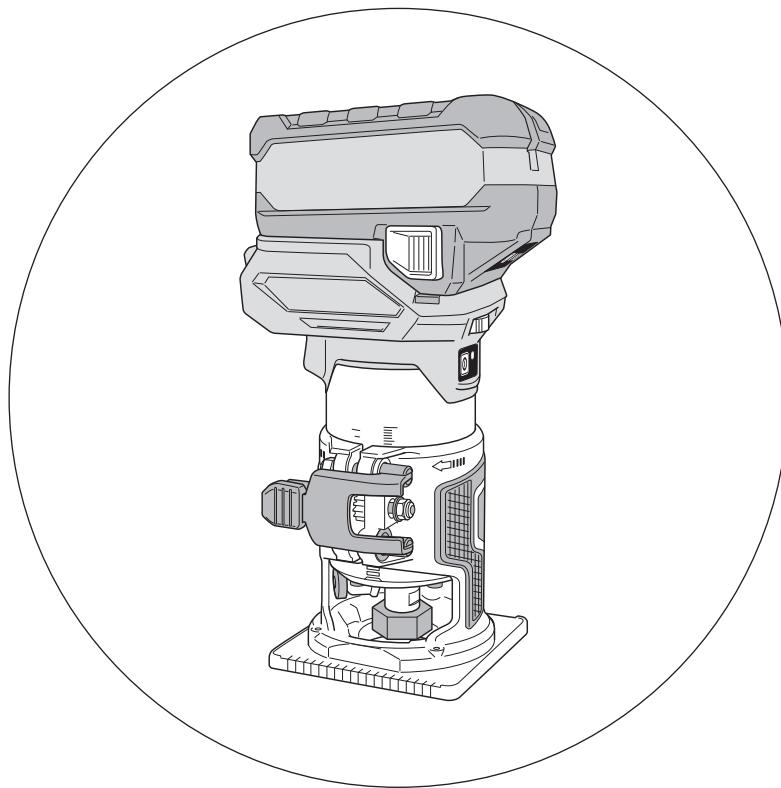
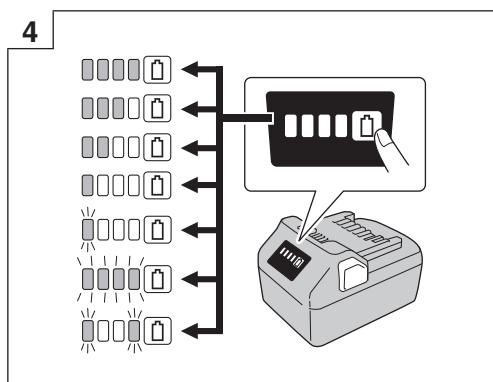
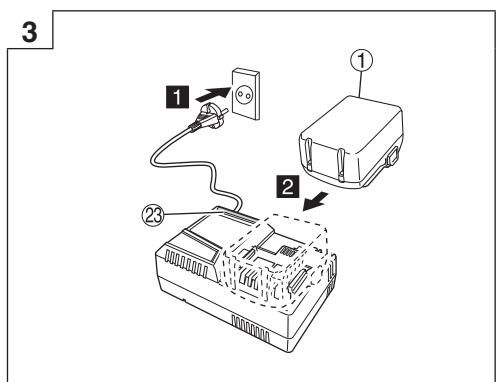
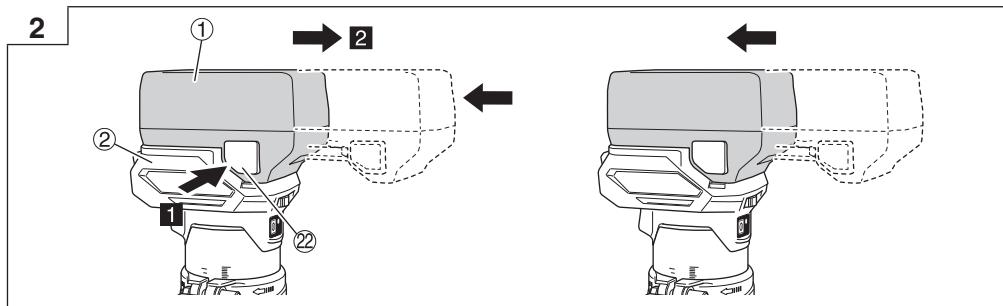
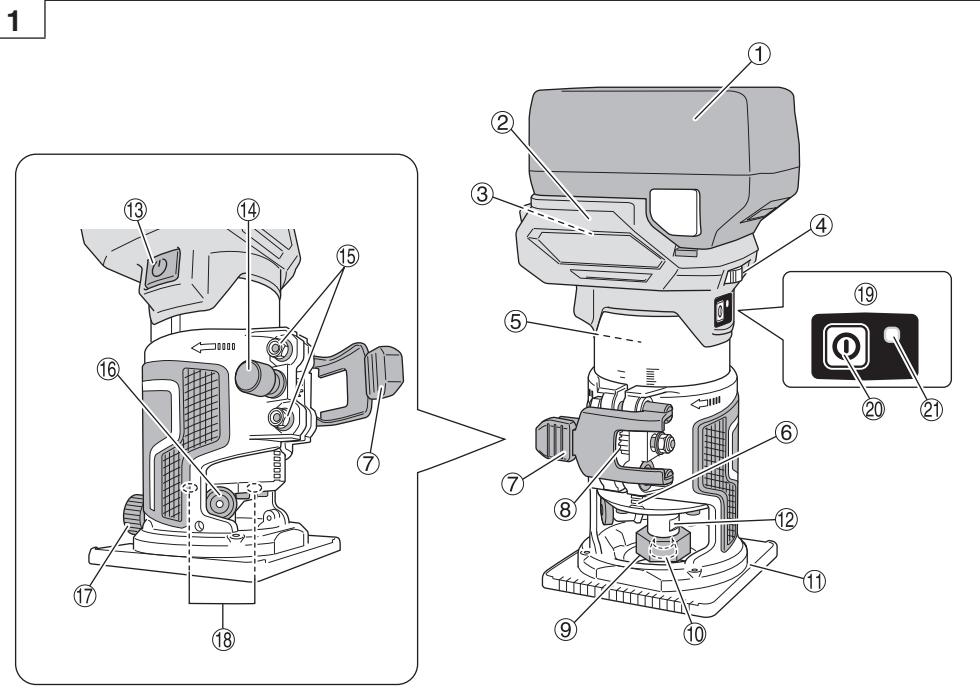


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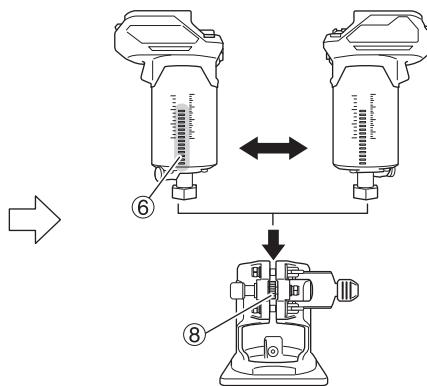
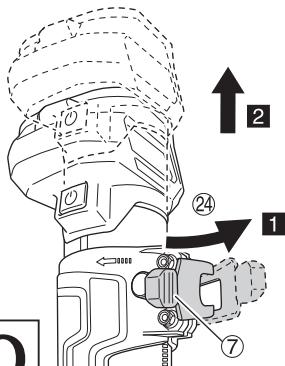


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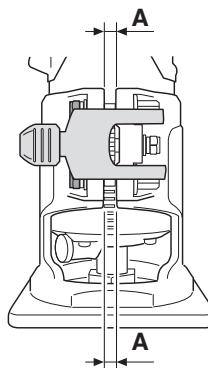
