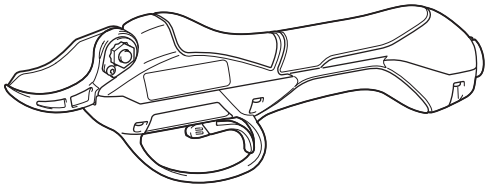
ENGLISH: Original instructions

INSTRUCTION MANUAL

Battery Powered Pruning Shears

DUP361
DUP362



Read before use.

SPECIFICATIONS

Model:	DUP361	DUP362
Max. cutting capacity	33 mm	
Overall length (shears part)	305 mm	
Rated voltage	D.C.36 V	
Net weight (shears part)	0.77 - 0.82 kg	

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- Weight, the shears part only, according to EPTA-Procedure 01/2014

Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820 / BL1820B / BL1830 / BL1830B / BL1840 / BL1840B / BL1850 / BL1850B / BL1860B
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF

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

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

Symbols

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

	Read instruction manual.
	Do not expose to moisture.
	Danger; be aware of thrown objects.
	Keep bystanders away.
 Ni-MH Li-ion	Only for EU countries Do not dispose of electric equipment or battery pack together with household waste material! In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for pruning twigs or branches.

Noise

The typical A-weighted noise level determined according to EN50636-2-94:

Model DUP361
Sound pressure level (L_{pA}) : 70 dB(A) or less
Uncertainty (K) : 3.2 dB(A)

Model DUP362
Sound pressure level (L_{pA}) : 70 dB(A) or less
Uncertainty (K) : 1.4 dB(A)

The noise level under working may exceed 80 dB (A).

⚠***WARNING:*** **Wear ear protection.**

Vibration

The vibration total value (tri-axial vector sum) determined according to EN50636-2-94:

Model DUP361
Vibration emission (a_h) : 2.5 m/s^2 or less
Uncertainty (K) : 1.5 m/s^2

Model DUP362
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).**

EC Declaration of Conformity

For European countries only

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

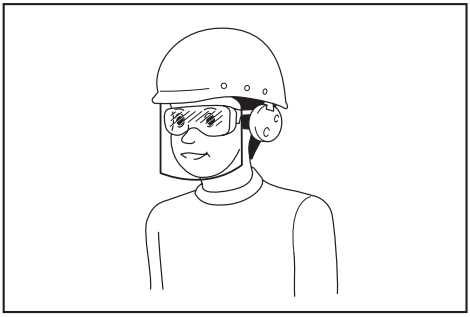
Pruning shears safety warnings

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

Save all warnings and instructions for future reference.

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

1. **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.
2. **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.

3. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
4. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
5. **This tool is for pruning branches.** Do not use it for any job except that for which it is intended.
6. **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 tool. Local regulations may restrict the age of the operator.**
7. **Children should be supervised to ensure that they do not play with the appliance.**
8. **Never operate the tool while people, especially children, or pets are nearby.**
9. **Do not overreach and keep balance at all times.** Always be sure of footing on slopes and to walk, never run.
10. **Do not touch moving hazardous parts before the tool is disconnected from the mains and/or the battery pack is removed from the tool.**
11. **Always wear substantial footwear and long trousers while operating the tool.**
12. **Disconnect the supply and/or remove the battery pack from the tool:**
    - whenever the tool is left by the user,
    - before clearing a blockage,
    - before checking, cleaning or working on the tool,
    - after striking a foreign object to inspect the tool for damage,
    - if the tool starts to vibrate abnormally, for immediately check.
13. **Never operate the tool with defective guards or shields, or without safety devices, or if the cord is damaged or worn.**
14. **Avoid using the tool in bad weather conditions especially when there is a risk of lightning.**
15. **Don't use the tool or perform battery charging operations in the rain.**
16. **Don't leave the tool in rain or wet locations.**
17. **Be careful not to catch foreign matter between the blades.** If the blades are jammed with foreign matter, immediately switch off the tool and disconnect the battery from the tool. Then remove the foreign matter from the blades.
18. **Never hold the branch you are pruning with your free hand.** Keep your free hand away from the cutting area. Never touch the blades, they are very sharp and you may cut yourself.
19. **Don't force the tool to make it cut.** You could slip and injure yourself or cut something else unintentionally.
20. **Avoid cutting electrical wires that may be hidden.**
21. **Always check the blades carefully before operation.**
22. **Handle the blades with extreme care to prevent cuts or injury from the blades.**
23. **Disconnect the battery from the tool after each use and before attempting to perform inspection or maintenance.**
24. **When not in use, always keep the tool in its holster.**

Battery tool use and care

1. **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.**
2. **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.
3. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

4. **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.
5. **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.
6. **Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.**
7. **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.**
8. **Do not charge battery in rain, or in wet locations.**

Service

1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
2. **Follow instruction for lubricating and changing accessories.**
3. **Keep handles dry, clean and free from oil and grease.**

⚠*WARNING:* DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

Important safety instructions for battery cartridge

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

   A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. **Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Be careful not to drop or strike battery.**
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**
    For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.
    For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.
    Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.
11. **Follow your local regulations relating to disposal of battery.**
12. **Use the batteries only with the products specified by Makita.** Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.

SAVE THESE INSTRUCTIONS.

