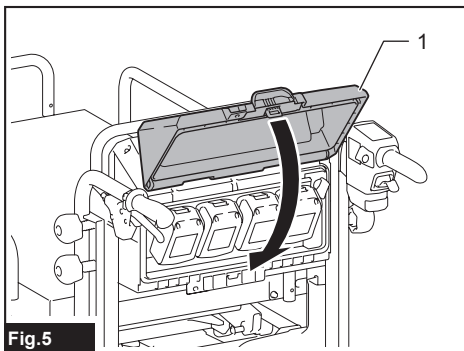


Fig.5

- 1. Cover

Removing the battery cartridge

1. Pull up the lock lever, and then open the cover of the battery box.
2. Pull out the battery cartridge from the battery box while sliding the button on the front of the cartridge.

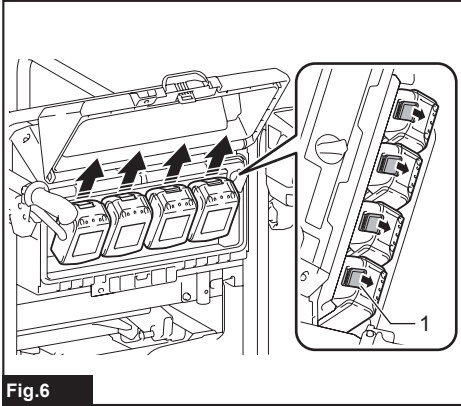


Fig.6

- 1. Button
3. Turn the lock key counterclockwise, and pull it out.
 4. Close the cover of the battery box.

Machine / battery protection system

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

A short beep sound or long beep sound is emitted before the machine stops automatically. The battery indicators and lamps on the control panel blink while the beep sound is emitted.

NOTE: To cancel the beep sound, release the switch trigger and pull the brake lever.

Overload protection

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

Overheat protection

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

Overdischarge protection

When the battery capacity is not enough, the main power lamp and the corresponding battery indicator blinks in red. In this case, switch the battery cartridges, or change the battery cartridges to fully charged ones, or remove the battery cartridges from the machine and charge them.

NOTE: The main power lamp blinks in red when the battery is overheated.

Protections against other causes

NOTICE: The main power lamp blinks in green and red alternately when the abnormality occurs in the machine. In this case, refer to the section for troubleshooting.

Protection system is also designed for other causes that could damage the machine and allows the machine to stop automatically. Take all the following steps to clear the causes, when the machine has been brought to a temporary halt or stop in operation.

1. Turn the machine off, and then turn it on again to restart.
2. Charge the battery(ies) or replace it/them with recharged battery(ies).
3. Let the machine and battery(ies) cool down.

NOTICE: If no improvement can be found or the machine stops due to a cause not described above, refer to the section for troubleshooting.

Indicating the remaining battery capacity

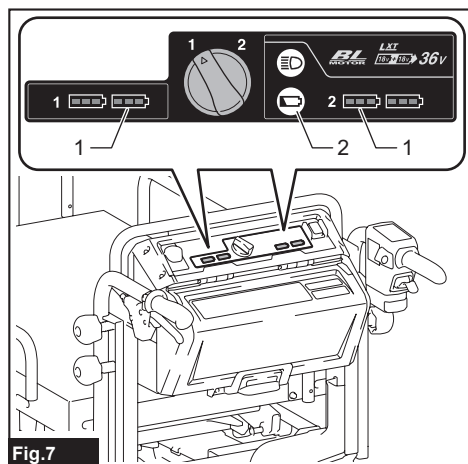
CAUTION: Before checking the remaining battery capacities or switching the battery cartridges, be sure to stop the machine.

CAUTION: When the battery capacity becomes low, a short beep sound is emitted. In this case, lock the brake lever, and then switch the battery cartridges to charged ones or charge the battery cartridges. If you continue to operate the machine at low battery capacity and the remaining battery capacity runs out, a long beep sound is emitted and the machine automatically stops and this may cause an accident or injury.

CAUTION: If the beep sound is emitted while operating on slopes, move the machine to a safe place, lock the brake lever, and then switch the battery cartridges to charged ones or charge the battery cartridges.

CAUTION: If the load is large and the beep sound is emitted while operating on slopes, lock the brake lever and pay attention to safety and switch the battery cartridges to charged ones. Move the machine to a safe place and lock the brake lever. Reduce the load before operating the machine again. For details, refer to the section for troubleshooting.

Checking the battery level on the battery box



► 1. Battery indicator 2. Check button

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

Battery indicator status			Remaining battery capacity
On	Blinking	Off	
			50% - 100%
			20% - 50%
			0% - 20%
			Empty
			Battery not installed

NOTE: If you continue to pull the switch trigger even if you hear the short beep sound, the machine stops automatically. After the machine stops automatically, the beep sound continues and the support brake is enabled. To cancel the beep sound and release the support brake, release the switch trigger and pull the brake lever. Do not push the machine forcibly without releasing the support brake.

NOTE: You can check the remaining battery capacity even if the lock key is not inserted.

NOTE: The battery indicators for remaining battery capacity are just for reference. Actual battery capacity may vary depending on usage conditions.

Checking the battery level on the battery cartridge

Only for battery cartridges with the indicator

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

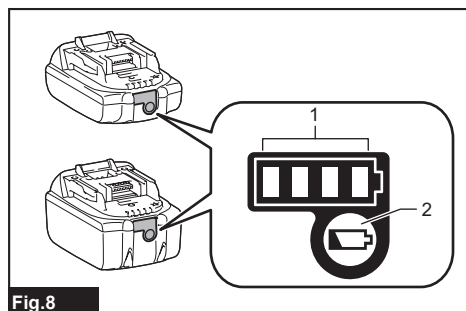


Fig. 8

► 1. Indicator lamps 2. Check button

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.

NOTE: The first (far left) indicator lamp will blink when the battery protection system works.

