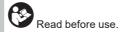
# **INSTRUCTION MANUAL**



# Cordless Hedge Trimmer

# **UH020G UH021G**





# ECIFICATIONS

Model:		UH020G	UH021G	
Blade length		500 mm	600 mm	
Strokes per minute		4200 min <sup>-1</sup>		
Overall length (Without battery)		866 mm	985 mm	
Rated voltage		D.C. 36 V - 40 V max		
Net weight *1		1.6 kg		
	*2	3.0 - 4.2 kg	3.1 - 4.3 kg	
Protection degree		IPX4		

- Due to our continuing program of research and development, the specifications herein are subject to change
- Specifications may differ from country to country.
- \*1: Weight without any accessories or battery cartridge(s)
- \*2: The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combinations, according to EPTA-Procedure 01/2014, are shown in the table.

### Applicable battery cartridge and charger

Battery cartridge	BL4020* / BL4025* / BL4040* / BL4040F* / BL4050F / BL4080F *: Recommended battery
Charger	DC40RA / DC40RB / DC40RC / DC40WA

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

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

### Recommended cord connected power source

Portable power pack	PDC01 / PDC1200 / PDC1500
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- The cord connected power source(s) listed above may not be available depending on your region of residence.
- Before using the cord connected power source, read instruction and cautionary markings on them.

### **Symbols**

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



Read instruction manual.



Wear eye protection.









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 EU Outdoor Noise Directive.



Sound power level according to Australia NSW Noise Control Regulation.

### Intended use

The tool is intended for trimming hedges.

#### Noise

The typical A-weighted noise level determined according to EN62841-4-2:

Model	Sound pressure level		Guaranteed sound power level	Measured sound power level	
	L <sub>pA</sub> (dB(A))	Uncertainty K (dB(A))	L <sub>wA</sub> (dB(A))	L <sub>wA</sub> (dB(A))	Uncertainty K (dB(A))
UH020G	83	3	93	91.0	1.7
UH021G	83	3	93	91.0	1.7

**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.

**AWARNING:** 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 EN62841-4-2:

Model	Front handle		Rear handle	
	ah (m/s²)	Uncertainty K (m/s²)	ah (m/s²)	Uncertainty K (m/s²)
UH020G	2.5 m/s <sup>2</sup> or less	1.5	2.5 m/s <sup>2</sup> or less	1.5
UH021G	2.5 m/s <sup>2</sup> or less	1.5	2.5 m/s <sup>2</sup> or less	1.5

**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.

**AWARNING:** 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.

**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).

### **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

AWARNING 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

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

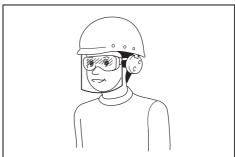
#### **Electrical safety**

- 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.
- 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.
- Do not operate the machine in rain or wet conditions. Water entering the machine may increase
  the risk of electric shock or malfunction that could
  result in personal injury.
- 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.
- 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.
- 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.
- 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

- 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.
- 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.
- 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.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 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.
- 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.
- 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.
- 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

- 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.
- 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.
- 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.

- 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.
- 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.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 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.
- 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.
- 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

- 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.

#### 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.
- Follow instruction for lubricating and changing accessories.

# Cordless hedge trimmer safety warnings

- Do not use the hedge trimmer in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.
- Keep all power cords and cables away from cutting area. Power cords or cables may be hidden in hedges or bushes and can be accidentally cut by the blade.
- Wear ear protection. Adequate protective equipment will reduce the risk of hearing loss.
- 4. Hold the hedge trimmer by insulated gripping surfaces only, because the blade may contact hidden wiring. Blades contacting a "live" wire may make exposed metal parts of the hedge trimmer "live" and could give the operator an electric shock
- 5. Keep all parts of the body away from the blade. Do not remove cut material or hold material to be cut when blades are moving. Blades continue to move after the switch is turned off. A moment of inattention while operating the hedge trimmer may result in serious personal injury.
- 6. When clearing jammed material or servicing the hedge trimmer, make sure all power switches are off and the battery pack is removed or disconnected. Unexpected actuation of the hedge trimmer while clearing jammed material or servicing may result in serious personal injury.
- Carry the hedge trimmer by the handle with the blade stopped and taking care not to operate any power switch. Proper carrying of the hedge trimmer will decrease the risk of inadvertent starting and resultant personal injury from the blades.
- When transporting or storing the hedge trimmer, always use the blade cover. Proper handling of the hedge trimmer will decrease the risk of personal injury from the blades.

