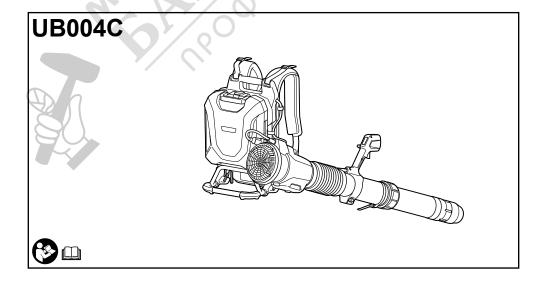
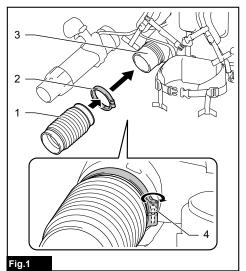
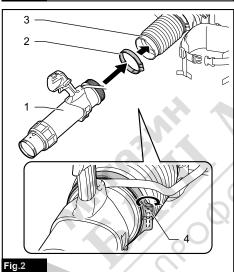
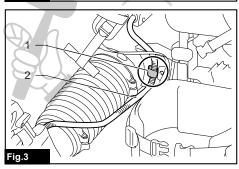


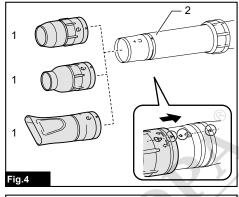
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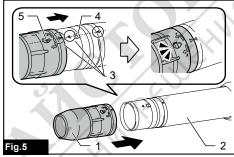