Switching the battery cartridge

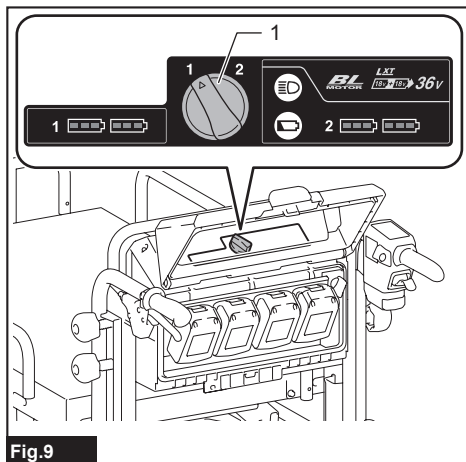


Fig.9

► 1. Battery selection switch

The machine uses 2 battery cartridges for operation at a time. Up to 4 battery cartridges can be installed to the machine. Before operating the machine, select the battery cartridges used for operation by turning the battery selection switch.

NOTICE: If the battery cartridge is in the following condition, the machine does not work even if you switch the battery with the battery selection switch.

- The remaining capacity of at least one of the battery cartridges is empty.
- At least one of the battery cartridges is overheated.

In this case, remove the empty or overheated battery cartridge, or replace the battery cartridge with a charged one.

NOTE: If only 2 battery cartridges are installed to the machine, be sure to select the installed battery cartridges with the battery selection switch.

Control panel

CAUTION: Always lock the brake lever and turn off the machine when not in use.

Power button

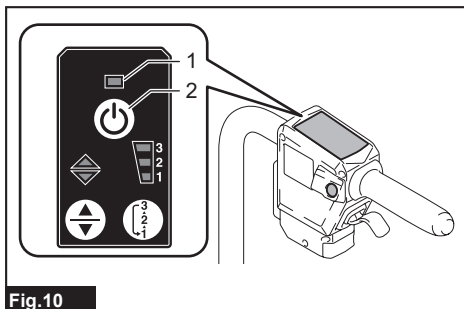


Fig.10

► 1. Main power lamp 2. Power button

To turn on the machine, lock the brake lever, and then press the power button without pulling the switch trigger. The main power lamp lights up in green. To turn off the machine, release the switch trigger and lock the brake lever, and then press the power button.

NOTE: An electrical test is performed the first time the machine is driven after the machine is turned on. If a problem is detected, the main power lamp blinks in red or green alternately. In this case, refer to the section for troubleshooting.

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

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

NOTE: If you press the power button while pulling the switch trigger, the machine does not turn on. Release the switch trigger, and then press the power button.

Forward/reverse and speed button

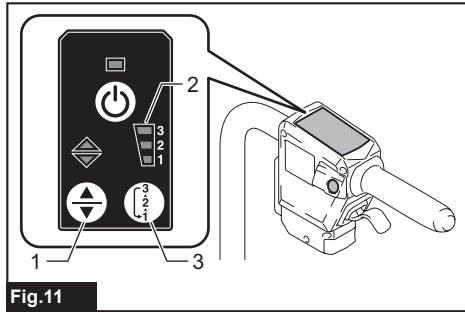


Fig.11

- ▶ 1. Forward/reverse button 2. Speed indicator 3. Speed button

Press the forward/reverse button to switch between the forward mode and reverse mode. Press the speed button to switch between low speed, medium speed, and high speed. When the power is turned on, the forward mode and low speed are set.

NOTE: The forward/reverse button is not available while pulling the switch trigger.

NOTE: A short beep sound comes out when operating the machine in reverse.

NOTE: The speed button is not available when operating the machine in reverse.

NOTE: If the machine detects a problem, the speed indicators blink alternately. In this case, refer to the section for troubleshooting.

Beep button

When you press the beep button, the beep sound is emitted.

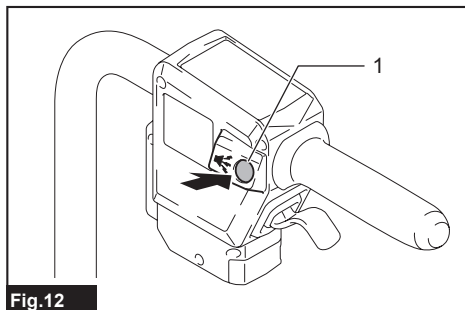


Fig.12

- ▶ 1. Beep button

NOTE: The beep button is available when the machine is turned on.

NOTE: The beep button is available even if the lock key is not inserted in the battery box.

Lighting up the lamps

Press the lamp button on the battery box to light up the front lamps and rear lamp. To turn off the lamps, press the lamp button again.

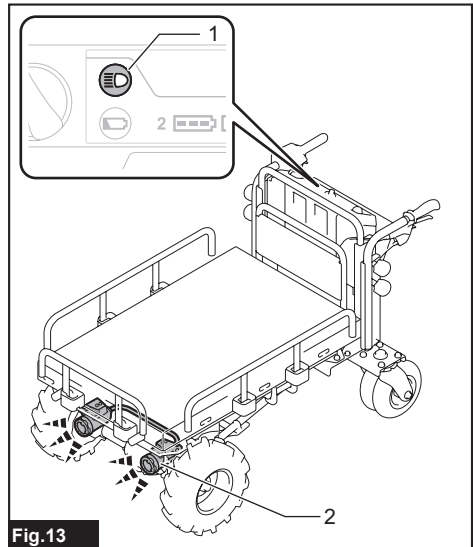


Fig.13

- ▶ 1. Lamp button 2. Front lamp

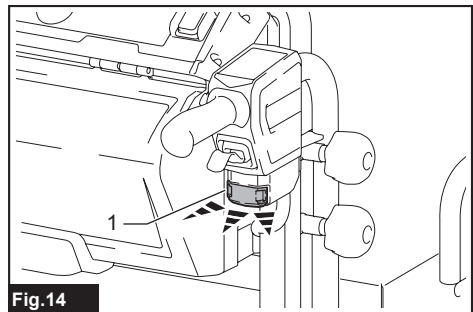


Fig.14

- ▶ 1. Rear lamp

NOTE: The lamps go off if the machine is not operated for a certain period.

NOTE: The lamps go off when the power is turned off.

NOTE: You can light up the lamps even if the lock key is not inserted.

Switch trigger and brake lever

CAUTION: Before installing the battery cartridge into the machine, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

To start the machine, pull the switch trigger. Using the switch trigger, the speed can be adjusted within the set speed range. To stop the machine, release the switch trigger and pull the brake lever.

To lock the brake lever, pull and hold the brake lever, then pull the lock lever, and then release the brake lever while pulling the lock lever. To release the lock, pull the brake lever.

