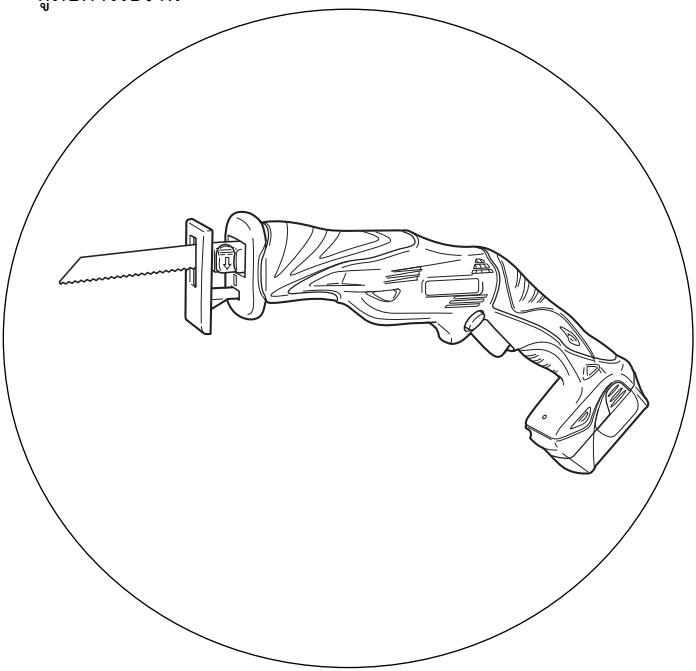
HiKOKI

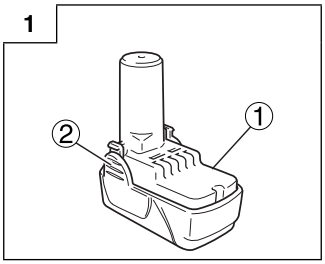
Cordless Reciprocating Saw
水平鋸
충전 컷 쏘
Máy cưa kiếm dùng pin
เลื่อยไร้สาย

CR10DL

Handling instructions
使用說明書
취급 설명서
Hướng dẫn sử dụng
คู่มือการใช้งาน



Read through carefully and understand these instructions before use.
使用前務請詳加閱讀
본 설명서를 자세히 읽고 내용을 숙지한 뒤 제품을 사용하십시오.
Đọc kỹ và hiểu rõ các hướng dẫn này trước khi sử dụng.
โปรดอ่านโดยละเอียดและทำความเข้าใจก่อนใช้งาน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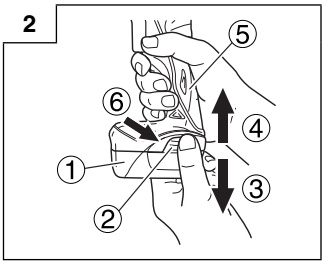
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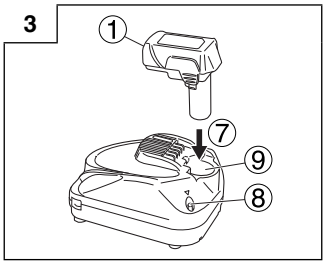
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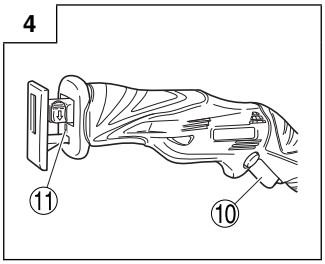
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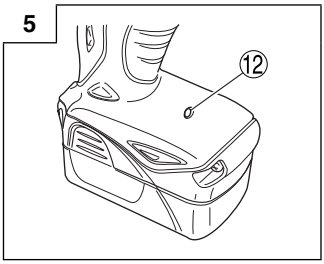
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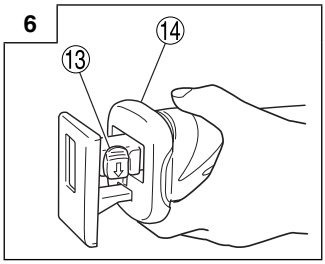
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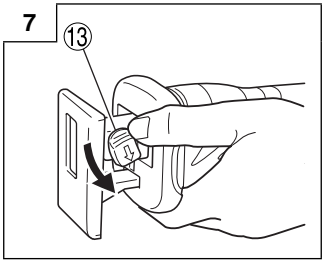
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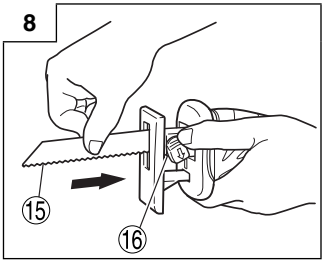
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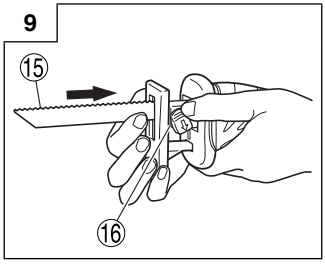
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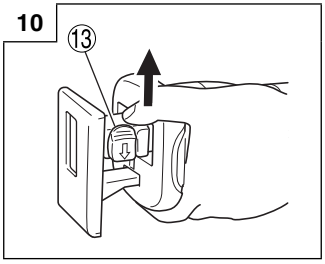
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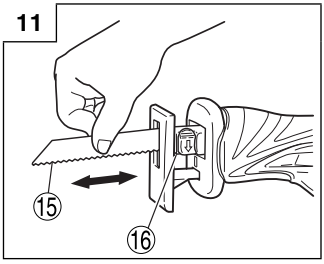
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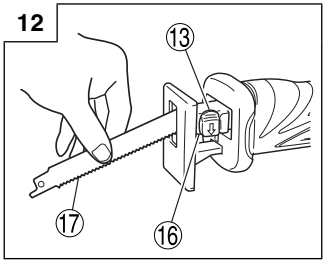
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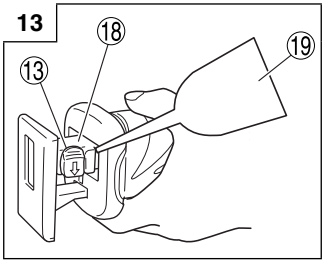
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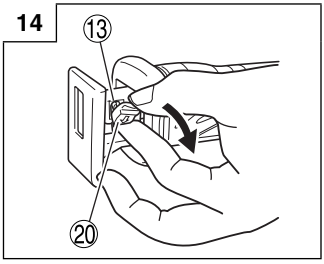
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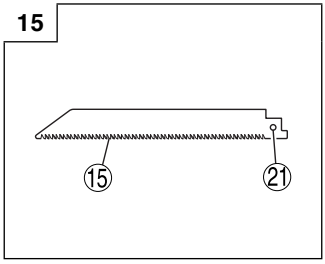
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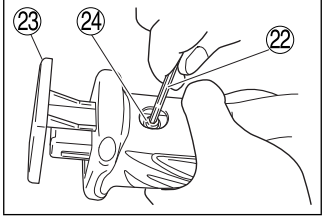

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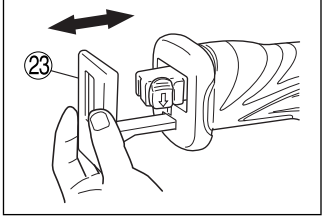

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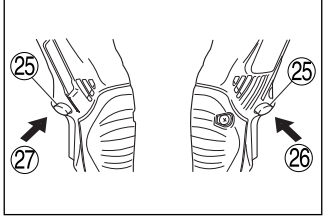

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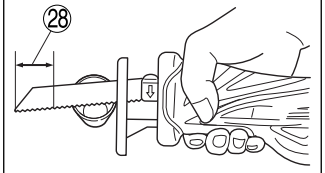

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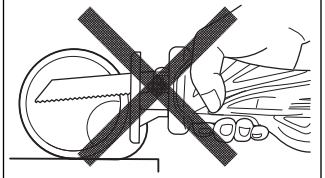

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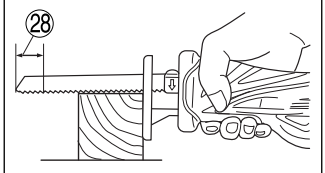

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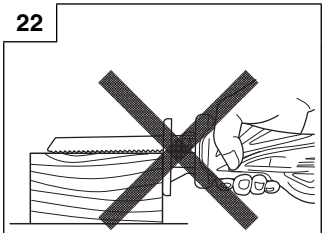

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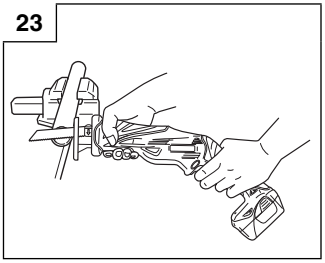

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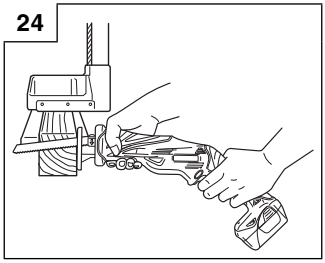

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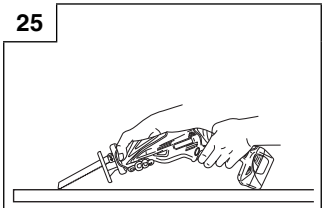

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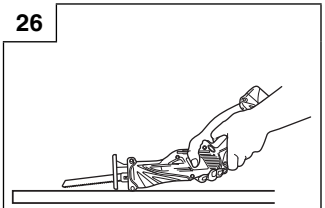

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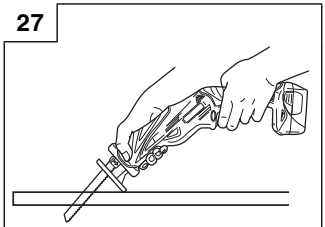

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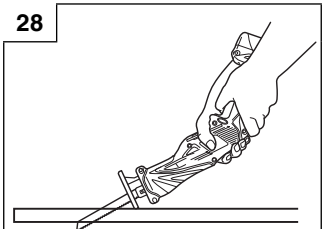

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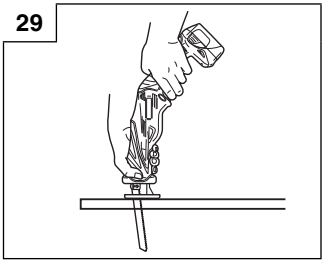

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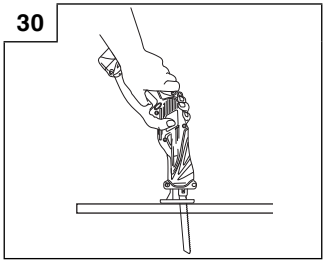


	English	中國語	한국어
①	Rechargeable battery	充電式電池	충전식 배터리
②	Latch	插銷	래치
③	Pull out	拉出	잡아당김
④	Insert	插入	삽입
⑤	Handle	握把	핸들
⑥	Push	推	밀기
⑦	Insert	插入	삽입
⑧	Pilot lamp	指示燈	파일럿 램프
⑨	Hole for connecting the rechargeable battery	充電式電池連接孔	충전식 배터리 연결용 구멍
⑩	Trigger switch	扳機開關	트리거 스위치
⑪	Light	燈	라이트
⑫	Battery level warning lamp	電池電量警示燈	배터리 수준 경고등
⑬	Lever	調校滑塊	레버
⑭	Housing	機身	하우징
⑮	Blade	鋸片	톱날
⑯	Plunger slit	柱塞縫	플런저 구멍
⑰	Another blade	其他鋸片	다른 톱날
⑱	Blade holder	鋸片座	톱날 홀더
⑲	Machine oil	機油	기계 오일
⑳	Rubber cap	橡皮蓋	러버 캡
㉑	Blade hole	鋸片孔	블레이드 구멍
㉒	Hexagonal bar wrench	六角桿扳手	육각 렌치 바
㉓	Base	底座	기저부
㉔	Hex. socket bolt 4mm	4mm 內六角螺栓	4mm육각 소켓 볼트
㉕	Lock-off button	鎖止按鈕	잠금 해제 버튼
㉖	Free	釋放	해제
㉗	Lock	鎖入	잠금
㉘	Stroke	行程	스트로크

	Tiếng Việt	ไทย
①	Pin sạc	แบตเตอรี่แบบรีชาร์จ
②	Chốt	สลัก
③	Kéo ra	ดึงออก
④	Gắn vào	เสียบเข้า
⑤	Cầm	ที่จับ
⑥	Đẩy	ดัน
⑦	Gắn vào	เสียบเข้า
⑧	Đèn báo hiệu	ไฟแสดง
⑨	Lỗ để lắp pin sạc	ช่องสำหรับใส่แบตเตอรี่แบบรีชาร์จ
⑩	Công tắc khởi động	ทริกเกอร์สวิตช์
⑪	Đèn	ไฟ
⑫	Đèn cảnh báo mức ắc quy	ไฟเตือนระดับแบตเตอรี่
⑬	Cần gạt	คันโยก
⑭	Vỏ máy	ตัวเครื่อง
⑮	Lưỡi cưa	ใบเลื่อย
⑯	Rãnh trượt	ร่องพลันเจอร์
⑰	Lưỡi cưa khác	ใบเลื่อยอีกใบ
⑱	Kẹp lưỡi cưa	ที่ยึดใบเลื่อย
⑲	Dầu máy	น้ำมันเครื่อง
⑳	Mũ cao su	ฝายาง
㉑	Hốc dao	รูใบเลื่อย
㉒	Cơ lê vặn bát giác	ประแจหกเหลี่ยม
㉓	Đế	ฐาน
㉔	Bulông vặn bát giác 4mm	น็อตหกเหลี่ยม 4 มม.
㉕	Nút tắt	ปุ่มล็อคปิด
㉖	Nút nhả	ฟรี
㉗	Khoá	ล็อค
㉘	Hành trình	สโตรก

GENERAL SAFETY RULES

WARNING!
Read all instructions
Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) **Work area safety**
   a) **Keep work area clean and well lit.**
   Cluttered or dark areas invite accidents.
   b) **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.
   c) **Keep children and bystanders away while operating a power tool.**
   Distractions can cause you to lose control.

2) **Electrical safety**
   a) **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.
   b) **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.
   c) **Do not expose power tools to rain or wet conditions.**
   Water entering a power tool will increase the risk of electric shock.
   d) **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.
   e) **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.

3) **Personal safety**
   a) **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.
   b) **Use personal protective equipment. Always wear eye protection.**
   Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
   c) **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.
   d) **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.
   e) **Do not overreach. Keep proper footing and balance at all times.**
   This enables better control of the power tool in unexpected situations.
   f) **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.
   g) **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.

4) **Power tool use and care**
   a) **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.
   b) **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.
   c) **Disconnect the plug from the power source and/or the battery pack 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.
   d) **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.
   e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools' operation.**
   If damaged, have the power tool repaired before use.
   Many accidents are caused by poorly maintained power tools.
   f) **Keep cutting tools sharp and clean.**
   Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
   g) **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.

5) **Battery tool use and care**
   a) **Ensure the switch is in the off position before inserting battery pack.**
   Inserting the battery pack into power tools that have the switch on invites accidents.
   b) **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.
   c) **Use power tools only with specifically designated battery packs.**
   Use of any other battery packs may create a risk of injury and fire.

d) 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.

e) 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) Service

a) 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.

PRECAUTION
Keep children and infirm persons away.
When not in use, tools should be stored out of reach of children and infirm persons.

PRECAUTIONS FOR CORDLESS RECIPROCATING SAW

1. Always charge the battery at a temperature of 10°C – 40°C. A temperature of less than 10°C will result in over charging which is dangerous. The battery cannot be charged at a temperature higher than 40°C.
   The most suitable temperature for charging is that of 20°C – 25°C.
2. Do not use the charger continuously.
   When one charging is completed, leave the charger for about 15 minutes before the next charging of battery.
   Do not charge more than two batteries consecutively.
3. Do not allow foreign matter to enter the hole for connecting the rechargeable battery.
4. Never disassemble the rechargeable battery and charger.
5. Never short-circuit the rechargeable battery. Short-circuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.
6. Do not dispose of the battery in fire.
   If the battery is burnt, it may explode.
7. When drilling in wall, floor or ceiling, check for buried electric power cord, etc.
8. Bring the battery to the shop from which it was purchased as soon as the post-charging battery life becomes too short for practical use. Do not dispose of the exhausted battery.
9. Using an exhausted battery will damage the charger.
10. Do not insert object into the air ventilation slots of the charger.
    Inserting metal objects or inflammables into the charger air ventilation slots will result in electrical shock hazard or damaged charger.
11. When using this unit continuously, the unit may overheat, leading to damage in the motor and switch. Please leave it without using it for approximately 15 minutes.
12. Wear earplugs to protect your ears during operation.
13. Do not touch the blade during or immediately after operation. The blade becomes very hot during operation and could cause serious burns.
14. Always hold the housing of the power tool firmly. Otherwise the counterforce produced may result in inaccurate and even dangerous operation.
15. Remove the battery from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tools.

CAUTION ON LITHIUM-ION BATTERY

To extend the lifetime, the lithium-ion battery equips with the protection function to stop the output.
In the cases of 1 to 3 described below, when using this product, even if you are pulling the switch, the motor may stop. This is not the trouble but the result of protection function.

1. When the battery power remaining runs out, the motor stops.
   In such case, charge it up immediately.
2. If the tool is overloaded, the motor may stop. In this case, release the switch of tool and eliminate causes of overloading. After that, you can use it again.
3. If the battery is overheated under overload work, the battery power may stop.
   In this case, stop using the battery and let the battery cool. After that, you can use it again.

Furthermore, please heed the following warning and caution.
WARNING
In order to prevent any battery leakage, heat generation, smoke emission, explosion and ignition beforehand, please be sure to heed the following precautions.

1. Make sure that swarf and dust do not collect on the battery.
   ○ During work make sure that swarf and dust do not fall on the battery.
   ○ Make sure that any swarf and dust falling on the power tool during work do not collect on the battery.
   ○ Do not store an unused battery in a location exposed to swarf and dust.
   ○ Before storing a battery, remove any swarf and dust that may adhere to it and do not store it together with metal parts (screws, nails, etc.).
2. Do not pierce battery with a sharp object such as a nail, strike with a hammer, step on, throw or subject the battery to severe physical shock.
3. Do not use an apparently damaged or deformed battery.
4. Do not use the battery in reverse polarity.
5. Do not connect directly to an electrical outlets or car cigarette lighter sockets.
6. Do not use the battery for a purpose other than those specified.
7. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
8. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
9. Keep away from fire immediately when leakage or foul odor are detected.
10. Do not use in a location where strong static electricity generates.
11. If there is battery leakage, foul odor, heat generated, discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger, and stop use.
12. Do not immerse the battery or allow any fluids to flow inside. Conductive liquid ingress, such as water, can cause damage resulting in fire or explosion. Store your battery in a cool, dry place, away from combustible and flammable items. Corrosive gas atmospheres must be avoided.

CAUTION

1. If liquid leaking from the battery gets into your eyes, do not rub your eyes and wash them well with fresh clean water such as tap water and contact a doctor immediately. If left untreated, the liquid may cause eye-problems.
2. If liquid leaks onto your skin or clothes, wash well with clean water such as tap water immediately. There is a possibility that this can cause skin irritation.
3. If you find rust, foul odor, overheating, discolor, deformation, and/or other irregularities when using the battery for the first time, do not use and return it to your supplier or vendor.

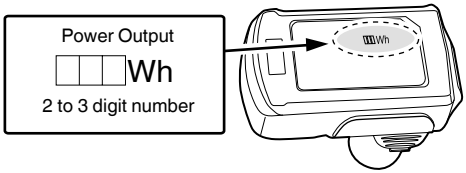
REGARDING LITHIUM-ION BATTERY TRANSPORTATION

When transporting a lithium-ion battery, please observe the following precautions.

WARNING

Notify the transporting company that a package contains a lithium-ion battery, inform the company of its power output and follow the instructions of the transportation company when arranging transport.

- Lithium-ion batteries that exceed a power output of 100 Wh are considered to be in the freight classification of Dangerous Goods and will require special application procedures.
- For transportation abroad, you must comply with international law and the rules and regulations of the destination country.



SPECIFICATIONS

POWER TOOL

Model	CR10DL
No-load speed	0 – 2700 /min
Stroke	13 mm
Capacity	Mild Steel Pipe: O.D. 25 mm
	Vinyl Chloride Pipe: O.D. 45 mm
	Wood: Depth 50 mm
	Mild Steel Plate: Thickness 4 mm
Rechargeable battery	BCL1015: Li-ion DC 10.8 V / 12 V Peak (1.5 Ah 3 cells)
Weight	1.2 kg

CHARGER

Model	UC10SFL
Charging voltage	10.8 V
Weight	0.35 kg

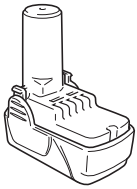
STANDARD ACCESSORIES

CR10DL (LCSK)	① Blade (No. 5) ..... 1 ② Blade (No. 107) ..... 1 ③ Hexagonal bar wrench ..... 1 ④ Battery BCL1015 ..... 1 ⑤ Charger (UC10SFL) ..... 1 ⑥ Plastic case 1
CR10DL (2LCSK)	① Blade (No. 5) ..... 1 ② Blade (No. 107) ..... 1 ③ Hexagonal bar wrench ..... 1 ④ Battery BCL1015 ..... 2 ⑤ Charger (UC10SFL) ..... 1 ⑥ Plastic case 1

Standard accessories are subject to change without notice.

OPTIONAL ACCESSORIES (sold separately)

1. Battery (BCL1015)



2. Blades

(1) No. 2 Blade	(5) No. 101 Blade
(2) No. 3 Blade	(6) No. 103 Blade
(3) No. 5 Blade	(7) No. 107 Blade
(4) No. 96 Blade	(8) No. 109 Blade

○ (1) - (4): HCS Blades (HCS: Highspeed Carbon Steel)
○ (5) - (8): BI-METAL Blades
Refer to **Table 2,3** and **4** for use of the blades.
Optional accessories are subject to change without notice.

APPLICATIONS

○ Cutting pipe and angle steel.
○ Cutting various lumbers.
○ Cutting mild steel plates and aluminum plates.
○ Cutting synthetic resins, such as phenol resin and vinyl chloride.

For details refer to the section entitled “SELECTION OF BLADES”.

BATTERY REMOVAL/INSTALLATION

CAUTION

Be sure to keep the switch turned off and the lock-off button moved to right position (lock position) (See **Fig. 18**).

1. Battery removal

Hold the housing tightly and push the battery latches to remove the battery (see **Figs. 1** and **2**).

CAUTION

Never short-circuit the battery.

2. Battery installation

Insert the battery while observing its polarities (see **Fig. 2**).

CHARGING

Before using the power tool, charge the battery as follows.

1. Connect the charger power cord to the receptacle

2. Insert the battery in the charger

Position the battery so that the nameplate faces toward the nameplate of the charger and press in the battery until it comes into contact with the bottom plate (See **Fig. 3**).

Inserting the battery will turn on the charger (the pilot lamp lights up).

CAUTION

If the pilot lamp does not light up, pull out the power cord from the receptacle and check the battery mounting condition.

The pilot lamp goes off to indicate that the battery is fully charged.

CAUTION

If the battery is heated due to direct sunlight, etc., just after operation, the charger pilot lamp may not light. At that time cool the battery first, then start charging.

○ Regarding recharging time

Table 1 shows the recharging time required according to the type of battery.

Table 1 Recharging time (approx. min.) at 20°C

Battery capacity (Ah)	
1.5 Ah	
BCL1015	40 min.

NOTE: The recharging time may vary according to the ambient temperature.

3. Disconnect the charger’s power cord from the receptacle.
4. Hold the charger firmly and pull out the battery.

NOTE

Be sure to pull out the battery from the charger after use, and then keep it.

How to make the batteries perform longer.

(1) Recharge the batteries before they become completely exhausted.
When you feel that the power of the tool becomes weaker, stop using the tool and recharge its battery. If you continue to use the tool and exhaust the electric current, the battery may be damaged and its life will become shorter.

(2) Avoid recharging at high temperatures.
A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery and recharge it after it has cooled for a while.

CAUTION

○ When the battery charger has been continuously used, the battery charger will be heated, thus constituting the cause of the failures. Once the charging has been completed, give 15 minutes rest until the next charging.
○ If the battery charger does not work while the battery is mounted correctly, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.

PRIOR TO OPERATION

1. Mounting the blade

This unit employs a detachable mechanism that enables mounting and removal of saw blades without the use of a wrench or other tools.

(1) Turn on and off the switching trigger several times so that the lever can jump out of the housing completely. Thereafter, turn off the switch and remove the battery (**Fig. 6**).

CAUTION

Be absolutely sure to keep the switch turned off and the battery removed to prevent any accident.

(2) Push the lever in the direction of the arrow mark shown in **Fig. 7** marked on the lever (**Fig. 7**).

(3) Insert the saw blade all the way into the small slit of the plunger tip with the lever pushing. You can mount this blade either in the upward or downward direction (**Fig. 8**, **Fig. 9**).

(4) When you release the lever, the spring force will return the lever to the correct position automatically (**Fig. 10**).

(5) Pull the back of the saw blade two or three times by hand and check that the blade is securely mounted. When pulling the blade, you will know it is properly mounted if it clicks and the lever moves slightly (**Fig. 11**).

CAUTION

When pulling the saw blade, be absolutely sure to pull it from the back. Pulling other parts of the blade will result in an injury.

2. Dismounting the blade

(1) Turn on and off the switching trigger several times so that the lever can jump out of the housing completely. Thereafter, turn off the switch and remove the battery (**Fig. 6**).

CAUTION

Be absolutely sure to keep the switch turned off and the battery removed to prevent any accident.

(2) After you have pushed the lever in the direction of the arrow mark shown in **Fig. 7** and secured it, turn the blade so it faces downward. The blade should fall out by itself. If the blade doesn’t fall out, pull it out by hand.

CAUTION

Never touch the saw blade immediately after use. The metal is hot and can easily burn your skin.

WHEN THE BLADE IS BROKEN

Even when the saw blade is broken and remains inside the small slit of the plunger, it should fall out if you push the lever in the direction of the arrow mark, and face the blade downward. If it doesn't fall out itself, take it out using the procedures explained below.

(1) If a part of the broken saw blade is sticking out of the small slit of the plunger, pull out the protruding part and take the blade out.