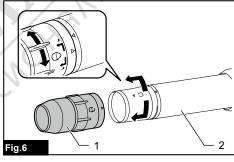


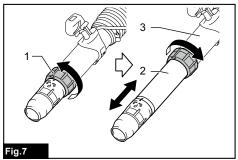


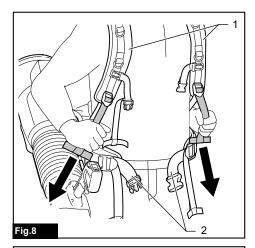


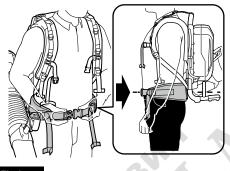


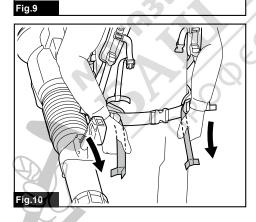


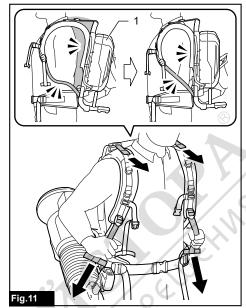


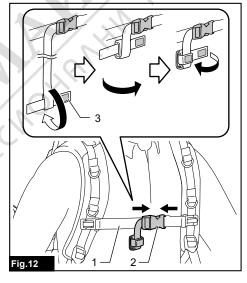


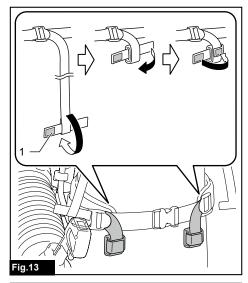


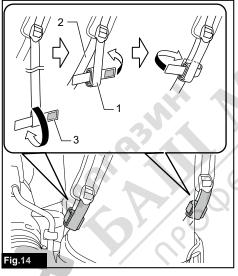


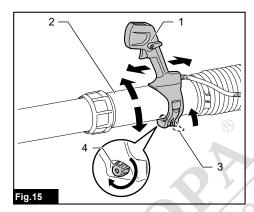




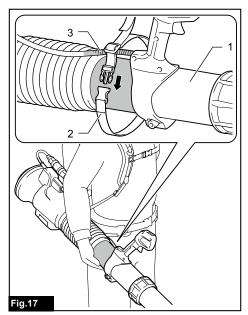


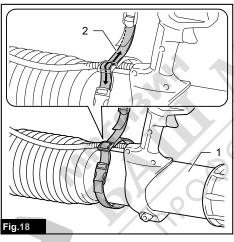


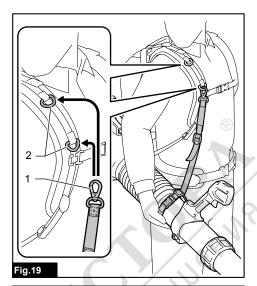


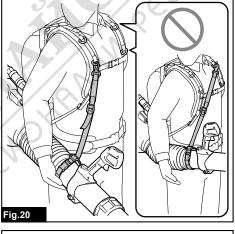


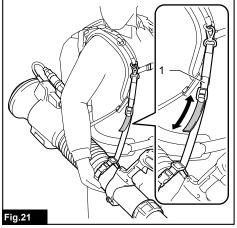


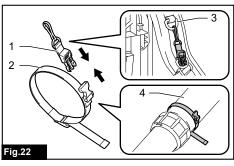


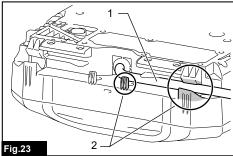


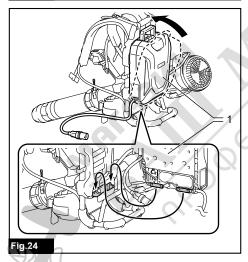


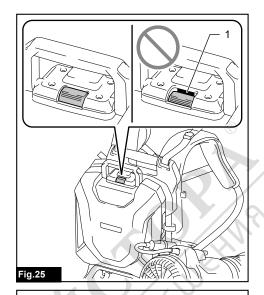


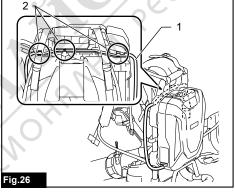


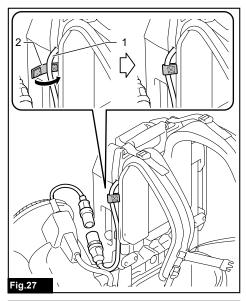


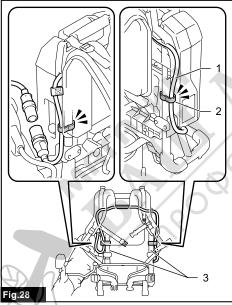


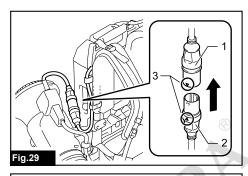


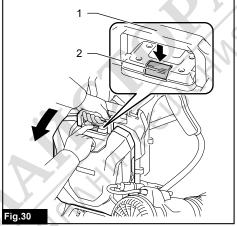


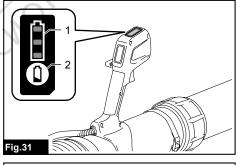


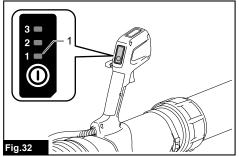


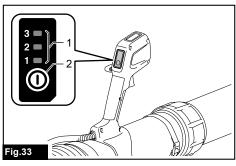


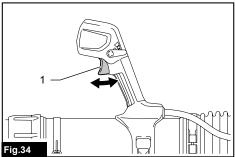


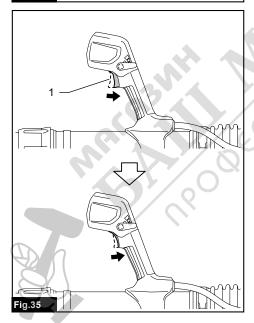


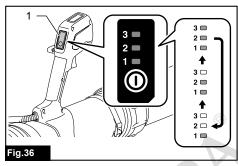


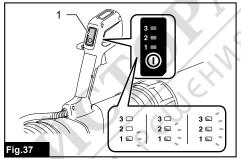


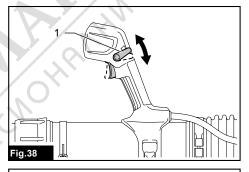


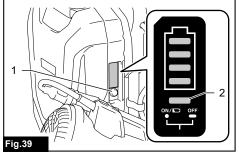


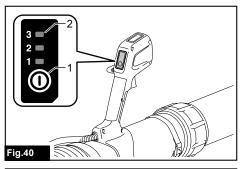




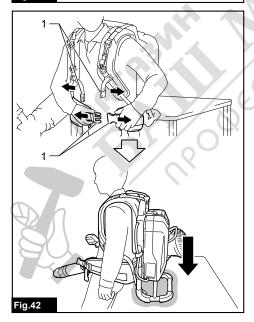


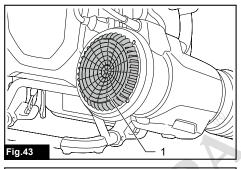


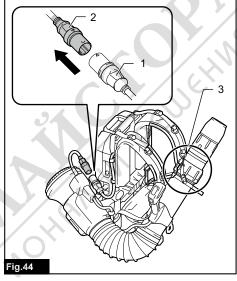












# **SPECIFICATIONS**

Model:		UB004C	
Capacities *1 *2 Air volume		0 - 19.7 (20.9) m³/min	
	Air speed [average]	0 - 63.8 (67.6) m/s	
	Air speed [max.]	0 - 76.3 (80.7) m/s	
Dimensions (L x W x H) *3		460 mm x 575 mm x 585 mm	
Rated voltage		D.C. 36 V - 40 V max	
Net weight		16.5 - 18.6 kg	
Protection degree		IPX4	

<sup>\*1</sup> Air blowing capacities in boost mode read in parentheses.

- 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 / PDC1500

**AWARNING:** 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.

$\triangle$	Take particular care and attention.
	Read instruction manual.
	Keep hands away from rotating parts.
	Long hair may cause entanglement accident.
<b>▲</b> ••	Keep bystanders away.
	Wear eye and ear protection.
	Do not expose to moisture.
	A representative portable power pack applicable to this product.



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 wastel

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 ELI 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".

<sup>\*2</sup> Measured with end nozzle 81 and PDC1500.

<sup>\*3</sup> Without nozzles.

Due to our continuing program of research and development, the specifications herein are subject to change without notice.

#### Noise

The typical A-weighted noise level determined accord-

ing to EN50636-2-100:

Sound pressure level (L<sub>pA</sub>): 82.3 dB (A)

Uncertainty (K): 3.1 dB (A)

Sound power level (L<sub>WA</sub>): 96.1 dB (A)

Uncertainty (K): 2.1 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.

AWARNING: 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.