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

Tips for maintaining maximum battery life

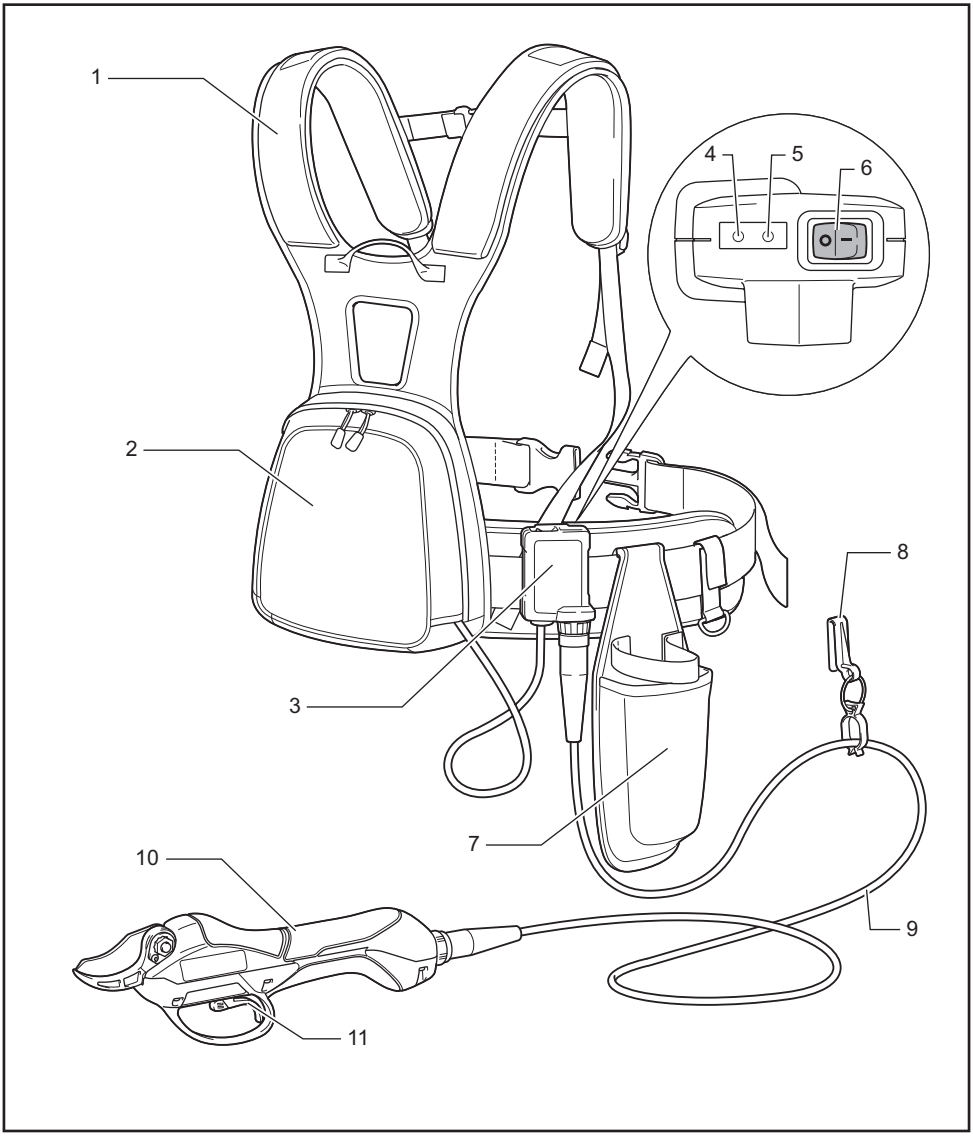
1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with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

N Mark

The N Mark is a trademark or registered trademark of NFC Formula, Inc. in USA and other countries in the world.

(This tool is equipped with an NFC receiver only for a service purpose used by authorized/factory service centers.)

PARTS DESCRIPTION



1	Harness *	2	Back pack	3	Switch box	4	Pilot lamp (red)
5	Pilot lamp (green)	6	I/O switch	7	Holster	8	Cord holder
9	Connection cord	10	Shears	11	Switch trigger	-	-

* The shape may differ depending on the tool variation.

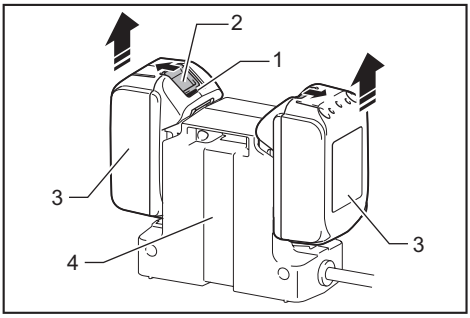
FUNCTIONAL DESCRIPTION

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

Removing or installing battery cartridge

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

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



► **1.** Red indicator **2.** Button **3.** Battery cartridge **4.** Battery holder

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

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 on the upper side of the button, it is not locked completely.

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

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

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

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions. In some conditions, the lamps on the switch box lights up.

Overload protection

When the tool is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat protection

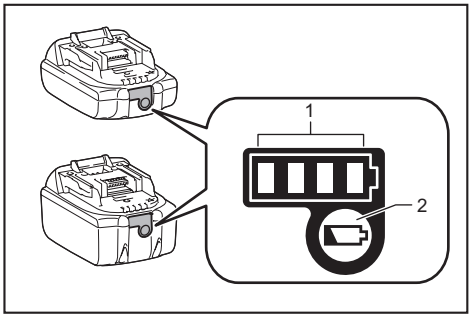
When the tool is overheated, the tool stops automatically, and the green lamp on the switch box blinks. In this situation, let the tool cool down before turning the tool on again.

Overdischarge protection

When the battery capacity becomes low, the tool stops automatically. And the red lamp on the switch box lights up or blinks. If the product does not operate even when the switches are operated, remove the batteries from the battery holder and charge the batteries.