# Additional safety warnings

#### Preparation

- Check the hedges and bushes for foreign objects, such as wire fences or hidden wiring before operating the tool.
- The tool must not be used by children or young persons under 18 years of age. Young persons over 16 years of age may be exempted from this restriction if they are undergoing training under the supervision of an expert.

- First-time users should have an experienced user show them how to use the tool.
- 4. Use the tool only if you are in good physical condition. If you are tired, your attention will be reduced. Be especially careful at the end of a working day. Perform all work calmly and carefully. The user is responsible for all damages to third parties.
- Never use the tool when under the influence of alcohol, drugs or medication.
- Work gloves of stout leather are part of the basic equipment of the tool and must always be worn when working with it. Also wear sturdy shoes with anti-skid soles.
- Before starting work, make sure that the tool is in good and safe working condition. Ensure guards are fitted properly. The tool must not be used unless fully assembled.
- 8. When handing the hedge trimmer to other person, once put the hedge trimmer on the ground and pick up the hedge trimmer after you completely take your hand off. Passing the hedge trimmer by hand causes holding both the front handle and the rear handle at the same time, and then the hedge trimmer starts unintentionally. Unintentional starting may cause serious injury.

#### Operation

- Hold the tool firmly with both hands when using the tool.
- The tool is intended to be used by the operator at ground level. Do not use the tool on ladders or any other unstable support.
- DANGER Keep hands away from blade.
   Contact with blade will result in serious personal injury.
- Do not use the tool in the rain or in wet or very damp conditions. The electric motor is not waterproof.
- Make sure you have a secure footing before starting operation.
- Do not operate the tool at no-load unnecessarily.
- Immediately switch off the tool and remove the battery cartridge if the shear blades should come into contact with a fence or other hard object. Check the blades for damage, and if damaged, replace the blades immediately.
- Before checking the shear blades, taking care of faults, or removing material caught in the shear blades, always switch off the tool and remove the battery cartridge.
- Never point the shear blades to yourself or others.
- 10. If the blades stop moving due to the stuck of foreign objects between the blades during operation, switch off the tool and remove the battery cartridge, and then remove the foreign objects using tools such as pliers. Removing the foreign objects by hand may cause an injury for the reason that the blades may move in reaction to removing the foreign objects.

### **Electrical and battery safety**

- Avoid dangerous environment. Don't use the tool in damp or wet locations or expose it to rain. Water entering the tool will increase the risk of electric shock.
- 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.
- 4. Do not charge battery in rain, or in wet locations.
- 5. Do not charge the battery outdoors.
- Do not handle charger, including charger plug, and charger terminals with wet hands.

#### Maintenance and storage

- Switch off the tool and remove the battery cartridge before doing any maintenance work.
- When moving the tool to another location, including during work, always remove the battery cartridge and put the blade cover on the shear blades. Never carry or transport the tool with the blades running. Never grasp the blades with your hands.
- Clean the tool and especially the shear blades after use, and before putting the tool into storage for extended periods. Lightly oil the blades and put on the blade cover.
- Store the tool with the blade cover on, in a dry room. Keep it out of reach of children. Never store the tool outdoors.
- Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.

### 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.

- 5. 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.
  - (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.
- 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.

- 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.
- 14. During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.
- 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).