**AWARNING:** 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 $^2$  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.

## Battery Powered Backpack Blower Safety Instructions

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

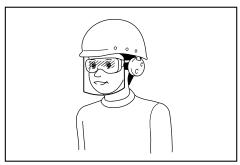
## Save all warnings and instructions for future reference.

#### Training

- Read the instructions carefully. Be familiar with the controls and the correct use of the blower.
- 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.
- Never operate the blower while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

#### Preparation

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

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

- 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.
- Operate the blower only in daylight or in good artificial light.
- 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.
- Keep all cooling air inlets clear of debris.
- Never blow debris in the direction of bystanders.
- Operate the blower in a recommended position and on a firm surface.
- 9. Do not operate the blower at high places.
- 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,
- 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.

- 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.
- Never blow dangerous materials, such as nails, fragments of glass, or blades.
- 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.
- When you use the machine on muddy ground, wet slope, or slippery place, pay attention to your footing.
- 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.

#### Maintenance and storage

- Keep all nuts, bolts and screws tight to be sure the blower is in safe working condition.
- If the parts are worn or damaged, replace them with parts provided by Makita.
- 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.
- Do not expose the blower to rain. Store the blower indoors.
- When you lift the blower, be sure to bend your knees and be careful not to hurt your back.
- When washing the machine, do not let water enter the electrical mechanism such as battery, motor, and terminals.
- When storing the machine, avoid direct sunlight and rain, and store it in a place where it

- does not get hot or humid.
- 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

- 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.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- 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.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns
- Do not 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.
- 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

- Do not dispose of the battery(ies) in a fire.
   The cell may explode. Check with local codes for possible special disposal instructions.
- Do not open or mutilate the battery(ies).
  Released electrolyte is corrosive and may cause
  damage to the eyes or skin. It may be toxic if
  swallowed.
- Do not charge battery in rain, or in wet locations.
- 4. Do not charge the battery outdoors.
- Do not handle charger, including charger plug, and charger terminals with wet hands.
- 6. Do not replace the battery with wet hands.
- 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.
- After removing the battery from the machine or charger, be sure to store it in a dry place.

 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.