(2) If the broken saw blade is hidden inside the small slit, hook the broken blade using a tip of another saw blade and take it out (**Fig. 12**).

MAINTENANCE AND INSPECTION OF SAW BLADE MOUNT

(1) After use, blow away sawdust, earth, sand, moisture, etc., with air or brush them away with a brush, etc., to ensure that the blade mount can function smoothly.

(2) As shown in **Fig. 13**, carry out lubrication around the blade holder on a periodic basis by use of cutting fluid, etc.

NOTE

Continued use of the tool without cleaning and lubricating the area where the saw blade is installed can result in some slack movement of the lever due to accumulated sawdust and chips. Under the circumstances, pull a rubber cap provided on the lever in the direction of an arrow mark as shown in **Fig. 14** and remove the rubber cap from the lever. Then, clean up the inside of the blade holder with air and the like and carry out sufficient lubrication.

The rubber cap can be fitted on if it is pressed firmly onto the lever. At this time, make certain that there exists no clearance between the blade holder and the rubber cap, and furthermore ensure that the saw-blade-installed area can function smoothly.

CAUTION

Do not use any saw blade with a worn-out blade hole. Otherwise, the saw blade can come off, resulting in personal injury (**Fig. 15**).

3. Moving the base

Loosen the hex. socket bolt with hexagonal bar wrench and move the base forward, as shown in **Fig. 16**, **Fig. 17**. Tighten the set screw slightly, ensure the base does not move back and forth, and firmly tighten the hex. socket bolt. Ensure that the base does not contact the blade.

4. Confirm that the battery is mounted correctly

HOW TO USE

How to make the batteries perform longer.

○ Recharge the batteries before they become completely exhausted.
When you feel that the power of the tool becomes weaker, stop using the tool and recharge its battery. If you continue to use the tool and exhaust the electric current, the battery may be damaged and its life will become shorter.

CAUTION

○ Do not carry tools with your finger on the switch. A sudden startup can result in an unexpected injury.

○ Be careful not to let sawdust, earth, moisture, etc., enter the inside of the machine through the plunger section during operation. If sawdust and the like accumulate in the plunger section, always clean it before use (refer to **Fig. 6**).

○ During use, press the base against the material while cutting.
Vibration can damage the saw blade if the base is not pressed firmly against the workpiece.
Furthermore, a tip of the saw blade can sometimes contact the inner wall of the pipe, damaging the saw blade.

○ Select a saw blade of the most appropriate length. Ideally, the length protruding from the base of the saw blade after subtracting the stroke quantity should be larger than the material (see **Fig. 19** and **Fig. 21**).
If you cut a large pipe, large block of wood, etc., that exceeds the cutting capacity of a blade; there is a risk that the blade may contact with the inner wall of the pipe, wood, etc., resulting in damage (**Fig. 20**, **Fig. 22**).

○ To extend the lifetime, the lithium-ion battery equips with the protection function to stop the output. Therefore, if the tool is overloaded, the motor may stop. However, this is not the trouble but the result of protection function. In this case, release the switch of tool and eliminate the causes of overloading.

1. Switch operation

(1) Lock-off button
The tool is equipped with a lock-off button. To activate the trigger lock, move the button to the right position. Move the button to the left to operate the tool (**Fig. 18**).
Always lock the switch when carrying or storing the tool eliminate unintentional starting.

(2) Trigger switch
This tool is equipped with a variable speed controlled trigger switch. The tool can be turned "ON" or "OFF" by squeezing or releasing the trigger. The blade plunger stroke rate can be adjusted from the minimum to maximum nameplate stroke rate by the pressure you apply to the trigger. Apply more pressure to increase the speed and release pressure to decrease speed.

2. Using the light

Pull the trigger switch to light up the light. The light keeps on lighting while the trigger switch is being pulled. The light goes out after releasing the trigger switch. (**Fig. 4**)

CAUTION

Do not look directly into the light. Such actions could result in eye injury.

3. Cutting metallic materials

CAUTION

○ Press the base firmly against the workpiece.

○ Never apply any unreasonable force to the saw blade when cutting. Doing so can easily break the blade.

○ The motor can be locked sometimes, depending on the combination of the material to be cut and the blade. Whenever the motor gets locked, switch it off immediately.

(1) Fasten a workpiece firmly before operation (**Fig. 23**).

(2) When cutting metallic materials, use proper machine oil (turbine oil, etc.). When not using liquid machine oil, apply grease over the workpiece.

CAUTION

The service life of the saw blade will be drastically shortened if you don't use machine oil.

4. Cutting lumber

When cutting lumber, make sure that the workpiece is fastened firmly before beginning (**Fig. 24**).

CAUTION

Never apply any unreasonable force to the saw blade when cutting. Also remember to press the base against the lumber firmly.

5. Sawing curved lines

We recommend that you use the BI-METAL blade mentioned in **Table 3** for the saw blade since it is tough and hardly breaks.

CAUTION

Delay the feed speed when cutting the material into small circular arcs. An unreasonably fast feed may break the blade.

6. Plunge cutting

With this tool, you can perform plunge cutting on plywood panels and thin board materials. You can carry out pocket cutting quite easily with the saw blade installed in reverse as illustrated in **Fig. 26**, **Fig. 28**, and **Fig. 30**. Use the saw blade that is as short and thick as possible. We recommend for this purpose that you use BI-METAL Blade No. 107 mentioned, **Table 3**. Be sure to use caution during the cutting operation and observe the following procedures.

(1) Press the lower part (or the upper part) of the base against the material. Pull the switch trigger while keeping the tip of the saw blade apart from the material (**Fig. 25**, **Fig. 26**).

(2) Raise the handle slowly and cut in with the saw blade little by little (**Fig. 27**, **Fig. 28**).

(3) Hold the body firmly until the saw blade completely cuts into the material (**Fig. 29**, **Fig. 30**).

CAUTION

○ Avoid plunge cutting for metallic materials. This can easily damage the blade.

○ Never pull the switch trigger while the tip of the saw blade is pressed against the material. If you do so, the blade can easily be damaged when it collides with the material.

○ Make absolutely sure that you cut slowly while holding the body firmly. If you apply any unreasonable force to the saw blade during the cutting operation, the blade can easily be damaged.

NOTE

The use of the battery BCL1015 in a cold condition (below 0 degree Centigrade) can sometimes result in the weakened cutting torque and reduced amount of work. This, however, is a temporary phenomenon, and returns to normal when the battery warms up.

7. Battery Level Warning Lamp

The battery level can be checked by pulling the trigger switch while the power tool is in a no-load state. The battery level warning lamp lights when the battery power is very low. If this happens, charge the battery. (**Fig. 5**)

NOTE

○ The level at which the battery level warning lamp lights may vary due to the ambient temperature, characteristics of the battery, etc. and is intended only as a guide.

○ The battery level warning lamp may light when the power tool is overloaded. This does not mean that the battery power is very low.
Be sure to check the battery level while the tool is in a no-load state.

SELECTION OF BLADES

To ensure maximum operating efficiency and results, it is very important to select the appropriate blade best suited to the type and thickness of the material to be cut.

NOTE

Dimensions of the workpiece mentioned in the table represent the dimensions when the mounting position of the base is set nearest to the body of the Cordless Reciprocating Saw. Caution must be exercised since dimensions of the workpiece will become smaller if the base is-eounted far away from the body of the Cordless Reciprocating Saw.

1. Selection of HCS blades

The blade number of HCS blades in **Table 2** is engraved in the vicinity of the mounting position of each blade. Select appropriate blades by referring to **Tables 2** and **4** below.

Table 2: HCS blades

Blade No.	Uses	Thickness (mm)
No. 2	For cutting steel pipe less than 30 mm in diameter	2.5 - 6
No. 3	For cutting steel pipe less than 30 mm in diameter	Below 3.5
No. 5	For cutting and roughing lumber	Below 30
No. 96	For cutting stainless steel pipe less than 30 mm in diameter	Below 2.5

NOTE

No. 2 – No. 96 HCS blades are sold separately as optional accessories.

2. Selection of BI-METAL blades

The BI-METAL blade numbers in **Table 3** are described on the packages of special accessories. Select appropriate blades by referring to **Table 3** and **4** below.

Table 3: BI-METAL blades

Blade No.	Uses	Thickness (mm)
No. 101	For cutting steel and stainless pipes less than 60 mm in outer diameter	2.5 - 6
No. 103	For cutting steel and stainless pipes less than 60 mm in outer diameter	2.5 - 6
No. 107	For cutting steel and stainless pipes less than 60 mm in outer diameter	Below 3.5
No. 109	For cutting steel and stainless pipes less than 60 mm in outer diameter	2.5 - 6

NOTE

Nos. 101 – No. 109 BI-METAL blades are sold separately as optional accessories.

3. Selection of blades for other materials

Table 4

Material to be cut	Material quality	Thickness (mm)	Blade No.
Iron plate	Mild steel plate	2.5 - 10	No. 2, 101, 103, 109
		Below 3.5	No. 3, 107
Nonsthetic metal	Aluminium, Copper and Brass	5 - 20	No. 2, 101, 103, 109
		Below 5	No. 3, 107
Systhetic resin	Phenol resin, Melamine resin, etc.	10 - 50	No. 2, 4, 101, 103
		5 - 30	No. 3, 5, 8, 107, 109
	Vinyl chloride, Acrylic resin, etc.	10 - 60	No. 2, 4, 101, 103
		5 - 30	No. 3, 5, 8, 107, 109

MAINTENANCE AND INSPECTION

CAUTION

Be sure to turned off the switch and remove the battery before maintenance and inspection.

1. **Inspecting the blade**
   Continued use of a dull or damaged blade will result in reduced cutting efficiency and may cause overloading of the motor. Replace the blade with a new one as soon as excessive abrasion is noted.
2. **Inspecting the mounting screws**
   Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.
3. **Maintenance of the motor**
   The motor unit winding is the very “heart” of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.
4. **Cleaning of the outside**
   When the Cordless Reciprocating Saw is stained, wipe with a soft dry cloth or a cloth moistened with soapy water. Do not use chloric solvents, gasoline or paint thinner, as they melt plastics.
5. **Storage**
   Store the power tool in a place in which the temperature is less than 40°C and out of reach of children.

NOTE

Storing lithium-ion batteries.

Make sure the lithium-ion batteries have been fully charged before storing them.

Prolonged storage (3 months or more) of batteries with a low charge may result in performance deterioration, significantly reducing battery usage time or rendering the batteries incapable of holding a charge.

However, significantly reduced battery usage time may be recovered by repeatedly charging and using the batteries two to five times.

If the battery usage time is extremely short despite repeated charging and use, consider the batteries dead and purchase new batteries.

CAUTION

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

Important notice on the batteries for the HiKOKI cordless power tools

Please always use one of our designated genuine batteries. We cannot guarantee the safety and performance of our cordless power tool when used with batteries other than these designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal parts).

NOTE

Due to HiKOKI’s continuing program of research and development, the specifications herein are subject to change without prior notice.

一般安全規則

警告！
閱讀所有說明，未遵守下列之說明可能導致電擊、火災及 / 或嚴重傷害。
「電動工具」一詞在下列警告中，關係到電源操作（有線）之電動工具或電池操作（無線）之電動工具。

記住這些說明

1）工作場所
- a）保持工作場所清潔及明亮。
  雜亂及昏暗區域易發生意外。
- b）勿在易產生爆炸之環境中操作，譬如有易燃液體、瓦斯或粉塵存在之處。
  電動工具產生火花會引燃粉塵或煙氣。
- c）當操作電動工具時，保持兒童及過往人員遠離。
  分神會讓你失去控制。

2）電氣安全
- a）電動工具插頭必須與插座配合，絕不可以任何方法修改插頭，且不得使用任何轉接插頭於有接地之電動工具。
  不修改插頭及所結合之插座可減少電擊。
- b）避免身體接觸到接地面諸如管子、散熱器、爐灶及冰箱。
  如果你的身體接地或搭地，會增加電擊的危險。
- c）勿讓電動工具淋雨或曝露在潮濕的環境下。
  電動工具進水會增加電擊的危險。
- d）勿濫用電源線。絕勿使用電源線去纏繞、拖拉電動工具或拔插頭，保持電源線遠離熱氣、油氣、尖角或可動零件。
  損壞或纏繞的電源線會增加電擊之危險。
- e）電動工具在室外操作時要使用一適合室外用的延長線。
  使用合適之室外用延長線會減少電擊的危險。

3）人員安全
- a）保持機警，注意你正在做什麼，並運用普通常識操作電動工具。
  當你感到疲勞或受藥品、酒精或醫療影響時，勿操作電動工具。
  操作中瞬間的不注意可能造成人員嚴重的傷害。
- b）使用安全裝備，常時佩戴安全眼鏡。
  安全裝備有防塵口罩、防滑安全鞋、硬帽，或在適當情況下使用聽覺防護，可減少人員傷害。
- c）避免意外地啟動。在插電前確認開關是在“off”的位置。
  以手指放在開關握持電動工具，或在電動工具的開關於“on”的狀況下插上插頭，都會導致意外發生。
- d）在將電動工具啟動前，先卸下任何調整用鑰匙或扳手。
  扳手或鑰匙遺留在電動工具的轉動部位時，可能導致人員傷害。
- e）身體勿過度伸張，任何時間要保持站穩及平衡。
  以便在不預期的狀態下，能對電動工具有較好的控制。
- f）衣著要合宜，別穿太鬆的衣服或戴首飾。
  保持你的頭髮、衣服及手套遠離轉動部位。
  寬鬆的衣服、手飾及長髮會被捲入轉動部位。
- g）如果裝置要用於粉塵抽取及集塵設施，要確保其連接及正當使用。
  使用此類裝置能減少與粉塵有關之危害。

4）電動工具之使用及注意事項
- a）勿強力使用電動工具，使用正確之電動工具為你所需。
  正確使用電動工具會依其設計條件使工作做得更好更安全。
- b）如果開關不能轉至開及關的位置，勿使用電動工具。
  任何電動工具不能被開關所控制是危險的，必須要修理。
- c）在做任何調整、更換配件或收存電動工具時，要將插頭與電源分開，且 / 或將電池從電動工具中取出。
  此種預防安全措施可減少意外開啟電動機之危險。
- d）收存停用之電動工具，遠離兒童，且不容許不熟悉電動工具或未瞭解操作電動工具說明書的人操作電動工具。
  在未受過訓練的人手裡，電動工具極為危險。
- e）保養電動工具，檢核是否有可動零件錯誤的結合或卡住、零件破裂及可能影響電動工具操作的任何其他情形。
  電動工具如果損壞，在使用前要修好。許多意外皆肇因於不良的保養。
- f）保持切割工具銳利清潔。
  適當的保養切割工具，保持銳利之切削鋒口，可減少卡住並容易控制。
- g）按照說明書使用電動工具、配件及刀具等，使用特殊型式之電動工具時要考量工作條件及所執行之工作。
  使用電動工具未如預期用途之操作時，會導致危害。

5）電池式工具的使用及注意事項
- a）在插入電池組之前，確保開關置於斷開（off）的位置。
  因插入電池組進入電動工具時，若開關置於接通（on）的位置時，將導致意外事故發生。

b) **需再充電時，僅能使用製造商指定的充電器。**
因充電器僅適合同一型式的電池組，若使用任何其它電池組時，將導致起火的危險。

c) **使用電動工具時，僅能使用按照其特性設計的電池組。**
因使用其它任何電池組時，將導致人員傷害及起火的危險。

d) **當電池組不在使用時，需保存遠離其它的金屬物件，例如： 迴紋針、錢幣、鑰匙、圖釘、螺釘，或類似能造成端子與端子間連接的其它較小金屬物件。**
因電池組端子間短路時，將導致燃燒或起火的危險。

e) **在誤用情況下，電解液可能自電池中噴出；請避免接觸。當發生意外接觸時，請用清水沖洗。若電解液觸及眼睛時，請儘速尋求醫療協助。**
因自電池中噴出的電解液，將導致灼傷或刺激皮膚。

5）維修

a) **工具需維修時，請找合格修理人員，並請使用與原材料相同的零組件予以更換。**
遵循此規定，方能維持及確保電動工具的安全性。

注意事項

不可讓孩童和體弱人士靠近工作場所。

應將不使用的工具存放在孩童和體弱人士伸手不及的地方。

水平鋸使用上的注意事項

1. 務請在 10 ～ 40℃ 的溫度下進行充電。溫度低於 10℃ 將會導致充電過度，極其危險。電池不能在高於 40℃ 的溫度下充電。
   最適合於充電的溫度是 20 ～ 25℃。
2. 切勿連續使用充電器。
   一次充電完成后，請將充電器擱置 15 分鐘以上，然后再進行下一次充電。
   請勿連續給兩節以上的電池充電。
3. 勿讓雜質進入充電池連結口內。
4. 切勿拆卸充電式電池與充電器。
5. 切勿使充電式電池短路。使電池短路將會造成很大的電流和過熱，從而燒壞電池。
6. 請勿將電池丟入火中。
   電池受熱將會爆炸。
7. 在牆壁、地板或天花板上鑽孔時，請檢查有無埋入電線等。
8. 充電後電池壽命太短不夠使用時，請盡快將電池送往經銷店。不可將用過的電池亂丟。
9. 請勿使用耗竭了的電池，否則將會損壞充電器。
10. 請勿將異物插入充電器的通風口。
    若將金屬異物或易燃物插入通風口的話，將會引起觸電事故或使充電器受損。
11. 若長時間連續使用本產品，可能造成產品過熱，進而導致馬達、開關損壞。請暫停使用並靜置約 15 分鐘。
12. 操作本產品時，請配戴保護聽力用的耳塞。
13. 使用期間及剛結束使用時，切勿碰觸鋸片部分，因操作期間會使鋸片產生高熱，容易造成燒燙傷。
14. 操作本產品時務必握緊機身，否則作業時產生的反作用力不僅會影響精確度，更可能發生危險。
15. 進行任何調整、更換附件或儲放時，務必先將電池取下，或將開關置於鎖止 / 關閉位置。

鋰離子電池使用注意事項

為延長使用期限，鋰離子電池備配停止輸出的保護功能。
若是在使用本產品時發生下列 1 至 3 的情況，即使按下開關，馬達也可能停止。這並非故障，而是 動保護功能的結果。

1. 在殘留的電池電力即將耗盡時，馬達會停止。
   在這種情況下，請立即予以充電。
2. 若工具超過負荷，馬達亦可能停止。在這種情況下，請鬆開工具的開關， 試著消除超過負荷的原因。之後您就可以再度使用。
3. 若電池在過載工作情況下過熱，電池電力可能會中止。
   在這種情況下，請停止使用電池，讓電池冷卻。之後您就可以再度使用。

此外，請留心下列的警告及注意事項。

警告

為防止發生電池漏電、發熱、冒煙、爆炸及提前點燃，請確保留意下列事項。

1. 確保電池上沒有堆積削屑及灰塵。
○ 在工作時確定削屑及灰塵沒有掉落在電池上。
○ 確定所有工作時掉落在電動工具上的削屑和灰塵沒有堆積在電池上。
○ 請勿將未使用的電池存放在曝露於削屑和灰塵的位置。
○ 在存放電池之前，請清除任何可能附著在上面的削屑和灰塵，並請切勿將它與金屬零件（螺絲、釘子等）存放在一起。
2. 請勿以釘子等利器刺穿電池、以鐵錘敲打、踩踏、丟擲電池，或將其劇烈撞擊。
3. 切勿使用明顯損壞或變形的電池。
4. 使用電池時請勿顛倒電極。

5. 請勿直接連接電源插座或汽車點煙器孔座。
6. 請依規定方式使用電池，切勿移作他用。
7. 如果已過了再充電時間，電池仍無法完成充電，請立即停止繼續再充電。
8. 請勿將電池放置於高溫或高壓處，例如微波爐、烘乾機或高壓容器內。
9. 在發覺有滲漏或異味時，請勿接近遠離火源。
10. 請勿在會產生強烈靜電的地方使用。
11. 如有電池滲漏、異味、發熱、褪色或變形，或在使用、充電或存放時出現任何異常，請立即將它從裝備或電池充電器拆下，並停止使用。
12. 請勿將電池浸入任何液體，或讓任何液體流入電池內。若水等具有傳導性的液體滲入，可能會造成損壞，進而導致火災或爆炸。將電池存放在陰涼、乾燥的地方，遠離可燃及易燃物品。必須避免腐蝕性氣體環境。

注意

1. 若電池滲漏出的液體進入您的眼睛，請勿搓揉眼睛，並以自來水等乾淨清水充彬沖洗，立刻送醫。若不加以處理，液體可能會導致眼睛不適。
2. 若液體滲漏至您的皮膚或衣物，請立即以自來水等清水沖洗。
   上述情況可能會使皮膚受到刺激。
3. 若初次使用電池時發現生銹、異味、過熱、褪色、變形及／或其他異常情況時，請勿使用並將該電池退還給供應商或廠商。

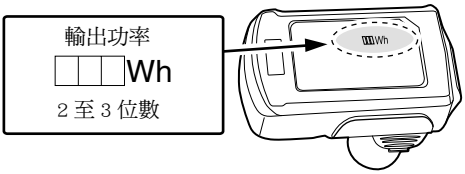
關於鋰離子電池的運輸

運輸鋰離子電池時，請遵守以下注意事項。

警告

安排運輸時，請通知運輸公司包裹中含有鋰離子電池，告知該電池之輸出功率，並按照運輸公司的指示。

○ 輸出功率超過 100 Wh 的鋰離子電池被視為貨物分類中的危險物品，將需要特殊的申請程序。
○ 對於國外的運輸，必須遵守國際法規則和目的國法規。



規 格

電動工具

型式	CR10DL
無負荷速度	0 - 2700 轉/分
衝程	13 mm
性能	軟鋼管： 外徑 25 mm
	氯乙烯管： 外徑 45 mm
	木料： 深度 50 mm
	軟鋼板： 厚度 4 mm
充電式電池	BCL1015：Li-ion DC 10.8 V / 12 V 最大值（1.5 Ah 3 節電池）
重量	1.2 kg

充電器

型式	UC10SFL
充電電壓	10.8 V
重量	0.35 kg

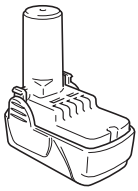
標 準 附 件

CR10DL (LCSK)	① 鋸片 (No. 5)..... 1 ② 鋸片 (No. 107)..... 1 ③ 六角桿扳手..... 1 ④ 電池 (BCL1015)..... 1 ⑤ 充電器 (UC10SFL)..... 1 ⑥ 塑料套..... 1
CR10DL (2LCSK)	① 鋸片 (No. 5)..... 1 ② 鋸片 (No. 107)..... 1 ③ 六角桿扳手..... 1 ④ 電池 (BCL1015)..... 2 ⑤ 充電器 (UC10SFL)..... 1 ⑥ 塑料套..... 1

標準附件可能不預先通告而徑予更改。

選 購 附 件（分 開 銷 售）

1. 電池 (BCL1015)



2. 鋸片

(1) No. 2　鋸片　　(5) No. 101　鋸片
(2) No. 3　鋸片　　(6) No. 103　鋸片
(3) No. 5　鋸片　　(7) No. 107　鋸片
(4) No. 96　鋸片　　(8) No. 109　鋸片

○ (1) - (4): HCS 鋸片（HCS：高速碳鋼）。
○ (5) - (8): BI-METAL 鋸片。
鋸片的運用，請參閱**表 2**、**表 3** 及**表 4**。
選購附件可能不預先通告而徑予更改。

用 途

○ 切鋸管路及角鋼。
○ 切鋸各類型木料。
○ 切鋸軟鋼板及鋁板。
○ 切鋸合成樹脂材質，例如：酚樹脂及氯乙烯。
相關詳盡資訊，請參閱「鋸片的選擇」部分。

電池的拆卸 / 安裝法

注意
務必將開關保持於關閉位置，且鎖止按鈕保持於右側位置（鎖入位置）（請參閱**圖 18**）。

1. **取下電池**
緊握機身，推動電池卡榫並將電池取下（請參閱**圖 1** 及**圖 2**）。

注意
請勿使電池短路。

2. **電池的安裝法**
請先確認了電池的正負極後，再將電池插進去（見**圖 2**）。

充 電

使用電動工具之前，按下述方法將電池進行充電。
1. **將充電器的電源線插頭插入插座**
2. **將電池插入充電器中**
以電池標籤朝充電器標籤的方向插入電池，然後將電池往下壓，直到電池接觸到下方的金屬（請參見**圖 3**）。
插入電池後，隨即開啟充電器電源（指示燈會亮起）。

注意
若指示燈未亮起，請從電源插座拔下電源線，然後檢查電池安裝狀態。

指示燈熄滅表示電池已經充好。

注意
作業停止後，如電池（因晒太陽等原因）而變熱，充電指示燈會不亮。這時，應先讓電池冷卻，然後再充電。

○ 關於充電時間。
表 1 顯示不同類型電池所需的充電時間。

表 1 在 20℃ 時的再充電時間（約分鐘）

電池容量 (Ah)	
1.5 Ah	
BCL1015	40 分鐘

註
充電時間會依環境溫度而有不同。

3. 將充電器電線從插頭拔下
4. 抓穩充電器並取出電池

註
充電後，先將電池從充電器中取出，然後妥善保存。

怎樣讓電池使用時間更長

(1)在電池電量完全耗盡之前給電池充電。
在感覺工具的動力變弱時，停止使用工具並為電池充電。如果繼續使用工具消耗電流，可能會造成對電池的損壞，電池使用壽命會縮短。
(2)避免在高溫下充電
充電電池在剛使用後會發熱。如果在電池剛使用後為電池充電，電池的內部化學物質的性能會下降，電池使用壽命會縮短。請先將電池放置一會，待電池冷卻後再進行充電。

注意
○ 連續使用電池充電器時，充電器會變熱，因而導致故障。完成一次充電後，請休息 15 分鐘再進行下次充電。
○ 若電池已正確裝入，但電池充電器仍無法運作，即有可能是電池或充電器故障。請將它們送到授權的服務中心檢查。

操 作 前

1. 裝入鋸片
本產品配備有可拆卸機件，無需使用扳手或其他工具即可裝入及拆下鋸片。
(1)開啟及關閉扳機開關數次，使拉柄能完全突出機身外。然後再關閉開關，取下電池（圖 6）。

