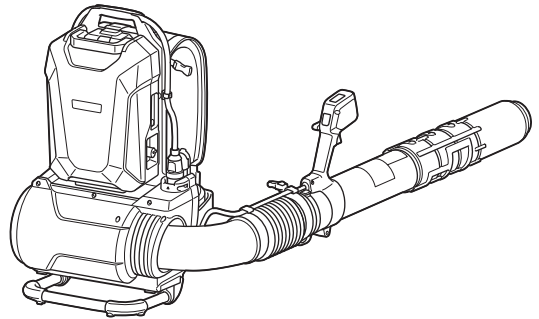


INSTRUCTION MANUAL



# Battery Powered Backpack Blower

## UB002C



Read before use.



Read before use.

# SPECIFICATIONS

<b>Model:</b>		<b>UB002C</b>
Capacities	Air volume	0 - 19.0 m <sup>3</sup> /min
	Air speed (average)	0 - 60.0 m/s
	Air speed (max.)	0 - 71.7 m/s
Dimensions (L x W x H) (with end nozzle)		1,368 mm x 694 mm x 715 mm
Rated voltage		D.C. 36 V - 40 V max
Net weight		15.9 - 16.1 kg
Protection degree		IPX4

- 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 portable power pack

PDC1200

**⚠ WARNING: Only use the portable power packs listed above.** Use of any other portable power packs may cause injury and/or fire.

## Symbols

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

	Take particular care and attention.
	Read instruction manual.
	Keep hands away from rotating parts.
	Long hair may cause entanglement accident.
	Keep bystanders away.
	Wear eye and ear protection.
	Do not expose to moisture.



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 blowing dust.

## About this instruction manual

The term "battery", "battery cartridge", or "battery pack" in this instruction manual refers to "portable power pack".

## Noise

The typical A-weighted noise level determined according to EN50636-2-100:

Sound pressure level ( $L_{pA}$ ) : 80.9 dB (A)

Uncertainty (K) : 2.0 dB (A)

Sound power level ( $L_{WA}$ ) : 95.5 dB (A)

Uncertainty (K) : 1.7 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 EN50636-2-100:

Work mode: operation without load

Vibration emission ( $a_h$ ): 2.5 m/s<sup>2</sup> or less

Uncertainty (K): 1.5 m/s<sup>2</sup>

**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

## 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.

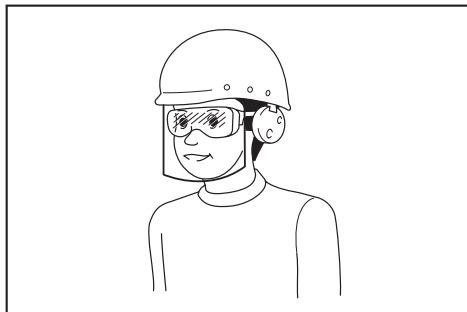
### Electrical safety

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 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.

#### 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 Backpack Blower 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.

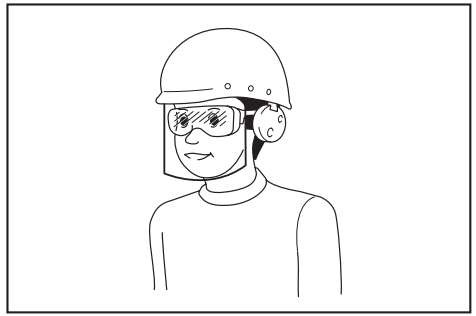
## Save all warnings and instructions for future reference.

#### Training

1. Read the instructions carefully. Be familiar with the controls and the correct use of the blower.
2. Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with these instructions to use the blower. Local regulations may restrict the age of the operator.
3. Never operate the blower while people, especially children, or pets are nearby.
4. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

#### Preparation

1. Always wear substantial footwear and long trousers while operating the blower.
2. Do not wear loose clothing or jewellery that can be drawn into the air inlet. Keep long hair away from the air inlets.
3. 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.

4. To prevent dust irritation the wearing of a face mask is recommended.
5. 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.

#### Operation

1. Switch off the blower and remove the battery cartridge and make sure that all moving parts have come to a complete stop
  - whenever you leave the blower.
  - before clearing blockages.
  - before checking, cleaning or working on the blower.
  - if the blower starts to vibrate abnormally.
2. Operate the blower only in daylight or in good artificial light.
3. Do not overreach and keep proper balance and footing at all times.
4. Always be sure of your footing on slopes.
5. Walk, never run.
6. Keep all cooling air inlets clear of debris.
7. Never blow debris in the direction of bystanders.
8. Operate the blower in a recommended position and on a firm surface.
9. Do not operate the blower at high places.
10. Never point the nozzle at anyone in the vicinity when using the blower.
11. Never block suction inlet and/or blower outlet.
  - Be careful not to block suction inlet or blower outlet with dust or dirt when operating in dusty area.
  - Do not use nozzles other than the nozzles provided by Makita.
  - Do not use the blower to inflate balls, rubber boat or the similar.
12. Do not operate the blower near open window, etc.
13. Operating the blower only at reasonable hours is recommended - not early in the morning or late at night when people might be disturbed.
14. Using rakes and brooms to loosen debris before blowing is recommended.