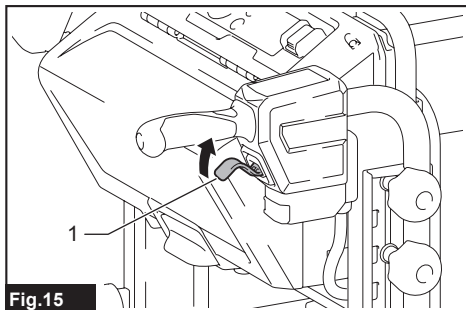


Fig.15

► 1. Switch trigger

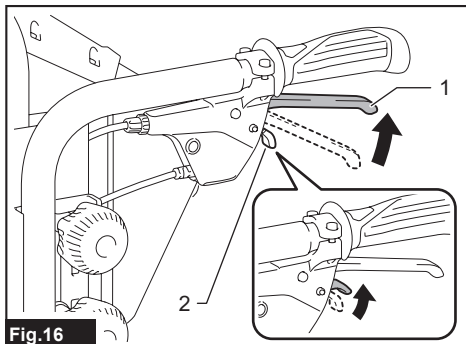


Fig.16

► 1. Brake lever 2. Lock lever

Up-and-down switch

CAUTION: Be sure to hold the brake lever when you operate the up-and-down switch.

CAUTION: Before using the up-and-down switch, make sure that the remaining battery capacity is not low. If the battery capacity is low, lock the brake lever, and then switch the battery cartridges to charged ones or replace the battery cartridges with charged ones.

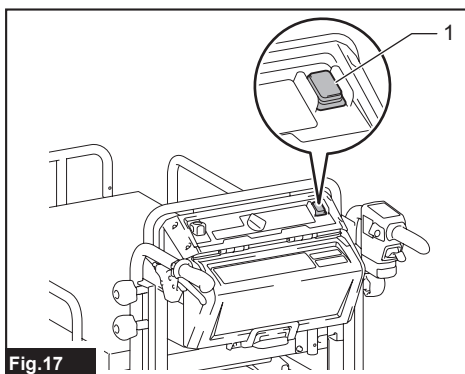


Fig.17

► 1. Up-and-down switch

You can lift and lower the position of the carrier using the up-and-down switch. To lift the carrier, press the upper side of the up-and-down switch while holding the brake lever. To lower the carrier, press the lower side of the up-and-down switch while holding the brake lever.

NOTE: The beep sound is emitted while the carrier is moving.

Using the guard frames

CAUTION: When raising the guard frames, be sure to return them to their original positions completely.

When loading or unloading the objects on the carrier, you can lower the guard frames of the carrier by slightly lifting up and sliding the guard frames as shown in the figure.

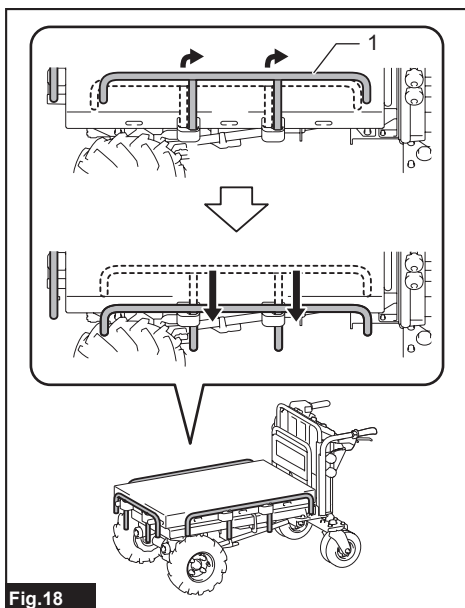


Fig.18

► 1. Guard frame

When carrying the objects, be sure to raise the guard frames to prevent the objects from falling off the carrier.

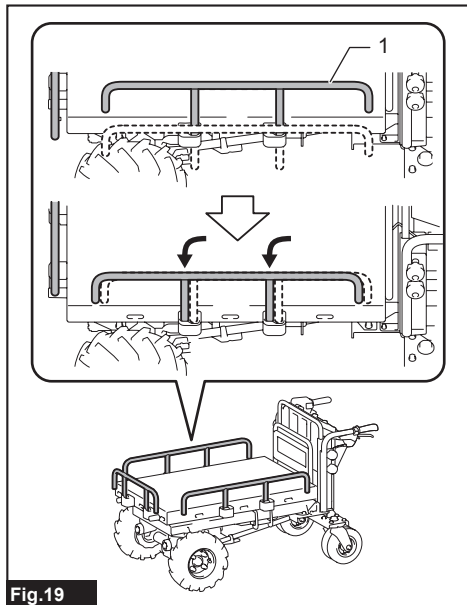


Fig.19

► 1. Guard frame

Adjusting the handle height

NOTICE: Fix the left and right handles at the same height.

The handle height can be adjusted in 7 levels. To adjust the handle height, loosen 2 knobs, then adjust the handle height by aligning the hole on the handle with the protrusion on the rear frame, and then tighten 2 knobs securely. Adjust the height of the other handle in the same way.

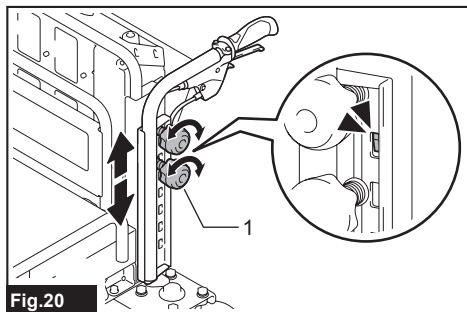


Fig.20

► 1. Knob

Rear wheel lock

You can fix the direction of the rear wheels using the rear wheel lock.