注意
請務必確認開關已關閉且電池已取下，以確保安全。

(2)如圖 7 所示，依拉柄上所標示的箭頭方向推動拉柄（圖 7）。
(3)推動拉柄的同時，將鋸片自柱塞頂端的小縫隙中插入至盡頭。安裝鋸片時 鋸齒可朝上或朝下。（圖 8、圖 9）。
(4)放開拉柄後，彈簧力會自動將拉柄歸回原位（圖 10）。
(5)用手拉動鋸片背部兩次或三次，檢查鋸片是否已確實固定。拉動鋸片時，若有卡入的感覺且拉柄有稍微移動的情形，表示鋸片已確實固定。（圖 11）

注意
拉動鋸片時，務必拉動其背部，若拉動其他部分，則可能造成受傷。

2. 拆下鋸片
(1)開啟及關閉扳機開關數次，使拉柄能完全突出機身外。然後再關閉開關，取下電池（圖 6）。

注意
請務必確認開關已關閉且電池已取下，以確保安全。

(2)如圖 7 所示，依拉柄上所標示的箭頭方向推動並固定拉柄後，轉動鋸片使鋸片面朝下。此時，鋸片應能自動脫出。若鋸片未脫出，請用手將鋸片取出。

注意
結束使用後，切勿立即碰觸鋸片。因金屬部分仍具有高溫，容易造成皮膚燙傷。

若鋸片斷裂

若發生鋸片斷裂情形，且部分鋸片仍殘留於柱塞的小縫內，依拉柄所示方向推動拉柄並使鋸片面朝下，可使鋸片脫出。若鋸片未脫出，請依下列程序將鋸片取出。
(1)若斷裂的鋸片仍有部分突出於柱塞的小縫之外，請拉動突出部分並將鋸片取出。
(2)若斷裂的鋸片殘留於小縫內部，請使用其他鋸片的尖端將殘留的鋸片勾出（圖 12）。

鋸片固定座的保養與檢查

(1)使用後，以空氣吹清或以毛刷清除鋸屑、粉塵、砂土、濕氣，確保鋸片固定功能的正常。
(2)如圖 13 所示，定期利用切削油等油品潤滑鋸片座附近區域。

註
若連續使用本產品而未能清潔及潤滑鋸片安裝部位，則可能因堆積鋸屑及碎屑而使拉柄出現鬆動情形。此時，請依圖 14 箭頭所示方向，將拉柄上的橡皮蓋向外拉離拉柄。再利用空氣、毛刷等清潔鋸片座內部，並給予充分潤滑。
用力壓下橡皮蓋，即可牢牢固定於拉柄上。此時，先確認鋸片座與橡皮蓋已緊密結合，再確認鋸片安裝部位可正常運作。

注意
切勿使用任何鋸片孔已損壞的鋸片，否則鋸片會脫落並造成人員受傷（圖 15）。

3. 移動底座
如圖 16、圖 17 所示，利用六角桿扳手旋鬆內六角螺栓，將底座向前移。稍微鎖緊固定螺絲，確認底座不會前後移動，再鎖緊內六角螺栓。確認底座不會碰觸到鋸片。
4. 確認電池已正確裝入

操作使用方式

怎樣讓電池使用時間更長

○ 在電池電量完全耗盡之前給電池充電。
在感覺工具的動力變弱時，停止使用工具並為電池充電。如果繼續使用工具消耗電流，可能會造成對電池的損壞，電池使用壽命會縮短。

注意
○ 攜行本產品時，切勿將手指放置於開關上。若誤觸開關，即可能造成意外傷害。
○ 操作使用時，小心不可使鋸屑、砂土、濕氣等經由柱塞部分進入機器內部。若柱塞部分已堆積鋸屑等物，使用前務必先清理乾淨（請參閱圖 6）。
○ 進行切鋸作業時，將底座抵住切鋸材料；若未將底座確實抵住工件，切鋸時產生的振動會造成鋸片損壞。此外，鋸片的前端也可能因而碰觸到管路的內壁，造成鋸片的損壞。
○ 選擇長度最適合的鋸片。最理想的長度，是鋸片突出底座的長度減去行程後，仍能大於切鋸工件（請參閱圖 19及圖 21）。若切鋸較大的管路或木料等物，且超過鋸片的切鋸能力，則可能因鋸片碰觸到管路、木料的內壁而造成損壞（圖 20及圖 22）。
○ 為延長使用壽命，鋰電池配備有停止輸出的保護功能。因此，本產品過載時會停止馬達運轉。這並非故障情形，而是保護功能發揮作用。此時，請鬆開開關並排除故障原因。

1. 開關操作
(1)鎖止按鈕
本產品配備有一只鎖止按鈕。若需啟用扳機鎖，請將按鈕移至右側位置。將按鈕移至左側位置時，即可操作使用本產品（圖 18）。
攜行或儲放本產品時，務必鎖住扳機開關，以避免意外啟動。
(2)扳機開關
本產品配備有一只變速控制扳機開關。壓下、鬆開扳機開關即可「啟動」、「停止」本產品。透過壓下扳機開關的力道大小，可自由控制產品銘牌上所標註的最低至最高切鋸速率。壓下力道越大，速率越高；壓下力道越小，速率越低

2. 使用照明燈
壓下扳機開關即可點亮照明燈。開關壓下時，將保持燈光點亮;若需關閉燈光 將開關鬆開即可(圖 4)。

注意
切勿直視照明燈的燈光，以免造成視力傷害。

3. 切鋸金屬材料

注意
○ 將底座確實抵住工件。
○ 切鋸時不可過度施力於鋸片上，否則易使鋸片受損。
○ 依據切鋸的材料與鋸片的組合情形，有時可能會造成馬達停頓，遇此情形時，請立即鬆開扳機開關停止供電至馬達。

(1)使用前，請先將工件確實固定（圖 23）。
(2)切鋸金屬材料時 ,請使用正確的機油（渦輪油等）。若無液體機油可用，請於工件上塗抹黃油。

注意
若未使用機油，將大幅縮短鋸片的使用壽命。

4. 切鋸木料
切鋸木料之前，請先將木料確實固定（圖 24）。

注意
切鋸時切勿過度施力於鋸片上，同時也需將底座確實抵住工件。

5. 切鋸曲線
建議採用表 3 內所述的 BI-METAL 鋸片，因為此類鋸片較為堅韌且不易斷裂。

注意
將材料切鋸為小型圓弧時，請降低行進的速度；若行進速度過快，則可能造成鋸片斷裂。

6. 插入切鋸
使用本產品可切鋸木質合板及薄板材料。利用顛倒安裝鋸片的方式，可相當輕鬆的進行袋狀切鋸，請參閱圖 26、圖 28 及圖 30。此時請盡可能使用短而厚的鋸片，建議使用表 3 內所述的 BI-METAL 鋸片 No. 107。進行切鋸作業時務必遵守各項注意事項並依循下列程序。
(1)將底座的下端（或上端）抵住材料。保持鋸片尖端未碰觸材料的情形下，壓下扳機開關（圖 25、圖 26）。
(2)慢慢提高握把部分，使鋸片逐漸切入材料（圖 27、圖 28）。
(3)穩穩握住機身，直到鋸片完全切入材料（圖 29、圖 30）。

注意
○ 金屬材料避免使用插入切鋸，否則容易造成鋸片損壞。
○ 鋸片尖端抵住材料時，切勿壓下扳機開關，否則會使鋸片撞擊材料而容易造成鋸片損壞。
○ 務必握緊機身並放慢切鋸動作，若切鋸時過度施力於鋸片上，極易造成鋸片損壞。

註
若於低溫環境中（攝氏 0 度以下）使用 BCL1015 電池，有時會出現切鋸力道變弱及工作量降低的情形。然而此情形僅為暫時現象，電池回溫後即可恢復正常運作。

7. 電池電量警示燈
在本產品空載時，壓下扳機開關即可檢查電池的電量。電池電量過低時，電量指示燈會亮起。電量指示燈亮起時，請為電池充電（圖 5）。

註
○ 電池電量指示燈僅用於參考，所指示的剩餘電量 將因環境溫度 電池特性等因素而有所不同。
○ 本產品過載時，電池電量指示燈亦會亮起，但並非表示電量過低。請務必於本產品空載時檢查電池的電量。

鋸 片 的 選 擇

為確保最佳的使用效益及成果，選擇最適用於切鋸材料類型與厚度的鋸片相當重要。

註
○ 表內所列的工件尺寸，是指底座固定於最接近充電式水平鋸機身的位置。請特別注意，若底座固定於距離充電式水平鋸機身較遠的位置，則可切鋸的工件尺寸亦會隨之變小。

1. HCS 鋸片的選擇
表 2 內所列的 HCS 鋸片，其編號均刻印於各鋸片固定位置附近。選擇適當的鋸片時，請參照以下的表 2 及表 4。

表 2: HCS 鋸片

鋸片編號	用途	厚度 (mm)
No. 2	用於切鋸直徑小於 30 mm 的鋼管	2.5 - 6
No. 3	用於切鋸直徑小於 30 mm 的鋼管	低於 3.5
No. 5	用於木料的切鋸及粗加工	低於 30
No. 96	用於切鋸直徑小於 30 mm 的不鏽鋼管	低於 2.5

註
No. 2 - No. 96 HCS 鋸片為選購附件 請另行採購。

2. BI-METAL 鋸片的選擇
表 3 中所列的 BI-METAL 鋸片編號表示特殊套裝 選擇適當的鋸片時，請參照以下的表 3 及表 4。

表 3: BI-METAL 鋸片

鋸片編號	用途	厚度 (mm)
No. 101	用於切鋸外徑小於 60 mm 的鋼管及不鏽鋼管	2.5 - 6
No. 103	用於切鋸外徑小於 60 mm 的鋼管及不鏽鋼管	2.5 - 6
No. 107	用於切鋸外徑小於 60 mm 的鋼管及不鏽鋼管	低於 3.5
No. 109	用於切鋸外徑小於 60 mm 的鋼管及不鏽鋼管	2.5 - 6

註
No. 101 - No. 109 BI-METAL 鋸片為選購附件，請另行採購。

3. 其他材料用鋸片的選擇

表 4

切割材料	材料性質	厚度 (mm)	鋸片編號
鐵板	軟鋼板	2.5 - 10	No. 2, 101, 103, 109
		低於 3.5	No. 3, 107
非鐵金屬	黃銅鋁銅	5 - 20	No. 2, 101, 103, 109
		低於 5	No. 3, 107
合成樹脂	酚醛樹脂 ,蜜胺樹脂，樹脂等	10 - 50	No. 2, 4, 101, 103
		5 - 30	No. 3, 5, 8, 107, 109
	氯乙烯，亞克力樹脂等	10 - 60	No. 2, 4, 101, 103
		5 - 30	No. 3, 5, 8, 107, 109

維 護 和 檢 查

注意
進行保養與檢查作業前，務必先將開關關閉並取下電池。

1. **檢查鋸片**
   繼續使用鈍化的或損壞的鋸片將導致切割效率下降，並可能導致電動機超載。一發現額外的切痕，請立即更換鋸片。
2. **檢查安裝螺釘**
   要經常檢查安裝螺釘是否緊固妥善。若發現螺釘鬆了，應立即重新扭緊，否則會導致嚴重的事故。
3. **電動機的維護**
   電動機繞線是電動工具的“心臟部”。應仔細檢查有無損傷，是否被油液或水沾濕。
4. **清理外部**
   水平鋸髒污時，請使用乾淨軟布或沾肥皂水的布擦拭。切勿使用氯溶液、汽油或稀釋劑，以免塑膠部分溶化。
5. **收藏**
   電動工具應收藏於溫度低於 40℃ 而為小孩拿不到的地方。

註

存放鋰離子電池
存放鋰離子電池前，確保其已完全充電。
電池在低電力的狀態下長期存放（3 個月以上），可能會導致性能劣化，電池的使用時間顯著降低或無法再進行充電。
然而，反覆將電池充電和暫停充電二至五次，可能會改善電池使用時間的顯著降低情況。
反覆充電後，若電池的使用時間仍呈現極短現象，表示電池壽命已盡，請購買新的電池。

注意
在操作和維修電動工具中，必須遵守各國的安全規則和標準規定。

HiKOKI充電式工具電池重要注意事項
請務必使用本公司所指定的原廠電池。若未使用本公司所指定的電池，或使用經拆解及改裝的電池(例如，拆解後更換電池芯或其他內部零件)，則本公司無法保證充電式工具的性能及操作安全。

註
為求改進，本手冊所載規格可能不預先通告而徑予更改。

일반적인 안전 수칙

경고!
설명서를 자세히 읽으십시오.
설명서의 내용에 따르지 않을 시에는 감전 사고나 화재가 발생할 수 있으며 심각한 부상을 입을 수도 있습니다.
아래에 나오는 '전동 툴' 이란 용어는 플러그를 콘센트에 연결해 유선 상태로 사용하는 제품 또는 배터리를 넣어 무선 상태로 사용하는 제품을 가리킵니다.

설명서의 내용을 숙지하십시오.

1) 작업 공간
   a) **작업 공간을 깨끗하게 청소하고 조명을 밝게 유지하십시오.**
   작업 공간이 정리되어 있지 않거나 어두우면 사고가 날 수 있습니다.
   b) **인화성 액체나 기체 또는 먼지 등으로 인해 폭발 위험이 있는 환경에서는 전동 툴을 사용하지 마십시오.**
   전동 툴을 사용하다 보면 불꽃이 튀어서 먼지나 기체에 불이 붙을 수 있습니다.
   c) **어린이를 비롯하여 사용자 외에는 작업장소에 접근하지 못하도록 하십시오.**
   주의가 산만해지면 문제가 생길 수 있습니다.

2) 전기 사용시 주의사항
   a) **전동 툴 플러그와 콘센트가 일치해야 합니다.**
   플러그를 절대로 변형하지 마십시오.
   접지된 전동 툴에는 어댑터 플러그를 사용하지 마십시오.
   플러그를 변형하지 않고 알맞은 콘센트에 꽂아 사용하면, 감전 위험을 줄일 수 있습니다.
   b) **파이프, 라디에이터, 레인지, 냉장고 등 접지된 표면에 몸이 닿지 않도록 주의하십시오.**
   작업자의 몸이 접지되면, 감전될 위험이 있습니다.
   c) **전동 툴에 비를 맞히거나 젖은 상태로 두지 마십시오.**
   물이 들어가면 감전될 위험이 있습니다.
   d) **코드를 조심해서 다루십시오. 전동 툴을 들거나 당기거나 콘센트에서 뽑으려고 할 때 코드를 잡아당기면 안 됩니다.**
   열, 기름, 날카로운 물건, 움직이는 부품 등으로부터 코드를 보호하십시오.
   코드가 파손되거나 엉키면 감전될 위험이 높아집니다.
   e) **실외에서 전동 툴을 사용할 때는 실외 용도에 적합한 연장선을 사용하십시오.**
   실외 용도에 적합한 코드를 사용해야 감전 위험이 줄어듭니다.

3) 사용자 주의사항
   a) **전동 툴을 사용할 때는 작업에 정신을 집중하고, 상식의 범위 내에서 사용하십시오.**
   약물을 복용하거나 알코올을 섭취한 상태 또는 피곤한 상태에서는 전동 툴을 사용하지 마십시오.
   전동 툴을 사용할 때 주의가 흐트러지면 심각한 부상을 입을 수 있습니다.
   b) **안전 장비를 사용하십시오. 항상 눈 보호 장구를 착용해야 합니다.**
   먼지 보호 마스크, 미끄럼 방지 신발, 안전모, 청각 보호 장비 등을 사용하면 부상을 줄일 수 있습니다.
   c) **전동 툴이 갑자기 작동되지 않도록 합니다. 플러그를 꽂기 전에 스위치가 'OFF' 위치에 있는지 확인하십시오.**
   손가락을 스위치에 접촉한 채 전동 툴을 들거나 스위치가 켜진 상태로 플러그를 꽂으면 사고가 날 수 있습니다.
   d) **전원을 켜기 전에 조정 키 또는 렌치를 반드시 제거해야 합니다.**
   전동 툴의 회전 부위에 키 또는 렌치가 부착되어 있으면, 부상을 입을 수 있습니다.
   e) **작업 대상과의 거리를 잘 조절하십시오. 알맞은 발판을 사용하고 항상 균형을 잡고 있어야 합니다.**
   그렇게 하면 예기치 못한 상황에서도 전동 툴을 잘 다룰 수 있습니다.
   f) **알맞은 복장을 갖추십시오. 헐렁한 옷이나 장신구를 착용하면 안 됩니다. 머리카락, 옷, 장갑 등을 움직이는 부품으로부터 보호하십시오.**
   헐렁한 옷이나 장신구, 긴 머리카락이 부품에 딸려 들어갈 수도 있습니다.
   g) **분진 추출 및 집진 장비에 연결할 수 있는 장치가 제공되는 경우, 그러한 장치가 잘 연결되어 있고 제대로 작동하는지 확인하십시오.**
   이러한 장치를 사용하면, 먼지와 관련된 사고를 줄일 수 있습니다.

4) 전동 툴 사용 및 관리
   a) **전동 툴을 아무 곳에나 사용하지 마십시오. 용도에 알맞은 전동 툴을 사용하십시오.**
   적절한 전동 툴을 사용하면, 정상 속도로 안전하고 효과적으로 작업을 수행할 수 있습니다.
   b) **스위치를 눌렀을 때 전동 툴이 켜지거나 꺼지지 않으면 사용하지 마십시오.**
   스위치로 작동시킬 수 없는 전동 툴은 위험하므로, 수리를 받아야 합니다.
   c) **전동 툴을 조정하거나 부속품을 바꾸거나 보관할 때는 반드시 전원에서 플러그를 빼야 합니다.**
   이러한 안전 조치를 취해야 전동 툴이 갑자기 켜지는 위험을 피할 수 있습니다.
   d) **사용하지 않는 전동 툴은 어린이의 손이 닿지 않는 곳에 보관하고, 사용법을 잘 모르는 사람이 사용하지 못하도록 하십시오.**
   전동 툴은 미숙련자가 다루기에는 매우 위험한 물건입니다.
   e) **전동 툴을 잘 관리하십시오. 움직이는 부품이 잘못 결합되어 있거나 꽉 끼어 움직이지 못하게 되어 있지 않은지 점검하십시오. 또한 전동 툴의 작동에 영향을 미칠 수 있는 기타 파손이 없는지 확인하십시오.**
   파손된 부분이 있는 경우, 사용하기 전에 수리하십시오.
   전동 툴을 제대로 관리하지 못해서 생기는 사고가 많습니다.
   f) **절삭 툴은 날카롭고 청결한 상태로 관리하십시오.**
   절삭 날을 날카로운 상태로 잘 관리하면, 원활하게 잘 움직이며 다루기도 훨씬 편합니다.
   g) **설명서를 참조하여 전동 툴과 부속품, 툴 비트 등을 사용하십시오. 또한 작업 환경과 수행할 작업의 성격을 고려해서 알맞은 종류의 전동 툴을 선택하고, 적절한 방식으로 사용하십시오.**
   원래 목적과 다른 용도로 전동 툴을 사용하면 위험한 사고가 날 수 있습니다.

5) 배터리 도구 사용 및 관리
   a) **배터리 팩을 삽입하기 전에 스위치가 꺼졌는지 확인하십시오.**
   스위치가 켜진 상태에서 배터리 팩을 전동 툴에 삽입하면 사고가 발생합니다.
   b) **제조업체가 지정한 충전기로만 충전하십시오.**
   한 종류의 배터리 팩에 적합한 충전기는 다른 배터리 팩에 사용될 때 화재 위험을 발생시킬 수 있습니다.
   c) **구체적으로 지정된 배터리 팩만 전동 툴에 사용하십시오.**
   다른 배터리 팩을 사용하면 부상 및 화재의 위험이 발생할 수 있습니다.

d) 배터리 팩을 사용하지 않을 때는 종이 클립, 동전, 열쇠, 못, 나사와 같은 기타 금속 물체 또는 단자간 연결을 만들어낼 수 있는 기타의 작은 금속 물체와 떨어진 곳에 놓아두십시오.
배터리 단자가 모두 단락되면 화상 또는 화재가 발생할 수 있습니다.

e) 가혹한 조건 하에서 액체가 배터리에서 누출될 수 있습니다. 배터리 누액과 접촉하지 마십시오. 배터리 누액과 우발적으로 접촉할 경우 물로 씻으십시오. 배터리 누액이 눈에 들어갈 경우 의사의 진찰을 받으십시오.
배터리에서 누출되는 액체는 염증 또는 화상을 일으킬 수 있습니다.

6) 서비스

a) 자격을 갖춘 전문가에게 서비스를 받고, 항상 원래 부품과 동일한 것으로 교체해야 합니다.
그렇게 하면 전동 툴을 보다 안전하게 사용할 수 있습니다.

주의사항
어린이나 노약자가 가까이 오지 못하도록 하십시오.
전동 툴을 사용하지 않을 때는 어린이나 노약자의 손이 닿지 않는 곳에 보관해야 합니다.

충전 컷 쏘에 대한 주의사항

1. 항상 배터리를 10° C – 40° C의 온도에서 충전하십시오. 10° C보다 낮은 온도에서 충전하면 과충전되어 위험해질 수 있습니다. 배터리는 40° C보다 높은 온도에서 충전할 수 없습니다.가장 적합한 충전 온도는 20° C – 25° C입니다.
2. 충전기를 계속 사용하지 마십시오.
배터리 한 개를 충전한 후 15분 정도 기다렸다가 다음 배터리를 충전하십시오.두 개 이상의 배터리를 연속적으로 충전하지 마십시오.
3. 충전식 배터리 연결 구멍에 이물질이 들어가지 않게 하십시오.
4. 충전식 배터리와 충전기를 절대로 분해하지 마십시오.
5. 충전식 배터리를 절대로 단락시키지 마십시오. 배터리를 단락시키면 전류가 높아져 과열됩니다. 화상을 입거나 배터리가 손상됩니다.
6. 배터리를 불속에 버리지 마십시오.
배터리가 타면 폭발할 수 있습니다.
7. 벽, 바닥 또는 천장에 구멍을 뚫을 때 매설된 전원 코드가 있는지 확인하십시오.
8. 수명후 배터리 수명이 실제 사용 중에 너무 짧아지면 배터리를 구입점에 즉시 갖고 오십시오. 수명을 다한 배터리는 버리지 마십시오.
9. 수명을 다한 배터리를 사용하면 충전기가 손상됩니다.
10. 물체를 충전기 통기 홈에 넣지 마십시오.금속 물체 또는 인화물을 충전기 통기 홈에 넣으면 감전될 위험이 있거나 충전기가 손상됩니다.
11. 이 장치를 계속 사용할 경우, 장치가 과열되어 모터와 스위치에 손상이 초래될 수 있습니다. 대략 15분 동안 사용하지 않고 그대로 두십시오.
12. 장치를 조작하는 동안 정력을 보호하기 위해 귀마개를 착용하십시오.
13. 장치를 조작하는 동안 또는 조작 직후 톱날을 만지지 마십시오. 조작하는 동안 톱날이 매우 뜨거워 심각한 화상이 야기될 수 있습니다.
14. 동력 공구 하우징을 항상 적절히 고정시키십시오. 그렇지 않을 경우, 반발력이 발생하여 부적절하게 작동하고 심지어 위험하게 작동할 수 있습니다.
15. 조절 작업, 액세서리 충전 또는 공구를 보관하기 전 공구에서 배터리를 분리하거나 스위치를 잠금 위치 또는 OFF 위치에 두십시오.

리튬-이온 배터리에 대한 주의사항

수명을 연장하기 위해서 리튬-이온 배터리에는 출력을 중지시키기 위한 보호 기능이 탑재되어 있습니다.
아래에서 설명한 1에서 3의 경우에, 이 제품을 사용할 때, 스위치를 잡아당기고 있을 때조차, 모터가 정지할 수 있습니다. 이것은 문제는 아니지만 보호 기능의 결과입니다.

1. 남은 배터리 전원이 모두 소모되면, 모터가 정지합니다.
그러한 경우 즉시 충전하십시오.
2. 공구에 과부하가 발생하면 모터가 정지할 수 있습니다. 이러한 경우 공구의 스위치를 놓은 후 과부하의 원인을 제거하십시오. 그런 다음 공구를 다시 사용할 수 있습니다.
3. 배터리가 과부하 작업으로 인해 과열된 경우 배터리 전원이 정지할 수 있습니다.
이러한 경우 배터리 사용을 중지하고 배터리를 냉각시키십시오. 그런 다음 공구를 다시 사용할 수 있습니다.

또한 다음 경과 및 주의사항에 주의하십시오.

경고
배터리 누액, 발열, 연기 배출, 폭발 및 점화를 사전에 방지하려면, 다음 주의사항에 주의하십시오.

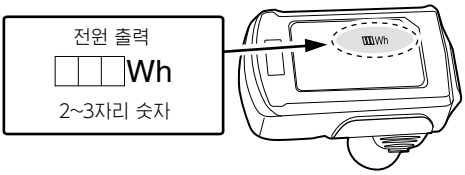
1. 부스러기와 먼지가 배터리에 뭉쳐 있지 않은지 확인하십시오.
○ 작업 중에 부스러기와 먼지가 배터리에 떨어지지 않는지 확인하십시오.
○ 작업 중에 전동 툴에 떨어지는 부스러기와 먼지가 배터리에 뭉쳐 있지 않는지 확인하십시오.
○ 부스러기와 먼지에 노출된 위치에 미사용 배터리를 보관하지 마십시오.
○ 배터리를 보관하기 전에, 배터리에 붙을 수 있는 부스러기와 먼지를 모두 제거하고 배터리를 금속 부품(나사, 못 등)과 함께 보관하지 마십시오.
2. 못과 같은 날카로운 물체로 배터리에 구멍을 내거나, 배터리를 망치로 두들기거나, 밟거나, 던지거나 배터리에 심한 물리적 충격을 가하지 마십시오.
3. 손상되거나 변형된 듯한 배터리는 사용하지 마십시오.
4. 배터리의 음극과 양극을 반대로 맞춰 사용하지 마십시오.
5. 배터리를 전기 콘센트 또는 차량 시가 라이터 소켓에 직접 연결하지 마십시오.
6. 배터리를 지정된 목적 이외의 목적으로 사용하지 마십시오.
7. 지정된 충전 시간이 경과했는데도 배터리 충전이 완료되지 않을 경우 충전을 즉시 중지하십시오.
8. 배터리를 전자 레인지, 드라이어 또는 고압 용기 등과 같은 고온 또는 고압 기기에 넣거나 고온 또는 고압에 노출시키지 마십시오.
9. 누액 또는 악취가 감지되는 즉시 불에서 멀리 떨어지십시오.
10. 강력한 정전기가 발생하는 곳에서는 사용하지 마십시오.
11. 사용, 충전 또는 보관 중에 배터리 누액, 악취, 발열, 변색 또는 변형이 있을 경우, 또는 어떤 식으로든 비정상으로 보일 경우, 배터리를 즉시 장치 또는 배터리 충전기에서 제거한 후 사용을 중지하십시오.
12. 배터리를 물에 담그거나 액체가 안으로 흘러 들어가게 두지 마십시오. 물과 같은 전도성 액체가 유입되면 손상을 일으켜 화재나 폭발이 발생할 수 있습니다. 배터리를 연소성 또는 가연성 물체에서 멀리 떨어진 시원하고 건조한 곳에 보관하십시오. 부식성 기체가 있는 곳을 피해야 합니다.