15. It is recommended to use the long nozzle so the air stream can work close to the ground.
16. If the blower strikes any foreign objects or should start making any unusual noise or vibration, immediately switch off the blower to stop it. Remove the battery cartridge from the blower and inspect the blower for damage before restarting and operating the blower. If the blower is damaged, ask Makita Authorized Service Centers for repair.
17. Do not insert fingers or other objects into suction inlet or blower outlet.
18. Prevent unintentional starting. Ensure the switch is in the off-position before inserting battery cartridge, picking up or carrying the blower. Carrying the blower with your finger on the switch or energizing the blower that has the switch on invites accidents.
19. Never blow dangerous materials, such as nails, fragments of glass, or blades.
20. Do not operate the blower near flammable materials.
21. Avoid operating the blower for a long time in low temperature environment.
22. Do not use the machine when there is a risk of lightning.
23. When you use the machine on muddy ground, wet slope, or slippery place, pay attention to your footing.
24. 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.
25. Do not submerge the machine into a puddle.
26. Do not leave the machine unattended outdoors in the rain.
27. Do not use the machine in the snow.
28. During operation, keep the cord away from obstacles. The cord caught by obstacles may cause serious injury.
10. When carrying the machine, be sure to hold the machine firmly by holding the handle of machine.
11. When carrying the machine, be careful not to get the cord caught by obstacles.

#### 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 with wet hands.**
  7. **Do not replace the battery in the rain.**
  8. **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.
  9. **After removing the battery from the machine or charger, be sure to store it in a dry place.**
- Maintenance and storage**
1. **Keep all nuts, bolts and screws tight to be sure the blower is in safe working condition.**
  2. **If the parts are worn or damaged, replace them with parts provided by Makita.**
  3. **Store the blower in a dry place out of the reach of children.**
  4. **When you stop the blower for inspection, servicing, storage, or changing accessory, switch off the blower and make sure that all moving parts come to a complete stop, and remove the battery cartridge. Cool down the blower before making any work on the blower. Maintain the blower with care and keep it clean.**
  5. **Always cool down the blower before storing.**
  6. **Do not expose the blower to rain. Store the blower indoors.**
  7. **When you lift the blower, be sure to bend your knees and be careful not to hurt your back.**
  8. **When washing the machine, do not let water enter the electrical mechanism such as battery, motor, and terminals.**
  9. **When storing the machine, avoid direct sunlight and rain, and store it in a place where it does not get hot or humid.**

- 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.
- 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.

#### Service

- 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.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.

## 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

- Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
- Do not disassemble or tamper with the battery cartridge. It may result in a fire, excessive heat, or explosion.
- If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
- 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.
- Do not short the battery cartridge:
  - Do not touch the terminals with any conductive material.
  - Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
  - 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.

- Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).
- 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.
- 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.
- Do not use a damaged battery.

- 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.
- 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.
- If the tool is not used for a long period of time, the battery must be removed from the tool.
- 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.
- Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.
- 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.
- Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near a high-voltage electrical power lines. It may result in a malfunction or breakdown of the tool or battery cartridge.
- 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

- Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
- Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
- 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.
- When not using the battery cartridge, remove it from the tool or the charger.
- Charge the battery cartridge if you do not use it for a long period (more than six months).

# ASSEMBLY

**CAUTION:** Always be sure that the machine is switched off and the battery cartridge is removed before carrying out any work on the machine.