1. Slightly move the machine forward so that the rear wheels face the direction shown in the figure.

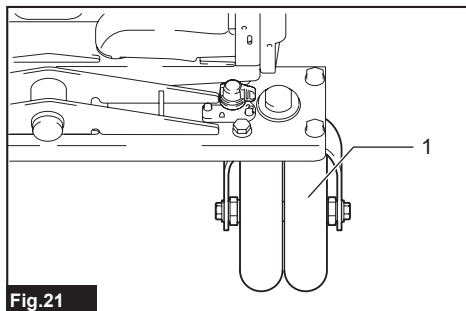


Fig.21

► 1. Rear wheel

2. Rotate the rear wheel lock toward the rear.

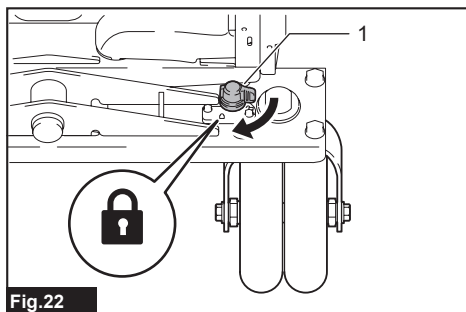


Fig.22

► 1. Rear wheel lock

3. Lock the other rear wheel in the same way.

4. Move the rear wheel back and forth or left and right slightly to make sure it is locked.

To release the rear wheel lock, rotate the rear wheel lock 90° as shown in the figure.

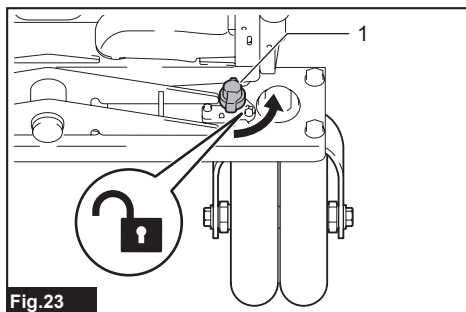


Fig.23

► 1. Rear wheel lock

NOTE: The rear wheels can be fixed in 4 different directions as shown in the figure.

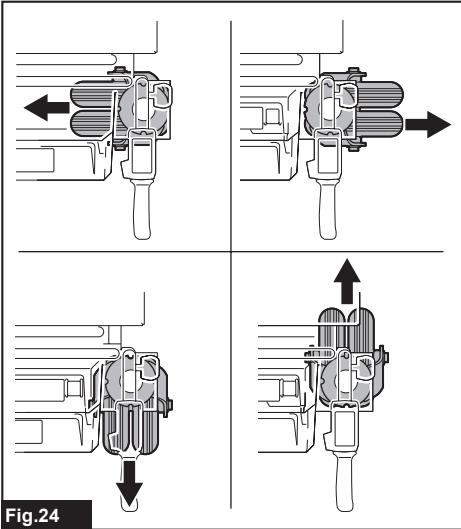


Fig.24

Using the level

Using the level, you can check if the ground is level.

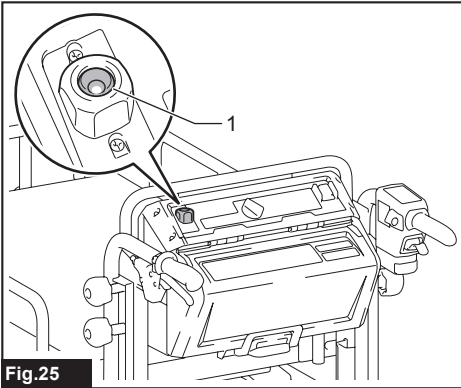


Fig.25

► 1. Level

OPERATION

CAUTION: Be sure to lock the brake lever before loading or unloading objects.

Operating the machine

NOTICE: Be sure to insert the lock key before the operation. If the lock key is not inserted, a beep sound is emitted when you pull the switch trigger. The beep sound stops by releasing the switch trigger and pulling the brake lever.

NOTICE: Perform the inspection before operating the machine by referring to the section for maintenance.

1. Make sure that the brake lever is locked. Install the battery cartridges, and insert the lock key and turn it clockwise.
2. Select the battery cartridges with the battery selection switch.
3. Press the power button on the control panel to turn the power on.

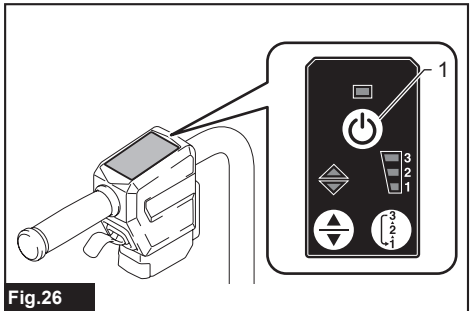


Fig.26

► 1. Power button

4. Pull the brake lever to release the lock of the brake lever.

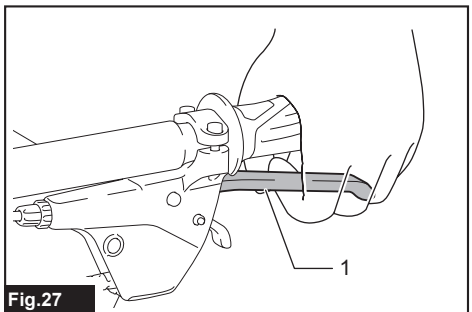


Fig.27

► 1. Brake lever

5. Hold the handles firmly with both hands.

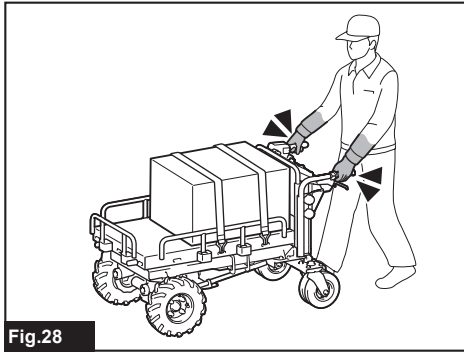


Fig.28

6. Pull the switch trigger.

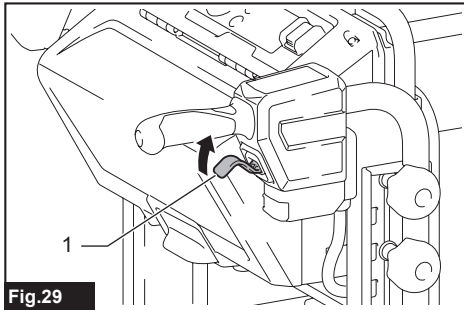


Fig.29

- 1. Switch trigger

Loading objects

CAUTION: Before loading objects on the machine, make sure that the machine is turned off and the brake lever is locked.

CAUTION: Be sure to load objects within the carrier. If objects are sticking out of the carrier, they may fall or collapse if they touch obstacles.