# FUNCTIONAL DESCRIPTION

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

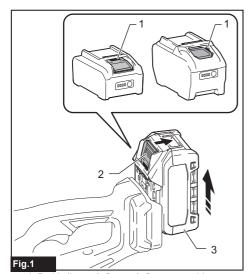
# Installing or removing battery cartridge

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

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

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator as shown in the figure, it is not locked completely.

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.



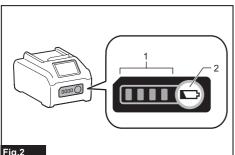
▶ 1. Red indicator 2. Button 3. Battery cartridge

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

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

# Indicating the remaining battery capacity

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



▶ 1. Indicator lamps 2. Check button

Indicator lamps			Remaining
Lighted	Off	Blinking	capacity
			75% to 100%
			50% to 75%
			25% to 50%
			0% to 25%
			Charge the battery.
	<b>■</b> □ □		The battery may have malfunctioned.

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

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

### **Tool / battery protection system**

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



1. Indicator lamp

Indicator lamp			Status
Color	On	Blinking	
Red	(tool) / (battery)		Overheat
Red			Over discharge

NOTICE: Depending on the usage conditions, the tool automatically stops without any indication if the branches or debris are entangled in the tool. In this case, switch off the tool and remove the battery cartridge, and then remove entangled branches or debris using tools such as pliers. After removing the branches or debris, install the battery cartridge and turn on the tool again.

### Overload protection

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

### Overheat protection

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

### Overdischarge protection

When the battery capacity becomes low, the tool stops automatically and the indicator lamp starts blinking in red

If the tool does not operate even when the switches are operated, remove the battery cartridge from the tool and charge it.

### Protections against other causes

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

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

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

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

### Switch action

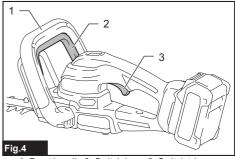
▲WARNING: For your safety, this tool is equipped with switch lever which prevents the tool from unintended starting. NEVER use the tool if it runs when you simply pull the switch trigger without pressing the switch lever. Return the tool to our authorized service center for proper repairs BEFORE further usage.

MARNING: NEVER tape down or defeat purpose and function of switch lever.

AWARNING: Before installing the battery cartridge on the tool, always check to see that the switch trigger and switch lever actuate properly and return to the "OFF" position when released. Operating a tool with a switch that does not actuate properly can lead to loss of control and serious personal injury.

**ACAUTION:** Never put your finger on the switch when carrying. The tool may start unintentionally and cause injury.

To start the tool, hold the front handle while pressing the switch lever and pull the switch trigger. To stop the tool, release either the switch trigger or the switch lever.



1. Front handle 2. Switch lever 3. Switch trigger

### Reverse button for debris removal

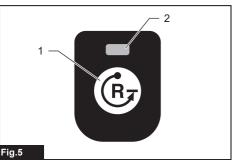
AWARNING: If the entangled branches or debris cannot be removed by the reverse function, switch off the tool and remove the battery cartridge, and then remove the entangled branches or debris using tools such as pliers. Failure to switch off the tool and remove the battery cartridge may result in serious personal injury from accidental start-up. Removing the entangled branches or debris by hand may cause an injury, since the shear blades may move in reaction to removing them.

This tool has a reverse button to change the direction of shear blades movement. It is only for removing branches and debris entangled in the tool.

To reverse the shear blades movement, press the reverse button when the shear blades have stopped, and then pull the switch trigger while pressing the lever. The indicator lamp blinks, the shear blades move in the

reverse direction, and the shear blade stops in the open position.

If you pull the switch trigger while pressing the lever again, the tool will start in normal mode.



■ 1. Reverse button 2. Indicator lamp

**NOTE:** If the entangled branches or debris cannot be removed, release the switch trigger or the switch lever, press the reverse button, and then press the switch lever and pull the switch trigger until they are removed.