Indicating the remaining battery capacity

Only for battery cartridges with the indicator



► **1.** Indicator lamps **2.** Check button

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

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

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

Switch action

⚠***CAUTION:*** **Before connecting the battery to the shears, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.**

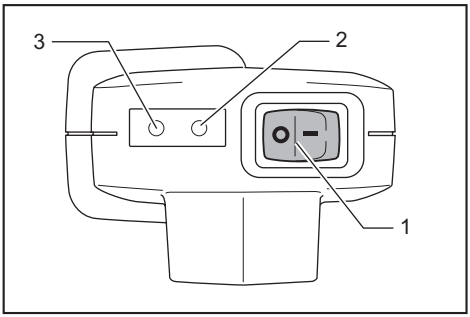
⚠***CAUTION:*** **When not operating the tool, always make sure that the I/O switch is on the "O" side.**

⚠***CAUTION:*** **Do not press the I/O switch to the "I" (on) position while pulling the switch trigger.** The blade closes slightly and it may cause personal injury.

To turn on the tool, perform as follows:

1. Connect the switch box, connection cord, and shears. (Refer to "Installing the connection cord".)

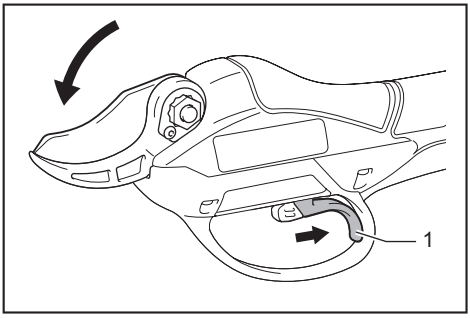
2. Hold the shears firmly, and press the I/O switch to the "I" (on) position. The green pilot lamp lights up.



► **1.** I/O switch **2.** Pilot lamp (green) **3.** Pilot lamp (red)

3. The shear blades are locked-mode when the I/O switch is on. To release the lock, pull the switch trigger two times. The upper shear blade opens automatically.

4. To close the shear blade, pull the switch trigger.

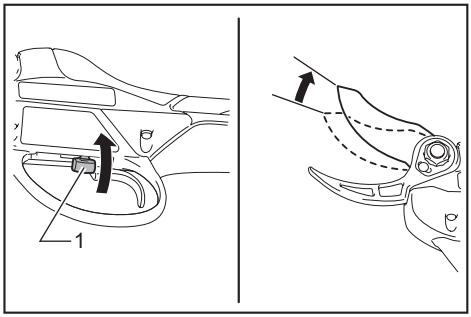


► **1.** Switch trigger

Auto locked-mode and shut-off mode shift

For safety reasons, the tool shifts into locked-mode or shut-off mode automatically if the tool is left untouched for a certain period of time.
After 5 minutes: The tool shifts into locked-mode. Pull the switch trigger two times to release the lock.
After 15 minutes: The tool is shift into shut-off mode, and the green pilot lamp turns off. Press the I/O switch to the "O" (off) position once, and press the I/O switch to the "I" (on) position again, then pull the switch trigger two times to release the lock.

Opening angle selector lever



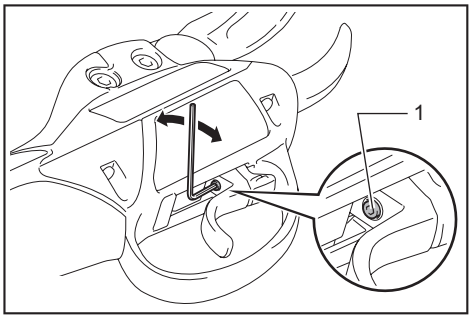
► **1.** Opening angle selector lever

By tilting the opening angle selector lever to the left side, you can open the upper shear blade wider.
To limit the upper shear blade opening angle, first pull the switch trigger fully, and then return the opening angle selector lever to straight position.

Cutting depth adjustment

⚠***CAUTION:*** **Do not let your hands or part of body close to the shear blades. Otherwise personal injury may result.**

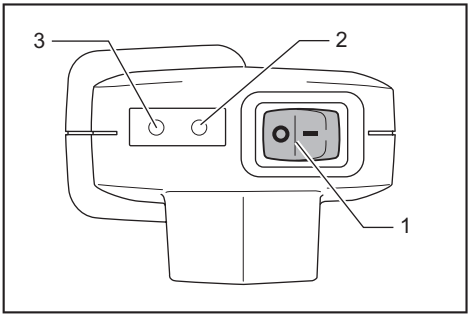
After sharpening or replacing the shear blade, adjust cutting depth if necessary.
Turn on the tool, and pull the switch trigger two times to open the shear blades, and then press the I/O switch to the "O" (off) position. To deepen the cutting depth, turn the cutting depth adjusting screw clockwise with the hex wrench. And to make the cutting depth shallower, turn the cutting depth adjusting screw counterclockwise.



► **1.** Cutting depth adjusting screw

NOTE: Check the cutting depth after adjustment. If the cutting depth is too shallow, the branch may not cut fully.

Pilot lamps on the switch box



► **1.** I/O switch **2.** Pilot lamp (green) **3.** Pilot lamp (red)

The green and red lamps indicate as follows:
(On: ● Off: ○ Blinking: ☼)

- Green lamp lights up: the tool is turned on.

Green	Red
●	○

- Green lamp and red lamp light up: if you insert the battery to the battery holder when I/O switch is "I" (on) position, both of the lamps light up and the blade does not move though you pull the switch trigger. In this situation, press the I/O switch to the "O" (off) position once, and press the I/O switch to the "I" (on) position again.

Green	Red
●	●

- Green lamp blinks: the tool is overheated. Let the tool cool down before turning the tool on again.