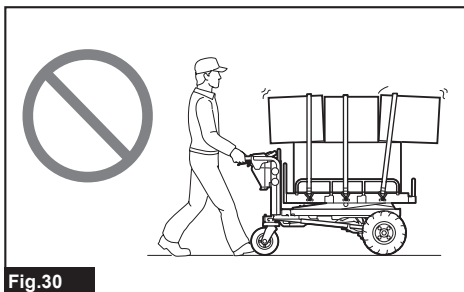


Fig.30

CAUTION: Be sure to load objects so that they are below eye level. If the load is too high, it is dangerous because the view is obscured. Also, there is a risk of overturning and injury because the load is likely to be unbalanced.

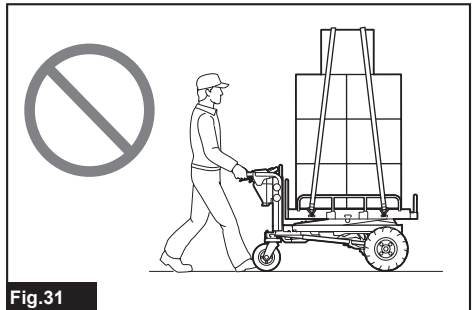


Fig.31

When loading objects on the carrier, secure the objects with ropes and tie them down to the rope hooks of the carrier.

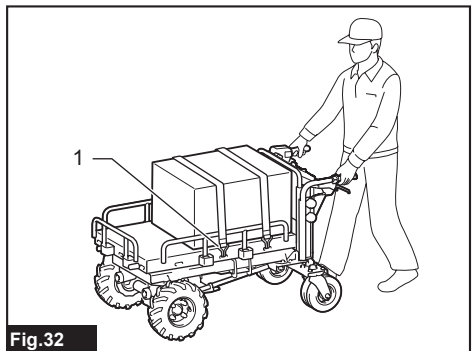


Fig.32

- 1. Rope hook

Lifting and lowering the carrier

CAUTION: Before lifting or lowering the carrier, be sure to lock the brake lever.

CAUTION: Lift or lower the carrier on flat and stable ground. Operation on unstable ground may cause an accident or injury.

CAUTION: Keep the load to a minimum. If the load is large, do not try to lift the carrier. Reduce the load, and then lift the carrier.

CAUTION: When lifting or lowering the carrier, never insert or place a part of your body under the carrier.

CAUTION: Before lifting or lowering the carrier, make sure that there are no people or obstacles around the machine.

You can lift and lower the position of the carrier using the up-and-down switch.

1. Stop the machine, and then lock the brake lever.
2. Lift the carrier using the up-and-down switch while holding the brake lever.

3. Lock the brake lever, and then lower the guard frames of the carrier to load or unload the objects.
4. Raise the guard frames of the carrier, and then lower the carrier to the lowest position using the up-and-down switch while holding the brake lever.

NOTICE: You can slightly adjust the position of the machine using the switch trigger when the carrier is lifted up. Be sure to lock the brake lever after adjusting the position of the machine using the switch trigger.

NOTICE: Before operating the machine using the switch trigger, be sure to lower the carrier to the lowest position. If the carrier is not in the lowest position, the traveling speed of machine is limited up to 0.8 km/h.

MAINTENANCE

CAUTION: Always be sure to park the machine on flat ground and lock the brake lever before storage or attempting to perform inspections or maintenance.

CAUTION: Always be sure that the lock key and battery cartridge are removed from the machine before storage, inspections, or maintenance.

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

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.

Inspection before operation

Perform the following inspections before operating the machine.

- Check that the bolts, nuts, and knobs are tightened firmly.

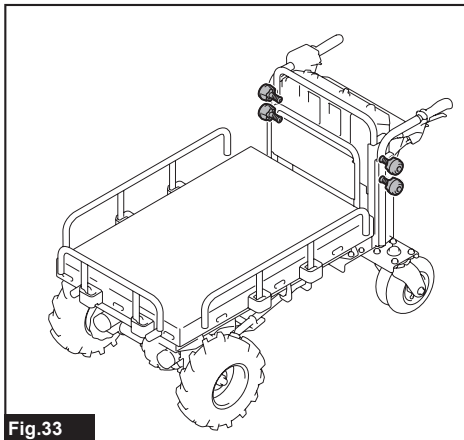


Fig.33

- Check that the brake is working properly. If you feel the brake is not working sufficiently, perform the cleaning of the brake. If no improvement can be found, ask Makita Authorized Service Centers for repair.
- Check that the tires of front and rear wheels are not damaged, and the air in the tires is sufficient.
- Check that the front lamps, and rear lamp are clean. Clean them if necessary.
- Check that the scrapers are in the correct position. If the scraper is facing upward, adjust the orientation of the scraper by loosening the bolts. When tightening the bolts, do not push the scraper toward the front of the machine.

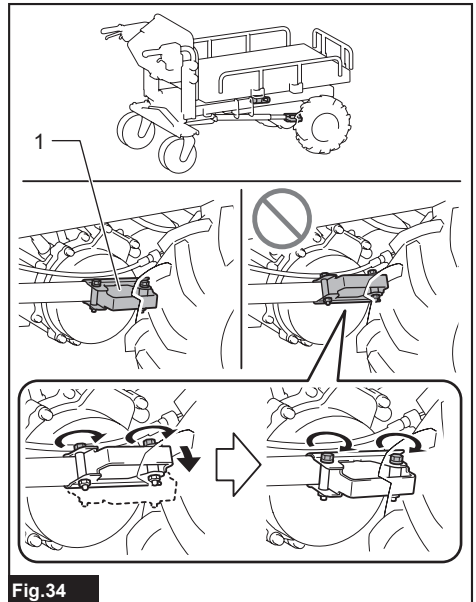


Fig.34

- ▶ 1. Scraper

Cleaning the machine

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

NOTICE: Do not use the high pressure washer for cleaning.

NOTICE: When cleaning the machine, be sure to close the cover of battery box. Otherwise, water may enter into the battery box, and cause a malfunction of machine.

Remove mud, dirt, and the like from the machine. Clean the machine with running water. After the cleaning, wipe the machine with a dry cloth.

Storage

NOTICE: Before storing the machine, make sure that the carrier is in the lowest position.

Lock the brake lever, and remove the battery cartridges and lock key. Store the machine in a safe place out of the reach of children.