주의
1. 배터리 누액이 눈에 들어갈 경우 눈을 비비지 말고 수돗물과 같은 깨끗한 물로 잘 닦은 후 즉시 의사의 진찰을 받으십시오.치료하지 않을 경우 액체가 시력 문제를 유발할 수 있습니다.

2. 액체가 피부나 옷에 묻을 경우, 즉시 수돗물과 같은 깨끗한 물로 잘 닦으십시오.
   피부에 염증이 발생할 가능성이 있습니다.
3. 배터리를 처음 사용할 때 녹, 악취, 과열, 변색, 변형 및/또는 기타의 문제가 발견될 경우, 사용하지 말고 공급자 또는 벤더에게 반품하십시오.

리튬이온 배터리 운반 시

리튬이온 배터리를 운반할 때 다음 주의사항을 준수하십시오.
경고
운송 회사에 포장에 리튬이온 배터리가 들어 있다는 것과 배터리의 전원 출력을 알려주고, 운반을 준비할 때 운송 회사의 지침을 따르십시오.
○ 전원 출력이 100 Wh를 넘는 리튬이온 배터리는 위험 물품인 화물 등급으로 간주되며, 취급시 특별한 주의가 필요합니다.
○ 해외 운반 시에는 국제법과 목적지 국가의 규칙 및 규정을 준수해야 합니다.



사양

전동 툴

모델	CR10DL
무부하 속도	0 – 2700 /분
스트로크	13 mm
용량	연강 파이프: O.D. 25 mm
	염화 비닐 파이프: O.D. 45 mm
	목재: 50 mm 깊이
	연강판: 4 mm 두께
충전식 배터리	BCL1015: 리온 DC 10.8 V / 12 V 피크 전력(1.5 암페어 3셀)
중량	1.2 kg

충전기

모델	UC10SFL
충전 전압	10.8 V
중량	0.35 kg

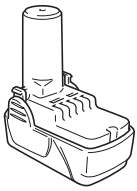
기본 부속품

CR10DL (LCSK)	① 톱날 (No. 5) ..... 1 ② 톱날 (No. 107) ..... 1 ③ 육각 렌치 바 ..... 1 ④ 배터리 (BCL1015) ..... 1 ⑤ 충전기 (UC10SFL) ..... 1 ⑥ 플라스틱 케이스 1
CR10DL (2LCSK)	① 톱날 (No. 5) ..... 1 ② 톱날 (No. 107) ..... 1 ③ 육각 렌치 바 ..... 1 ④ 배터리 (BCL1015) ..... 2 ⑤ 충전기 (UC10SFL) ..... 1 ⑥ 플라스틱 케이스 1

기본 부속품은 예고 없이 변경됩니다.

옵션 부속품 (별매품)

1. 배터리(BCL1015)



2. 톱날

(1) No. 2 톱날	(5) No. 101 톱날
(2) No. 3 톱날	(6) No. 103 톱날
(3) No. 5 톱날	(7) No. 107 톱날
(4) No. 96 톱날	(8) No. 109 톱날

○ (1) – (4): HCS 톱날(HCS: 고속 탄소강)
○ (5) – (8): 바이메탈 톱날
톱날 사용 방법은 **표2**, **3** 및 **4**를 참조하십시오.
옵션 부속품은 예고 없이 변경됩니다.

용도

○ 파이프 및 산형강 절단.
○ 여러 종류의 판재 절단.
○ 연강판 및 알루미늄판 절단.
○ 페놀 수지와 염화 비닐과 같은 합성 수지 절단.
자세한 정보는 "톱날 선택"으로 제목이 부여된 섹션을 참조하십시오.

배터리 제거/설치

주의
스위치를 차단하고 잠금 해제 버튼을 우측 위치(잠금 위치)로 이동시키십시오(**그림 18** 참조).

1. 배터리 제거
핸들을 세게 잡고 배터리 래치를 밀어 배터리를 제거하십시오(**그림 1** 과 **2** 참조).

주의
배터리를 절대로 단락시키지 마십시오.

2. 배터리 설치
배터리를 음극과 양극을 확인하여 삽입하십시오 (**그림 2**참조).

충전

드라이버 드릴을 사용하기 전에 배터리를 다음과 같이 충전하십시오.

1. 충전기 전원 코드를 전원 콘센트에 연결
2. 배터리를 충전기에 삽입하십시오
배터리를 명판이 충전기의 명판을 향하게 놓고 배터리를 눌러 넣어 하부판과 접촉하게 하십시오(**그림 3** 참조).
배터리를 삽입하면 충전기가 켜집니다(파일럿 램프가 켜짐).

주의
파일럿 램프가 켜지지 않을 경우, 전원 코드를 소켓에서 분리한 후 배터리 장착 상태를 점검하십시오.
파일럿 램프가 꺼져 배터리 만충전 상태를 나타냅니다.

주의
배터리가 작동 직후 직사광선 등에 의해 뜨거워진 경우, 충전기 파일럿 램프가 켜지지 않을 수 있습니다. 이럴 경우 우선 배터리를 냉각시킨 후 충전을 시작하십시오.

○ 충전 시간에 대하여.
표 1은 배터리 유형에 따라 요구되는 충전 시간을 보여줍니다.

표 1 20° C일 때의 대략적인 충전 시간(분)

배터리 용량 (Ah)	
1.5 Ah	
BCL1015	40 min.

참고
충전 시간은 주변 온도에 따라 다를 수 있습니다.

3. 충전기 전원 코드를 전원 콘센트에서 분리
4. 충전기를 단단히 쥐고 배터리를 제거

참고
배터리는 사용 후 반드시 충전기에서 꺼내 별도로 보관하십시오.

배터리 수명 연장 방법

(1) 배터리를 완전히 방전되기 전에 충전하십시오.
툴의 출력이 점점 약해진다고 느낄 경우, 툴 사용을 멈추고 배터리를 충전하십시오. 툴을 계속 사용하고 전류가 모두 사용된 경우, 배터리가 손상될 수 있고 배터리 수명이 더 짧아집니다.
(2) 고온에서 충전하지 마십시오.
충전식 배터리는 사용 직후 뜨거워집니다. 그러한 배터리를 사용 직후 충전하면 내부에 들어 있는 화학물질이 열화되고 배터리 수명이 줄어듭니다. 배터리를 한 동안 냉각시킨 후 충전하십시오.

주의
○ 배터리 충전기가 연속적으로 사용된 경우, 배터리 충전기가 가열되어 고장의 원인이 될 수 있습니다. 일단 충전이 완료되면 15분 쉬었다가 충전하십시오.
○ 배터리가 올바르게 장착되었는데도 배터리 충전기가 작동하지 않을 경우, 배터리 또는 충전기가 오작동하는 것일 수 있습니다. 공인 서비스 센터에 가져가십시오.

사용전 주의사항

1. 톱날 장착
이 장치는 렌치 또는 기타 공구 사용 없이 톱날을 장착하고 분리할 수 있는 분리 가능 매커니즘을 사용합니다.
(1) 레버가 하우징 밖으로 빠질 수 있도록 트리거 스위치 전원을 여러 번 공급하고 차단하십시오. 그런 다음, 스위치를 차단하고 배터리를 제거하십시오(**그림 6**).

주의
특정한 사고를 예방하려면 스위치를 차단하고 배터리를 제거한 상태로 두어야 합니다.

(2) **그림 7**에 제시된 바와 같이 레버에 표시된 화살표 방향으로 레버를 밀어 넣으십시오(**그림 7**).
(3) 레버를 민 상태에서 모든 방향의 톱날을 플런저 팁의 작은 구멍에 끼우십시오. 이 톱날을 위쪽 또는 아래쪽 방향 (**그림 8**, **그림 9**)으로 장착할 수 있습니다.
(4) 레버를 해제할 경우, 스프링 힘으로 인해 레버가 적절한 위치로 자동 복귀됩니다(**그림 10**).
(5) 손으로 톱날 뒷면을 2 ~ 3회 당기고 톱날이 적절히 장착되었는지 확인하십시오. 톱날을 당길 때 클릭 소리가 나고 레버가 약간 움직일 경우, 적절히 장착된 것입니다(**그림 11**).

주의
톱날을 당길 때 뒤에서부터 당겨야 합니다. 톱날의 다른 부분을 당길 경우, 부상이 초래될 수 있습니다.

2. 톱날 분리하기
(1) 레버가 하우징 밖으로 완전히 튀어나올 때까지 트리거 스위치 전원을 여러 번 공급 및 차단하십시오. 그런 다음, 스위치를 차단하고 배터리를 분리하십시오(**그림 6**).

주의
특정한 사고를 예방하려면 스위치를 차단하고 배터리를 제거한 상태로 두어야 합니다.

(2) **그림 7**에 제시된 화살표 방향으로 레버를 밀어 넣은 다음, 이를 고정시키면 톱날이 회전하여 아래 방향을 향합니다. 톱날이 자체적으로 빠져야 합니다. 톱날이 빠지지 않을 경우, 손으로 당겨 빼내십시오.

주의
사용 직후, 톱날을 만지지 마십시오.금속이 뜨거워 피부에 화상이 발생할 수 있습니다.

톱날이 파손된 경우

톱날이 파손되어 플런저 소형 구멍 내에 그대로 있을 경우라도 사용자가 화살표 방향으로 레버를 밀 경우, 톱날이 떨어져 나와 아래쪽을 향해야 합니다. 자체적으로 빠지지 않을 경우, 아래 설명된 절차에 따라 빼내십시오.
(1) 파손된 톱날의 일부가 플런저 소형 구멍에 걸린 경우, 도출된 부분을 당겨 톱날을 빼내십시오.
(2) 소형 구멍 내부에 파손된 톱날이 숨겨져 있는 경우, 다른 톱날 팁을 사용하여 파손된 톱날을 걸어 빼내십시오 (**그림 12**).

톱날 설치대 정비 및 검사

(1) 사용 후, 공기를 사용하여 톱날 먼지, 흙, 모래, 습기 등을 불어 내거나 브러시 등을 사용하여 붙어내 톱날 설치대가 원할하게 기능할 수 있도록 하십시오.
(2) **그림 13**에 제시된 바와 같이, 절단 유체 등을 사용하여 정기적으로 톱날 홀더 주변을 윤활시키십시오.

참고

청소 및 윤활 처리 없이 공구를 계속 사용할 경우, 톱날이 설치된 구멍이 축적된 톱날 먼지와 톱밥으로 인해 레버가 이완될 수 있습니다. 이러한 조건에서, **그림 14**에 제시된 화살표 방향으로 레버에 제공된 러버 캡을 당겨 레버에서 레버 캡을 분리하십시오. 그런 다음, 공기 및 공기와 유사한 수단을 사용하여 톱날 홀더 내부를 청소하고 충분히 윤활시키십시오. 레버에 확실히 눌러 끼울 경우, 러버 캡을 결합시킬 수 있습니다. 이 때, 톱날 홀더와 러버 캡 사이에 간격이 없어야 하고 톱날 설치 구멍이 원활하게 기능할 수 있어야 합니다.

주의

마모된 톱날 구멍이 있는 톱날을 사용하지 마십시오. 그렇지 않을 경우, 톱날이 튀어 나와 작업자의 부상을 초래할 수 있습니다(**그림 15**).

3. 기저부 이동하기

그림 16 및 **그림 17**에 제시된 바와 같이 육각 렌치 바를 사용하여 육각 소켓 볼트를 느슨하게 풀고 기저부를 전방으로 이동시키십시오. 설치 나사를 약간 조여 기저부가 앞 뒤로 움직이지 않도록 한 다음, 육각 소켓 볼트를 조이십시오. 기저부가 톱날과 닿지 않도록 하십시오.

4. 배터리가 적절히 장착되었는지 여부 확인하기

사용 방법

배터리 수명 연장 방법

○ 배터리를 완전히 방전되기 전에 충전하십시오.
톱의 출력이 점점 약해진다고 느낄 경우, 톱 사용을 멈추고 배터리를 충전하십시오. 툴을 계속 사용하고 전류가 모두 사용된 경우, 배터리가 손상될 수 있고 배터리 수명이 더 짧아집니다.

주의

○ 스위치에 손가락을 둔 상태에서 공구를 운반하지 마십시오. 갑작스런 시동으로 인해 예기치 않은 부상이 초래될 수 있습니다.
○ 장치를 조작하는 동안 톱니 먼지, 흙, 습기 등이 플런저 구획을 통해 기계 내부로 유입되지 않도록 주의하십시오. 톱날 먼지 및 이와 유사한 물체가 플런저 구획에 축적될 경우, 사용하기 전 반드시 청소하십시오(**그림 6** 참조).
○ 사용하는 동안 절단되고 있는 자재와 반대 방향으로 기저부를 누르십시오. 작업편과 반대 방향으로 기저부가 적절히 눌러지지 않을 경우, 진동으로 인해 톱날이 손상될 수 있습니다. 또한, 톱날 구멍이 파이프 내부 벽면에 닿아 톱날이 손상될 수 있습니다.
○ 가장 적합한 길이의 톱날을 선택하십시오. 이상적으로, 스트로크 수가 차감된 후 톱날 기저부의 도출 길이가 자재보다 길어야 합니다(**그림 19** 및 **그림 21** 참조).톱날의 절달 용량을 초과하는 대형 파이프, 대형 목재 블록 등을 절단할 경우, 톱날이 파이프, 목재 등의 내부 벽면에 닿아 손상이 발생할 수 있는 위험이 존재합니다(**그림 20**, **그림 22**).
○ 수명을 연장하려면 리튬 이온 배터리에 출력을 정지시키는 보호 기능이 있어야 합니다. 따라서, 공구에 과부하가 걸릴 경우, 이를 통해 모터가 정지될 수 있습니다. 하지만, 이는 결함이 발생한 것이 아니라 보호 기능의 결과로 인해 발생한 것입니다. 이 경우, 공구 스위치를 해제하고 과부하 원인을 제거하십시오.

1. 스위치 조작

(1) 잠금 해제 버튼
공구에는 잠금 해제 버튼이 장착되어 있습니다. 트리거 잠금 기능을 활성화시키려면 버튼을 우측 위치로 이동시키십시오. 공구를 작동시키려면 버튼을 좌측으로 이동시키십시오(**그림 18**).
공구를 운반하거나 보관할 때 스위치를 항상 잠궈 예기치 않게 시동되지 않도록 하십시오.
(2) 트리거 스위치
이 공구에는 다양한 속도로 제어된 트리거 스위치가 장착되어 있습니다. 이 트리거를 조이거나 해제하여 공구에 전원을 "공급" 하거나 "차단" 할 수 있습니다. 트리거에 적용된 압력을 통해 톱날 플런저 스트로크 비율을 최소에서 최대 명판 스트로크 비율까지 조절할 수 있습니다. 속도를 증대시키려면 보다 많은 압력을 가하고 속도를 감소시키려면 압력을 빼내십시오.

2. 전등 사용하기

전등을 켜려면 트리거 스위치를 당기십시오. 트리거 스위치를 당기고 있는 동안에는 전등이 계속해서 점등됩니다. 트리거 스위치를 해제한 이후에는 전등이 점멸됩니다(**그림 4**).

주의

전등을 직시하지 마십시오. 그러한 행동은 눈의 부상을 초래할 수 있습니다.

3. 금속 자재 절단하기

주의

○ 기저부를 작업편과 반대 방향으로 확실히 누르십시오.
○ 절단할 때 톱날에 어떠한 불필요한 힘도 가하지 마십시오. 불필요한 힘을 가할 경우, 톱날이 파손될 수 있습니다.
○ 절단하는 자재와 톱날 조합에 따라 모터를 종종 잠글 필요가 있을 수 있습니다. 모터를 잠글때마다 모터 스위치가 즉시 차단됩니다.
(1) 조작하기 전 작업편을 확실히 고정시키십시오(**그림 23**).
(2) 금속 자재를 절단할 경우, 적절한 기계 오일(터빈 오일 등)을 사용하십시오. 액체 기계 오일을 사용하지 않을 경우, 작업편 위에 그리스를 바르십시오.

주의

기계 오일을 사용하지 않을 경우, 톱날의 사용 수명이 상당히 짧아질 수 있습니다.

4. 합판 절단하기

합판을 절단할 경우, 절단 작업을 시작하기 전 작업편을 확실히 고정시켜야 합니다(**그림 24**).

주의

절단하는 동안 톱날에 어떠한 불필요한 힘도 가하지 마십시오. 또한, 기저부를 합판과 반대로 확실히 눌러야 한다는 사실에 유의하십시오.

5. 곡선 라인 톱질하기

당사는 톱날의 경우, **표 3**에 나와 있는 바이 메탈 톱날을 사용하도록 권장하는 데 이 톱날이 견고하고 거의 파손되지 않기 때문입니다.

주의

소형 윈호에 있는 자재를 절단할 경우, 이동 속도를 지연시키십시오. 바람직하지 않게 신속한 이동 속도로 인해 톱날이 파손될 수 있습니다.

6. 플런지 절단하기

이 공구를 사용하여 합판 패널 및 얇은 보드 자재에 대한 플는지 절단 작업을 수행할 수 있습니다. **그림 26**, **그림 28** 및 **그림 30**에 도해된 바와 같이 톱날을 역방향으로 설치한 상태에서 포켓 절단 작업을 매우 쉽게 수행할 수 있습니다. 가능한 한 길이가 짧고 두꺼운 톱날을 사용하십시오. 당사는 이러한 목적을 위해 **표 3**에 명시한 바이메탈 톱날 번호 107 톱날을 사용하도록 권장합니다. 절단 작업을 수행하는 동안 주의를 기울이고 다음 절차를 준수하십시오.
(1) 기저부의 하단 부분(또는 상단 부분)을 자재와 반대 방향으로 누르십시오. 자재에서 톱날 팁 부분을 빼내 스위치 트리거를 당기십시오(**그림 25**, **그림 26**).

(2) 손잡이를 천천히 올려 톱날로 조금씩 절단하십시오 (**그림 27**, **그림 28**).
(3) 톱날이 자재를 완전히 절단할 때까지 본체를 확실히 고정시키십시오(**그림 29**, **그림 30**).

주의

○ 금속 자재의 경우, 플런지 절단 작업을 수행하지 마십시오. 이로 인해 톱날이 손상될 수 있습니다.
○ 자재와 반대 방향으로 톱날 팁 부분을 누른 상태에서 스위치 트리거를 당기지 마십시오. 트리거를 당길 경우, 자재와 충돌할 때 톱날이 손상될 수 있습니다.
○ 본체를 확실히 고정시킨 상태에서 천천히 절단하십시오. 절단 작업을 수행하는 동안 톱날에 불필요한 힘을 가할 경우, 톱날이 손상될 수 있습니다.

참고

냉각 기후 조건(섭씨 0도 이하)에서 BCL1015 배터리를 사용할 경우, 종종 절단 토크 값이 약화되고 작업 수량이 감소할 수 있습니다. 하지만, 이는 일시적인 현상이며 배터리가 예열될 경우, 정상으로 되돌아갑니다.

7. 배터리 수준 경고등

동력 공구가 작동 상태가 아닐 때 트리거를 당겨 배터리 수준을 점검할 수 있습니다. 배터리 전원 수준이 매우 낮을 때 배터리 수준 경고등이 점등됩니다. 경고등이 점등될 경우, 배터리를 충전하십시오(**그림 5**).

참고

○ 배터리 수준 경고등이 점등되는 수준은 주변 온도, 배터리 수명 등에 따라 달라질 수 있으며 이 경고등은 지침을 제공하기 위한 목적으로 점등됩니다.
○ 동력 공구에 과부하가 발생할 경우, 배터리 수준 경고등이 점등될 수 있습니다. 이는 배터리 전원 수준이 매우 낮다는 것을 의미하지 않습니다. 공구가 작동 상태가 아닐 때 배터리 수준을 점검해야 합니다.

톱날 선택

최대 작동 효율과 결과를 보장하려면 절단하는 자재의 유형과 두께에 가장 적합한 톱날을 선택하는 것이 무엇보다 중요합니다.

참고

○ 표에 나와 있는 작업편의 치수는 기저부의 장착 위치가 충전식 왕복 기계 톱의 본체와 가장 가까이 설정되는 치수를 나타냅니다. 기저부가 충전식 왕복 기계 톱 본체로부터 멀리 장착되어 있는 경우, 작업편의 치수가 이보다 작을 수 있다는 사실에 주의하십시오.

1. HCS 톱날 선택

표 2의 HCS 톱날 수는 개별 톱날의 장착 위치와 인접한 부근에 새겨져 있습니다. 아래 **표 2**와 **4**를 참조하여 적절한 톱날을 선택하십시오.

표 2: HCS 톱날

톱날 번호	용도	두께 (mm)
번호 2	직경이 30mm 이하인 강철 파이프 절단	2.5 – 6
번호 3	직경이 30mm 이하인 강철 파이프 절단	3.5 이하
번호 5	합판 절단 및 황삭	30 이하
번호 96	직경이 30mm 이하인 스테인리스 강철 파이프 절단	2.5 이하

참고

번호 2 – 번호 96 HCS 톱날은 옵션 액세서리로 별도로 판매합니다.

2. 바이메탈 톱날

표 3의 바이메탈 톱날 번호는 특수한 액세서리 패키지에 새겨져 있습니다. 아래 **표 3**와 **4**를 참조하여 적절한 톱날을 선택하십시오.

표 3: 바이메탈 톱날

톱날 번호	용도	두께 (mm)
번호 101	외경이 60mm 이하인 강철 및 스테인리스 파이프 절단	2.5 – 6
번호 103	외경이 60mm 이하인 강철 및 스테인리스 파이프 절단	2.5 – 6
번호 107	외경이 60mm 이하인 강철 및 스테인리스 파이프 절단	3.5 이하
번호 109	외경이 60mm 이하인 강철 및 스테인리스 파이프 절단	2.5 – 6

참고

번호 101 – 번호 109 바이메탈 톱날은 옵션 액세서리로 별도로 판매합니다.

3. 기타 자재를 위한 톱날 선택

표 4

절단할 재료	재질	두께 (mm)	톱날 번호
철판	연강판	2.5 – 10	No. 2, 101, 103, 109
		3.5 이하	No. 3, 107
비철 금속	알루미늄, 구리,황동	5 – 20	No. 2, 101, 103, 109
		5 이하	No. 3, 107
합성 수지	페놀 수지,멜라민 수지 등	10 – 50	No. 2, 4, 101, 103
		5 – 30	No. 3, 5, 8, 107, 109
	염화비닐,아크릴 수지 등	10 – 60	No. 2, 4, 101, 103
		5 – 30	No. 3, 5, 8, 107, 109

관리 및 검사

주의

정비 및 검사 작업을 수행하기 전 스위치 전원을 차단하고 배터리를 분리하십시오.

1. 톱날 검사

무뎌지거나 손상된 톱날을 계속 사용하면 절단 효율이 감소하고 모터에 과부하가 걸릴 수 있습니다. 톱날은 과도한 마모를 발견하는 즉시 새 것으로 교체하십시오.

2. 부착 나사 검사

정기적으로 모든 부착 나사를 검사하고 잘 고정되어 있는지 확인합니다. 느슨한 나사가 있는 경우, 즉시 꽉 조여야 합니다. 그렇게 하지 않으면 심각한 사고가 날 수 있습니다.

3. 모터 관리

모터부 권선은 전동 툴의 '심장부' 입니다. 권선이 손상되거나 물 또는 기름에 젖지 않도록 주의를 기울여야 합니다.

4. 외부 청소
충전 컷 쏘에 얼룩이 묻으면 부드럽고 마른 천이나 비 눗물로 적신 천을 이용해 닦으십시오. 염소 계통 솔벤트, 휘발유 또는 페인트 신너는 사용하지 마십시오. 플라스틱이 녹습니다.

5. 보관
드라이버 드릴을 온도가 40° C 미만이고 어린이의 손길이 닿지 않는 곳에 보관하십시오.

참고
리튬-이온 배터리 보관
리튬-이온 배터리를 완전히 충전한 후에 보관하십시오.
저충전 상태로 장기간(3개월 이상) 배터리를 보관하면 배터리 성능이 저하되어 배터리 사용 시간이 현저하게 감소되거나 충전할 수 없게 되는 경우가 있습니다.
단, 배터리를 2~5회 충전과 사용을 반복하면 현저하게 감소된 배터리 사용 시간이 회복될 수도 있습니다.
충전과 사용을 반복해도 배터리 사용 시간이 매우 짧으면 배터리의 수명이 다한 것이므로 새 배터리로 교체하십시오.

주의
전동 툴을 사용하거나 점검할 때는 각국의 안전 수칙 및 규정을 준수해야 합니다.

HiKOKI 무선 전동 툴의 배터리에 대한 중요 알림
항상 당사의 지정된 순정 배터리 가운데 하나를 사용하십시오. 당사는 당사가 지정하지 않은 배터리와 함께 사용될 경우 또는 배터리를 분리하여 개조할 경우(분해 및 셀 또는 내부 부품의 교환) 당사의 무선 전동 툴의 안전 및 성능을 보장할 수 없습니다.