	Green	Red
	☼	○

- Green lamp lights up and red lamp blinks or lights up: battery is low or almost flat. Charge the batteries. When either of the battery becomes low, the red lamp blinks even one of the batteries is full.

	Green	Red
	●	☼ / ●

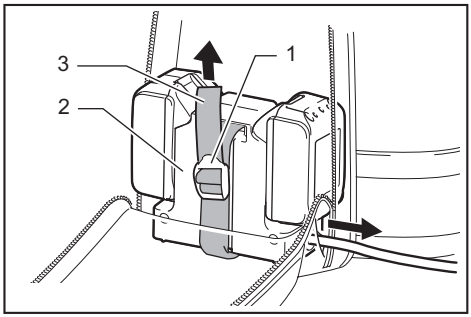
- Green lamp and red lamp blink alternately: the tool detects breaking of wire. Check the connection cord for loose connection with the switch box and the shears. If the lamps still blink alternately, stop using the tool immediately, disconnect the connection cord, remove the battery, and ask your local authorized service center for repair.

⚠	Lamps blink alternately
	○ ● ↔ ● ○

ASSEMBLY

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

Installing the battery holder into the backpack

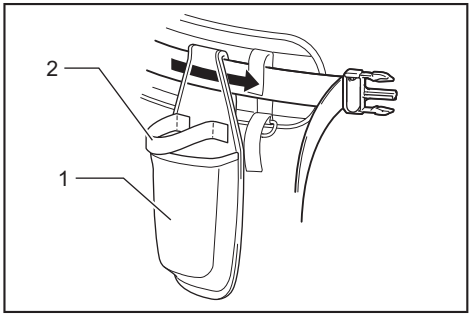


► **1.** Clamp **2.** Battery holder **3.** Strap

1. Pass the switch box through the opening (either right or left) of the back pack.

2. Pass the clamp through the square hole of the battery holder, and secure the battery holder with the strap. Make sure that the battery holder sits in the backpack firmly.

Installing the holster



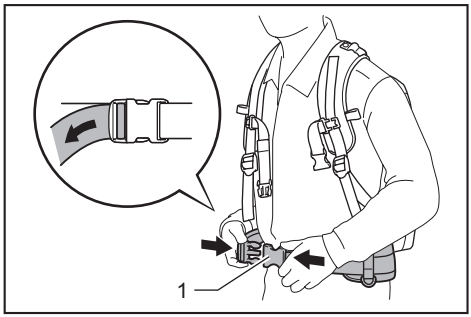
► **1.** Holster **2.** Strap

Pass the belt of the lower buckle through the opening of the holster.

Adjusting the harness

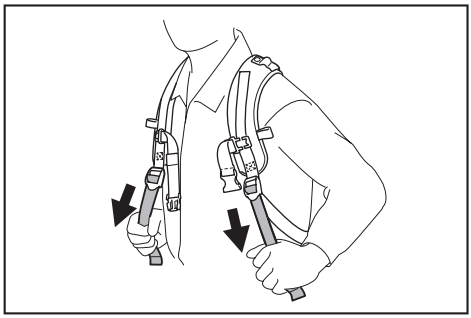
Adjust the harness as follows:

1. Close and lock the lower buckle, and adjust its belt length.

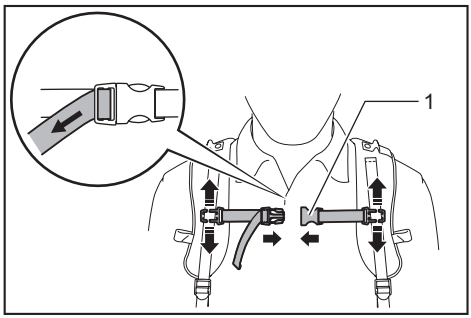


► **1.** Lower buckle

2. Adjust the shoulder strap length.



3. Adjust the position of the upper buckle. Close and lock the upper buckle and adjust its belt length.



► **1.** Upper buckle

⚠*CAUTION:* In case of emergency, quickly open the lower buckle and upper buckle, loosen shoulder straps, and set down the backpack.

Installing the connection cord

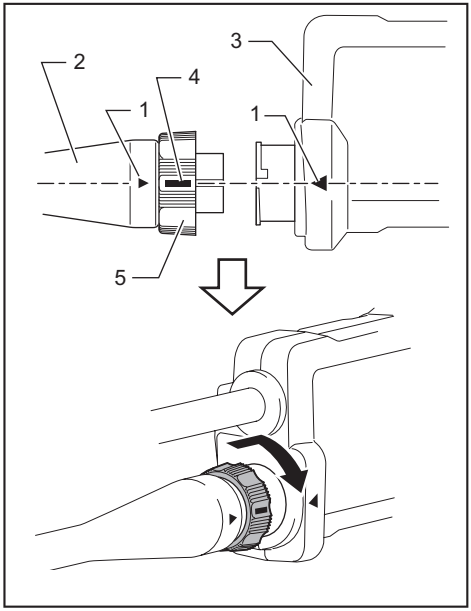
⚠*CAUTION:* Always make sure that the switch box's I/O switch is on the "O" side before attaching the connection cord.

⚠*CAUTION:* Do not operate the tool if the connection cord is damaged.

NOTICE: Do not abuse the connection cord. Do not carry the tool by pulling the connection cord. Keep the connection cord away from heat, oil, or sharp edges. Otherwise the connection cord may be damaged.