## Assembling blower pipes

1. Loosen the clamp screw.

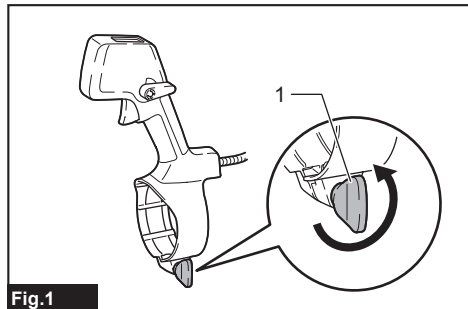


Fig.1

- 1. Clamp screw

2. Install the control handle to the swivel pipe and tighten the clamp screw.

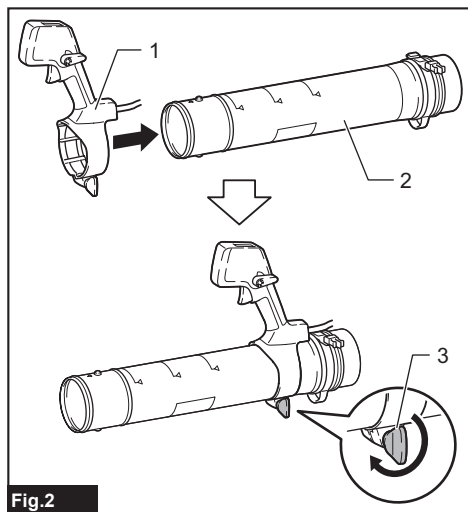


Fig.2

- 1. Control handle 2. Swivel pipe 3. Clamp screw

**NOTICE:** Be careful not to twist the cable of the control handle when attaching the control handle to the swivel pipe.

3. Loosen the screw on the hose clamp, and then attach the hose clamp to the flexible pipe. Attach the swivel pipe to the flexible pipe, and then tighten the screw on the hose clamp.

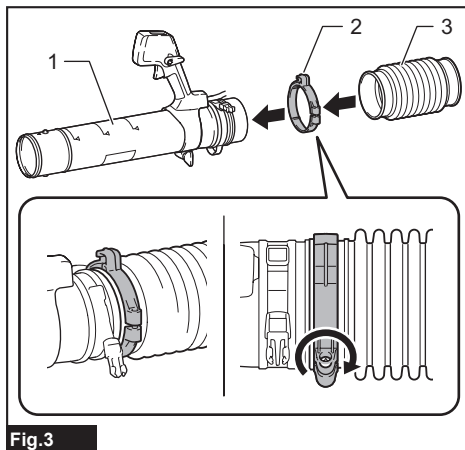


Fig.3

- 1. Swivel pipe 2. Hose clamp 3. Flexible pipe

4. Loosen the screw on the hose clamp, and then attach the hose clamp to the flexible pipe. Attach the flexible pipe to the elbow, and then tighten the screw on the hose clamp.

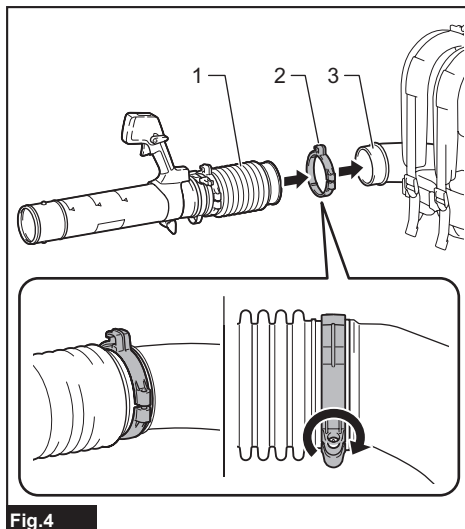
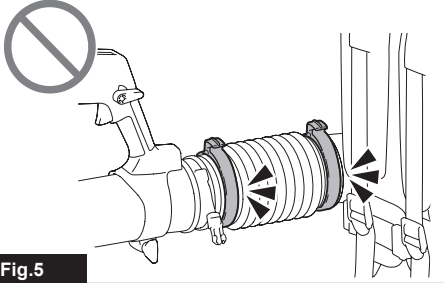
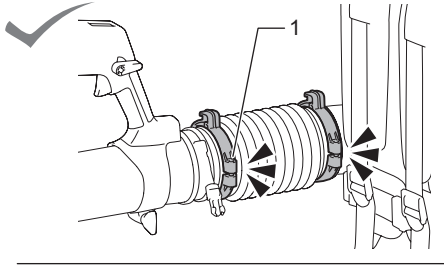


Fig.4

- 1. Flexible pipe 2. Hose clamp 3. Elbow



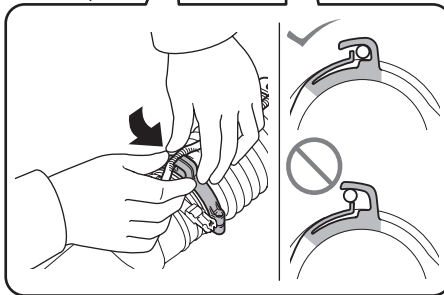
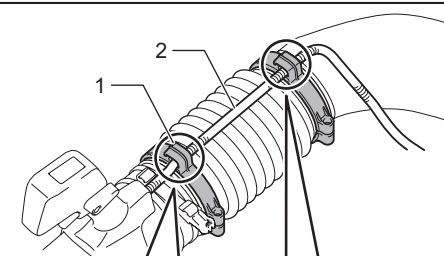
**NOTICE:** Make sure that the screws on the hose clamps are facing the direction shown in the figure.