참고
HiKOKI는 지속적인 연구개발 프로그램을 진행하고 있으므로, 본 설명서의 사양은 사전 예고 없이 변경될 수 있습니다.

CÁC NGUYÊN TẮC AN TOÀN CHUNG

CẢNH BÁO!
Đọc kỹ tất cả hướng dẫn

Việc không tuân theo mọi hướng dẫn được liệt kê dưới đây có thể dẫn đến bị điện giật, cháy và/hoặc bị chấn thương nghiêm trọng.
Thuật ngữ "dụng cụ điện" có trong tất cả các cảnh báo dưới đây đề cập đến dụng cụ điện (có dây) điều khiển bằng tay hoặc dụng cụ điện (không dây) vận hành bằng pin.

GHI NHỚ CÁC HƯỚNG DẪN NÀY

1) Khu vực làm việc

a) Giữ khu vực làm việc sạch và đủ ánh sáng.
Khu vực làm việc tối tăm và bừa bộn dễ gây tai nạn.

b) Không vận hành dụng dụ điện trong khu vực dễ cháy nổ, chẳng hạn như nơi có chất lỏng dễ cháy, khí đốt hoặc bụi khói.
Các dụng dụ điện tạo tia lửa nên có thể làm bụi khói bén lửa.

c) Không để trẻ em và những người không phận sự đứng gần khi vận hành dụng dụ điện.
Sự phân tâm có thể khiến bạn mất kiểm soát.

2) An toàn về điện

a) Phích cắm dụng cụ điện phải phù hợp với ổ cắm. Không bao giờ được cải biến phích cắm dưới mọi hình thức. Không được sử dụng phích tiếp hợp với dụng cụ điện nối đất (tiếp đất).
Phích cắm nguyên bản và ổ cắm điện đúng loại sẽ giảm nguy cơ bị điện giật.

b) Tránh để cơ thể tiếp xúc với các bề mặt nối đất hoặc tiếp đất như đường ống, lò sưởi, bếp ga và tủ lạnh.
Có nhiều nguy cơ bị điện giật nếu cơ thể bạn nối hoặc tiếp đất.

c) Không để các dụng cụ điện tiếp xúc với nước mưa hoặc ẩm ướt.
Nước thấm vào dụng cụ điện sẽ làm tăng nguy cơ bị điện giật.

d) Không được lạm dụng dây dẫn điện. Không bao giờ nắm dây để xách, kéo hoặc rút dụng cụ điện. Để dây cách xa nơi có nhiệt độ cao, trơn trượt, vật sắc cạnh hoặc bộ phận chuyển động.
Dây bị hư hỏng hoặc rối sẽ làm tăng nguy cơ bị điện giật.

e) Khi vận hành dụng cụ điện ở ngoài trời, hãy sử dụng dây nối thích hợp cho việc sử dụng ngoài trời.
Sử dụng dây nối ngoài trời thích hợp làm giảm nguy cơ bị điện giật.

3) An toàn cá nhân

a) Luôn cảnh giác, quan sát những gì bạn đang làm và phán đoán theo kinh nghiệm khi vận hành dụng dụ điện.Không được sử dụng dụng cụ điện khi mệt mỏi hoặc dưới ảnh hưởng của rượu, ma túy hoặc dược phẩm.
Một thoáng mất tập trung khi vận hành dụng cụ điện có thể dẫn đến chấn thương cá nhân nghiêm trọng.

b) Sử dụng thiết bị bảo hộ. Luôn đeo kính bảo vệ mắt.
Trang thiết bị bảo hộ như khẩu trang, giày an toàn chống trượt, nón bảo hộ, hoặc dụng cụ bảo vệ tai được sử dụng trong các điều kiện thích hợp sẽ làm giảm nguy cơ thương tích cá nhân.

c) Tránh để máy khởi động bất ngờ. Đảm bảo công tắc ở vị trí tắt trước khi cắm điện.
Đặt ngón tay trên công tắc khi xách dụng cụ điện hoặc cắm điện lúc công tắc ở vị trí bật rất dễ dẫn đến tai nạn.

d) Tháo mọi khóa điều chỉnh hoặc chìa vặn đai ốc ra trước khi bật dụng cụ điện.
Chìa vặn đai ốc hoặc chìa khóa còn cắm trên một bộ phận quay của dụng dụ điện có thể gây thương tích cá nhân.

e) Không với tay quá xa. Luôn luôn đứng vững và cân bằng.
Điều này giúp kiểm soát dụng cụ điện trong tình huống bất ngờ tốt hơn.

f) Trang phục phù hợp. Không mặc quần áo rộng lùng thùng hoặc đeo trang sức. Giữ tóc, quần áo và găng tay tránh xa các bộ phận chuyển động.
Quần áo rộng lùng thùng, đồ trang sức hoặc tóc dài có thể bị cuốn vào các bộ phận chuyển động.

g) Nếu có các thiết bị đi kèm để nối máy hút bụi và các phụ tùng chọn lọc khác, hãy đảm bảo các thiết bị này được nối và sử dụng đúng cách.
Việc sử dụng các thiết bị này có thể làm giảm độc hại do bụi gây ra.

4) Sử dụng và bảo dưỡng dụng cụ điện

a) Không được ép máy hoạt động quá mức. Sử dụng đúng loại dụng cụ điện phù hợp với công việc của bạn.
Dụng cụ điện đúng chủng loại sẽ hoàn thành công việc tốt và an toàn hơn theo đúng tiêu chí mà máy được thiết kế.

b) Không sử dụng dụng cụ điện nếu công tắc không tắt hoặc bật được.
Bất kỳ dụng cụ điện nào không thể điều khiển được bằng công tắc đều rất nguy hiểm và phải được sửa chữa.

c) Luôn rút phích cắm ra khỏi nguồn điện trước khi điều chỉnh, thay phụ tùng, hoặc cất dụng cụ điện.
Những biện pháp ngăn ngừa như vậy giúp giảm nguy cơ dụng cụ điện khởi động bất ngờ.

d) Cất giữ dụng cụ điện không sử dụng ngoài tầm tay trẻ em và không được cho người chưa quen sử dụng dụng cụ điện hoặc chưa đọc hướng dẫn sử dụng này vận hành dụng cụ điện.
Dụng cụ điện rất nguy hiểm khi ở trong tay người chưa được đào tạo cách sử dụng.

e) Bảo dưỡng dụng cụ điện. Kiểm tra đảm bảo các bộ phận chuyển động không bị xê dịch hoặc mắc kẹt, các bộ phận không bị rạn nứt và kiểm tra các điều kiện khác có thể ảnh hưởng đến quá trình vận hành máy. Nếu bị hư hỏng, phải sửa chữa dụng cụ điện trước khi sử dụng.
Nhiều tai nạn xảy ra do bảo quản dụng dụ điện kém.

f) Giữ các dụng cụ cắt sắc bén và sạch sẽ.
Dụng cụ cắt có cạnh cắt bén được bảo quản đúng cách sẽ ít khi bị kẹt và dễ điều khiển hơn.

g) Sử dụng dụng cụ điện, phụ tùng và đầu cài v.v... đúng theo những chỉ dẫn này và tập trung vào loại dụng cụ điện cụ thể, lưu ý đến điều kiện làm việc và công việc phải thực hiện.
Vận hành dụng cụ điện khác với mục đích thiết kế có thể dẫn đến các tình huống nguy hiểm.

5) Sử dụng và bảo quản dụng cụ chạy pin

a) Kiểm tra đảm bảo công tắc ở vị trí tắt khi lắp pin.
Lắp pin vào dụng dụ điện đang bật có thể gây tai nạn.

b) Chỉ sạc pin bằng bộ sạc chuyên dụng của nhà cung cấp.
Bộ sạc chỉ phù hợp với một loại pin nên nếu sử dụng cho một loại pin khác có thể gây nguy cơ cháy nổ.

c) Chỉ vận hành dụng cụ với loại pin được thiết kế riêng.
Sử dụng bất kỳ loại pin nào khác có thể gây nguy cơ tai nạn và cháy nổ.

d) Khi không dùng pin, bảo quản pin ở xa các vật dụng kim loại như kẹp giấy, tiền xu, chìa khóa, đinh ốc hoặc các vật kim loại nhỏ khác vốn có thể kết nối thiết bị đầu cuối này với thiết bị đầu cuối khác.
Các đuôi pin chạm nhau sẽ chập mạch và có thể gây bỏng hoặc cháy.

e) Trong điều kiện sử dụng quá mức, chất lỏng trong pin có thể bị chảy ra; cần tránh tiếp xúc. Nếu vô tình tiếp xúc, rửa sạch bằng nước. Nếu chất lỏng tiếp xúc với mắt, cần đến cơ sở y tế để được chăm sóc.
Chất lỏng chảy ra từ pin có thể gây kích ứng hoặc bỏng rát.

6) Bảo dưỡng

a) Đem dụng cụ điện của bạn đến thợ sửa chữa chuyên nghiệp để bảo dưỡng, chỉ sử dụng các phụ tùng đúng chủng loại để thay thế.
Điều này giúp đảm bảo duy trì tính năng an toàn của dụng cụ điện.

PHÒNG NGỪA

Giữ trẻ em và những người không phận sự tránh xa dụng cụ.

Khi không sử dụng, các dụng cụ điện phải được cất giữ tránh xa tầm tay trẻ em và người không phận sự.

CÁC BIỆN PHÁP ĐỀ PHÒNG CHO MÁY CƯA KIẾM DÙNG PIN

1. Luôn phải xạc ắc quy ở nhiệt độ 10-40°C. Một nhiệt độ dưới 10°C sẽ dẫn đến sự xạc quá mức gây nguy hiểm. Ắc quy không thể được xạc ở nhiệt độ trên 40°C. Nhiệt độ phù hợp nhất cho việc xạc là 20-25°C.
2. Không sử dụng bộ sạc liên tục. Khi kết thúc một lần sạc, để yên bộ sạc trong khoảng 15 phút trước lần sạc ắc quy tiếp theo.
3. Không để vật lạ xâm nhập vào ổ kết nối ắc quy có thể xạc.
4. Không tháo rời ắc quy có thể xạc và bộ xạc.
5. Không gây chập mạch ắc quy có thể xạc. Việc gây chập mạch ắc quy sẽ gây ra một dòng điện lớn và sự quá nóng. Điều này dẫn đến cháy và hư hại cho ắc quy.
6. Không thải ắc quy vào lửa. Nếu ắc quy cháy, nó có thể phát nổ.
7. Khi cưa vào tường, sàn hoặc trần, cần kiểm tra xem có dây điện chôn trong đó không...
8. Đem ắc quy ra cửa hàng đã mua ngay khi thấy thời gian duy trì sau sạc quá ngắn so với việc sử dụng thực tế. Không dùng ắc quy đã kiệt.
9. Sử dụng một ắc quy đã kiệt sẽ làm hỏng bộ xạc.
10. Không đưa vật lạ vào các khe thông gió của bộ xạc. Việc đưa các vật kim loại hoặc các vật dễ cháy vào các khe thông gió của bộ xạc sẽ dẫn đến nguy cơ điện giật hoặc bộ xạc bị hư hại.
11. Khi sử dụng công cụ liên tục, nó có thể bị quá nóng, dẫn đến hư hại ở động cơ và công tắc. Cần để nguyên không sử dụng trong khoảng 15 phút.
12. Cần đeo nút bịt lỗ tai để bảo vệ tai trong khi vận hành.
13. Không chạm vào lưỡi dao trong khi hoặc ngay sau khi vận hành. Lưỡi dao trở nên rất nóng trong khi sử dụng và có thể gây ra những vết bỏng nghiêm trọng.
14. Luôn phải giữ vỏ của của công cụ chắc chắn. Nếu không lực phản tác dụng được tạo ra có thể dẫn đến hoạt động không chính xác và thậm chí nguy hiểm.
15. Tháo ắc quy ra khỏi công cụ hoặc đặt công tắc ở vị trí khoá hoặc tắt trước khi tiến hành các chỉnh sửa, thay đổi phụ kiện, hoặc cất giữ công cụ.

CẢNH BÁO VỀ PIN LITHIUM-ION

Để kéo dài tuổi thọ, pin lithium-ion được thiết kế có chức năng bảo vệ nhằm ngăn chặn rò rỉ pin.
Trong các trường hợp từ 1 đến 3 được liệt kê bên dưới, khi sử dụng sản phẩm này, cho dù bạn đã kéo công tắc thì động cơ vẫn có thể ngừng hoạt động. Đây không phải là lỗi kỹ thuật mà là chức năng bảo vệ của máy.

1. Khi thời lượng sử dụng pin hết, động cơ sẽ ngừng. Trong trường hợp này cần sạc pin ngay.
2. Nếu dụng cụ bị quá tải, động có có thể ngừng. Trong trường hợp này, nhả công tắc dụng cụ và loại bỏ nguyên nhân gây quá tải. Sau đó bạn có thể sử dụng tiếp dụng cụ.
3. Nếu pin quá nóng khi làm việc quá mức, pin có thể ngừng tiếp điện. Trong trường hợp này, ngừng sử dụng pin và đợi pin mát lại. Sau đó bạn có thể dùng tiếp.

Ngoài ra, vui lòng chú ý đến những cảnh báo và lưu ý sau.

CẢNH BÁO

Để tránh pin bị rò rỉ, phát nhiệt, thải khói, nổ và đánh lửa sớm, vui lòng chú ý các biện pháp phòng ngừa sau.

1. Đảm bảo rằng mạt kim loại và bụi không dính vào pin.
   - ○ Trong khi gia công, đảm bảo sao cho mạt kim loại và bụi không rơi vào pin.
   - ○ Đảm bảo sao cho nếu có bất kỳ mạt kim loại và bụi nào rơi vào dụng cụ điện trong lúc gia công thì chúng không bị dính vào pin.
   - ○ Không cất giữ pin chưa sử dụng ở nơi có mạt kim loại và bụi.
   - ○ Trước khi cất giữ, lau sạch mạt kim loại và bụi có thể bám pin vào và không cất giữ cùng các vật dụng kim loại khác (vít, đinh, v.v...).
2. Không đục pin bằng vật sắc nhọn như đinh, không đập bằng búa, không đạp lên pin, không quăng hoặc tác động lực quá lớn lên pin.
3. Không sử dụng pin đã hỏng hoặc bị biến dạng rõ ràng.
4. Không dùng pin ngược cực.
5. Không gắn trực tiếp pin vào ổ cắm điện hoặc đế bật lửa trên xe hơi.
6. Không sử dụng pin cho mục đích khác quy định.
7. Nếu pin chưa được sạc đầy, ngay cả khi hết thời gian sạc quy định, ngay lập tức ngừng chứ không sạc tiếp.
8. Không đặt hoặc làm cho pin chịu nhiệt độ hoặc áp suất cao chẳng hạn như trong lò vi sóng, máy sấy, vật chứa áp suất cao.
9. Giữ pin tránh xa lửa ngay lập tức nếu phát hiện pin bị rò rỉ hoặc có mùi hôi.
10. Không sử dụng pin ở khu vực tạo ra tĩnh điện mạnh.
11. Nếu pin bị rò rỉ, có mùi hôi, phát nhiệt, đổi màu, biến dạng hoặc có biểu hiện khác thường khi sử dụng, khi sạc pin hoặc cất giữ, ngay lập tức tháo pin ra khỏi thiết bị hoặc bộ sạc và ngừng sử dụng.
12. Không nhúng pin vào chất lỏng hoặc để bất kỳ chất lỏng chảy nào chảy vào bên trong. Chảy dồn chất lỏng dẫn điện, chẳng hạn như nước, có thể gây ra hư hỏng, dẫn đến cháy hoặc nổ. Cất giữ pin ở nơi thoáng mát, tránh xa các vật dễ cháy và dễ bắt lửa. Phải tránh xa môi trường khí gây ăn mòn.

CẢNH BÁO

1. Nếu chất lỏng bị rò rỉ từ pin dính vào mắt, không chà xát mắt, phải rửa mắt bằng nước sạch như nước máy và ngay lập tức liên hệ với bác sĩ. Nếu không xử lý ngay, chất lỏng có thể gây thương tổn cho mắt.
2. Nếu chất lỏng bị rò rỉ dính vào da hoặc quần áo, lập tức rửa bằng nước sạch như nước máy. Việc này có khả năng gây kích ứng da.
3. Nếu bạn thấy vết rỉ sắt, mùi hôi, phát nhiệt, đổi màu, biến dạng, và/hoặc bất thường khác khi sử dụng pin lần đầu, không dùng nữa và trả lại cho nhà cung cấp hoặc cung ứng của bạn.

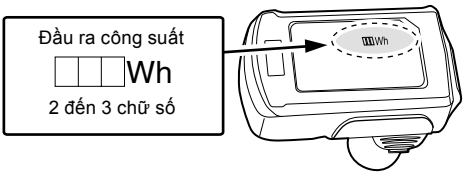
LIÊN QUAN ĐẾN VẬN CHUYỂN PIN LITHIUM-ION

Khi vận chuyển pin lithium-ion, vui lòng quan sát các phòng ngừa sau đây.

CẢNH BÁO

Thông báo cho công ty chuyên chở là có kiện hàng chứa pin lithium-ion, cung cấp cho công ty này biết đầu ra công suất của pin và tuân theo hướng dẫn của công ty vận chuyển khi tổ chức vận tải.

- ○ Pin lithium-ion vượt quá đầu ra công suất 100 Wh được xem xét để đưa vào phân loại hàng hóa về Hàng hóa nguy hiểm và sẽ yêu cầu thủ tục áp dụng đặc biệt.
- ○ Đối với việc vận chuyển ra nước ngoài, bạn phải tuân thủ luật pháp quốc tế và các nguyên tắc và quy định của nước đến.



THÔNG SỐ KỸ THUẬT

DỤNG CỤ ĐIỆN

Mẫu	CR10DL
Tốc độ không tải	0 – 2.700 /phút
Độ lệch	13 mm
Công suất	Ống thép mềm: Đường kính tổng thể: 25mm
	Ống vinyl chloride: Đường kính tổng thể: 45mm
	Gỗ: Sâu 50mm
	Tấm thép mềm: Dày 4mm
Pin sạc	BCL1015: Li-ion DC 10,8 V / 12 V với mức tối đa (1,5 Ah 3 cục)
Trọng lượng	1,2 kg

BỘ SẠC

Mẫu	UC10SFL
Điện thế sạc	10,8 V
Trọng lượng	0,35 kg

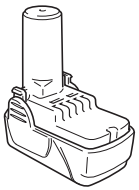
STANDARD ACCESSORIES

CR10DL (LCSK)	① Lưỡi cưa (Số 5) ..... 1 ② Lưỡi cưa (Số 107) ..... 1 ③ Cơ lê vặn bát giác ..... 1 ④ Pin (BCL1015) ..... 1 ⑤ Bộ sạc (UC10SFL) ..... 1 ⑥ Vỏ nhựa 1
CR10DL (2LCSK)	① Lưỡi cưa (Số 5) ..... 1 ② Lưỡi cưa (Số 107) ..... 1 ③ Cơ lê vặn bát giác ..... 1 ④ Pin (BCL1015) ..... 2 ⑤ Bộ sạc (UC10SFL) ..... 1 ⑥ Vỏ nhựa 1

Phụ tùng tiêu chuẩn có thể thay đổi mà không báo trước.

CÁC PHỤ TÙNG TÙY CHỌN (bán riêng)

1. Pin (BCL1015)



2. Lưỡi cưa

(1) Số 2 Lưỡi cưa
(2) Số 3 Lưỡi cưa
(3) Số 5 Lưỡi cưa
(4) Số 96 Lưỡi cưa
(5) Số 101 Lưỡi cưa
(6) Số 103 Lưỡi cưa
(7) Số 107 Lưỡi cưa
(8) Số 109 Lưỡi cưa

- ○ (1) – (4) : Lưỡi cưa HCS (HCS : Thép cácbon tốc độ cao)
- ○ (5) – (8) : Lưỡi cưa lưỡng kim

Tham khảo **Bảng 2, 3 và 4** về việc sử dụng lưỡi cưa.
Các phụ tùng tùy chọn có thể thay đổi mà không báo trước.

ỨNG DỤNG

- ○ Ống cưa và thép góc.
- ○ Cưa các loại gỗ khác nhau.
- ○ Cưa các tấm thép mềm và các tấm nhôm.
- ○ Cưa các chi tiết bằng nhựa tổng hợp, như nhựa phenol và vinyl chloride.

Để có chi tiết đề nghị tham khảo mục có tên “LỰA CHỌN LƯỠI CƯA”.

THÁO/LẮP PIN

CẢNH BÁO

Cần bảo đảm giữ cho công tắc chuyển đến vị trí tắt và nút tắt được chuyển đến vị trí thích hợp (vị trí khoá) (Xem **Hình 18**).

1. **Tháo ắc quy**

Giữ chặt vỏ máy và nhấn vấu hãm ắc quy để tháo ắc quy (Xem **Các hình 1 và 2**).

CẢNH BÁO

Không bao giờ được làm đoản mạch pin.

2. **Lắp pin**

Lắp pin đồng thời chú ý quan sát các cực của pin (xem **Hình 2**).

SẠC PIN

Trước khi sử dụng dụng cụ điện, sạc pin như hướng dẫn bên dưới.

1. **Nối dây điện của bộ sạc vào ổ cắm**
2. **Lắp pin vào bộ sạc**

Lắp pin vào sao cho bề mặt có đính tên hướng về phía có tên của bộ sạc và nhấn pin xuống cho đến khi nó tiếp xúc với đáy (Xem **Hình 3**).

Lắp pin vào thì bộ sạc sẽ tự động bật (đèn báo hiệu sáng).

CẢNH BÁO

Nếu đèn báo không sáng lên, rút dây điện ra khỏi ổ cắm và kiểm tra tình trạng lắp pin.

Đèn báo tắt để báo hiệu rằng pin đã sạc đầy

CẢNH BÁO

Nếu pin bị nóng do ánh sáng mặt trời chiếu trực tiếp, v.v..., ngay sau khi vận hành, thì đèn báo của bộ sạc sẽ không sáng. Lúc này phải làm mát pin trước rồi sau đó mới sạc pin.

○ Liên quan đến thời gian sạc lại

Bảng 1 trình bày thời gian sạc lại theo yêu cầu căn cứ vào từng loại pin.

Bảng 1 Thời gian sạc lại (tương đương phút) ở 20°C

Công suất pin (Ah)	
1,5 Ah	
BCL1015	40 /phút

CHÚ Ý

Thời gian sạc lại pin có thể thay đổi tùy theo nhiệt độ môi trường xung quanh.

3. **Rút dây điện của bộ sạc khỏi ổ cắm**
4. **Giữ chắc bộ sạc và rút pin ra**

CHÚ Ý

Đảm bảo rút pin ra khỏi bộ sạc sau khi sử dụng và cất giữ bộ sạc cẩn thận.

Cách kéo dài tuổi thọ pin

(1) Sạc pin trước khi chúng hoàn toàn cạn kiệt.

Khi bạn cảm thấy công suất của dụng cụ trở nên yếu hơn, ngừng sử dụng dụng cụ và sạc pin.

Nếu bạn cứ tiếp tục sử dụng dụng cụ và làm cạn hết dòng điện, pin có thể bị hỏng và rút ngắn tuổi thọ.

(2) Tránh sạc pin ở nhiệt độ cao.

Pin sạc sẽ nóng lên ngay sau khi sử dụng. Nếu sạc pin ngay sau khi sử dụng, các chất hóa học bên trong pin sẽ hỏng, và tuổi thọ pin sẽ bị rút ngắn. Để pin nghỉ ngơi và sạc lại sau khi pin đã nguội.

CẢNH BÁO

○ Khi sử dụng liên tục, bộ sạc pin sẽ nóng lên, đây chính là nguyên nhân gây hư hỏng. Khi hoàn tất một lần sạc pin, để pin nghỉ 15 phút trước khi sạc tiếp.

○ Nếu bộ sạc pin vẫn không hoạt động cho dù đã lắp pin đúng cách, rất có thể là pin hoặc bộ sạc bị trục trặc. Mang đến Trung tâm Dịch vụ ủy quyền của bạn.

TRƯỚC KHI VẬN HÀNH

1. **Lắp lưỡi cưa**

Công cụ này sử dụng cơ cấu có thể tháo lắp cho phép việc lắp và tháo lưỡi cưa không phải sử dụng cờ lê hay công cụ khác.

(1) Bật và tắt cần công tắc vài lần để cần gạt nhảy ra khỏi vỏ hoàn toàn. Sau đó, tắt công tắc và tháo ắc quy ra (**Hình 6**).

CẢNH BÁO

Cần tuyệt đối bảo đảm giữ cho công tắc ở vị trí tắt và ắc quy được tháo ra để ngăn ngừa các sự cố.

(2) Nhấn cần gạt theo hướng mũi tên thể hiện trong **Hình 7** được đánh dấu trên cần gạt **(Hình 7)**.

(3) Đưa lưỡi cưa vào khe nhỏ của đầu trượt với việc nhấn cần gạt. Có thể lắp lưỡi cưa theo chiều hướng lên hoặc theo chiều hướng xuống (**Hình 8**, **Hình 9**).

(4) Khi bạn nhả cần gạt, lực lò xo sẽ đẩy cần gạt tự động trở lại vị trí đúng (**Hình 10**).

(5) Kéo phần sau của lưỡi cưa hai hoặc ba lần bằng tay và kiểm tra xem lưỡi cưa có được lắp chặt không. Có thể biết được lưỡi cưa được lắp chặt khi kéo lưỡi cưa nếu nó phát ra tiếng lách cách và cần gạt có thể di chuyển nhẹ nhàng, (**Hình 11**).

CẢNH BÁO

Khi kéo lưỡi cưa, cần tuyệt đối đảm bảo kéo nó từ phần sau. Việc kéo các phần khác của lưỡi cưa sẽ dẫn đến thương tích.

2. **Tháo lưỡi cưa**

(1) Bật và tắt cần công tắc vài lần để cần gạt nhảy ra khỏi vỏ hoàn toàn. Sau đó, tắt công tắc và tháo ắc quy ra (**Hình 6**).

CẢNH BÁO

Cần tuyệt đối bảo đảm giữ cho công tắc ở vị trí tắt và ắc quy được tháo ra để ngăn ngừa các sự cố.