Attach the connection cord with the switch box and the shears as follows:

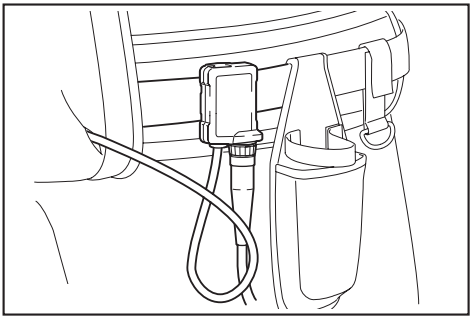
1. First, align the triangular marks of the male plug of the connection cord with the triangular mark of the female connector of the switch box. Push in the plug of the connection cord to the connector of the switch box. Then, align the marking on the coupling with the triangular marks, and push in and turn the coupling to tighten.



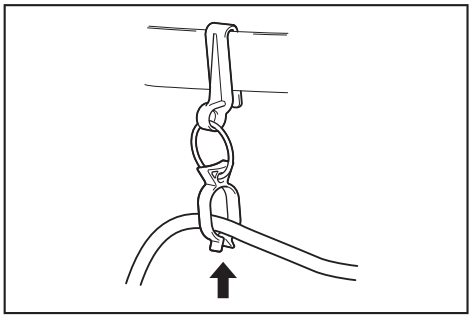
► **1.** Triangular mark **2.** Connection cord **3.** Switch box **4.** Marking on coupling **5.** Coupling

NOTICE: Turn the coupling and align the marking on the coupling with the triangular marks first when disconnecting the connection cable.

2. Hang the switch box on the waist belt or upper belt.

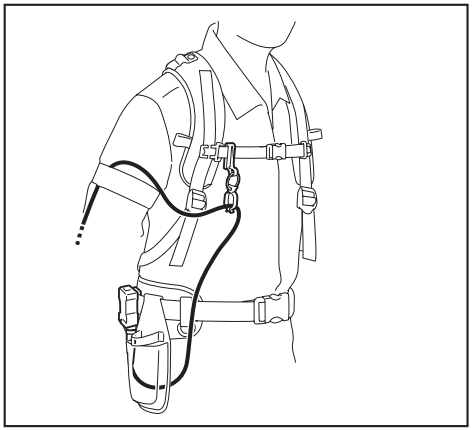


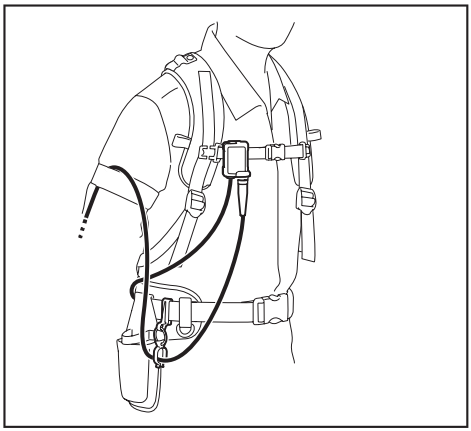
3. Push the connection cord into the loop of the cord holder.



Hang the cord holder on either the upper belt or the waist belt on which the switch box is not hung.

The cord holder prevents the connection cord from dangling around your body, and also the cord holder can prevent the connection cord from being cut by mistake.

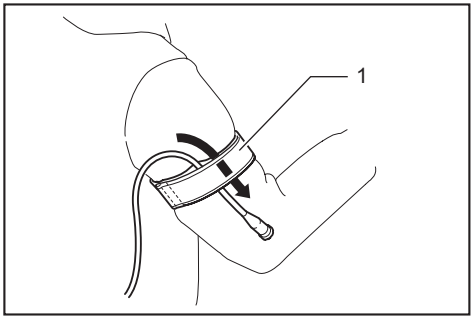




NOTICE: **Do not hang anything other than the connection code on the cord holder.** Otherwise the code holder may be broken.

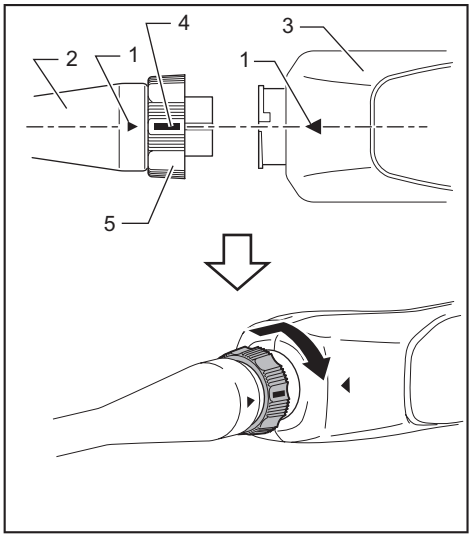
NOTICE: **Do not force the cord holder opening.** Otherwise it may result in deformation or breakage of the code holder.

4. Put the arm band on your arm. And slip the connection cord through the arm band.



► **1.** Arm band

5. First, align the triangular marks of the female socket of the connection cord with the triangular mark of the male connector of the shears. Push in the socket of the connection cord to the connector of the shears. Then, align the marking on the coupling with the trianglar marks, and push in and turn the coupling to tighten.



► **1.** Triangular mark **2.** Connection cord **3.** Shears **4.** Marking on coupling **5.** Coupling

NOTICE: Turn the coupling and align the marking on the coupling with the triangular marks first when disconnecting the connection cable.

Putting shears in the holster

Keep pulling the switch trigger to close the shear blades, and press the I/O switch to "O" side to turn off the tool. Then put the shears into the holster and hold the shears with the strap of the holster.