**Fig.5**

► 1. Screw

5. Clamp the control cable to the cable holders.



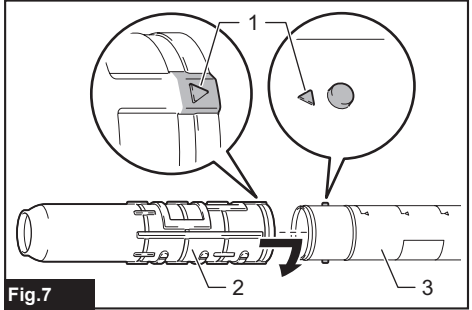
**Fig.6**

► 1. Cable holder 2. Control cable

**NOTICE:** Make sure that the control cable is securely fixed to the cable holders.

## Installing the end nozzle

Align the triangle mark on the end nozzle with that on the swivel pipe, then attach the end nozzle to the swivel pipe, and then turn the end nozzle to lock it into place.

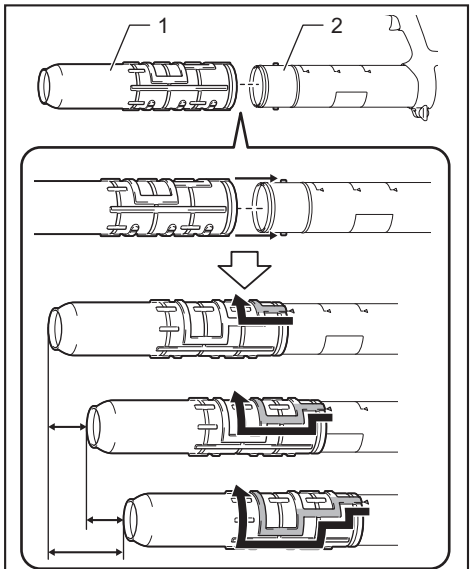


**Fig.7**

► 1. Triangle mark 2. End nozzle 3. Swivel pipe

To remove the end nozzle, perform the installation procedure in reverse.

**NOTE:** The length of the nozzle can be changed by moving the nozzle as shown in the figure.



**Fig.8**

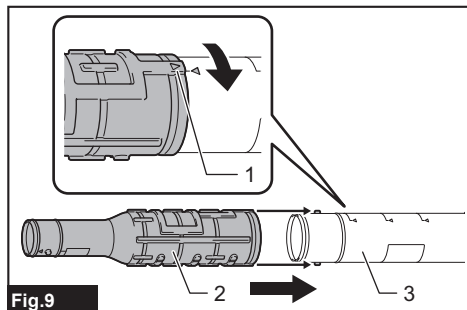
► 1. End nozzle 2. Swivel pipe

## Installing the flat nozzle or extension nozzle

### Optional accessory

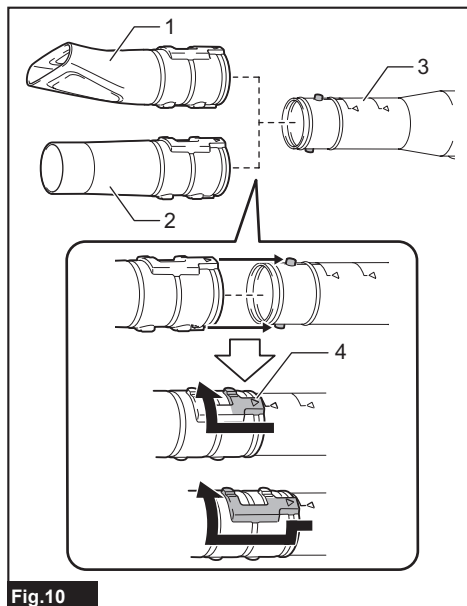
**NOTE:** If the end nozzle is installed, remove it before installing the adapter pipe.

1. Align the triangle mark on the adapter pipe with that on the swivel pipe, then attach the adapter pipe to the swivel pipe, and then turn it to lock it into place.



**Fig.9**  
▶ 1. Triangle mark 2. Adapter pipe 3. Swivel pipe

2. Align the triangle mark on the flat nozzle or extension nozzle with that on the adapter pipe, then attach the flat nozzle or extension nozzle to the adapter pipe, and then turn it to lock it into place.

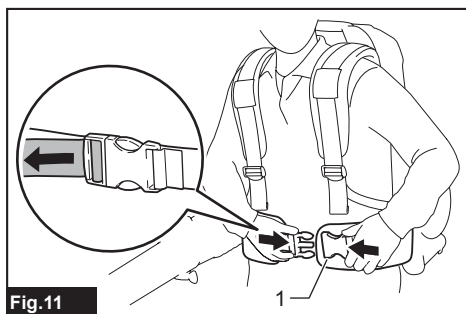


**Fig.10**  
▶ 1. Flat nozzle 2. Extension nozzle 3. Adapter pipe  
4. Triangle mark

To remove the adapter pipe, flat nozzle, or extension nozzle, perform the installation procedure in reverse.