(2) Sau khi bạn đã nhấn cần gạt theo hướng mũi tên được thể hiện trong **Hình 7** và giữ chắc nó, quay lưỡi cưa sao cho nó hướng mặt xuống dưới. Lưỡi cưa có thể tự rơi ra ngoài. Nếu lưỡi cưa không rơi ra ngoài, kéo nó ra bằng tay.

CẢNH BÁO

Không được chạm vào lưỡi cưa ngay sau khi sử dụng. Kim loại đang nóng và dễ làm bỏng da.

KHI LƯỠI CƯA HỎNG

Ngay khi lưỡi cưa hỏng và vẫn ở trong khe nhỏ của rãnh trượt, nó có thể rơi ra ngoài nếu cần gạt bị nhấn theo chỉ dấu hiệu mũi tên, và mặt của lưỡi cưa hướng xuống. Nếu nó không tự rơi ra, lấy nó ra bằng các quy trình được giải thích dưới đây.

(1) Nếu một phần của lưỡi cưa lòi ra khỏi rãnh trượt nhỏ, kéo phần phần lòi ra ngoài và lấy lưỡi cưa ra.

(2) Nếu lưỡi cưa hỏng bị dấu bên trong khe nhỏ, móc lưỡi cưa hỏng bằng một đầu lưỡi cưa khác và lấy nó ra ngoài (**Hình 12**).

BẢO TRÌ VÀ KIỂM TRA MŨI LƯỠI CƯA

(1) Sau khi sử dụng, thổi sạch mạt cưa, đất, cát, hơi ẩm... bằng hơi và chải chúng đi bằng một bàn chải... để đảm bảo mũi lưỡi cưa hoạt động trơn tru.
(2) Như thể hiện trong **Hình 13**, định kỳ tra dầu nhờn quanh bộ phận kẹp lưỡi cưa bằng dung dịch cưa ...

CHÚ Ý

Việc sử dụng tiếp công cụ mà không làm sạch và tra dầu vị trí mà lưỡi cưa được lắp vào có thể dẫn đến một số chuyển động lỏng lẻo của cần gạt do mạt cưa và các mảnh vụn tích tụ. Tuỳ theo trường hợp cụ thể, kéo một mũ cao su được cung cấp lên cần gạt theo hướng của dấu mũi tên như thể trong **Hình 14** và tháo mũ cao su ra khỏi cần gạt. Sau đó, làm sạch phần bên trong bộ phận kẹp lưỡi cưa bằng hơi và tương tự và tiến hành tra dầu nhờn. Mũ cao su có thể được lắp vào nếu nó được nhấn mạnh lên cần gạt. Vào lúc này, cần bảo đảm không có khoảng không giữa bộ kẹp lưỡi cưa và mũ cao su, và thêm nữa, cần đảm bảo rằng diện tích lưỡi cưa được lắp có thể hoạt động trơn tru.

CẢNH BÁO

Không sử dụng lưỡi cưa có hốc lưỡi cưa bị mòn. Nếu không, lưỡi cưa có thể rơi ra, dẫn đến thương tích cho cá nhân (**Hình 15**).

3. Di chuyển đế

Nới lỏng bulông vặn bát giác bằng cờlê vặn bát giác và di chuyển đế về phía trước, như được thể hiện trong **Hình 16**, **Hình 17**. Siết chặt vít bộ phận nhẹ nhàng, bảo đảm đế không dịch chuyển tới lui, và siết chặt bulông vặn bát giác. Bảo đảm đế không tiếp xúc với dao.

4. Bảo đảm ắc quy được lắp chính xác

CÁCH SỬ DỤNG

Cách kéo dài tuổi thọ pin

○ Sạc pin trước khi chúng hoàn toàn cạn kiệt.
Khi bạn cảm thấy công suất của dụng cụ trở nên yếu hơn, ngừng sử dụng dụng cụ và sạc pin.
Nếu bạn cứ tiếp tục sử dụng dụng cụ và làm cạn hết dòng điện, pin có thể bị hỏng và rút ngắn tuổi thọ.

CẢNH BÁO

○ Không mang công cụ với ngón tay đặt trên công tắc. Một sự khởi động bất thường có thể dẫn đến một thương tích không mong muốn.
○ Thận trọng không để mạt cưa, đất, hơi ẩm... lọt vào bên trong máy qua bộ phận trượt trong khi vận hành. Nếu mạt cưa và vật tương tư tích luỹ trong phần rãnh, cần luôn làm sạch nó trước khi sử dụng (tham khảo **Hình 6**).
○ Trong khi sử dụng, nhấn đế lên vật liệu trong khi cưa. Sự rung động có thể làm hư hại lưỡi cưa nếu đế không được nhấn chặt lên vật công tác.
Ngoài ra, một đầu của lưỡi cưa có thể đôi lúc tiếp xúc với thành bên trong của ống, làm hư hại lưỡi cưa.
○ Chọn một lưỡi cưa có chiều dài thích hợp nhất. Lý tưởng nhất là, chiều dài nhô ra khỏi đế của lưỡi cưa sau khi trừ đi lượng hành trình phải lớn hơn vật liệu (Xem **Hình 19** và **Hình 21**).
Nếu bạn cưa một ống lớn, khối gỗ lớn... mà vượt quá năng lực cưa của lưỡi cưa; có một rủi ro là lưỡi cưa có thể tiếp xúc với mặt trong của ống, gỗ..., dẫn đến hư hại (**Hình 20**, **Hình 22**).
○ Để kéo dài thời gian sử dụng, ắc quy lithium-ion được lắp đặt với chức năng bảo vệ để chặn đầu ra. Do vậy, nếu công cụ bị quá tải, động cơ có thể dừng lại. Tuy nhiên, vấn đề không phải ở đây mà là kết quả của chức năng bảo vệ. Trong trường hợp này, cần nhả công cụ ra và loại bỏ các nguyên nhân gây quá tải.

1. Vận hành công tắc

(1) Nút tắt
Công cụ được trang bị một nút tắt. Để kích hoạt khoá khởi động, dịch chuyển nút về đúng vị trí. Dịch chuyển nút sang trái để vận hành công cụ (**Hình 18**).
Cần luôn khoá công tắc khi vận chuyển hoặc cất giữ công cụ để loại bỏ sự khởi động ngoài ý muốn.
(2) Công tắc khởi động
Công cụ này được trang bị một công tắc khởi động được điều khiển biến tốc. Công cụ có thể được "BẬT" hoặc "TẮT" bằng cách nhấn hoặc nhả cần công tắc. Tốc độ hành trình trượt lưỡi cưa có thể được điều chỉnh từ tốc độ hành trình tối thiểu đến tối đa bằng cách nhấn vào cần công tắc. Nhấn mạnh hơn sẽ làm tăng tốc độ và nhả thêm sẽ làm giảm tốc độ.

2. Sử dụng đèn

Kéo công tắc khởi động để bật đèn. Đèn sẽ sáng khi công tắc khởi động đang được kéo. Đèn tắt sau khi nhả công tắc khởi động. (**Hình 4**)

CẢNH BÁO:

Không nhìn trực diện vào đèn. Làm vậy có thể gây thương tích cho mắt.

3. Cưa các vật liệu kim loại

CẢNH BÁO

○ Nhấn đế công cụ mạnh lên vật công tác.
○ Không dùng lực không hợp lý lên lưỡi cưa khi đang cưa. Làm vậy có thể dễ dàng làm hỏng lưỡi cưa.
○ Động cơ có thể đôi lúc được khoá, tuỳ thuộc vào sự kết hợp vật liệu sẽ được cưa và lưỡi cưa. Mỗi khi động cơ bị khoá, cần tắt nó ngay lập tức.
(1) Níu giữ chặt vật công tác trước khi vận hành (**Hình 23**).
(2) Khi cưa các vật liệu kim loại, sử dụng dầu máy thích hợp (dầu tuabin,...). Khi không sử dụng dầu máy lỏng, hãy bôi mỡ trên vật công tác.

CẢNH BÁO

Tuổi thọ lưỡi cưa sẽ bị rút ngắn nhiều nếu không sử dụng dầu máy.

4. Cắt gỗ

Khi cắt gỗ, cần bảo đảm vật công tác được níu chặt trước khi bắt đầu.(**Hình 24**).

CẢNH BÁO

Không dùng lực không hợp lý lên lưỡi cưa khi đang cưa. Cũng cần nhớ nhấn đế công cụ chặt lên gỗ.

5. Cưa các đường cong

Chúng tôi khuyến nghị bạn nên sử dụng lưỡi cưa lưỡng kim được đề cập trong **Bảng 3** cho lưỡi cưa vì nó cứng và khó gãy.

CẢNH BÁO

Giảm tốc độ nạp khi cưa vật liệu thành các đường cong nhỏ. Nạp nhanh bất thường có thể làm gãy lưỡi cưa.

6. Phay cắt chìm

Với công cụ này, bạn có thể thực hiện cắt chìm trên các tấm gỗ dán và các bảng mỏng. Bạn có thể tiến hành cắt chìm khá dễ dàng với lưỡi cưa được lắp ngược như minh hoạ trong **Hình 26**, **Hình 28**, và **Hình 30**. Sử dụng lưỡi cưa càng ngắn và dày càng tốt. Để thực hiện mục đích này, bạn cần sử dụng lưỡi cắt lưỡng kim số 107 được đề cập trong **Bảng 3**. Cần bảo đảm sử dụng CẢNH BÁO trong hoạt động cắt và tuân theo các quy trình cắt.
(1) Nhấn phần dưới (hoặc phần trên) của đế lên vật liệu. Kéo cần công tắc trong khi giữ đầu lưỡi cưa cách xa vật liệu (**Hình 25**, **Hình 26**).
(2) Từ từ nâng tay cầm lên và từ từ cưa (**Hình 27**, **Hình 28**).
(3) Giữ chặt thân công cụ cho đến khi lưỡi cưa hoàn toàn cắt vào vật liệu (**Hình 29**, **Hình 30**).

CẢNH BÁO

- Tránh phạy cắt chìm cho các vật liệu kim loại. Việc này có thể dễ dàng làm hỏng cưa.
- Không được kéo cần công tắc trong khi đầu cưa bị nhấn lên vật liệu. Nếu làm vậy, lưỡi cưa có thể dễ dàng bị hỏng vì nó va chạm với vật liệu.
- Tuyệt đối bảo đảm việc cưa từ từ trong khi giữ chắc thân công cụ. Nếu sử dụng một lực không hợp lý cho lưỡi cưa trong thao tác cưa, lưỡi cưa có thể dễ dàng bị hỏng.

CHÚ Ý

Việc sử dụng ắc quy BCL1015 trong điều kiện lạnh (dưới 0 độ C) đôi lúc có thể dẫn đến mômen cưa bị yếu đi và khối lượng công việc bị giảm. Tuy vậy, đây là một hiện tượng tạm thời và trở lại bình thường khi ắc quy ấm lên.

7. Đèn cảnh báo mức ắc quy

Có thể kiểm tra mức ắc quy bằng cách kéo công tắc khởi động trong khi công cụ ở trạng thái không tải. Đèn báo mức ắc quy phát sáng khi điện của ắc quy rất thấp. Nếu điều này xảy ra, cần đem xạc ắc quy. (**Hình 5**)

CHÚ Ý:

- Mức mà tại đó mức đèn cảnh báo ắc quy phát sáng có thể thay đổi theo điều kiện thời tiết, các đặc điểm của ắc quy, ... và chỉ có tính chất hướng dẫn.
- Đèn cảnh báo mức ắc quy có thể phát sáng khi công cụ điện này bị quá tải. Điều này không có nghĩa là điện ắc quy rất yếu. Cần bảo đảm kiểm tra mức ắc quy khi công cụ ở trạng thái không tải.

LỰA CHỌN LƯỠI CƯA

Để bảo đảm hiệu quả và kết quả vận hành tối đa, điều rất quan trọng là chọn dao cắt phù hợp nhất với chủng loại và độ dày của vật liệu sẽ được cưa.

CHÚ Ý

- Các kích thước của vật công tác đề cập trong Bảng đại diện cho các kích thước mà vị trí lắp đặt của đế được xác lập gần thân của Máy cưa tịnh tiến không dây. Cần làm việc THẬN TRỌNG vì các các kích thước của vật công tác sẽ trở nên nhỏ hơn nếu đế được lắp cách xa thân của Máy cưa tịnh tiến không dây.

1. Lựa chọn các lưỡi cưa HCS

Số hiệu lưỡi cưa của các lưỡi cưa HCS trong **Bảng 2** được khắc chìm gần vị trí lắp của mỗi lưỡi cưa. Lựa chọn các lưỡi cưa phù hợp bằng cách tham khảo các **Bảng 2 và 4** dưới đây.

Bảng 2: Các lưỡi cưa HCS

Số hiệu lưỡi cưa	Sử dụng	Độ dày (mm)
Số 2	Để cưa ống thép có đường kính dưới 30 mm	2,5 - 6
Số 3	Để cưa ống thép có đường kính dưới 30 mm	Dưới 3,5
Số 5	Để cưa và làm nhám gỗ	Dưới 30
Số 96	Để cưa ống thép không rỉ có đường kính dưới 30 mm	Dưới 2,5

CHÚ Ý

Các lưỡi cắt HCS Số 2 – Số 96 được bán riêng như các phụ kiện chọn thêm.

2. Lựa chọn các lưỡi cắt lưỡng kim

Các số hiệu lưỡi cắt lưỡng kim trong **Bảng 3** được mô tả trên các bao bì của các phụ kiện chuyên dụng.

Lựa chọn các lưỡi cưa phù hợp bằng cách tham khảo các **Bảng 3 và 4** dưới đây.

Bảng 3: Lưỡi cưa lưỡng kim

Số hiệu lưỡi cưa	Sử dụng	Độ dày (mm)
Số 101	Để cưa các ống thép và ống thép không rỉ có đường kính ngoài dưới 60 mm	2,5 - 6
Số 103	Để cưa các ống thép và ống thép không rỉ có đường kính ngoài dưới 60 mm	2,5 - 6
Số 107	Để cưa các ống thép và ống thép không rỉ có đường kính ngoài dưới 60 mm	Dưới 3,5
Số 109	Để cưa các ống thép và ống thép không rỉ có đường kính ngoài dưới 60 mm	2,5 - 6

CHÚ Ý

Các lưỡi cưa lưỡng kim 101 – 109 được bán riêng như các phụ kiện chọn thêm.

3. Chọn các lưỡi cưa cho các vật liệu khác

Bảng 4

Vật liệu cần cắt	Chất lượng vật liệu	Độ dày (mm)	Số hiệu lưỡi cưa
Tấm sắt	Tấm thép mềm	2,5 - 10	Số 2, 101, 103, 109
		Dưới 3,5	Số 3, 107
Kim loại màu	Nhôm, đồng, đồng thau	5 - 20	Số 2, 101, 103, 109
		Dưới 5	Số 3, 107
Nhựa tổng hợp	Nhựa phenol, nhựa melamine, v.v...	10 - 50	Số 2, 4, 101, 103
		5 - 30	Số 3, 5, 8, 107, 109
	Nhựa vinyl clorua, acryl, v.v...	10 - 60	Số 2, 4, 101, 103
		5 - 30	Số 3, 5, 8, 107, 109

BẢO DƯỠNG VÀ KIỂM TRA

CẢNH BÁO

Cần bảo đảm tắt công tắc và tháo ắc quy ra trước khi bảo trì và kiểm tra.

1. **Kiểm tra lưỡi cưa**
   Việc tiếp tục sử dụng một lưỡi cưa mòn hoặc bị hỏng sẽ làm giảm hiệu quả cưa và có thể gây ra sự quá tải động cơ. Cần thay thế lưỡi cưa bằng một lưỡi mới ngay khi thấy có sự mòn quá mức.
2. **Kiểm tra các đinh ốc đã lắp**
   Thường xuyên kiểm tra tất cả các đinh ốc đã lắp và đảm bảo rằng chúng được siết chặt. Nếu có bất kỳ đinh ốc nào bị nới lỏng, siết chặt lại ngay lập tức. Nếu không làm như vậy có thể gây nguy hiểm nghiêm trọng.
3. **Bảo dưỡng động cơ**
   Cuộn dây động cơ là "trái tim" của dụng cụ điện.
   Kiểm tra và bảo dưỡng để đảm bảo cuộn dây không bị hư hỏng và/hoặc ẩm ướt do dính dầu nhớt hoặc nước.
4. **Vệ sinh bên ngoài**
   Khi máy mài bị xỉn màu, dùng vải khô mềm hoặc miếng vải thấm nước xà phòng lau sạch. Không sử dụng dung môi cloric, xăng hoặc chất pha loãng sơn, vì chúng làm tan chảy nhựa.
5. **Bảo quản**
   Bảo quản dụng cụ máy ở nơi có nhiệt độ thấp hơn 40°C và tránh xa tầm tay trẻ em.

CHÚ Ý

Cất giữ pin Lithium-ion

Đảm bảo pin lithium-ion đã được sạc đầy trước khi cất giữ.

Cất giữ pin trong một thời gian dài (từ 3 tháng trở lên) với mức sạc yếu có thể làm cho pin bị suy giảm hiệu suất, giảm đáng kể thời gian sử dụng pin hoặc làm cho pin bị mất khả năng sạc lại.

Tuy nhiên, việc giảm đáng kể thời gian sử dụng pin có thể được phục hồi bằng cách sạc và sử dụng pin liên tục từ hai đến năm lần.

Nếu thời gian sử dụng pin là cực ngắn mặc dù đã liên tục sạc và sử dụng, thì xem như là đã bị chai pin và cần phải mua pin mới.

CẢNH BÁO

Trong khi vận hành và bảo trì dụng cụ điện, phải tuân theo các nguyên tắc an toàn và tiêu chuẩn quy định của từng quốc gia.

Lưu ý quan trọng về pin dành cho các dụng cụ điện không dây HiKOKI

Luôn sử dụng pin chính hãng theo quy định của chúng tôi. Chúng tôi không thể đảm bảo cho sự an toàn và hiệu quả của dụng cụ điện không dây nếu dụng cụ được sử dụng với pin khác loại mà chúng tôi khuyến nghị, hoặc khi pin bị tháo rời hoặc sửa chữa (chẳng hạn như tháo và thay thế các cells hoặc các bộ phận bên trong khác).

CHÚ Ý

Do chương trình nghiên cứu và phát triển liên tục của HiKOKI, các thông số kỹ thuật nêu trong tài liệu này có thể thay đổi mà không thông báo trước.

กฎความปลอดภัยโดยทั่วไป

คำเตือน!
โปรดอ่านคำแนะนำทั้งหมด
ถ้าไม่ปฏิบัติตามคำแนะนำทั้งหมด อาจถูกไฟฟ้าดูด เกิดไฟไหม้ และ/หรือบาดเจ็บสาหัสก็ได้
คำว่า "เครื่องมือไฟฟ้า" ในคำเตือนต่อไปนี้ทั้งหมดหมายถึงเครื่องมือที่คุณใช้งานกับปลั๊กไฟฟ้า (มีสายไฟ) หรือใช้งานกับแบตเตอรี่ (ไร้สาย)

โปรดปฏิบัติตามคำแนะนำต่อไปนี้

1) พื้นที่ทำงาน
   - **a) รักษาพื้นที่ทำงานให้สะอาดและมีแสงสว่างเพียงพอ**
     สิ่งที่เกะกะและความมืดทำให้เกิดอุบัติเหตุได้
   - **b) อย่าใช้เครื่องมือไฟฟ้าในบรรยากาศที่อาจระเบิด เช่น มีของเหลวไวไฟ แก๊สหรือฝุ่น**
     เครื่องมือไฟฟ้าอาจเกิดประกายไฟที่อาจทำให้ฝุ่นและไอติดไฟได้
   - **c) ใช้งานเครื่องมือไฟฟ้าให้ไกลจากเด็กและคนเฝ้าชม**
     คนที่วอกแวกทำให้คุณขาดสมาธิในการทำงานได้

2) ความปลอดภัยทางไฟฟ้า
   - **a) ปลั๊กของเครื่องมือไฟฟ้าต้องเหมาะกับเต้าเสียบ อย่าดัดแปลงปลั๊ก**
     อย่าใช้ปลั๊กของตัวปรับแรงดันไฟฟ้ากับเครื่องมือไฟฟ้าชนิดที่ต่อลงดิน
     ปลั๊กกับเต้าเสียบที่ไม่พอดีกันอาจทำให้คุณถูกไฟฟ้าดูด
   - **b) อย่าให้ตัวคุณสัมผัสกับพื้นผิวที่ต่อลงดิน เช่นท่อโลหะ เครื่องทำความร้อน เตาอบ ตู้เย็น เป็นต้น**
     อาจถูกไฟฟ้าดูดถ้าร่างกายของคุณต่อวงจรลงดิน
   - **c) อย่าให้เครื่องมือไฟฟ้าถูกกับน้ำฝนหรือความเปียกชื้น**
     น้ำที่เข้าไปในเครื่องมือไฟฟ้าจะเพิ่มความเสี่ยงที่จะถูกไฟฟ้าดูด
   - **d) อย่าใช้สายไฟฟ้าในงานอื่น อย่าใช้สายเพื่อหิ้ว ดึงหรือ เสียบเครื่องมือไฟฟ้า ให้สายไฟอยู่ห่างจากความร้อน น้ำมัน ขอบแหลมคมหรือชิ้นส่วนที่เคลื่อนไหว**
     สายที่ชำรุดหรือดึงอาจทำให้คุณถูกไฟฟ้าดูดได้ง่าย
   - **e) เมื่อใช้งานเครื่องมือไฟฟ้านอกอาคาร**
     ใช้สายพ่วงชนิดที่ใช้กับนอกอาคารเมื่อใช้สายที่เหมาะสมจะลดความเสี่ยงที่จะถูกไฟฟ้าดูด

3) ความปลอดภัยส่วนบุคคล
   - **a) ระวังตัว ดูสิ่งที่คุณกำลังทำ ใช้สามัญสำนึกเมื่อใช้เครื่องมือไฟฟ้า อย่าใช้เครื่องมือไฟฟ้าเมื่อคุณอ่อนเพลียหรือกินยา สุรา หรือยาเสพติด**
     การขาดสติชั่วขณะเมื่อใช้เครื่องมือไฟฟ้าอาจทำให้คุณบาดเจ็บสาหัส
   - **b) ใช้อุปกรณ์นิรภัย สวมแว่นตาป้องกันเสมอ**
     อุปกรณ์ป้องกันเช่นหน้ากากกันฝุ่น รองเท้ากันลื่น หมวกนิรภัย หรือจุกอุดหูที่เหมาะสมจะเลี่ยงการบาดเจ็บของร่างกายได้
   - **c) ระวังเครื่องทำงานโดยไม่ตั้งใจ ให้สวิทช์อยู่ในตำแหน่งปิดก่อนเสียบปลั๊ก**
     เมื่อจับเครื่องมือไฟฟ้าเมื่อนิ้วอยู่ที่ตัวสวิทช์ หรือเมื่อเสียบปลั๊กขณะเปิดสวิทช์ไว้อาจทำให้เกิดอุบัติเหตุ
   - **d) เอาสลักปรับแต่งหรือประแจออกก่อนเปิดสวิทช์ไฟฟ้า**
     สลักหรือประแจที่ติดกับส่วนหมุนของเครื่องมือไฟฟ้าอาจทำให้คุณบาดเจ็บได้
   - **e) อย่าเอื้อมตัว ยืนให้มั่นและสมดุลตลอดเวลา**
     ทำให้ควบคุมเครื่องมือไฟฟ้าได้ดีขึ้นเมื่อมีเหตุที่ไม่คาดฝัน
   - **f) แต่งตัวให้รัดกุม อย่าสวมเสื้อผ้าหลวมหรือใช้เครื่องประดับ ให้ผม เสื้อผ้าและถุงมืออยู่ห่างจากชิ้นส่วนที่เคลื่อนที่**
     เสื้อผ้าหลวม เครื่องประดับหรือผมยาวอาจถูกชิ้นส่วนหมุนรั้งเข้าไป
   - **g) ถ้าออกแบบเครื่องมือไฟฟ้าไว้ให้ต่อกับชุดดูดฝุ่นหรือเศษวัสดุ ให้เชื่อมต่อและใช้งานอย่างถูกต้อง**
     เมื่อใช้กับชุดอุปกรณ์เหล่านี้ จะลดอันตรายจากฝุ่น

4) การใช้และบำรุงรักษาเครื่องมือไฟฟ้า
   - **a) อย่าใช้เครื่องมือไฟฟ้าโดยฝืนกำลัง ใช้เครื่องมือที่ถูกต้องกับงานของคุณ**
     เครื่องมือไฟฟ้าที่ถูกต้องจะทำงานได้ดีกว่าและปลอดภัยกว่า ในอัตราตามที่ออกแบบไว้แล้ว
   - **b) อย่าใช้เครื่องมือไฟฟ้าถ้าสวิทช์ปิดเปิดไม่ได้**
     เครื่องมือไฟฟ้าที่ควบคุมด้วยสวิทช์ไม่ได้จะมีอันตรายและต้องซ่อม
   - **c) ถอดปลั๊กจากแหล่งไฟฟ้าก่อนปรับแต่ง เปลี่ยนอะไหล่ หรือ เก็บรักษา**
     มาตรการป้องกันเช่นนี้จะลดความเสี่ยงของอุบัติเหตุที่เครื่องมือไฟฟ้าจะเริ่มทำงานโดยไม่ได้ตั้งใจ
   - **d) เก็บเครื่องมือไฟฟ้าให้ห่างจากเด็ก และอย่าอมให้ผู้ที่ไม่เคยชินกับเครื่องมือไฟฟ้าหรือคำแนะนำเหล่านี้ให้ใช้เครื่องมือไฟฟ้า**
     เครื่องมือไฟฟ้าเป็นสิ่งที่มีอันตรายมากเมื่ออยู่ในมือของคนที่ไม่ชำนาญ
   - **e) บำรุงรักษาเครื่องมือไฟฟ้า ตรวจดูศูนย์เคลื่อน ส่วนบิดงอ ชำรุดหรือสภาพอื่นๆ ที่มีผลต่อการทำงานของเครื่องมือไฟฟ้า หากชำรุด ให้ซ่อมแซมก่อนใช้งาน**
     อุบัติเหตุจำนวนมากเกิดจากเครื่องมือไฟฟ้าที่บำรุงรักษาไม่ดีพอ
   - **f) ให้เครื่องมือตัดมีความคมและสะอาด**
     เครื่องมือตัดที่บำรุงรักษาอย่างถูกต้องและมีขอบคมจะไม่ค่อยบิดงอ และควบคุมได้ง่ายกว่า
   - **g) ใช้เครื่องมือไฟฟ้า ส่วนประกอบและปลายเครื่องมือตัดตามคำแนะนำเหล่านี้ และตามที่ออกแบบไว้ โดยพิจารณาสภาพงานและสิ่งที่จะใช้งาน**
     ถ้าใช้เครื่องมือไฟฟ้ากับงานที่ไม่ได้ออกแบบไว้อาจเกิดความเสียหายได้