**NOTE:** If you tap the reverse button while the shear blades are still moving, the tool comes to stop to become ready for reverse movement.

### **Electronic function**

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

- Constant speed control
   The speed control function provides the constant rotation speed regardless of load conditions.
- Electric brake
   This tool is equipped with an electric brake. If the tool consistently fails to quickly stop the shear blades after releasing the switch trigger, have the tool serviced at Makita Authorized Service Center.
- Accidental re-start preventive function
  Even if you install the battery cartridge while
  pressing the switch lever and pulling the switch
  trigger, the tool does not start. To start the tool,
  first release the switch trigger or the switch lever,
  and then press the switch lever and pull the switch
  trigger.

# **ASSEMBLY**

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

ACAUTION: When replacing the shear blades, always wear gloves so that your hands do not directly contact the blades.

**NOTICE:** When replacing the shear blades, do not wipe off grease from the gear and crank.

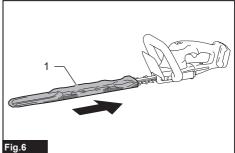
# Installing or removing the shear blades

ACAUTION: Attach the blade cover before removing or installing the shear blades.

**ACAUTION:** When attaching/detaching the blade cover, pay attention to edge of the blades so as not to injure yourself.

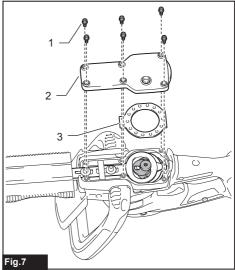
You can install 500 mm or 600 mm shear blades on your tool.

Attach the blade cover to the shear blades.



► 1. Blade cover

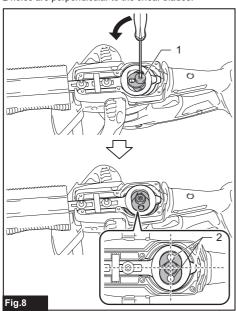
2. Place the tool upside down, then remove 6 bolts, and then remove the cover and the plate.



1. Bolt 2. Cover 3. Plate

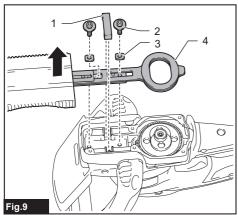
NOTE: The plate may remain on the cover.

**3.** Turn the crank with the slotted screwdriver so that 2 holes are perpendicular to the shear blades.



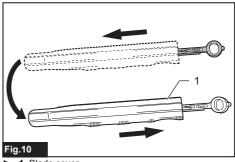
▶ 1. Crank 2. Hole

**4.** Remove 2 bolts, the felt pad and the sleeves, and then remove the shear blades.



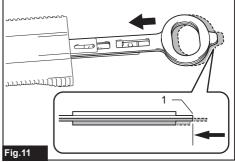
▶ 1. Felt pad 2. Bolt 3. Sleeve 4. Shear blades

**5.** Remove the blade cover, and then attach it to the new shear blades.



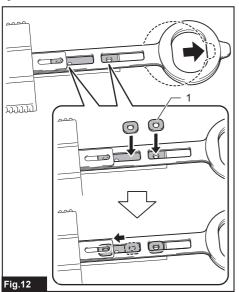
▶ 1. Blade cover

**6.** Align the rear edges of the shear blades as shown in the figure.



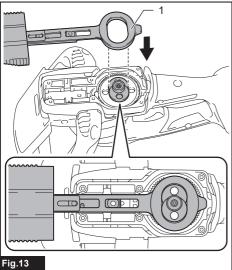
▶ 1. Rear edge

Slide the shear blades slightly as shown in the 7. figure, and then attach the sleeves to the shear blades.



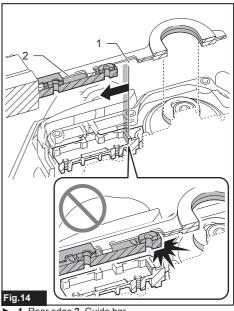
1. Sleeve

Slide the blade cover slightly toward the tip of the shear blades, and then attach the shear blades to the tool.