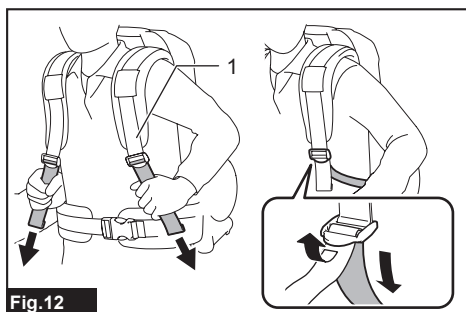
## Adjusting the belt and shoulder harness

1. Put on the machine, then lock the buckle of the waist belt, and then adjust the length of the waist belt.



**Fig.11**  
▶ 1. Buckle

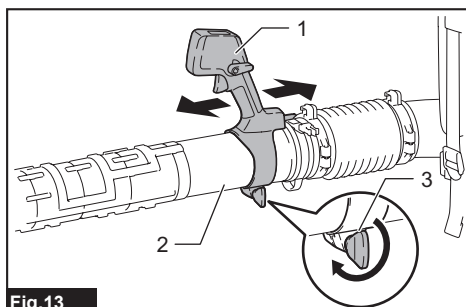
2. Adjust the length of the shoulder harness.



**Fig.12**  
▶ 1. Shoulder harness

## Adjusting the control lever position

Loosen the clamp screw. Move the control handle along the swivel pipe to the most comfortable position, and then tighten the clamp screw.



**Fig.13**  
▶ 1. Control handle 2. Swivel pipe 3. Clamp screw

# FUNCTIONAL DESCRIPTION

**CAUTION:** Always be sure that the machine is switched off and the battery cartridge is removed before adjusting or checking function on the machine.

## Installing or removing portable power pack

**CAUTION:** Always switch off the machine before installing or removing the portable power pack.

**CAUTION:** Hold the machine and the portable power pack firmly when installing or removing portable power pack. Failure to hold them firmly may cause them to slip off your hands and result in damage to the machine and portable power pack and a personal injury.

**CAUTION:** Make sure that the portable power pack is securely installed to the machine. If not, it may accidentally fall out of the machine, causing injury to you or someone around you.

**CAUTION:** Before operation, make sure that the cord is securely attached to the cord holders and the socket is inserted into the plug all the way.

1. Pull out the cord to the direction as shown in the figure. When pulling out the cord, be sure to set the cord in the holders as shown in the figure.

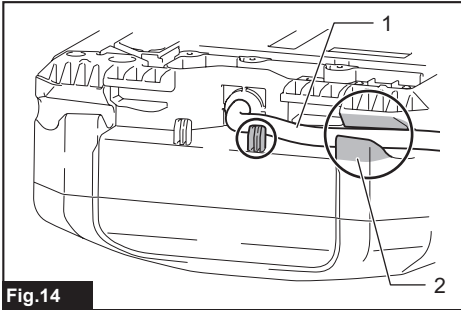


Fig.14

► 1. Cord 2. Holder

2. Install the portable power pack to the machine as shown in the figure.

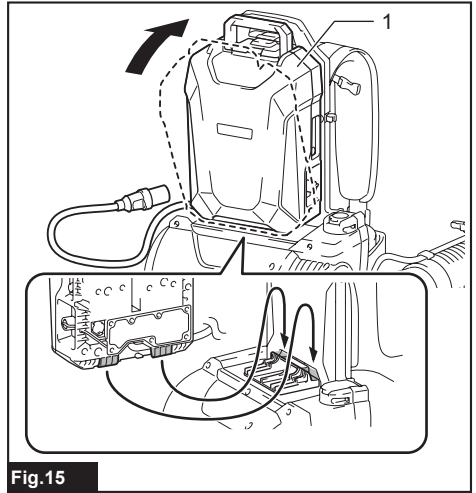


Fig.15

► 1. Portable power pack

**CAUTION:** Be careful not to pinch your fingers or thumbs between the portable power pack and the machine when installing the portable power pack.

**CAUTION:** Make sure that the portable power pack is securely fixed to the machine. Otherwise, the portable power pack may fall when you put on the machine or use the machine, and cause an injury. If you can see the red indicator as shown in the figure, the portable power pack is not locked completely.