5) การดูแลรักษาและการใช้แบตเตอรี่
   - **a) ก่อนจะบรรจุก้อนแบตเตอรี่ ควรตรวจสอบให้แน่ใจว่าสวิทช์อยู่ที่ตำแหน่งปิด**
     การใส่ก้อนแบตเตอรี่ลงในเครื่องมือที่มีกระแสไฟฟ้าไหลเวียนจะทำให้เกิดอุบัติเหตุ

b) ชาร์จแบตเตอรี่ซ้ำโดยใช้เครื่องชาร์จตามที่ผู้ผลิตกำหนดไว้เท่านั้น
หากนำเครื่องชาร์จที่เหมาะสำหรับใช้งานกับแบตเตอรี่ประเภทอื่นมาใช้กับแบตเตอรี่อีกประเภท อาจทำให้เกิดไฟไหม้ได้

c) ใช้เครื่องมือที่ต้องการกำลังไฟกับแบตเตอรี่ตามประเภทที่ได้ระบุไว้เท่านั้น
การใช้แบตเตอรี่แบบอื่นอาจทำให้เกิดไฟไหม้และการบาดเจ็บได้

d) เมื่อไม่ใช้งานแบตเตอรี่ ควรเก็บให้ห่างจากวัตถุที่เป็นโลหะ เช่น คลิปหนีบกระดาษ เหรียญ กุญแจ ตะปู สกรู หรือวัตถุที่เป็นโลหะขนาดเล็กๆ ที่สามารถเชื่อมต่อขั้วต่อเข้าด้วยกันได้
การลัดวงจรขั้วต่อแบตเตอรี่เข้าด้วยกันอาจทำให้เกิดแผลไหม้พุพองหรือไฟไหม้ได้

e) ภายใต้สภาวะที่เป็นอันตราย อาจมีของเหลวรั่วซึมออกจากแบตเตอรี่ ห้ามสัมผัสกับของเหลวดังกล่าว หากสัมผัสกับของเหลวโดยบังเอิญ ให้ล้างออกด้วยน้ำสะอาด หากของเหลวเข้าตา ควรรีบไปพบแพทย์
ของเหลวที่ไหลออกจากแบตเตอรี่อาจทำให้เกิดอาการระคายเคืองหรือแผลไหม้พุพองได้

6) การซ่อมบำรุง

a) ให้ช่างซ่อมที่ชำนาญเป็นผู้ซ่อม และเปลี่ยนอะไหล่ที่เป็นของแท้
ทำให้เครื่องมือไฟฟ้ามีความปลอดภัย

คำเตือน

เก็บให้พ้นมือเด็กและผู้ไม่ชำนาญ
หากไม่ได้ใช้ ควรเก็บให้พ้นมือเด็กและผู้ไม่ชำนาญ

ข้อควรระวังสำหรับเลื่อยไร้สาย

1. ชาร์จแบตเตอรี่ที่อุณหภูมิ 10℃-40℃ ทุกครั้ง หากอุณหภูมิต่ำกว่า 10℃ จะทำให้เกิดการชาร์จประจุเกิน ซึ่งเป็นอันตราย ห้ามชาร์จแบตเตอรี่ที่อุณหภูมิสูงกว่า 40℃
   อุณหภูมิที่เหมาะสมที่สุดในการชาร์จคือ 20℃-25℃
2. อย่าใช้เครื่องชาร์จอย่างต่อเนื่อง
   เมื่อทำการชาร์จครั้งหนึ่งเสร็จสิ้นลง ควรปล่อยเครื่องชาร์จทิ้งไว้ประมาณ 15 นาที ก่อนทำการชาร์จแบตเตอรี่ครั้งต่อไป
   ห้ามชาร์จแบตเตอรี่มากกว่า 2 ก้อนต่อเนื่องกัน
3. อย่าให้มีวัตถุแปลกปลอมเข้าไปในช่องสำหรับใส่แบตเตอรี่
4. ห้ามถอดแยกแบตเตอรี่แบบรีชาร์จ และเครื่องชาร์จ
5. ห้ามลัดวงจรแบตเตอรี่แบบรีชาร์จ การลัดวงจรแบตเตอรี่จะทำให้เกิดกระแสไฟ และความร้อนสูง ซึ่งทำให้แบตเตอรี่ไหม้ หรือเสียหายได้
6. ห้ามเผาแบตเตอรี่
   หากแบตเตอรี่ไหม้ อาจทำให้เกิดการระเบิดได้
7. เมื่อเจาะที่ผนัง พื้น หรือเพดาน ให้ระวังสายไฟฟ้า ฯลฯ ที่ฝังอยู่ด้วย
8. นำแบตเตอรี่ที่ซื้อมากลับไปยังร้านทันที หากชาร์จแบตเตอรี่ และสามารถใช้งานแบตเตอรี่ได้เพียงช่วงสั้นๆ เท่านั้น ห้ามทิ้งแบตเตอรี่ที่คายประจุจนหมดแล้ว
9. การใช้แบตเตอรี่ที่คายประจุหมดแล้ว จะทำให้เครื่องชาร์จเสียหาย
10. ห้ามใส่วัตถุเข้าไปในช่องระบายอากาศของเครื่องชาร์จ
    การใส่วัตถุที่เป็นโลหะ หรือวัตถุติดไฟได้เข้าไปในช่องระบายอากาศจะทำให้เกิดอันตรายจากไฟฟ้าดูด หรือทำให้เครื่องชาร์จเสียหาย
11. ในขณะที่ใช้เครื่องอย่างต่อเนื่อง เครื่องอาจร้อนเกินไป ทำให้มอเตอร์และสวิตช์เสียหาย โปรดหยุดใช้งานเป็นเวลาประมาณ 15 นาที
12. สวมที่อุดหูเพื่อป้องกันหูของคุณระหว่างการทำงาน
13. อย่าสัมผัสใบเลื่อยระหว่างหรือหลังจากการใช้งานทันที ใบเลื่อยจะร้อนขึ้นมากระหว่างการทำงาน และสามารถทำให้เกิดการไหม้อย่างรุนแรงได้
14. จับตัวเครื่องของเครื่องมือไฟฟ้าให้แน่นเสมอ ไม่เช่นนั้น แรงสะบัดกลับที่เกิดขึ้น อาจทำให้เกิดการทำงานที่ไม่แม่นยำ หรือแม้กระทั่งเกิดอันตรายได้
15. ถอดแบตเตอรี่ออกจากเครื่องมือ หรือผลักสวิตช์ไปยังตำแหน่งล็อค หรือตำแหน่งปิด ก่อนที่จะทำการปรับแต่งใดๆ เปลี่ยนอุปกรณ์เสริม หรือเก็บเครื่องมือ

ข้อควรระวังเกี่ยวกับแบตเตอรี่ลิเธียม-ไอออน

เพื่อยืดอายุการใช้งาน แบตเตอรี่ลิเธียม-ไอออนมีฟังก์ชั่นการป้องกันเพื่อหยุดการปล่อยพลังงาน
ในกรณีที่เกิดเหตุการณ์ในข้อ 1 ถึง 3 ที่มีการอธิบายด้านล่างในขณะที่ใช้ผลิตภัณฑ์นี้ แม้ว่าคุณจะกำลังดึงสวิตช์ มอเตอร์อาจหยุดหมุน นี่ไม่ได้เป็นบั๊ก-หา แต่เป็นผลของฟังก์ชั่นการป้องกัน

1. **เมื่อพลังงานที่เหลืออยู่ของแบตเตอรี่หมดไป มอเตอร์จะหยุดหมุน ในกรณีดังกล่าว ให้ชาร์จแบตเตอรี่ทันที**
2. **ถ้าเครื่องมือมีการใช้งานเกินพิกัด มอเตอร์อาจหยุดหมุน ในกรณีนี้ ให้ปล่อยสวิตช์ของเครื่องมือ และกำจัดสาเหตุของการทำงานเกินพิกัด หลังจากนั้น คุณสามารถใช้เครื่องมือต่อไปได้อีกครั้ง**
3. **ถ้าแบตเตอรี่ร้อนเกินไปภายใต้การใช้งานเกินพิกัด แบตเตอรี่อาจหยุดจ่ายพลังงาน**
   ในกรณีนี้ ให้หยุดการใช้แบตเตอรี่ และปล่อยให้แบตเตอรี่เย็นลง หลังจากนั้น คุณสามารถใช้เครื่องมือต่อไปได้อีกครั้ง

ยิ่งไปกว่านั้น โปรดใส่ใจถึงคำเตือนและข้อควรระวังต่อไปนี้

คำเตือน

เพื่อป้องกันการรั่วของแบตเตอรี่ การสร้างความร้อน การปล่อยควัน การระเบิด หรือการเกิดประกายไฟ โปรดมั่นใจว่าคุณใส่ใจถึงข้อควรระวังต่อไปนี้

1. **ตรวจดูให้แน่ใจว่า ไม่มีการสะสมของเศษไม้หรือเศษโลหะและฝุ่นในแบตเตอรี่**

○ **ระหว่างการทำงาน ให้แน่ใจว่าเศษไม้หรือเศษโลหะและฝุ่นไม่ตกลงไปบนแบตเตอรี่**

○ **ตรวจดูให้แน่ใจว่าเศษไม้หรือเศษโลหะและฝุ่นที่ตกลงไปบนเครื่องมือไฟฟ้า ไม่สะสมบนแบตเตอรี่**

○ **อย่าเก็บแบตเตอรี่ที่ไม่ได้ใช้ในสถานที่ซึ่งสัมผัสถูกเศษไม้หรือเศษโลหะและฝุ่น**

○ ก่อนที่จะเก็บแบตเตอรี่ ให้ปัดเศษไม้หรือเศษโลหะและฝุ่นที่ติดอยู่ออก และอย่าเก็บไว้ที่เดียวกับชิ้นส่วนที่เป็นโลหะ (สกรู ตะปู ฯลฯ)

2. อย่าแทงแบตเตอรี่ด้วยวัตถุที่แหลม เช่น ตะปู ตอกด้วยค้อน ยืนบนโยน หรือปล่อยให้แบตเตอรี่ถูกกระแทกอย่างรุนแรง
3. อย่าใช้แบตเตอรี่ที่มีลักษณะเสียหาย หรือมีการเปลี่ยนรูปร่าง
4. อย่าใช้แบตเตอรี่โดยใส่ขั้วกลับด้าน
5. อย่าเชื่อมต่อเข้ากับเต้าเสียบไฟฟ้า หรือรูเสียบที่จุดบุหรี่ในรถยนต์โดยตรง
6. อย่าใช้แบตเตอรี่สำหรับวัตถุประสงค์ที่นอกเหนือจากที่ระบุ
7. ถ้าการชาร์จแบตเตอรี่ไม่สมบูรณ์ แม้ว่าถึงเวลาการชาร์จที่ระบุแล้ว ให้หยุดการชาร์จแบตเตอรี่ทันที
8. อย่าวาง หรือปล่อยให้แบตเตอรี่สัมผัสถูกอุณหภูมิที่สูง หรือความดันสูง เช่น ในเตาไมโครเวฟ ตู้อบ หรือภาชนะที่มีความดันสูง
9. เมื่อแบตเตอรี่รั่ว หรือได้กลิ่นผิดปกติ ให้เก็บแบตเตอรี่ให้ห่างจากไฟทันที
10. อย่าใช้ในสถานที่ซึ่งมีการสร้างประจุไฟฟ้าสถิตอย่างรุนแรง
11. ถ้าแบตเตอรี่รั่ว มีกลิ่นผิดปกติ เกิดความร้อน เปลี่ยนสี หรือมีรูปร่างเปลี่ยนไป หรือมีลักษณะผิดปกติใดๆ ระหว่างการใช้งาน การชาร์จ หรือขณะที่เก็บ ให้นำออกจากอุปกรณ์ หรือเครื่องชาร์จแบตเตอรี่ทันที และหยุดการใช้งาน
12. ห้ามจุ่มแบตเตอรี่หรือให้ของเหลวใดๆ เข้าไปในแบตเตอรี่ ของเหลวแทรกซึมที่นำไฟฟ้า เช่น น้ำ สามารถทำให้เกิดไฟไหม้ หรือ ระเบิดได้ จัดเก็บแบตเตอรี่ในที่เย็นและแห้ง อยู่ห่างจากวัตถุที่ติดไฟได้ง่าย หลีกเลี่ยงที่ที่มีแก๊สกัดกร่อนในอากาศ

ข้อควรระวัง

1. ถ้าของเหลวที่รั่วจากแบตเตอรี่เข้าตา อย่าขยี้ตา ให้ล้างออกด้วยน้ำสะอาด เช่น น้ำก๊อก และรีบไปพบแพทย์ทันที
   ถ้าปล่อยทิ้งไว้โดยไม่ได้รักษา ของเหลวอาจทำให้เกิดปั-หากับดวงตาได
2. ถ้าของเหลวที่รั่วจากแบตเตอรี่สัมผัสถูกผิวหนังหรือเสื้อผ้า ให้ล้างออกด้วยน้ำสะอาด เช่น น้ำก๊อกทันที
   มีความเป็นไปได้ที่ของเหลวนี้สามารถทำให้เกิดการระคายเคืองต่อผิวหนัง
3. ถ้าคุณพบสนิม กลิ่นที่ผิดปกติ การร้อนเกินไป การเปลี่ยนสี การเปลี่ยนรูปร่าง และ/หรือสิ่งปกติอื่นๆ ในขณะที่ใช้แบตเตอรี่เป็นครั้งแรก อย่าใช้ และส่งแบตเตอรี่กลับคืนไปยังผู้จำหน่าย หรือตัวแทนจำหน่ายของคุณ

เกี่ยวกับการขนส่งแบตเตอรี่ลิเธียม-ไอออน

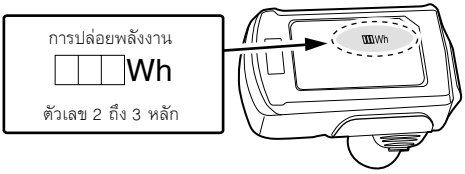
เมื่อขนส่งแบตเตอรี่ลิเธียม-ไอออน โปรดสังเกตตามข้อควรระวังดังต่อไปนี้

คำเตือน

แจ้งบริษัทที่ทำการขนส่งให้ทราบว่าภายในกล่องบรรจุแบตเตอรี่ลิเธียม-ไอออน ให้ข้อมูลบริษัทเกี่ยวกับการปล่อยพลังงาน และปฏิบัติตามคำแนะนำของบริษัทขนส่งเมื่อเตรียมการขนส่ง

○ แบตเตอรี่ลิเธียม-ไอออนที่มีการปล่อยพลังงานออกมามากกว่า 100 Wh ถือเป็นสินค้าอันตรายตามการจำแนกสินค้า และต้องมีขั้นตอนปฏิบัติเป็นพิเศษ

○ สำหรับการขนส่งไปต่างประเทศ คุณต้องปฏิบัติตามกฎหมายสากลและกฎหรือข้อปฏิบัติของประเทศปลายทาง



รายละเอียดจำเพาะ

เครื่องมือไฟฟ้า

รุ่น	CR10DL
ความเร็วอิสระ	0 — 2700 /นาที
สโตรก	13 มม.
ประสิทธิภาพ	ท่อเหล็กเหนียว: เส้นผ่านศูนย์กลาง 25 มม.
	ท่อไวนิล คลอไรด์: เส้นผ่านศูนย์กลาง 45 มม.
	ไม้: ความลึก 50 มม.
	แผ่นเหล็กเหนียว: ความหนา 4 มม.
แบตเตอรี่แบบรีชาร์จ	BCL1015: DC ลิเธียม-ไอออน 10.8 V / 12 V สูงสุด (1.5 Ah 3 เซลล์)
น้ำหนัก	1.2 กก.

เครื่องชาร์จ

รุ่น	UC10SFL
แรงดันไฟฟ้าในการชาร์จ	10.8 โวลท์
น้ำหนัก	0.35 กก.

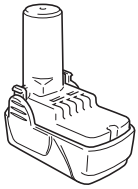
อุปกรณ์มาตรฐาน

CR10DL (LCSK)	① ใบเลื่อย (เบอร์ 5) ..... 1 ② ใบเลื่อย (เบอร์ 107) ..... 1 ③ ประแจหกเหลี่ยม ..... 1 ④ แบตเตอรี่ (BCL1015) ..... 1 ⑤ เครื่องชาร์จ (UC10SFL) ..... 1 ⑥ กรณีพลาสติก 1
CR10DL (2LCSK)	① ใบเลื่อย (เบอร์ 5) ..... 1 ② ใบเลื่อย (เบอร์ 107) ..... 1 ③ ประแจหกเหลี่ยม ..... 1 ④ แบตเตอรี่ (BCL1015) ..... 2 ⑤ เครื่องชาร์จ (UC10SFL) ..... 1 ⑥ กรณีพลาสติก 1

อาจเปลี่ยนแปลงอุปกรณ์มาตรฐานได้โดยไม่ต้องแจ้งล่วงหน้า

อุปกรณ์ประกอบ (แยกจำหน่าย)

1. แบตเตอรี่ (BCL1015)



2. ใบเลื่อย

(1) เบอร์ 2 ใบเลื่อย
(2) เบอร์ 3 ใบเลื่อย
(3) เบอร์ 5 ใบเลื่อย
(4) เบอร์ 96 ใบเลื่อย
(5) เบอร์ 101 ใบเลื่อย
(6) เบอร์ 103 ใบเลื่อย
(7) เบอร์ 107 ใบเลื่อย
(8) เบอร์ 109 ใบเลื่อย

○ (1) - (4): ใบเลื่อย HCS (HCS : คาร์บอนสตีลความเร็วสูง)
○ (5) - (8): ใบเลื่อย BI-METAL

ดู **ตารางที่ 2**, **3** และ **4** สำหรับการใช้ใบเลื่อย
อาจเปลี่ยนแปลงอุปกรณ์ประกอบได้โดยไม่ต้องแจ้งล่วงหน้า

การใช้งาน

○ การตัดท่อและเหล็กทำมุม
○ การตัดท่อนไม้ประเภทต่างๆ
○ การตัดแผ่นเหล็กเหนียว และแผ่นอลูมิเนียม
○ การตัดเรซินสังเคราะห์ เช่น ฟีนอลเรซิน และไวนิลคลอไรด์

สำหรับรายละเอียด โปรดดูส่วนที่ชื่อ “การเลือกใบเลื่อย”

การถอด/การใส่แบตเตอรี่

ข้อควรระวัง

ให้แน่ใจว่าปิดสวิตช์ และปุ่มล็อคปิดอยู่ในตำแหน่งที่ถูกต้อง (ตำแหน่งล็อค) (ดู **รูปที่ 18**)

1. การถอดแบตเตอรี่

จับตัวเครื่องให้แน่น และผลักที่สลักแบตเตอรี่ เพื่อนำแบตเตอรี่ออก (**ดูรูปที่ 1** และ **2**)

ข้อควรระวัง

ห้ามลัดวงจรแบตเตอรี่

2. การใส่แบตเตอรี่

ตรวจสอบขั้วของแบตเตอรี่ขณะใส่แบตเตอรี่ (**ดูรูปที่ 2**)

การชาร์จ

ก่อนการใช้สว่านไขควง ให้ทำการชาร์จแบตเตอรี่ดังนี้

1. เสียบปลั๊กเครื่องชาร์จเข้ากับเต้ารับ

2. ใส่แบตเตอรี่ในเครื่องชาร์จ

จัดตำแหน่งแบตเตอรี่โดยให้แผ่นชื่อหันไปทางแผ่นชื่อของเครื่องชาร์จ และกดเข้าไปในแบตเตอรี่ จนกระทั่งแบตเตอรี่สัมผัสกับแผ่นโลหะด้านล่าง (**ดูรูปที่ 3**)

การใส่แบตเตอรี่ จะเป็นการเปิดเครื่องชาร์จ (ไฟสถานะจะติดขึ้น)

ข้อควรระวัง

ถ้าไฟสถานะไม่ติดขึ้น ให้ดึงสายไฟออกจากเต้าเสียบ และตรวจสอบลักษณะการยึดของแบตเตอรี่

ไฟสถานะดับ เพื่อระบุว่าแบตเตอรี่ชาร์จเต็มแล้ว

ข้อควรระวัง

ถ้าแบตเตอรี่ร้อนขึ้นเนื่องจากสัมผัสถูกแสงแดดโดยตรงหลังจากการทำงาน ไฟสถานะเครื่องชาร์จอาจไม่ติด ในกรณีนี้ ให้ปล่อยให้แบตเตอรี่เย็นลงก่อน จากนั้นจึงเริ่มการชาร์จ

○ เกี่ยวกับเวลาในการชาร์จ

ตารางที่ 1 แสดงเวลาในการชาร์จที่ต้องการ ตามชนิดของแบตเตอรี่

ตารางที่ 1 เวลาการชาร์จ (นาที โดยประมาณ) ที่ 20°C

ความจุแบตเตอรี่ (Ah)	
1.5 Ah	
BCL1015	40 นาที

หมายเหตุ

เวลาการชาร์จอาจแตกต่างจากนี้ ขึ้นอยู่กับอุณหภูมิสิ่งแวดล้อม

3. ถอดปลั๊กเครื่องชาร์จออกจากเต้ารับ

4. จับเครื่องชาร์จให้มั่นคง และดึงแบตเตอรี่ออก

หมายเหตุ

ให้แน่ใจว่าดึงแบตเตอรี่ออกจากเครื่องชาร์จหลังจากการใช้ จากนั้นนำไปเก็บ

วิธีการยืดอายุการใช้งานของแบตเตอรี่

(1) ชาร์จแบตเตอรี่ก่อนที่แบตเตอรี่จะคายประจุจนหมด
เมื่อท่านรู้สึกว่าเครื่องมือมีกำลังอ่อนลง ให้หยุดใช้เครื่องมือและทำการชาร์จแบตเตอรี่
หากท่านยังใช้เครื่องมือต่อไปจนเครื่องดับ แบตเตอรี่อาจได้รับความเสียหาย และอายุการใช้งานของแบตเตอรี่อาจสั้นลง

(2) หลีกเลี่ยงการชาร์จที่อุณหภูมิสูง
แบตเตอรี่แบบรีชาร์จจะร้อนขึ้นทันทีหลังจากใช้งาน หากชาร์จแบตเตอรี่ดังกล่าวทันทีหลังจากใช้งาน จะทำให้สารเคมีภายในแบตเตอรี่เสื่อมสภาพ และอายุการใช้งานของแบตเตอรี่จะสั้นลง ทิ้งแบตเตอรี่ไว้สักครู่ให้เย็นลงก่อนที่จะทำการชาร์จ

ข้อควรระวัง

○ เมื่อเครื่องชาร์จแบตเตอรี่ถูกใช้อย่างต่อเนื่อง เครื่องชาร์จแบตเตอรี่จะร้อนขึ้น ซึ่งอาจเป็นสาเหตุของการทำงานล้มเหลว หลังจากที่การชาร์จสมบูรณ์แล้ว ให้พักเครื่อง 15 นาทีก่อนที่จะชาร์จครั้งต่อไป

○ ถ้าเครื่องชาร์จแบตเตอรี่ไม่ทำงานในขณะที่ยึดแบตเตอรี่อย่างถูกต้อง อาจเป็นไปได้ว่าแบตเตอรี่หรือเครื่องชาร์จอาจเสีย ให้นำอุปกรณ์ไปยังศูนย์บริการที่ได้รับการแต่งตั้งของคุณ

ก่อนการทำงาน

1. การยึดใบเลื่อย

อุปกรณ์นี้มีกลไกที่ช่วยให้ถอดใบเลื่อยได้ ซึ่งทำให้สามารถใส่และถอดใบเลื่อยได้โดยไม่ต้องใช้ไขควง หรือเครื่องมืออื่นๆ

(1) เปิดและปิดทริกเกอร์สวิตช์หลายๆ ครั้ง เพื่อให้คานหลุดออกมาจากตัวเครื่องทั้งหมด หลังจากนั้น ปิดสวิตช์ และถอดแบตเตอรี่ออก (**รูปที่ 6**)

ข้อควรระวัง

ให้แน่ใจจริงๆ ว่าได้ปิดสวิตช์และถอดแบตเตอรี่ออกเรียบร้อยแล้ว เพื่อป้องกันอุบัติเหตุใดๆ ที่อาจเกิดขึ้น

(2) ผลักคานไปในทิศทางที่แสดงตามลูกศรใน **รูปที่ 7** ที่อยู่บนคาน (**รูปที่ 7**)

(3) ใส่ใบเลื่อยเข้าไปในร่องเล็กๆ ของปลายพลันเจอร์จนสุดในขณะที่กดคานอยู่ คุณสามารถยึดใบเลื่อยได้ทั้งในทิศทางขาขึ้นหรือขาลงก็ได้ (**รูปที่ 8**, **รูปที่ 9**)

(4) เมื่อคุณปล่อยคาน แรงสปริงจะดึงคานกลับไปยังตำแหน่งที่ถูกต้องโดยอัตโนมัติ (**รูปที่ 10**)

(5) ดึงด้านหลังของใบเลื่อยด้วยมือสองหรือสามครั้ง และตรวจสอบว่าใบเลื่อยถูกยึดอย่างแน่นหนาหรือไม่ ในขณะที่ดึงใบเลื่อย คุณจะรู้ว่าใบเลื่อยถูกยึดอย่างเหมาะสมถ้าใบเลื่อยคลิกเข้าที่ และคานเคลื่อนที่เล็กน้อย (**รูปที่ 11**)