1. Shear blades

When attaching the shear blades to the tool, align the guide bar with the opposite side of the rear edge so that the guide bar does not hit the ribs.

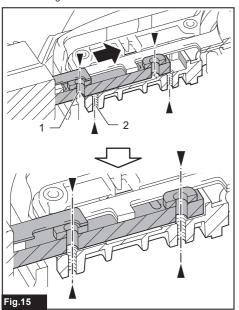


1. Rear edge 2. Guide bar

**NOTICE:** Apply a small amount of grease to the inner periphery of the hole of the shear blades.

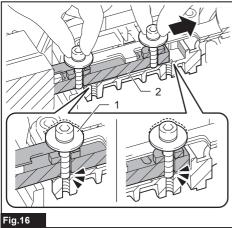
NOTICE: Be careful not to lose the sleeves.

9. Slide the guide bar to the gear side and align the holes on the guide bar with the holes on the tool.



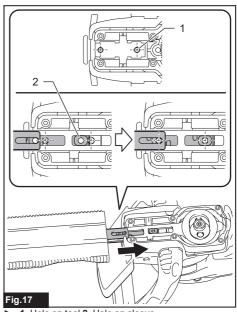
1. Hole on guide bar 2. Hole on tool

When sliding the guide bar, it is easier to do so by inserting the bolts into the holes of the guide bar.



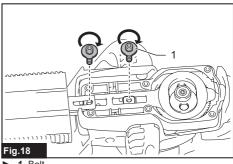
1. Bolt 2. Guide bar

10. Slide the shear blades and sleeves so that the holes on the sleeves are aligned with the holes on the



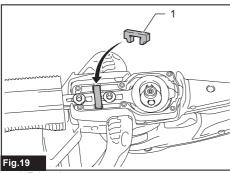
1. Hole on tool 2. Hole on sleeve

**11.** Tighten the bolts to fix the shear blades.



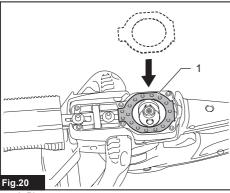
1. Bolt

12. Attach the felt pad to the shear blades.



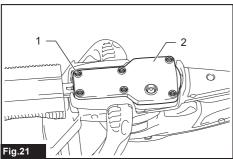
▶ 1. Felt pad

13. Attach the plate.



▶ 1. Plate

14. Attach the cover, and then tighten 6 bolts.



▶ 1. Bolt 2. Cover

**NOTICE:** If the shear blades do not move smoothly, the shear blades are not engaged with the crank properly. Install the shear blades again.

**NOTICE:** If the parts other than the shear blades such as the crank is worn out, ask Makita Authorized Service Centers for parts replacement or repairs.

# Installing or removing the chip receiver

### Optional accessory

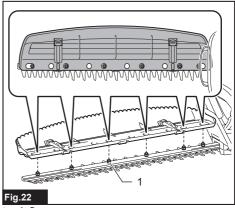
**ACAUTION:** When installing or removing the chip receiver, always wear gloves so that your hands do not directly contact the shear blades.

NOTICE: The blade cover cannot be installed if the chip receiver is installed on the tool. Before carrying or storing the tool, uninstall the chip receiver, and then install the blade cover to avoid blade exposure.

**NOTICE:** Be sure to remove the blade cover before installing the chip receiver.

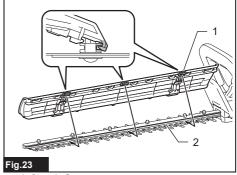
The chip receiver gathers discarded leaves and makes clean-up afterward much easier. It can be installed on either side of the tool.

1. Align the holes on the chip receiver with the screws on the shear blades.



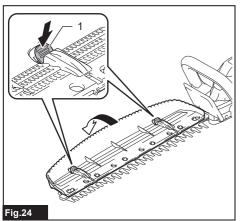
1. Screw

Hook the claws of the chip receiver to the groove on the shear blades.