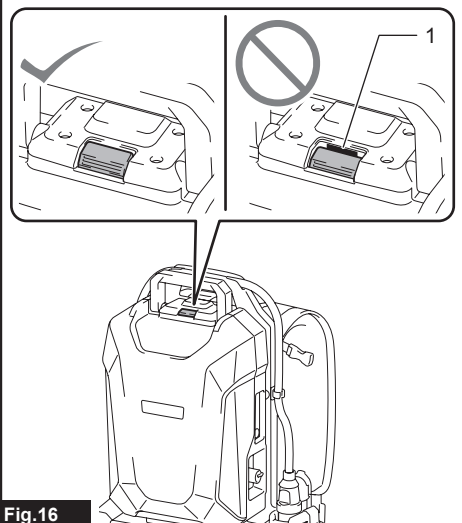


Fig.16

► 1. Red indicator

**CAUTION:** When removing the portable power pack, press the lock button while holding the handle firmly.

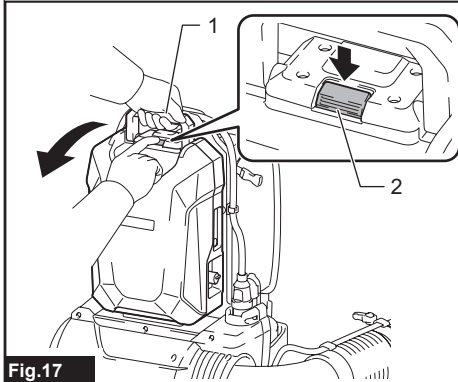


Fig. 17

► 1. Handle 2. Lock button

3. Attach the cord to the cord holders as shown in the figure.

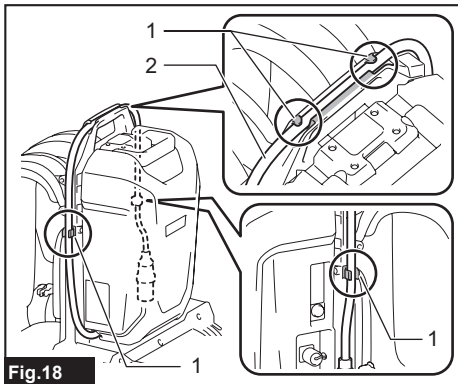


Fig. 18

► 1. Cord holder 2. Cord

4. Open the plug cover, then align the arrow mark on the socket with that on the machine, and then insert the socket into the plug all the way.

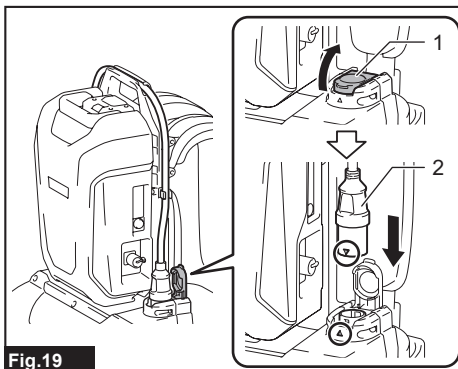


Fig. 19

► 1. Plug cover 2. Socket

**NOTICE:** Do not insert the socket forcibly. If the socket cannot be inserted easily, it is not being inserted correctly.

**NOTICE:** When disconnecting the socket from the plug, do not hold the cord but hold the socket. Otherwise, the cord may be damaged and cause a malfunction of the machine.

To remove the portable power pack, perform the installation procedure in reverse.

## Indicating the remaining battery capacity

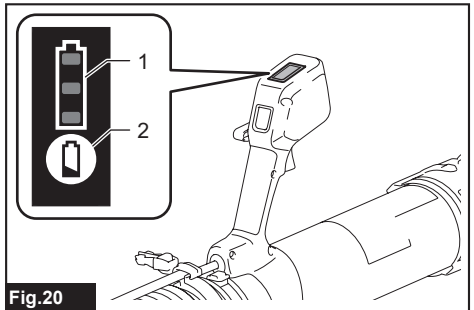


Fig. 20

► 1. Battery indicator 2. Check button

Press the check button to indicate the remaining battery capacity.

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

**NOTE:** The indicator lamp for remaining battery capacity is just for a reference. The actual battery capacity may differ depending on the usage conditions or ambient temperature.

**NOTE:** While the machine is in operation, the indicator lamp does not light up even if you press the check button.

**NOTE:** The lamp automatically goes off after a few seconds.

## 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 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 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. Then turn the machine on to restart.

**NOTE:** The main power lamp also blinks in green and the machine automatically stops if the machine is operated for a long time continuously. In this case, release the switch trigger and return the control lever fully, and then pull the switch trigger again to restart the machine.

### Overheat protection

When the machine or battery 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.

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

### Overdischarge protection

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

### Protections against other causes

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.

If no improvement can be found by restoring protection system, then contact your local Makita Service Center.