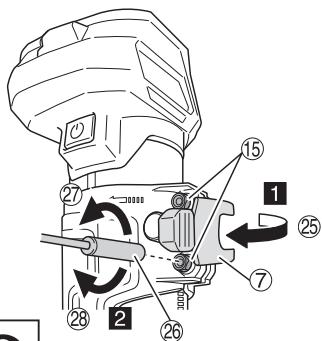
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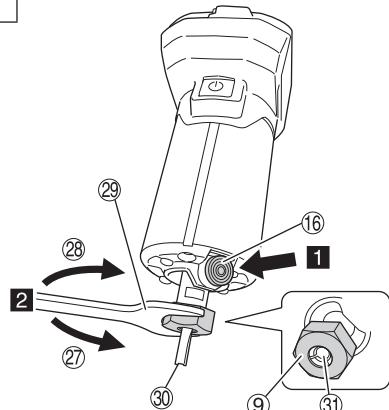
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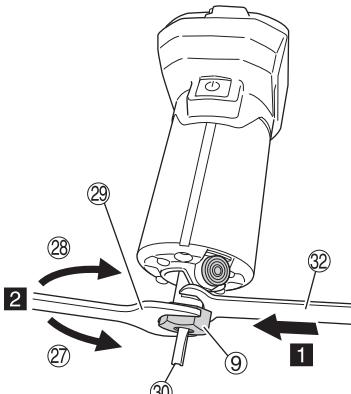
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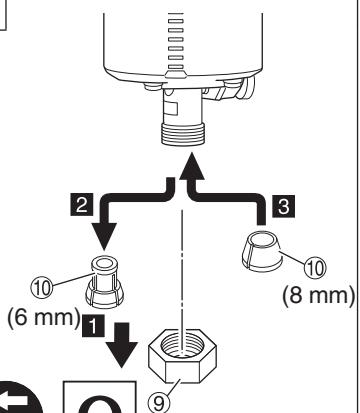
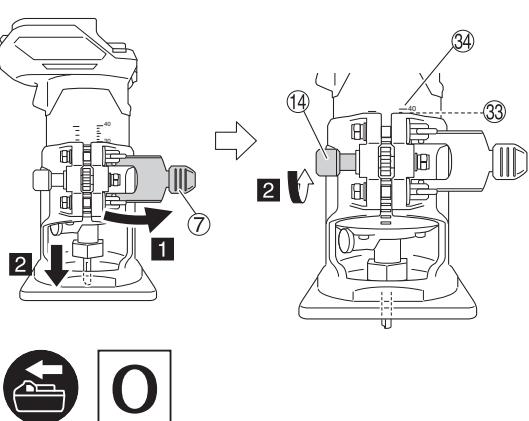
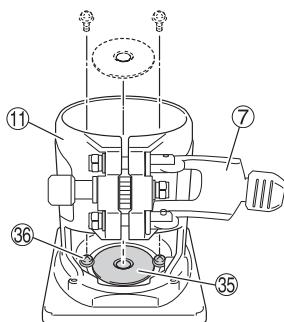