Refilling the tire with air

Check that the air in the tire for the front and rear wheels is not missing. If the air in the tire is insufficient, refill the tire with air using an inflator. The air pressure is as follows:

- Tire for front wheel: 280 kPa (40 PSI)
- Tire for rear wheel: 525 kPa (75 PSI)

Front wheel

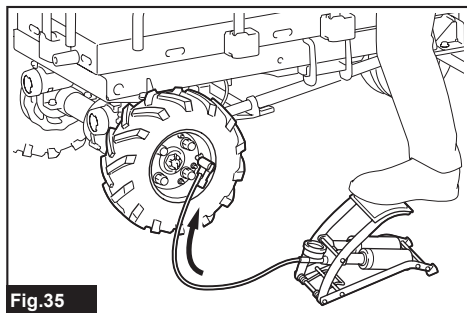


Fig.35

Rear wheel

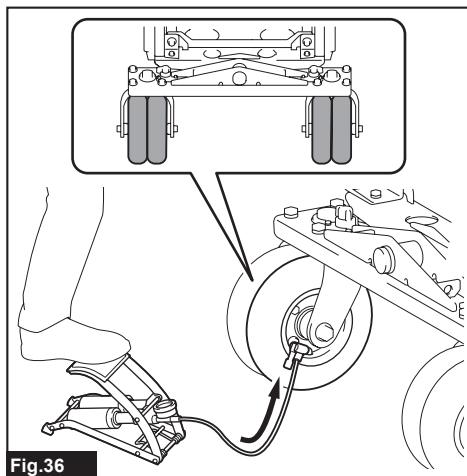


Fig.36

Replacing the tire

⚠ CAUTION: Before replacing the tires, be sure to unload all objects from the machine.

⚠ CAUTION: When replacing the tires, wear the gloves.

Replacing the tire of front wheel

NOTE: When installing the gray tire, install it so that the valve faces outward.