OPERATION

⚠***CAUTION:*** **Always hold the tool firmly. And keep firm footing.**

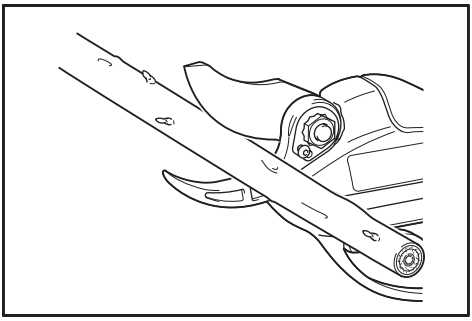
⚠***CAUTION:*** **Do not put any of your body parts near to the blades during operation.**

⚠***CAUTION:*** **Before use, inspect if the blades, blade bolts or other parts are not worn or damaged.** Replace worn or damaged parts for safe operation.

NOTICE: If the blade is stuck in a branch during operation, do not twist the blade. In that situation, turn off the tool and pull the blades straight out slowly from the branch. Otherwise the blade may be damaged.

NOTICE: In case you cut too thick branch or something too hard, the overload protection works and the tool stops. In that situation, if the upper shear blade is opened too wide and the switch trigger is pulled fully, the upper blade closes slightly when you press the I/O switch to "I" (on) position for restarting the tool.

Pruning operation



Cut branches one by one. The maximum thickness of branches which can be cut with these shears is about 33mm. Maintain your proper footing and balance at all times.

After use

Close the shear blades, press the I/O switch to the "O" (off) position, and disconnect the connection cord from the shears and the switch box, and remove the batteries from battery holder.
Store the shears in dry, high or locked-up place – out of reach of children.

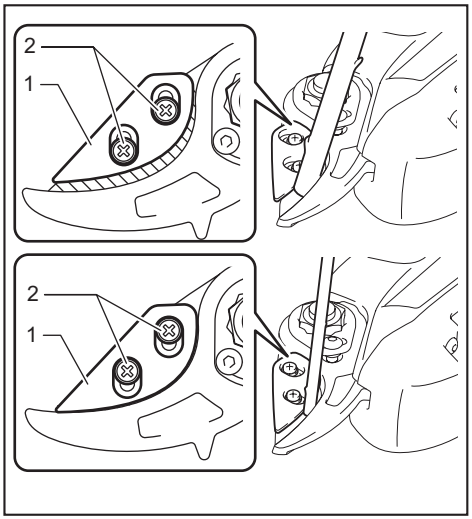
NOTICE: **Remove the battery when not using the shears.** Otherwise the battery capacity is reduced during course of time.

Catcher

Optional accessory

The catcher is useful, when picking flowers. It temporarily holds picked flower after cutting.

If the clearance between the catcher and lower blade is not appropriate for your application, adjust the clearance by loosening the screws.



► **1.** Catcher **2.** Screw

MAINTENANCE

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

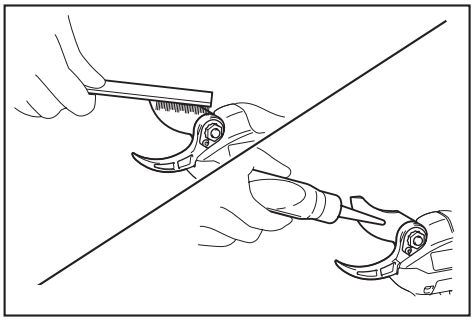
⚠***CAUTION:*** **Wear safety gloves when handling the blade.** Otherwise it may result in personal injury.

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

Blade maintenance

NOTICE: Failure to perform blade maintenance may cause excessive blade friction and shorten the operating time per battery charge.

Before and after operation, check the shear blades carefully. After operation, clean off the blades with a stiff brush. Then wipe the blades with a cloth. And apply Makita genuine machine oil onto the blade edge and movable part.



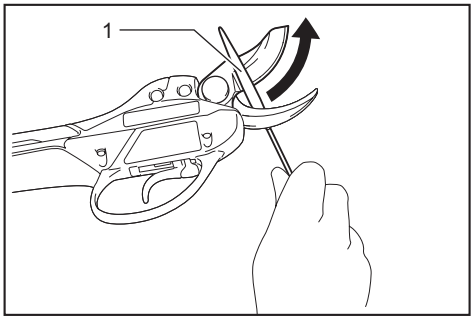
Sharpening blades

Upper shear blade

1. Apply the flat surface of the diamond file to the blade edge.

Push the diamond file towards the tip of the blade to sharpen along the entire blade edge.

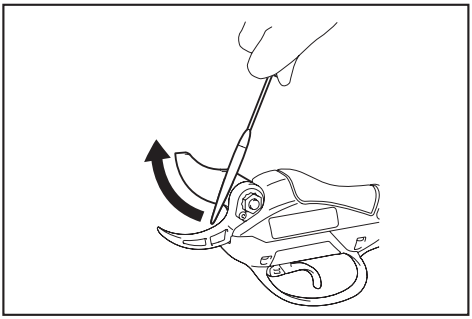
Maintain the same flat contact with the file consistently along the entire blade edge.



► **1.** Diamond file

2. Apply the flat surface of the diamond file lightly to the opposite side of the blade.

Move the diamond file towards the tip of the blade lightly to remove burrs.

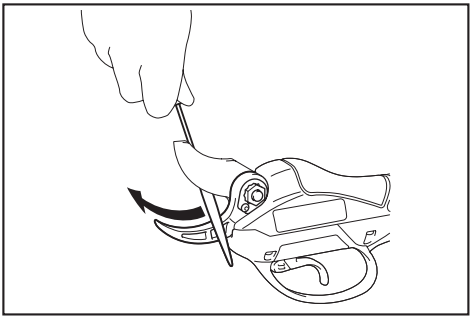


NOTICE: Do not sharpen this side too much. File lightly only for removing burrs. Otherwise the blade clearance may become too much or the blade life may be shortened.