**NOTICE:** If the machine stops due to a cause not described above, refer to the section for troubleshooting.

## 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. To turn off, press the main power switch again.

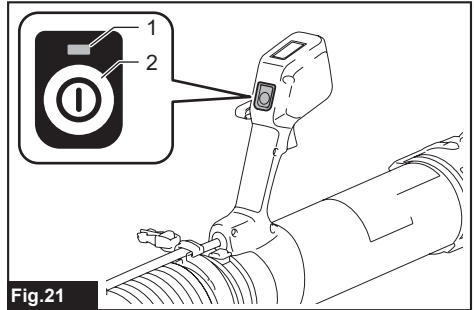


Fig.21

► 1. Main power lamp 2. Main power switch

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

**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.

## Switch action

**⚠WARNING:** Before installing the portable power pack to the machine, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

To start the machine, simply pull the switch trigger. The speed increases by increasing pressure on the switch trigger. Release the switch trigger to stop.

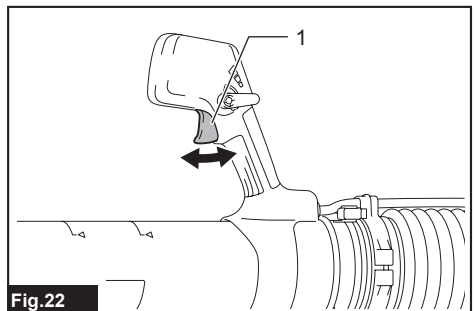


Fig.22

► 1. Switch trigger

## Cruise control function

The cruise control function allows the operator to maintain a constant speed without pulling the trigger. To increase the speed, turn the control lever forward. To decrease the speed, turn the control lever backward.

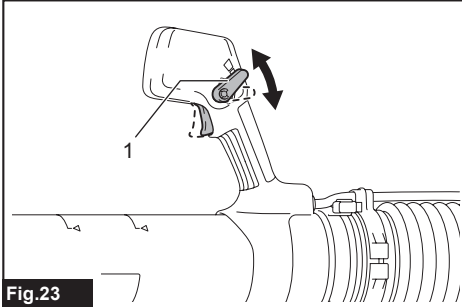


Fig.23

► 1. Control lever

## Electronic function

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

- Constant speed control  
The speed control function provides the constant rotation speed regardless of load conditions.

## Accidental re-start preventive function

When you turn on the machine while pulling the switch trigger, the machine does not start and the main power lamp blinks in green. To start the machine, first release the switch trigger and return the control lever fully, and then turn on the machine.

## OPERATION

**⚠ CAUTION:** When putting on the machine, be sure to put shoulder harness on your both shoulders. Otherwise, the machine may fall when you put on or use the machine, and cause an injury.

**⚠ CAUTION:** When putting on the machine, be sure to put on the machine on your back. Otherwise, the machine may fall during operation and cause an injury.

**⚠ CAUTION:** Do not place the machine on the ground while it is running. Sand or dust may enter from suction inlet and cause a malfunction or personal injury.

1. Press the power button on the portable power pack. The main power lamp will light up.

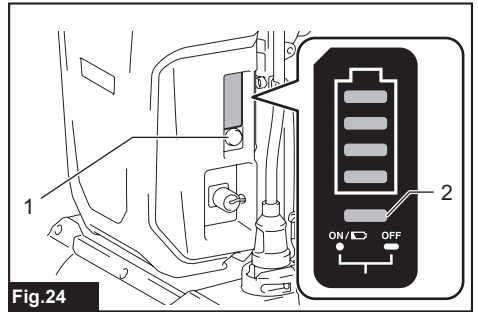


Fig.24

► 1. Power button 2. Main power lamp

2. Put on the shoulder harness of the machine and lock the buckle on the waist belt.
3. Press the main power switch to turn on the machine.

The machine is ready to operate. The machine will run when you pull the switch trigger.

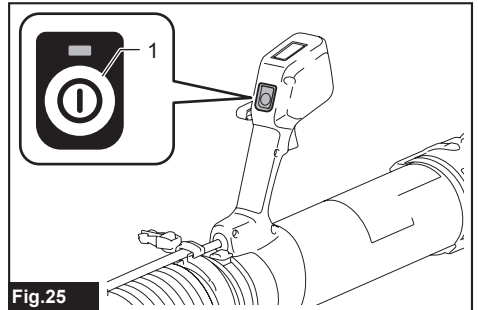


Fig.25

► 1. Main power switch

Hold the control handle firmly and perform the blowing operation by moving it around slowly. When blowing around building, big stone or vehicle, direct the nozzle away from them. When performing an operation in a corner, start from the corner and then move to wide area.

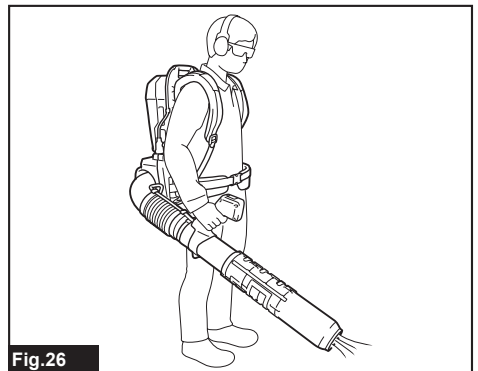


Fig.26

When setting down the machine, unlock the buckle of the waist belt, and then set down the machine slowly.