#### 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.

#### Additional Safety Instructions

- 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.
- Before use, check the supply cord and any extension cord for signs of damage or aging. Do not touch the cord before disconnecting the supply. Do not use the machine if the cord is damaged or worn. A damaged supply cord may result in electric shock, fire and/or serious injury.
- Wear eye protection and ear protection.
   Adequate protective equipment will reduce the risk of personal injury.
- While operating the machine, always wear non-slip and protective footwear. Do not operate the machine when barefoot or wearing open sandals. This reduces the risk of injury to the feet.
- 5. Do not wear loose fitting clothing or articles such as scarves, strings, chains, ties, etc., that could get drawn into the air inlets. Tie back or cover long hair to make sure it does not get drawn into the air inlets. If any of these items are drawn into the air inlets, it can increase the risk of personal injury.
- Keep bystanders away while operating the machine. Thrown debris can increase the risk of personal injury.
- 7. Never point the blower nozzle in the direction of people or pets or in the direction of windows. Use extra caution when blowing debris near solid objects, such as trees, automobiles and walls that can cause debris to ricochet. Thrown objects can damage property and increase the risk of personal injury.
- Do not use the machine to blow anything that is burning or smoking, such as cigarettes, matches or hot ashes. These ignition sources may increase the risk of fire.
- Do not touch the fan while still in motion. Turn off the machine, wait until the fan stops and unplug the machine, before removing any part that may give access to the fan. This reduces the risk of injury from moving parts.
- 10. When clearing jammed material or servicing the machine, make sure the power switch is off and the power cord is disconnected. Unexpected actuation of the machine while clearing jammed material or servicing may increase the risk of personal injury.

- Incoming foreign substance may block the air channels and laden air flows. Remove any obstacles in the air path if the blowing performance is being affected.
- Always wear gloves during operation. Avoid operating the machine with your bare hands. This reduces the risk of injury to the hands and fingers.
- Wear no more than one set of harness at one time. Putting on harness and belts in layers makes it difficult to take them off in cases of emergency.
- Make sure that no other wearable interferes with the release and removal of harness.
- Do not apply a heavy load to the shoulder harness. The shoulder harness will be damaged under conditions of high tension and severe stress
- 16. Adjust the air volume adequately to prevent you from losing balance during operation. The machine can generate a high blowing power, unless carefully controlled, causing a reaction movement.

#### 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:
  - (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.

 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.
- 9. Do not use a damaged battery.

around in the packaging.

 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

- 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.
- 13. 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.
- 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.

**ACAUTION:** 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**

**ACAUTION:** 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

**NOTICE:** Be careful not to twist the cable of the control handle when assembling blower pipes.

- Loosen the screw on a hose clamp. Place the hose clamp over one opening end of the flexible pipe. Attach the flexible pipe to the front pipe. Then tighten the screw on the hose clamp.
- ► Fig.1: 1. Flexible pipe 2. Hose clamp 3. Front pipe 4. Screw
- 2. Loosen the screw on a hose clamp. Place the hose clamp over the other opening end of the flexible pipe. Attach the blower pipes to the flexible pipe. Then tighten the screw on the hose clamp.
- ► Fig.2: 1. Blower pipes 2. Hose clamp 3. Flexible pipe 4. Screw
- 3. Clamp the control cable to the cable holder.
- ▶ Fig.3: 1. Cable holder 2. Control cable

**NOTE:** Adjust the control cable tension comfortably with the cable holder according to your control handle position. Disengage the control cable from the cable holder, if necessary, to release tension.

## Installing blower nozzles

Attach one of blower nozzles supplied with the machine to the middle pipe.

► Fig.4: 1. Nozzles 2. Middle pipe

Align the arrow mark on a nozzle with those on the middle pipe. Then slide the nozzle onto the front end of the middle pipe until the projection on the middle pipe is engaged with the cutout groove on the nozzle.

► Fig.5: 1. Nozzle 2. Middle pipe 3. Arrow marks

4. Projection 5. Cutout groove

To remove the nozzle, turn the nozzle either to the left or to the right to disengage the lock. Then slide the nozzle off the middle pipe.

► Fig.6: 1. Nozzle 2. Middle pipe

### Adjusting blower pipes lengths

The blower pipes can be extended to the desired lengths according to your needs.

Loosen the lock ring by turning it in the direction shown in the figure. Slide the middle pipe out from the blower pipe to your desired length, and then turn the lock ring counter-wise to lock the middle pipe.

► Fig.7: 1. Lock ring 2. Middle pipe 3. Blower pipe

**NOTE:** Fasten the lock ring firmly to set the middle pipe in place and ensure a secure fit.

# Adjusting belts and shoulder harness

**ACAUTION:** When adjusting the belts and shoulder harness, be sure to disconnect the machine from a portable power pack.