ข้อควรระวัง

ในขณะที่ดึงใบเลื่อย ให้แน่ใจว่าทำการดึงใบเลื่อยจากด้านหลัง การดึงที่ส่วนอื่นๆ ของใบเลื่อยจะทำให้เกิดการบาดเจ็บได้

2. การถอดใบเลื่อย

(1) เปิดและปิดทริกเกอร์สวิตช์หลายๆ ครั้ง เพื่อให้คานหลุดออกมาจากตัวเครื่องทั้งหมด หลังจากนั้น ปิดสวิตช์ และถอดแบตเตอรี่ออก (**รูปที่ 6**)

ข้อควรระวัง

ให้แน่ใจจริงๆ ว่าได้ปิดสวิตช์และถอดแบตเตอรี่ออกเรียบร้อยแล้ว เพื่อป้องกันอุบัติเหตุใดๆ ที่อาจเกิดขึ้น

(2) หลังจากที่คุณผลักคานในทิศทางที่แสดงโดยลูกศรใน **รูปที่ 7** และจับไว้อย่างแน่นหนาแล้ว ให้พลิกใบเลื่อยให้คว่ำลง ใบเลื่อยควรตกลงมาเอง ถ้าใบเลื่อยไม่ตกลงมา ให้ใช้มือดึงออกมา

ข้อควรระวัง

อย่าสัมผัสใบเลื่อยทันทีหลังจากการใช้งาน
โลหะมีความร้อนสูง และสามารถทำให้ผิวของคุณไหม้ได้

เมื่อใบเลื่อยหัก

แม้ในกรณีที่ใบเลื่อยหัก และติดอยู่ด้านในของร่องเล็กๆ ของพลันเจอร์ ใบเลื่อยก็ควรตกลงมาเอง ถ้าคุณผลักคานในตำแหน่งที่แสดงโดยลูกศร และคว่ำใบเลื่อยลง ถ้าใบเลื่อยไม่ตกลงมาเอง ให้นำใบเลื่อยออกโดยใช้กระบวนการที่อธิบายด้านล่าง

(1) ถ้าส่วนของใบเลื่อยที่หักติดอยู่ในร่องเล็กๆ ของพลันเจอร์ ให้ดึงบริเวณส่วนที่ยื่นออกมา และนำใบเลื่อยออกมา

(2) ถ้าส่วนของใบเลื่อยที่หักถูกซ่อนอยู่ด้านในของร่องเล็กๆ ให้เกี่ยวใบเลื่อยที่หักโดยใช้ปลายของใบเลื่อยอีกอันหนึ่ง และนำใบเลื่อยออกมา (**รูปที่ 12**)

การบำรุงรักษาและการตรวจสอบที่ยึดใบเลื่อย

(1) หลังจากการใช้งาน ให้เป่าขี้เลื่อย เศษผง ทราย ความชื้น ฯลฯ ด้วยลม หรือปัดฝุ่นให้สะอาดโดยใช้แปรง เพื่อให้มั่นใจว่าใบเลื่อยสามารถทำงานได้อย่างราบรื่น

(2) ตามที่แสดงใน **รูปที่ 13** ให้ใส่น้ำมันหล่อลื่นรอบๆ ที่ยึดใบเลื่อยเป็นระยะๆ โดยใช้น้ำมันตัด เป็นต้น

หมายเหตุ

การใช้เครื่องมืออย่างต่อเนื่องโดยไม่ทำความสะอาด และหล่อลื่นบริเวณที่ติดตั้งใบเลื่อย สามารถส่งผลให้การเคลื่อนที่ของคานติดขัด เนื่องจากมีขี้เลื่อยและเศษวัสดุสะสมมากขึ้นเรื่อยๆ ภายใต้สถานการณ์นี้ ให้ดึงฝายางบนคานในทิศทางที่แสดงโดยลูกศรใน **รูปที่ 14** และถอดฝายางออกจากคาน จากนั้น ทำความสะอาดด้านในของที่ยึดใบเลื่อยด้วยการใช้ลมเป่า และใส่สารหล่อลื่นให้เพียงพอ คุณควรใส่ฝายางได้พอดีถ้าคุณกดลงบนคานให้แน่น ขณะนี้ ให้ตรวจดูให้แน่ใจว่าไม่มีช่องว่างระหว่างที่ยึดใบเลื่อยและฝายาง และให้ตรวจสอบว่าใบเลื่อยถูกติดตั้งในบริเวณที่สามารถทำงานได้อย่างราบรื่น

ข้อควรระวัง

อย่าใช้ใบเลื่อยใดๆ ที่มีรูใบเลื่อยสึก เนื่องจากใบเลื่อยสามารถหลุดออกมา เป็นผลให้เกิดการบาดเจ็บต่อร่างกายได้ (**รูปที่ 15**)

3. การย้ายฐาน

คลายน็อตหกเหลี่ยมโดยใช้ประแจหกเหลี่ยม และเลื่อนฐานไปข้างหน้าดังแสดงใน **รูปที่ 16**, **รูปที่ 17** ค่อยๆ ไขสกรูให้แน่น ให้แน่ใจว่าฐานไม่เคลื่อนที่ไปข้างหลังและข้างหน้า และไขน็อตหกเหลี่ยมให้แน่น ตรวจดูให้แน่ใจว่าฐานไม่สัมผัสกับใบเลื่อย

4. ยืนยันว่าแบตเตอรี่ใส่อย่างถูกต้อง

วิธีใช้

วิธีการยืดอายุการใช้งานของแบตเตอรี่

○ ชาร์จแบตเตอรี่ก่อนที่แบตเตอรี่จะคายประจุจนหมด
เมื่อท่านรู้สึกว่าเครื่องมือมีกำลังอ่อนลง ให้หยุดใช้เครื่องมือและทำการชาร์จแบตเตอรี่
หากท่านยังใช้เครื่องมือต่อไปจนเครื่องดับ แบตเตอรี่อาจได้รับความเสียหาย และอายุการใช้งานของแบตเตอรี่อาจสั้นลง

ข้อควรระวัง

○ อย่าถือเครื่องมือโดยวางนิ้วของคุณบนสวิตช์ การเริ่มต้นเครื่องอย่างฉับพลัน สามารถเป็นผลให้เกิดการบาดเจ็บโดยไม่ได้คาดหมาย

○ ใช้ความระมัดระวังอย่าให้ขี้เลื่อย เศษวัสดุ ความชื้น ฯลฯ เข้าไปด้านในของเครื่องผ่านส่วนพลันเจอร์ระหว่างการทำงาน ถ้าขี้เลื่อยหรือสิ่งที่มีลักษณะเหมือนกันสะสมในส่วนพลันเจอร์ ให้ทำความสะอาดก่อนที่จะใช้เสมอ (ดู **รูปที่ 6**)

○ ระหว่างการใช้ กดฐานลงบนวัสดุในขณะที่ตัด
แรงสั่นสะเทือนสามารถทำให้ใบเลื่อยเสียหายได้ ถ้าไม่ได้กดฐานลงบนชิ้นงานให้แน่น ยิ่งกว่านั้น
บางครั้ง ปลายของใบเลื่อยสามารถสัมผัสกับผนังด้านในของท่อ เป็นผลให้ใบเลื่อยเสียหายได้ด้วย

○ เลือกใบเลื่อยที่มีความยาวเหมาะสมที่สุด ค่าที่ดีที่สุดคือ ความยาวที่ยืดออกมาจากฐานของใบเลื่อยหลังจากที่ลบระยะของสโตรกแล้ว ควรมากกว่าวัสดุ (ดู **รูปที่ 19** และ **รูปที่ 21**)
ถ้าคุณตัดท่อขนาดใหญ่ ท่อนไม้ขนาดใหญ่ ฯลฯ ซึ่งมีความยาวเกินขนาดของใบเลื่อย อาจมีความเสี่ยงที่ใบเลื่อยอาจสัมผัสกับผนังด้านในของท่อ ไม้ ฯลฯ เป็นผลให้เกิดความเสียหายได้ (**รูปที่ 20**, **รูปที่ 22**)

○ เพื่อยืดอายุการใช้งานอุปกรณ์ แบตเตอรี่ลิเธียม-ไอออนมีฟังก์ชั่นการป้องกันเพื่อหยุดการจ่ายพลังงานออก ดังนั้นถ้าเครื่องมือทำงานหนักเกินไป มอเตอร์อาจหยุดได้ อย่างไรก็ตาม ผลลัพธ์ของฟังก์ชั่นการป้องกันนี้ไม่เป็นปัญหาอะไร ในกรณีนี้ ให้ปล่อยสวิตช์ของเครื่องมือและกำจัดสาเหตุของการทำงานหนักเกินไป

1. การทำงานของสวิตช์

(1) ปุ่มล็อคปิด
เครื่องมือนี้มีปุ่มล็อคปิด ในการเปิดทำงานการล็อค ให้เลื่อนปุ่มไปยังตำแหน่งทางขวา เลื่อนปุ่มไปทางซ้ายเพื่อใช้งานเครื่องมือ (**รูปที่ 18**) ล็อคสวิตช์เสมอในขณะที่ถือ หรือเก็บเครื่องมือ เพื่อป้องกันการที่เครื่องมือเริ่มต้นโดยไม่ได้ตั้งใจ

(2) ทริกเกอร์สวิตช์
เครื่องมือนี้มีทริกเกอร์สวิตช์ควบคุมความเร็วที่ปรับเปลี่ยนได้ เครื่องมือสามารถถูก "เปิด" หรือ "ปิด" ได้โดยการบีบหรือคลายปุ่มทริกเกอร์ อัตราสโตรกพลันเจอร์ของใบเลื่อยสามารถถูกปรับได้ตั้งแต่อัตราสโตรกต่ำสุดไปจนถึงสูงสุดที่ระบุบนป้ายชื่อ โดยใช้แรงดันที่คุณบีบที่ปุ่มทริกเกอร์ ยิ่งออกแรงบีบมาก ก็ยิ่งเป็นการเพิ่มความเร็ว และถ้าต้องการลดความเร็วลง ก็ให้คลายแรงบีบลง

2. การใช้ไฟ

ดึงทริกเกอร์สวิตช์เพื่อทำให้ไฟสว่างขึ้น ไฟจะสว่างในขณะที่ทริกเกอร์สวิตช์ถูกดึง ไฟจะดับลงหลังจากที่ปล่อยทริกเกอร์สวิตช์ (**รูปที่ 4**)

ข้อควรระวัง

อย่ามองไปที่ไฟโดยตรง การกระทำดังกล่าวสามารถทำให้เกิดการบาดเจ็บที่ดวงตาได้

3. การตัดวัสดุโลหะ

ข้อควรระวัง

○ กดฐานลงบนชิ้นงานให้แน่น

○ อย่าใช้แรงที่มากเกินไปกับใบเลื่อยในขณะที่ตัด การทำเช่นนั้นสามารถทำให้เลื่อยหักได้ง่ายๆ

○ บางครั้งมอเตอร์สามารถถูกล็อคได้ ขึ้นอยู่กับส่วนผสมของวัสดุที่จะถูกตัดและใบเลื่อย เมื่อใดก็ตามที่มอเตอร์ถูกล็อค ให้ปิดเครื่องทันที

(1) ไขยึดชิ้นงานให้แน่นก่อนที่จะทำงาน (**รูปที่ 23**)

(2) ในขณะที่ตัดวัสดุโลหะ ใช้น้ำมันเครื่องที่เหมาะสม (น้ำมันกังหัน เป็นต้น) เมื่อไม่ได้ใช้น้ำมันเครื่องที่เป็นของเหลว ให้ทาจาระบีให้ทั่วชิ้นงาน

ข้อควรระวัง

อายุการใช้งานของใบเลื่อยจะลดลงอย่างรวดเร็ว ถ้าคุณไม่ใช้น้ำมันเครื่อง

4. การตัดท่อนไม้

ในขณะที่ตัดท่อนไม้ ให้แน่ใจว่าชิ้นงานถูกยึดไว้อย่างแน่นหนาก่อนที่จะเริ่มทำงาน (**รูปที่ 24**)

ข้อควรระวัง

อย่าใช้แรงที่มากเกินไปกับใบเลื่อยในขณะที่ตัด ให้จำไว้ว่าต้องกดฐานลงบนท่อนไม้อย่างมั่นคง

5. การเลื่อยเป็นเส้นโค้ง

เราแนะนำให้คุณใช้ใบเลื่อย BI-METAL ที่กล่าวถึงใน **ตารางที่ 3** สำหรับเป็นใบเลื่อย เนื่องจากใบเลื่อยเหล่านี้เหนียว และแตกยาก

ข้อควรระวัง

หน่วงเวลาความเร็วในการป้อนในขณะที่ตัดวัสดุไปเป็นส่วนโค้งเล็กๆ การป้อนด้วยความเร็วที่มากเกินไปอาจทำให้ใบเลื่อยหัก

6. การตัดพลันจ์

ด้วยเครื่องมือนี้ คุณสามารถดำเนินการตัดพลันจ์บนแผงไม้อัด และวัสดุที่เป็นแผ่นบางได้ คุณสามารถดำเนินการตัดกระเป๋าได้ค่อนข้างง่ายด้วยการติดตั้งใบเลื่อยในทิศทางย้อนกลับ ตามที่อธิบายใน **รูปที่ 26**, **รูปที่ 28** และ **รูปที่ 30** ใช้ใบเลื่อยที่สั้นและหนาที่สุดเท่าที่จะเป็นไปได้ เราแนะนำให้คุณใช้ใบเลื่อย BI-METAL เบอร์ 107 ที่มีการระบุใน **ตารางที่ 3** สำหรับวัตถุประสงค์นี้ ให้แน่ใจว่าได้ใช้ความระมัดระวังระหว่างกระบวนการตัด และสังเกตกระบวนการต่อไปนี้

(1) กดส่วนล่าง (หรือส่วนบน) ของฐานลงบนวัสดุ ดึงสวิตช์ทริกเกอร์ในขณะที่ปลายของใบเลื่อยอยู่ห่างจากวัสดุ (**รูปที่ 25**, **รูปที่ 26**)
(2) ยกที่จับขึ้นช้าๆ และตัดเข้าไปในเนื้อด้วยใบเลื่อยทีละเล็กน้อย (**รูปที่ 27**, **รูปที่ 28**)
(3) ถือตัวเครื่องให้แน่น จนกระทั่งใบเลื่อยตัดเข้าไปในวัสดุอย่างสมบูรณ์ (**รูปที่ 29**, **รูปที่ 30**)

ข้อควรระวัง

○ หลีกเลี่ยงการตัดพลันจ์สำหรับวัสดุที่เป็นโลหะ การทำเช่นนี้สามารถทำให้ใบเลื่อยเสียหายได้ง่าย
○ ห้ามดึงสวิตช์ทริกเกอร์ในขณะที่ปลายของใบเลื่อยถูกกดอยู่กับวัสดุ ถ้าคุณทำเช่นนี้ ใบเลื่อยสามารถเสียหายได้ง่ายเมื่อใบเลื่อยชนกับวัสดุ
○ ให้แน่ใจจริงๆ ว่าคุณตัดช้าๆ ในขณะที่จับตัวเครื่องอย่างมั่นคง ถ้าคุณใช้แรงกดที่มากเกินไปกับใบเลื่อยระหว่างที่ดำเนินการตัด ใบเลื่อยสามารถเสียหายได้อย่างง่ายดาย

หมายเหตุ

บางครั้ง การใช้แบตเตอรี่ BCL1015 ในสภาพแวดล้อมที่เย็น (ต่ำกว่า 0 องศาเซลเซียส) เป็นผลให้แรงบิดในการตัดอ่อนกำลังลง และลดปริมาณงานที่ทำได้ อย่างไรก็ตาม นี่เป็นปรากฏการณ์ชั่วคราว และจะกลับเป็นปกติเมื่อแบตเตอรี่อุ่นขึ้น

7. ไฟเตือนระดับแบตเตอรี่

คุณสามารถตรวจสอบระดับแบตเตอรี่โดยการดึงทริกเกอร์สวิตช์ในขณะที่เครื่องมือไฟฟ้าอยู่ในสถานะที่ไม่มีภาระงาน ไฟเตือนระดับแบตเตอรี่จะสว่างขึ้นเมื่อพลังงานแบตเตอรี่เหลือน้อยมาก ถ้าเกิดเหตุการณ์เช่นนี้ขึ้น ให้ชาร์จแบตเตอรี่ (**รูปที่ 5**)

หมายเหตุ

○ ระดับซึ่งไฟเตือนระดับแบตเตอรี่จะสว่างขึ้นอาจมีความผันแปรเนื่องจากอุณหภูมิสภาพแวดล้อม คุณลักษณะของแบตเตอรี่ เป็นต้น และให้ใช้ระดับนี้เป็นแนวทางเท่านั้น
○ ไฟเตือนระดับแบตเตอรี่อาจสว่างขึ้นเมื่อเครื่องมือไฟฟ้ามีการทำงานมากเกินไป อาการเช่นนี้ไม่ได้หมายความว่าพลังงานแบตเตอรี่เหลือน้อยมาก
แต่ให้แน่ใจว่าได้ตรวจสอบระดับแบตเตอรี่ในขณะที่เครื่องมืออยู่ในสถานะที่ไม่มีภาระงาน

การเลือกใบเลื่อย

เพื่อให้มั่นใจถึงประสิทธิภาพและผลลัพธ์การทำงานสูงสุด คุณต้องเลือกใบเลื่อยที่เหมาะสมซึ่งเหมาะกับชนิด และความหนาของวัสดุที่จะตัด

หมายเหตุ

○ ขนาดของชิ้นงานที่ระบุในตาราง หมายถึงขนาดเมื่อตำแหน่งยึดของฐานถูกยึดใกล้กับตัวเครื่องของเลื่อยไร้สายมากที่สุด ต้องใช้ความระมัดระวังอย่างเต็มที่เนื่องจากขนาดของชิ้นงานจะเล็กลง ถ้าฐานถูกยึดห่างไกลออกไปจากตัวเครื่องของเลื่อยไร้สาย

1. การเลือกใบเลื่อย HCS

เบอร์ใบเลื่อยของใบเลื่อย HCS ใน **ตารางที่ 2** ถูกตรึงในบริเวณใกล้เคียงของตำแหน่งยึดของใบเลื่อยแต่ละเบอร์ เลือกใบเลื่อยที่เหมาะสมโดยอ้างอิงจาก **ตารางที่ 2** และ **4** ด้านล่าง

ตารางที่ 2: ใบเลื่อย HCS

หมายเลขใบเลื่อย	การใช้งาน	ความหนา (มม.)
เบอร์ 2	สำหรับตัดท่อเหล็กที่มีเส้นผ่านศูนย์กลางน้อยกว่า 30 มม.	2.5 - 6
เบอร์ 3	สำหรับตัดท่อเหล็กที่มีเส้นผ่านศูนย์กลางน้อยกว่า 30 มม.	ต่ำกว่า 3.5
เบอร์ 5	สำหรับตัดและแต่งท่อนไม	ต่ำกว่า 30
เบอร์ 96	สำหรับตัดท่อสแตนเลส สตีลที่มีเส้นผ่านศูนย์กลางน้อยกว่า 30 มม.	ต่ำกว่า 2.5

หมายเหตุ

ใบเลื่อย HCS เบอร์ 2 - เบอร์ 96 ขายแยกต่างหากเป็นอุปกรณ์เสริม

2. การเลือกใบเลื่อย BI-METAL

หมายเลขใบเลื่อย BI-METAL ใน **ตารางที่ 3** มีการอธิบายบนบรรจุภัณฑ์ของอุปกรณ์เสริมพิเศษ

เลือกใบเลื่อยที่เหมาะสมโดยอ้างอิงจาก **ตารางที่ 3** และ **4** ด้านล่าง

ตารางที่ 3: ใบเลื่อย BI-METAL

หมายเลขใบเลื่อย	การใช้งาน	ความหนา (มม.)
เบอร์ 101	สำหรับตัดท่อเหล็กและสแตนเลสสตีลที่มีเส้นผ่านศูนย์กลางภายนอกน้อยกว่า 60 มม.	2.5 - 6
เบอร์ 103	สำหรับตัดท่อเหล็กและสแตนเลสสตีลที่มีเส้นผ่านศูนย์กลางภายนอกน้อยกว่า 60 มม.	2.5 - 6
เบอร์ 107	สำหรับตัดท่อเหล็กและสแตนเลสสตีลที่มีเส้นผ่านศูนย์กลางภายนอกน้อยกว่า 60 มม.	ต่ำกว่า 3.5
เบอร์ 109	สำหรับตัดท่อเหล็กและสแตนเลสสตีลที่มีเส้นผ่านศูนย์กลางภายนอกน้อยกว่า 60 มม.	2.5 - 6

หมายเหตุ

ใบเลื่อย BI-METAL เบอร์ 101 - เบอร์ 109 ขายแยกต่างหากเป็นอุปกรณ์เสริม

3. การเลือกใบเลื่อยสำหรับวัสดุอื่นๆ

ตารางที่ 4

วัสดุที่จะตัด	คุณภาพของวัสดุ	ความหนา(มม.)	หมายเลขใบเลื่อย
เหล็กแผ่น	แผ่นเหล็กละมุน	2.5 - 10	เบอร์ 2, 101, 103, 109
		ต่ำกว่า 3.5	เบอร์ 3, 107
โลหะที่ไม่ใช่เหล็ก	อะลูมิเนียม ทองแดง ทองเหลือง	5 - 20	เบอร์ 2, 101, 103, 109
		ต่ำกว่า 5	เบอร์ 3, 107
เรซิน สังเคราะห์	เฟนอลเรซิน เมลามีนเรซิน เป็นต้น	10 - 50	เบอร์ 2, 4, 101, 103
		5 - 30	เบอร์ 3, 5, 8, 107, 109
	ไวนีลคลอไรด์ อะครีลิกเรซิน เป็นต้น	10 - 60	เบอร์ 2, 4, 101, 103
		5 - 30	เบอร์ 3, 5, 8, 107, 109

การบำรุงรักษาและการตรวจสอบ

ข้อควรระวัง

ให้แน่ใจว่าได้ปิดสวิตช์ และถอดแบตเตอรี่ออกก่อนที่จะทำการบำรุงรักษาและตรวจสอบ

1. **การตรวจสอบใบเลื่อย**
   ถ้าใช้ใบเลื่อยที่ที่อหรือชำรุดเป็นเวลานาน จะลดประสิทธิภาพงานเลื่อย และมอเตอร์อาจรับแรงมากเกินไป ให้เปลี่ยนใบเลื่อยเสียใหม่ทันทีเมื่อพบว่าสึกหรอมากเกินไป
2. **การตรวจสอบสกรูยึด**
   ให้ตรวจสอบสกรูยึดเสมอ และให้ขันไว้อย่างถูกต้อง ถ้าสกรูหลวม ให้ขันเสียใหม่โดยทันที มิฉะนั้นอาจเกิดอันตรายมาก
3. **การบำรุงรักษามอเตอร์**
   การขดลวดของมอเตอร์เป็นหัวใจสำคัญของเครื่องมือไฟฟ้า ให้ใช้ความระมัดระวังเพื่อไม่ให้ขดลวดของมอเตอร์ชำรุดและ/หรือเปียกน้ำหรือน้ำมัน
4. **การทำความสะอาดภายนอก**
   เมื่อเลื่อยไร้สายสกปรก ให้เช็ดด้วยผ้านุ่มที่แห้ง หรือผ้าชุบน้ำสบู่บิดหมาดๆ ห้ามใช้ตัวทำละลายคลอรีน น้ำมัน หรือทินเนอร์ เนื่องจากสารเหล่านี้จะทำให้พลาสติกละลาย
5. **การจัดเก็บ**
   เก็บเครื่องมือในสถานที่ซึ่งมีอุณหภูมิต่ำกว่า 40°C และห่างจากมือเด็ก

หมายเหตุ

การจัดเก็บแบตเตอรี่ลิเธียม-ไอออน
แบตเตอรี่ลิเธียม-ไอออนจะต้องชาร์จไฟเต็มก่อนจัดเก็บ
การเก็บรักษาแบตเตอรี่ต่อเนื่อง (3 เดือนหรือมากกว่า) ด้วยพลังงานต่ำอาจทำให้ประสิทธิภาพการทำงานลดลง โดยเฉพาะการลดอายุการใช้งานแบตเตอรี่ หรือทำให้แบตเตอรี่ไม่สามารถเก็บพลังงานไว้ได้ ทั้งนี้สามารถแก้ไขปัญหาเมื่อเวลาใช้งานแบตเตอรี่ลดลงอย่างเห็นได้ชัดได้โดยการชาร์จไฟและใช้งานแบตเตอรี่ซ้ำ ๆ กันสองถึงห้ารอบ หากเวลาใช้งานแบตเตอรี่สั้นลงมากแม้ว่าจะมีการชาร์จและใช้งานซ้ำหลายรอบแล้ว แสดงว่าแบตเตอรี่หมดสภาพแล้วและต้องจัดซื้อแบตเตอรี่ใหม่

ข้อควรระวัง

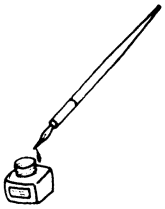
ต้องปฏิบัติตามระเบียบและมาตรฐานความปลอดภัยของแต่ละประเทศในการใช้งานและบำรุงรักษาเครื่องมือไฟฟ้า

ข้อสังเกตที่สำคัญเกี่ยวกับแบตเตอรี่สำหรับเครื่องมือไฟฟ้าไร้สายของ HiKOKI

โปรดใช้แบตเตอรี่ของแท้ที่เรากำหนดไว้เสมอ เราไม่สามารถรับประกันความปลอดภัยและสมรรถนะของเครื่องมือไฟฟ้าไร้สายของเราได้ เมื่อใช้กับแบตเตอรี่ที่นอกเหนือจากที่เรากำหนดไว้ หรือเมื่อแบตเตอรี่ถูกถอดชิ้นส่วนหรือมีการดัดแปลง (เช่น การถอดชิ้นส่วนและทดแทนเซลล์แบตเตอรี่ หรือชิ้นส่วนภายใน)

หมายเหตุ

เนื่องจาก HiKOKI มีแผนงานวิจัยและพัฒนาอย่างต่อเนื่อง รายละเอียดจำเพาะนี้จึงอาจเปลี่ยนแปลงได้โดยไม่ต้องแจ้งล่วงหน้า



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