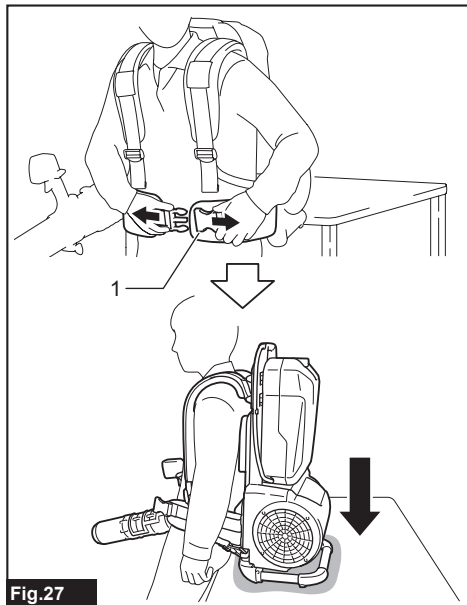


Fig.27

▶ 1. Buckle

## MAINTENANCE

**CAUTION:** Always be sure that the machine is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.

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.

## Cleaning the machine

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

Clean the machine by wiping off dust with a dry cloth or one dipped in soapy water and wrung out.

Remove dust or dirt from the suction inlet.

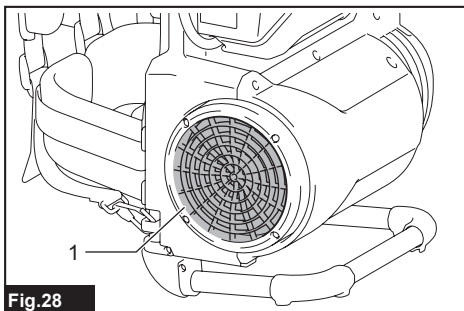


Fig.28

▶ 1. Suction inlet

## Storage

**NOTICE:** Be sure to close the plug cover before storage. If the plug cover is opened or not fully closed, dust may enter the machine and cause a malfunction of machine.

Before storing the machine, pull out the socket from the plug and perform full maintenance. Store the machine in a place out of the reach of children and not exposed to moisture, rain, or direct sunlight.

You can connect the band of the pipe to the machine as shown in the figure to stand up the pipe.

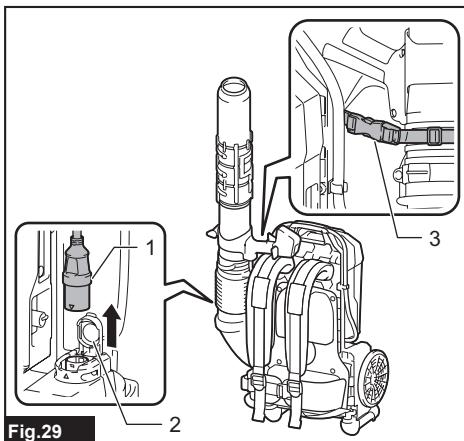


Fig.29

▶ 1. Socket 2. Plug cover 3. Band

# 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 machine. Instead, ask Makita Authorized Service Centers, always using Makita replacement parts for repairs.

State of abnormality	Probable cause (malfunction)	Remedy
Motor does not run.	Battery is not installed.	Install the battery.
	Battery problem (under voltage)	Recharge the battery. If recharging is not effective, replace battery.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Motor stops running after a little use.	Battery's charge level is low.	Recharge the battery. If recharging is not effective, replace battery.
	Overheating.	Stop using the machine to allow it to cool down.
The machine does not reach the maximum speed.	Battery is installed improperly.	Install the battery as described in this manual.
	Battery power is dropping.	Recharge the battery. If recharging is not effective, replace battery.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Abnormal vibration: ⇒ stop the machine immediately!	The drive system does not work correctly.	Ask your local authorized service center for repair.
Motor cannot stop: ⇒ Remove the battery immediately!	Electric or electronic malfunction.	Remove the battery and ask your local authorized service center for repair.

## OPTIONAL ACCESSORIES

**⚠ CAUTION:** These accessories or attachments are recommended for use with your Makita product 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.

- Extension nozzle
- Flat nozzle
- Adapter pipe
- 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.









**Makita Europe N.V.** Jan-Baptist Vinkstraat 2,  
3070 Kortenberg, Belgium

**Makita Corporation** 3-11-8, Sumiyoshi-cho,  
Anjo, Aichi 446-8502 Japan

[www.makita.com](http://www.makita.com)

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