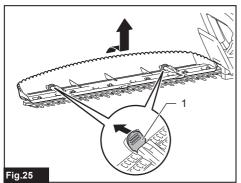
1. Claw 2. Groove

3. Press the levers on the chip receiver, and then hook the claws on the other side to the groove on the shear blades.



▶ 1. Lever

To remove the chip receiver, press the levers to release the claws.



▶ 1. Lever

**NOTICE:** Never try to remove the chip receiver by an excessive force with its hooks locked to the shear blades.

# **OPERATION**

**AWARNING:** Keep hands away from shear blades.

ACAUTION: Avoid operating the tool in very hot weather as much as possible. When operating the tool, be careful of your physical condition.

ACAUTION: Be careful not to accidentally contact a metal fence or other hard objects while trimming. The shear blades may break and cause an injury.

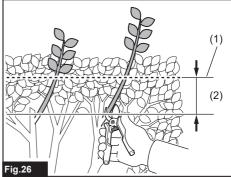
**ACAUTION:** Be careful not to allow the shear blades to contact the ground. The tool may recoil and cause an injury.

ACAUTION: Overreaching with a hedge trimmer, particularly from a ladder, is extremely dangerous. Do not work while standing on anything wobbly or infirm.

ACAUTION: Be sure to confirm that there are no people around before using.

**ACAUTION:** Do not work in an improper posture.

**NOTICE:** Do not attempt to cut branches thicker than 10 mm in diameter with the tool. Cut branches to 10 cm lower than the cutting height using branch cutters before using the tool.

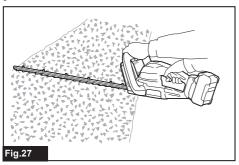


▶ (1) Cutting height (2) 10 cm

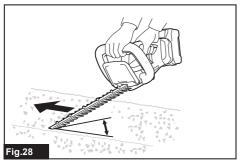
**NOTICE:** Do not cut down dead trees or similar hard objects. Doing so may damage the tool.

**NOTICE:** Do not trim the grass or weeds while using the shear blades. The shear blades may become tangled in the grass or weeds.

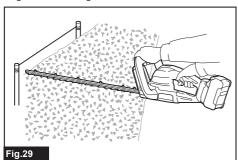
Hold the tool with both hands, hold the front handle while pressing the switch lever and pull the switch trigger, and then move the tool forward.



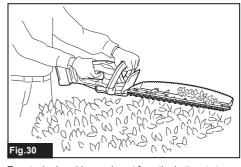
For basic operation, tilt the shear blades toward the trimming direction and move it calmly and slowly at the speed rate of 3 to 4 seconds per meter.



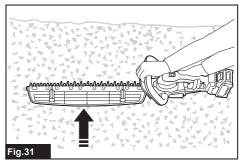
To cut a hedge top evenly, tie a string at the desired height and trim along it.



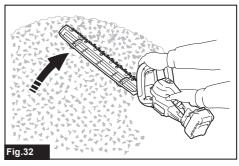
If the chip receiver is attached to the shear blades, it gathers discarded leaves and makes clean-up afterward much easier.



To cut a hedge side evenly, cut from the bottom to top.



When trimming to make a round shape (trimming boxwood or rhododendron, etc.), trim from the root to the top for a beautiful finish.



# **MAINTENANCE**

**ACAUTION:** Always be sure that the tool 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.

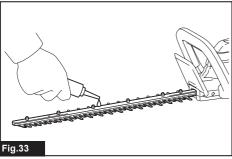
### Cleaning the tool

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

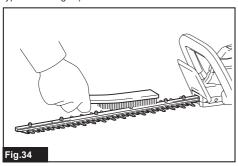
**NOTICE:** Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

### Shear blade maintenance

Before the operation or once per hour during operation, apply low-viscosity oil (machine oil, or spray-type lubricating oil) to the shear blades.