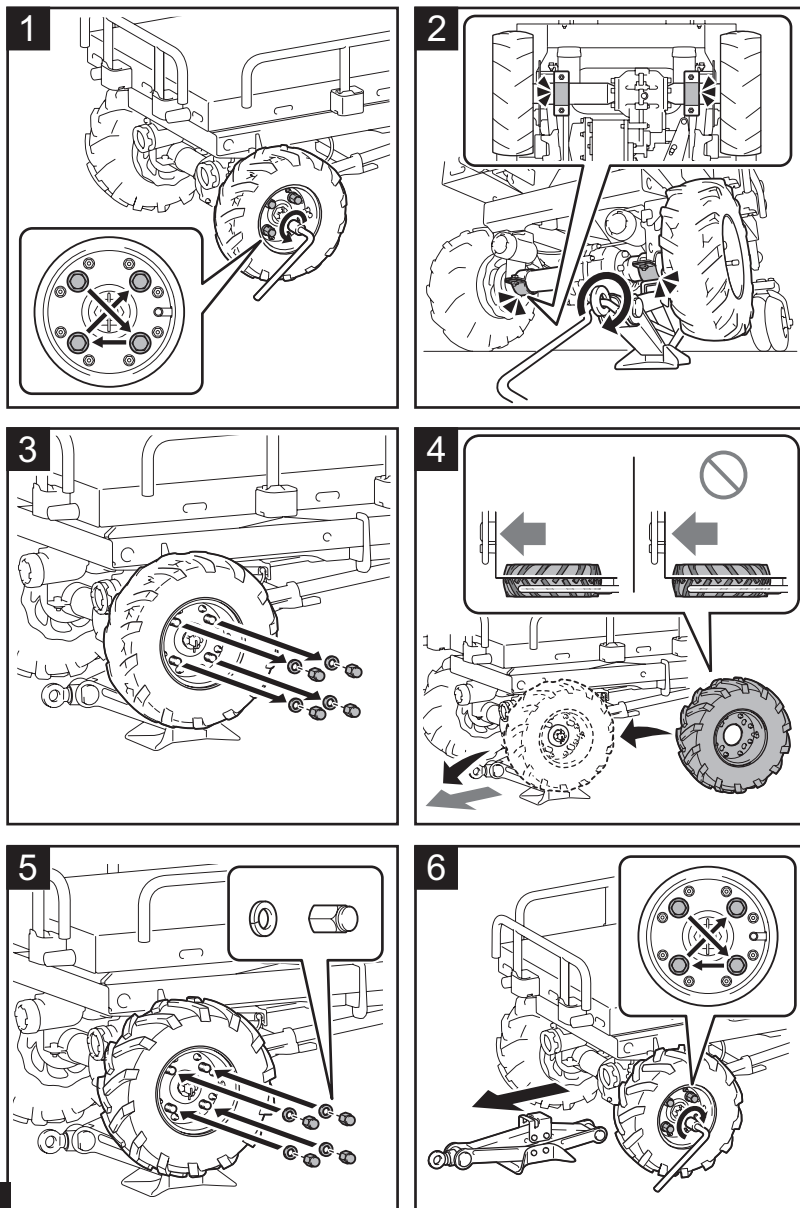


Fig.37

Replacing the tire of rear wheel

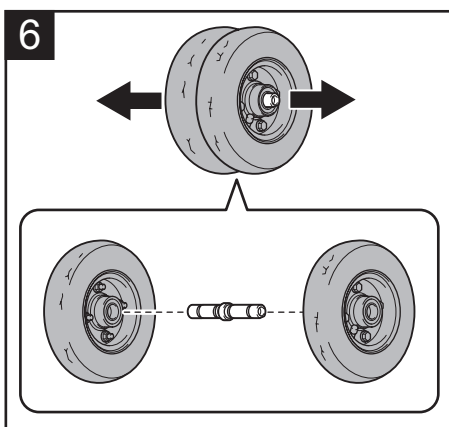
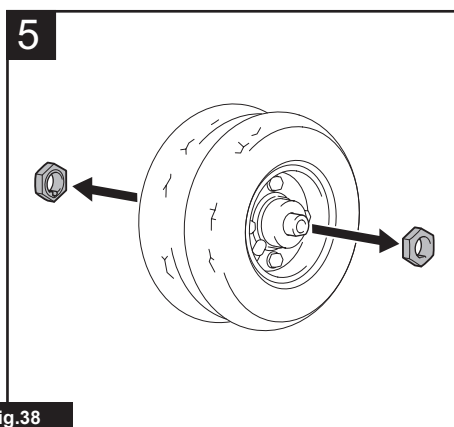
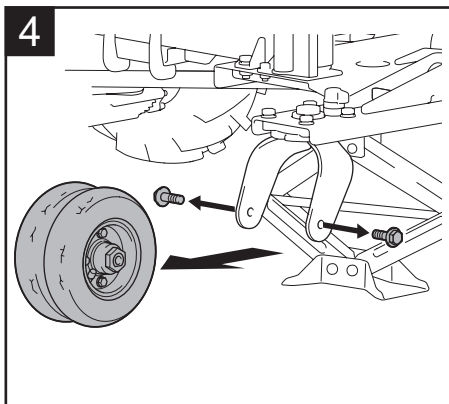
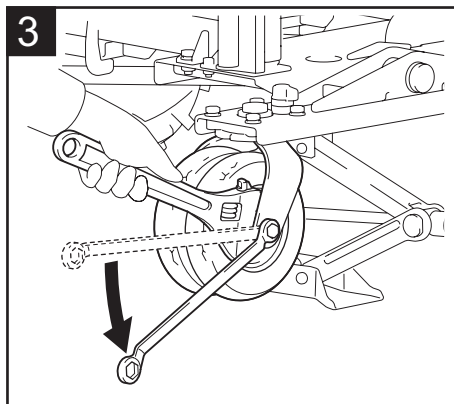
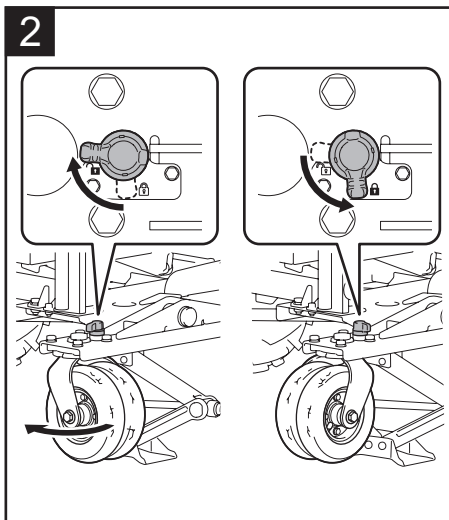
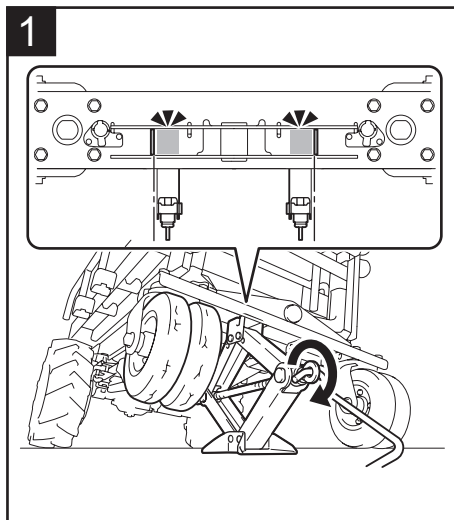


Fig.38

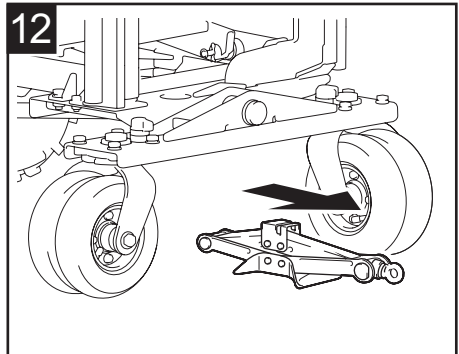
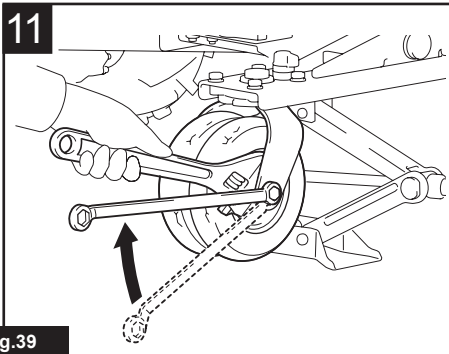
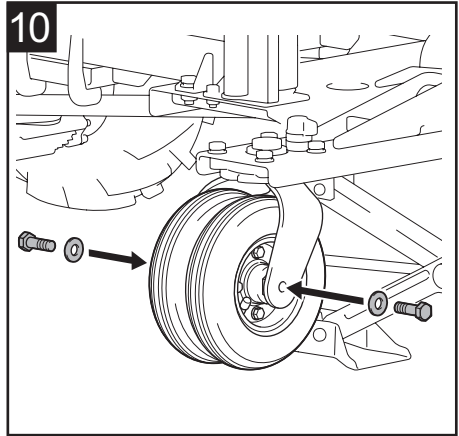
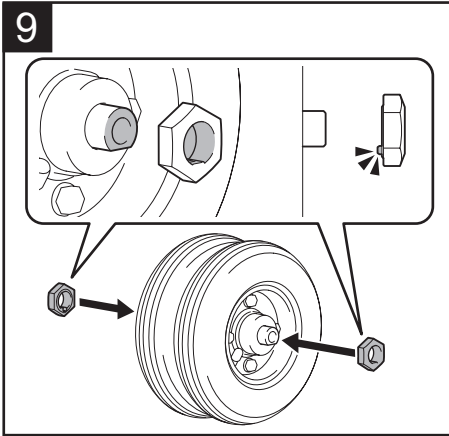
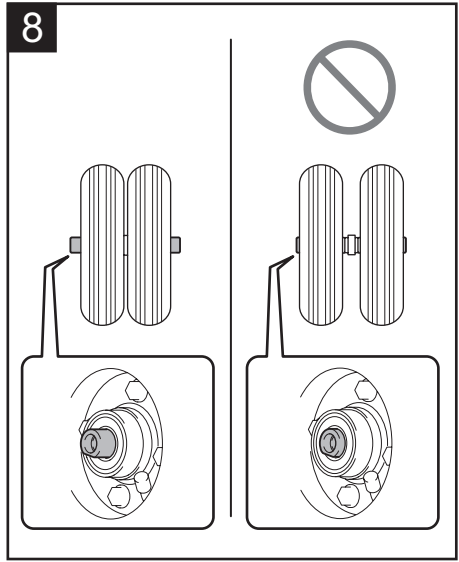
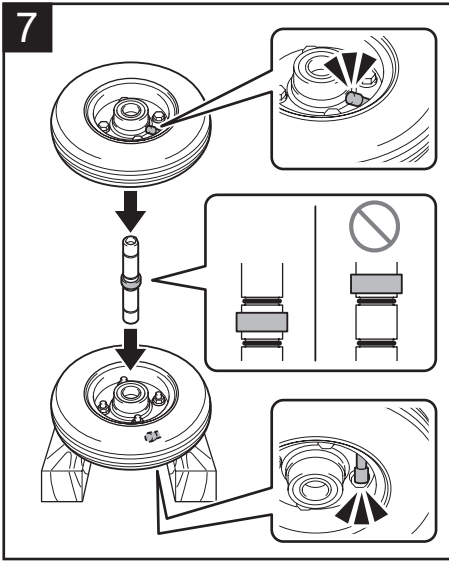