- 1. Put on the machine. Adjust the lengths of the shoulder harness so that the waist belt is positioned at your waist.
- ► Fig.8: 1. Shoulder harness 2. Waist belt
- 2. Lock the buckle of the waist belt.
- ▶ Fig.9

**NOTE:** Make sure that the waist belt is in the recommended position as shown in the figure. If the waist belt is above or below the recommended position, it is difficult to work comfortably.

3. Adjust the lengths of the waist belt.

Make sure that the waist belt well fits around your waist. ► Fig.10

**4.** Adjust the lengths of the shoulder harness.

Make sure that the portable power pack unit fits tightly against your back.

- ▶ Fig.11: 1. Portable power pack unit
- 5. Lock the buckle of the chest belt. Place the belt in a correct position as shown in the figure. Then adjust the lengths of the chest belt.
- ► Fig.12: 1. Chest belt 2. Buckle 3. Hook and loop fastener

**NOTE:** Fold and fix the chest belt with the hook and loop fastener as shown in the figure.

- **6.** Fold and fix the waist belt with the hook and loop fastener as shown in the figure.
- ▶ Fig.13: 1. Hook and loop fastener
- 7. Make a loose end of shoulder harness strap several folds and lay it flat over the tensioned strap. Tie them up together with the hook and loop fastener.
- ► Fig.14: 1. Loosen strap 2. Tensioned strap 3. Hook and loop fastener

## Adjusting control handle position

The control handle can be positioned at your convenience and comfort.

Release the clamp lever. Move and turn the control

handle along the blower pipe to your comfortable position. Then tighten the clamp lever.

When the clamp becomes loose during use, retighten the clamp screw.

► Fig.15: 1. Control handle 2. Blower pipe 3. Clamp lever 4. Clamp screw

### Installing pipe support belt

The pipe support belt helps to reduce the load on your hand during operation. Snap the hook on the shoulder harness to hang the blower pipes with the adjustable belts.

- ▶ Fig.16
- 1. Bind the strap belt around the blower pipe.

Be sure to tie up the control cable for clamping it on the blower pipe.

- ▶ Fig.17: 1. Blower pipe 2. Strap belt 3. Control cable
- 2. Adjust the belt tension on the blower pipe.
- ► Fig.18: 1. Blower pipe 2. Strap belt
- **3.** Hang the snap hook on one of the hanger rings in the right shoulder harness.
- ► Fig.19: 1. Snap hook 2. Hanger rings

Do not hang the snap hook on the left shoulder harness. It may make it difficult to take the machine off in case of an emergency.

- ► Fig.20
- Adjust the lengths of the support belt according to your preferences.
- ► Fig.21: 1. Support belt

### Installing folding strap

Safely strap the blower pipes to the shoulder harness while the machine is not in use.

Hang a suspender on the hook in the left shoulder harness. Wrap a strap belt around the blower pipe. Then buckle the folding strap up.

Unbuckle the folding strap before operating the machine.

► Fig.22: 1. Suspender 2. Strap belt 3. Hook in left shoulder harness 4. Blower pipe

# FUNCTIONAL DESCRIPTION

**ACAUTION:** 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

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

ACAUTION: 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.

ACAUTION: 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 safely attached to the cord holders and the socket is connected to the plug securely.

1. Pull out the cord from the bottom of the portable power pack to the direction as shown in the figure.

Be sure to secure the cord in the cord holders when pulling out the cord.

- ► Fig.23: 1. Cord 2. Cord holders
- 2. Install the portable power pack to the machine as shown in the figure.
- ► Fig.24: 1. Portable power pack
- ► Fig.25: 1. Red indicator

ACAUTION: 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.

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

- **3.** Attach the cord to the cord holders as shown in the figure.
- ► Fig.26: 1. Cord 2. Cord holders
- **4.** Tie up the cord with the hook and loop band sewn on the harness over the right shoulder.
- ▶ Fig.27: 1. Cord 2. Hook and loop band
- 5. Bundle the loose cord up and secure it with the cord clips attached to the side poles of the base carrier.
- ► Fig.28: 1. Cord 2. Cord clip 3. Side pole
- **6.** Align the arrow mark on the plug of the machine with that on the socket of the portable power pack, and then insert the plug into the socket all the way.
- ► Fig.29: 1. Socket 2. Plug 3. Arrow marks

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

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

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

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

► Fig.30: 1. Handle 2. Lock button

# Indicating the remaining battery capacity

► Fig.31: 1. Battery indicator 2. Check button

Press the check button to indicate the remaining battery capacity.