Lower shear blade

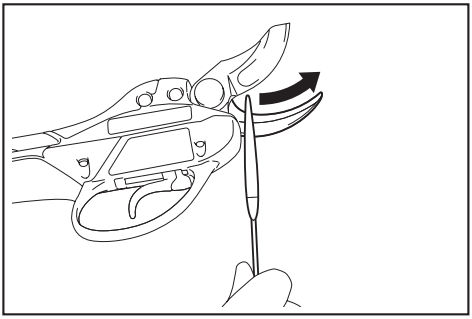
1. Apply the round surface of the diamond file to the blade edge.

Push the diamond file towards the tip of the blade to sharpen along the entire blade edge.



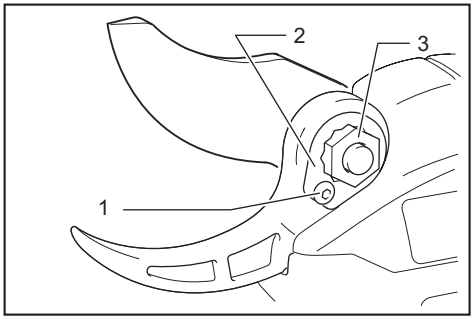
2. Apply the flat surface of the diamond file lightly to the opposite side of the blade.

Move the diamond file towards the tip of the blade lightly to remove burrs.



NOTICE: Do not sharpen this side too much. File lightly only for removing burrs. Otherwise the blade clearance may become too much or the blade life may be shortened.

Adjustment for blade clearance



► **1.** Plate fixing bolt **2.** Lock plate **3.** Blades tightening nut

From time to time, adjust the clearance of the shear blades as follows:

1. Switch on the tool, and pull the switch trigger to open the shear blades.

2. With shear blades open, switch off the tool. And disconnect the connection cord from the tool.

3. Loosen the plate fixing bolt. And then remove the lock plate.

4. Adjust the tightness of the blades tightening nut by hand (fastening torque for the blade tightening nut: approximately 0.5 N•m).

5. Install the lock plate and plate fixing bolt again.

6. Check the tightness of the blade whether the blades never rattle but upper blade can be opened or closed about 3mm by hand. If the blades are too tight or loose, adjust the clearance again.

NOTICE: Pay attention to the clearance of the blades. Too loose clearance may result in dull cut, and too tight blade clearance may result in overload for the motor and short running time of the tool.

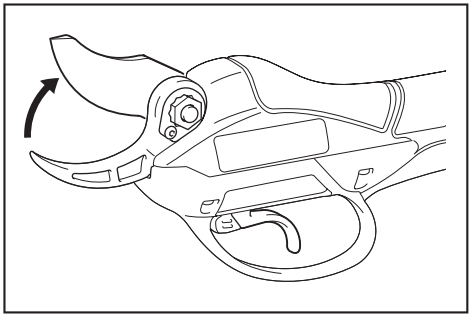
Removing or installing shear blades

To remove the shear blades, perform following steps:

1. Tilt the opening angle selector lever to the left side first to open the blades fully.

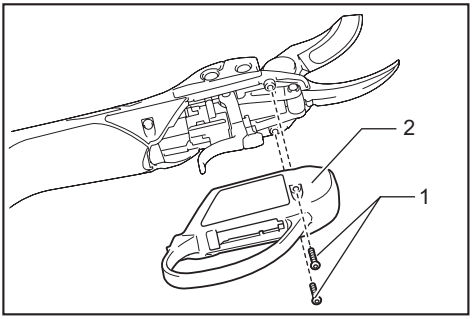
2. Switch on the tool, and pull the switch trigger to open the shear blades.

3. With shear blades open, switch off the tool. And disconnect the connection cord from the tool.



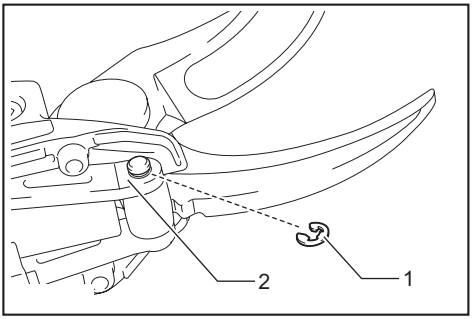
4. Remove two bolts near the switch trigger with the hex wrench.

Remove the trigger guard by separating the tongue on the trigger guard from the groove of the housing.



► **1.** Bolts **2.** Trigger guard

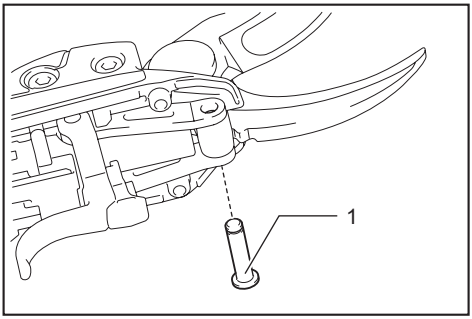
5. Remove the E-ring on the link arm with a slotted screwdriver or alike.



► **1.** E-ring **2.** Link arm

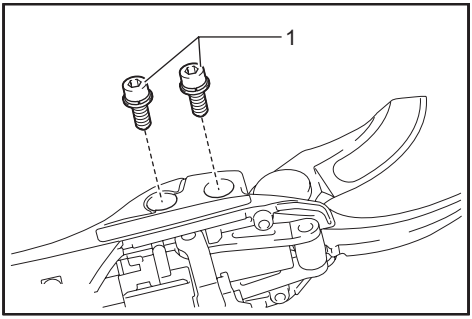
NOTICE: The E-ring is expendable part. Do not re-use the E-ring when reassembling.