After operation, remove dust from both sides of the shear blades with a wired brush, wipe it off with a cloth and then apply low-viscosity oil (machine oil, or spraytype lubricating oil) to the shear blades.



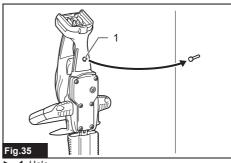
**NOTICE:** Do not wash the shear blades in water. Doing so may cause rust or damage to the tool.

**NOTICE:** Dirt and corrosion cause excessive blade friction and shorten the operating time per battery charge.

### **Storage**

The hook hole in the tool bottom is convenient for hanging the tool from a nail or screw on the wall.

Attach the blade cover to the shear blades so that the shear blades are not exposed. Store the tool out of the reach of children. Store the tool in a place not exposed to moisture or rain.

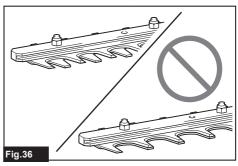


▶ 1. Hole

## Grinding the shear blades

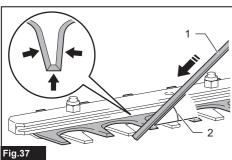
**NOTICE:** If the shear blades have considerably deformed by grinding, replace the shear blades with new ones.

- 1. Install the battery cartridge to the tool.
- 2. Start the tool so that the upper blade and lower blade are positioned alternately.



**3.** Stop the tool and remove the battery cartridge from the tool.

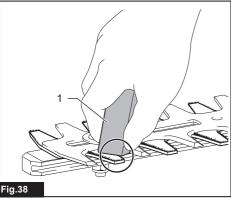
Set the angle of a file to 35°, and grind the upper 4. blade from 3 directions with the file.



(1) File (2) 35°

ACAUTION: Before grinding the shear blades, make sure that the tool is switched off and the battery cartridge is removed from the tool.

Place the tool upside down, and then remove the burrs from the shear blades with the dressing stone.



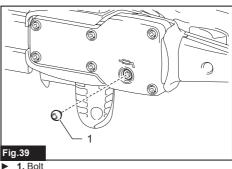
1. Dressing stone

- Set the angle of the file to 35°, and grind the lower blade from 3 directions with the file.
- Return the tool to normal position, and then remove the burrs from the shear blades with the dressing stone.

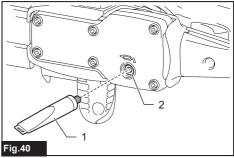
# Grease lubrication

Interval of lubrication: Every 25 operating hours

Remove the bolt from the hole for lubrication.



Remove the cap from the grease vessel. Align the outlet of the grease vessel with the hole on the cover, and then turn the grease vessel to attach the outlet of the grease vessel into the hole.



1. Grease vessel 2. Hole

- 3. Apply the grease to the tool (Approximately 3 g as a guide).
- 4. Remove the grease vessel.
- Tighten the bolt.

# **TROUBLESHOOTING**

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

State of abnormality	Probable cause (malfunction)	Remedy
Motor does not run.	Battery cartridge is not installed.	Install the battery cartridge.
	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 of tool to allow it to cool down.
Tool does not reach maximum RPM.	Battery is installed improperly.	Install the battery cartridge 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.
Shear blades do not move:  ⇒ stop the machine immediately!	Foreign objects are caught between the shear blades.	Switch off the tool and remove the battery cartridge, and then remove the foreign objects using tools such as pliers.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Abnormal vibration:	Shear blades are broken, bent or worn.	Replace the shear blades.
⇒ stop the machine immediately!	The drive system does not work correctly.	Ask your local authorized service center for repair.
Shear blades and motor cannot stop:  ⇒ Remove the battery immediately!	Electric 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 tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

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

- Shear blade assembly
- · Blade cover
- · Chip receiver
- Grease vessel
- Makita genuine battery and charger

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

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