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

**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:

► Fig.32: 1. Low speed indicator lamp

Low speed indicator lamp			<b>~</b>	
Color	On	Blinking	Status	
Green			Overload	
Red	(machine) / (battery)		Overheat	
Red			Over discharge	

#### 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 low speed indicator 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 low speed indicator 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.

**NOTE:** When you maximize the air volume with the switch trigger or control lever after the machine turns back on from an auto stop, the air volume may be lower than before resuming the operation depending on the usage conditions, ambient environment, and remaining battery capacity. By recharging the portable power pack, the machine can be operated at the maximum air volume obtained before resuming the operation.

### Overheat protection

If the machine or battery is overheated, the machine stops automatically. When the machine is overheated, the low speed indicator lamp lights up in red. When the battery is overheated, the low speed indicator lamp blinks in red. Let the machine and/or battery cool down before turning the machine on again.

## Overdischarge protection

When the battery capacity is not enough, the machine stops automatically and the low speed indicator 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.

- Turn the machine off, and then turn it on again to restart.
- 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. The speed indicator lights up in green. To turn off, press and hold the main power switch until the speed indicator goes off.

The speed can be changed in three levels. To change the speed mode, press the main power switch. When you change the speed mode, the corresponding speed indicator lights up.

▶ Fig.33: 1. Speed indicator 2. Main power switch

Indicator	Mode	Air volume
3 📟		
2 📟	High	0 - 19.7 m³/min
1 🗆		
3 □		
2 📟	Medium	0 - 15.2 m³/min
1 🗆		
3 □		
2 🗆	Low	0 - 8.5 m³/min
1 🗆		

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

NOTE: If you press the main power switch when the control lever is not fully returned to the off position, or while you are pulling the switch trigger, the low speed indicator blinks in green. In this case, fully return the control lever, or release the switch trigger, and then press the main power switch.

#### Switch action

**AWARNING:** 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.34: 1. Switch trigger

You can use the machine in the boost mode. In the boost mode, the air volume becomes larger than in the normal mode (cruise control mode).

To use the machine in the boost mode, pull the switch trigger until the switch trigger stops in the halfway position, and then pull the switch trigger fully.

Release the switch trigger to exit the mode.

► Fig.35: 1. Switch trigger

**NOTE:** The boost mode cannot be activated when you use PDC1200 as portable power pack.

**NOTE:** While the machine is in the boost mode, the speed indicator lights up sequentially in a linear pattern

► Fig.36: 1. Speed indicator

**NOTE:** The average duration of time you can operate the machine in the boost mode is approximately 10 seconds. After the duration time elapses, the machine automatically switches to the cruise control mode and the boost mode will not be available for the next 20 seconds.

NOTE: The boost mode remains unavailable while the speed indicator you have previously set at blinks. To re-enter the boost mode, let the machine cool down for a while and then pull the switch trigger fully again.

▶ Fig.37: 1. Speed indicator

#### **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.38: 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 low speed indicator 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**

ACAUTION: 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.

**ACAUTION:** 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.

**ACAUTION:** 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.39: 1. Power button 2. Main power lamp
- 2. Put on the shoulder harness of the machine and lock the buckles on the waist belt and chest belt.
- 3. Press the main power switch to turn on the machine.

The machine is ready to operate. Press the main power switch to change the speed mode. The machine will run when you pull the switch trigger.

▶ Fig.40: 1. Main power switch 2. Speed indicator

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.41

**NOTE:** The blowing power in the boost mode will decrease as battery is consumed. Further use in decreasing blowing power brings the battery close to empty, and the boost mode will be unavailable until you charge the battery. Recharge the battery when you find the blowing power in the boost mode decreasing.

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

► Fig.42: 1. Buckles

# **MAINTENANCE**

**ACAUTION:** 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.43: 1. Suction inlet

## Storage

Before storing the machine, pull the plug out of the socket 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 buckle the folding strap as shown in the figure to stand up the blower pipes.

▶ Fig.44: 1. Socket 2. Plug 3. Folding strap

# **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.
7/	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.
45/1	Overheating.	Stop using the machine to allow it to cool down.
The machine does not reach the	Battery is installed improperly.	Install the battery as described in this manual.
maximum speed.	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

**ACAUTION:** 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.

- End nozzle 74
- Flat nozzle
- 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.