Fig.39

TROUBLESHOOTING

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

State of abnormality	Main power lamp	Cause	Remedy
The machine does not turn on.	Turned off.	Two battery cartridges are not installed.	Install two charged battery cartridges.
		Battery problem (under voltage)	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
		Battery selection switch is not in the correct position.	Select the correct battery using the battery selection switch.
The machine does not start.	The lamp blinks in red.	Battery's charge level is low.	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
		At least one of the battery is empty.	Remove the empty battery, or replace it with charged one. In this case, the far left lamp of the battery indicator of the corresponding battery blinks.
	The lamp blinks in green.	The lock key is not inserted.	Insert the lock key and turn it clockwise.
		The machine stopped due to overload.	Reduce the loaded objects.
		The front or rear wheels are stuck or locked.	Remove the cause of stuck or locked wheels.
	The lamp lights up in red.	The machine stopped due to overheat.	Cool down the machine and battery.
	The lamp blinks in red and green alternately.	The lock key is not inserted.	Insert the lock key and turn it clockwise.
		The machine detected an abnormality.	Turn off the machine, and then back on. A malfunction of machine has occurred. Ask Makita Authorized Service Centers for repair.
	The lamp lights up in green.	The neutral change lever is not in its original position.	Lock the brake lever, and then return the neutral change lever to its original position.
	The machine stops after a little use.	The lamp blinks in red.	Battery's charge level is low.

Troubleshooting for stop of machine

⚠ WARNING: Unless absolutely necessary, never disable the support brake of the machine with the neutral change lever. Since the support brake of the machine is disabled, the machine may move unintentionally and cause an accident or personal injury.

⚠ WARNING: Be sure to return the neutral change lever to its original position after pulling the lever outward.

If the machine cannot be moved when the batteries run out or a malfunction of machine has occurred, you can move the machine manually by pulling the neutral change lever outward to disable the support brake.

1. Lock the brake lever.
2. Unload all of the objects from the machine.

⚠ CAUTION: Be sure to unload all objects from the machine. The machine may move unintentionally if the objects are left on the machine.

3. If the machine is on a slope, unlock the brake lever, and orient the machine so that the brake lever is on the upper side of the slope and the machine is parallel to the slope. Lock the brake lever.

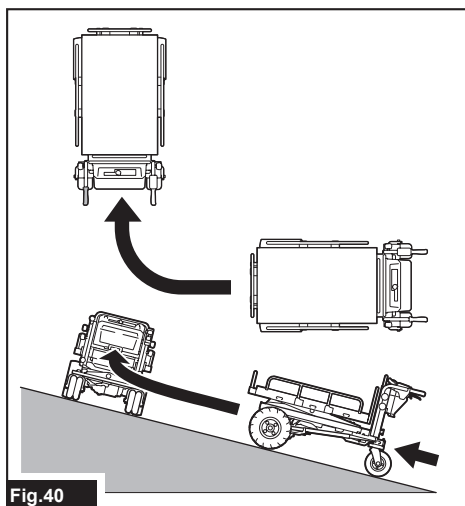


Fig.40

4. Make sure that the machine does not move, and pull out the neutral change lever outward.

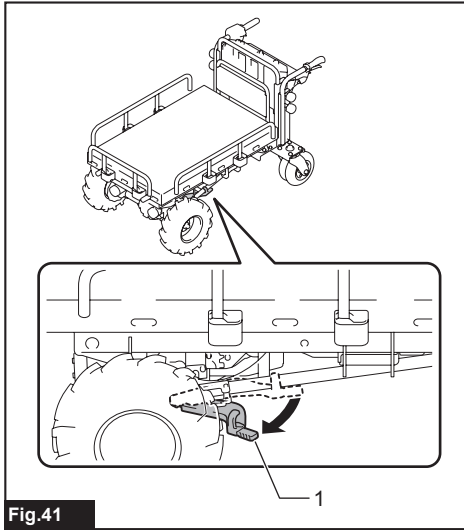


Fig.41

- 1. Neutral change lever

5. Unlock the brake lever and move the machine manually to a safe place. Since the support brake is disabled, move the machine carefully with the brake lever so that the speed does not increase.
6. After moving the machine to a safe place, lock the brake lever.
7. Return the neutral change lever to its original position. Make sure that the neutral change lever is fully returned as shown in the figure.

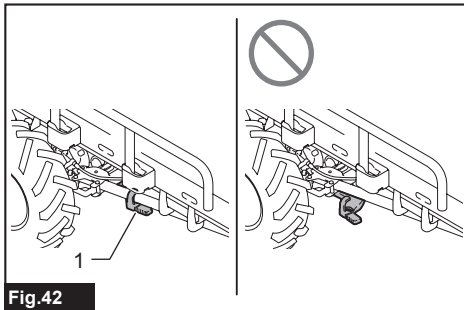


Fig.42

- 1. Neutral change lever

OPTIONAL ACCESSORIES

CAUTION: These accessories or attachments are recommended for use with your Makita machine 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.

CAUTION: Only use the Makita accessory or attachment for the machine. Use of any other accessory or attachment may result in serious personal injury.

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

- Front tire (black)
- Front tire (gray)
- Rear tire (gray)
- Makita genuine battery and charger

NOTE: Some items in the list may be included in the product package as standard accessories. They may differ from country to country.

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