6. Carefully remove the pin.



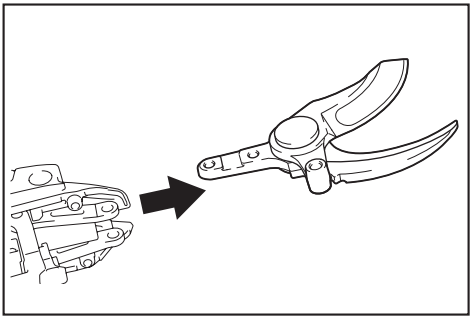
► **1.** Pin

7. Remove two bolts from the side of the housing.

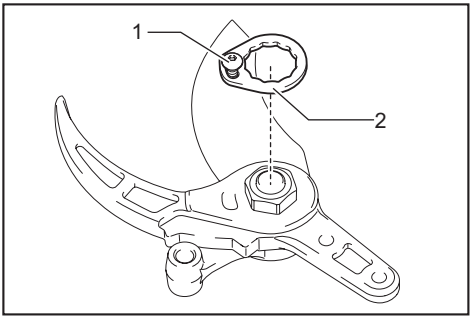


► **1.** Bolts

8. Carefully remove the upper and lower shears from the housing.



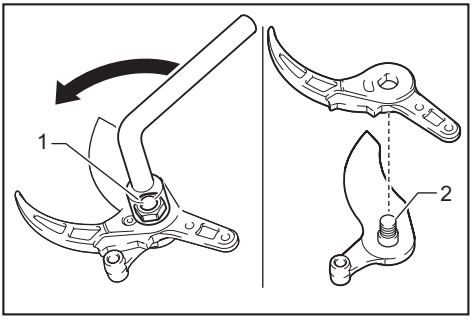
9. To separate the upper blade and the lower blade, first loosen the plate fixing bolt.
Then remove the lock plate.



► **1.** Plate fixing bolt **2.** Lock plate

NOTE: When replacing the blades for hard branch with ones for thin branch, or vise versa, replace the plate fixing bolt as well.

10. Loosen and remove the blades tightening nut.



► **1.** Blade tightening nut **2.** Blade tightening bolt

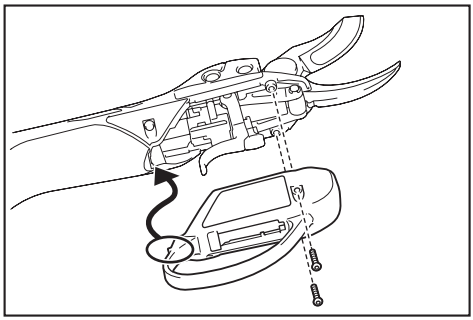
NOTE: When replacing the blades for hard branch with ones for thin branch, or vise versa, replace the blade tightening bolt as well.

To install the shear blades, perform the procedures above in reverse. Make sure all the bolts are securely tightened.

After installing the blade, always adjust the blade clearance. (Refer to “Adjustment for blade clearance”.)

To install the shear blades, perform the procedures above in reverse. When installing the shear blades, pay attention to the following points:

- Apply machine oil or grease on to the blade tightening bolt and between the blades.
- If you can not place the plate fixing bolt properly, first, remove the O-ring and the plate fixing bolt from the lock plate. And then overturn the lock plate, and return the O-ring and the plate fixing bolt.
- When installing the trigger guard, align the tongue of the trigger guard with the groove of the housing.



- Make sure all the bolts are securely tightened.
- After installing the blade, always adjust blade clearance. (Refer to “Adjustment for blade clearance”.)
- After installing the blade, always adjust cutting depth. (Refer to “Cutting depth adjustment”.)

Trouble shooting

Before making a request for repairs, check for trouble by yourself. If any abnormality is found, control your tool according to the description of this manual. If the remedy mentioned below cannot solve the problem, ask your local authorized service center for repair. Never tamper or dismount any part contrary to the description.

State of abnormality	Probable cause (malfunction)	Remedy
The shear blade does not move even after pulling the switch trigger.	The battery is low.	Charge the battery.
	I/O switch is "Off" position.	Press the I/O switch to "I" position.
	The shears are locked.	Unlock the shears by performing the steps in "Switch action".
	Connection cord is loose.	Check the connecting points of the switch box and shears of connection cord.
	I/O switch is “on” position when inserting the battery cartridge.	Press the I/O switch to the “O” (off) position once, and press the I/O switch to the “I” (on) position again.
	Switch trigger defect.	Stop using the tool immediately, and ask your local authorized service center for repair.
The shear blades are stuck on the branch.	The branch is too thick.	Release the switch trigger. Press the I/O switch to "O" position. Then pull the blades straight out slowly from the branch.
The switch trigger is locked and can not be pulled.	Shear blades are opened forcibly.	Switch off and on with the I/O switch. (The upper shear blade closes slightly when switching on.)
The cut is not smooth.	The shear blades are dull.	Sharpen the shear blades, or adjust blade clearance.
	The shear blades are worn out.	Replace the shear blades.

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.

OPTIONAL ACCESSORIES

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

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

- Upper shear blade
- Upper shear blade (for hard branch)
- Upper shear blade (for thin branch)
- Lower shear blade
- Lower shear blade (for hard branch)
- Lower shear blade (for thin branch)
- Plate fixing bolt (for thin branch)
- Blade tightening bolt (for thin branch)
- Catcher (holding picked flower after cutting.)
- Diamond file
- Arm band
- Holster
- Cord holder
- 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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