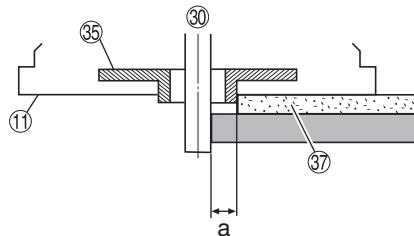
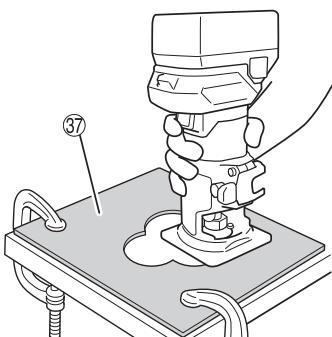
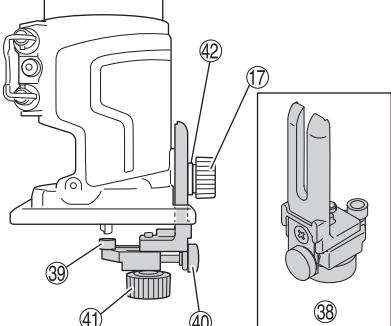


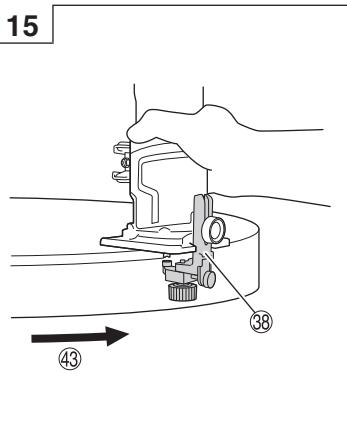
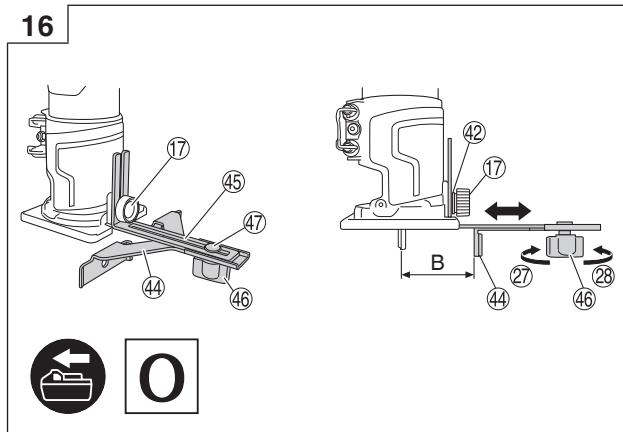
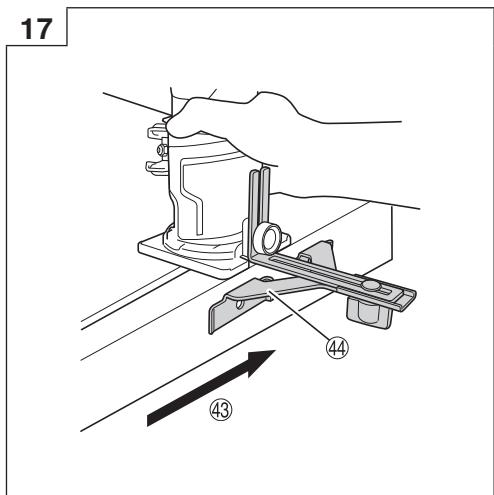
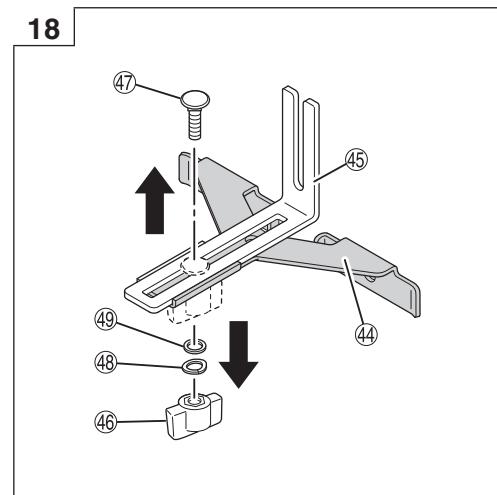
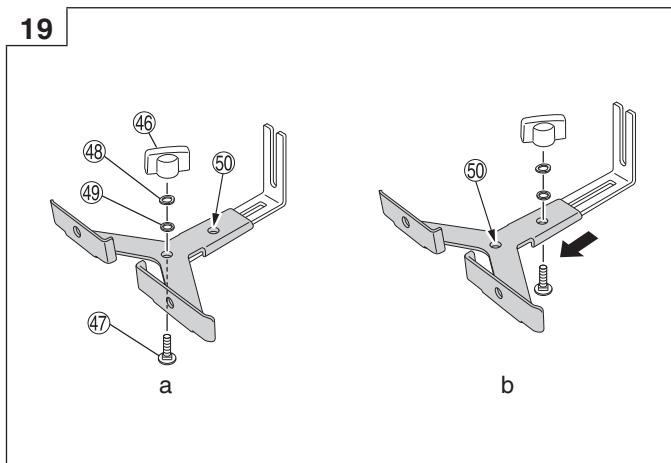
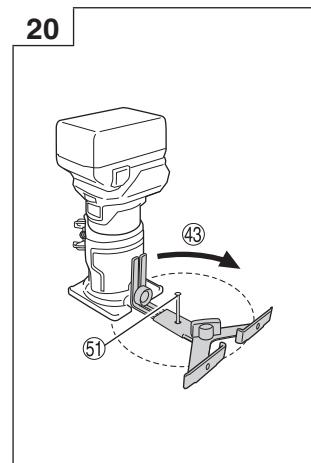
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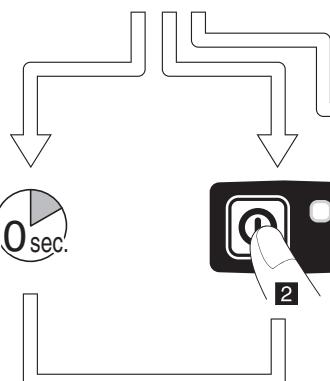
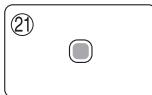
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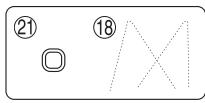
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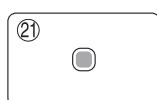
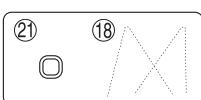
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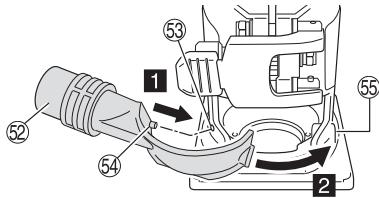
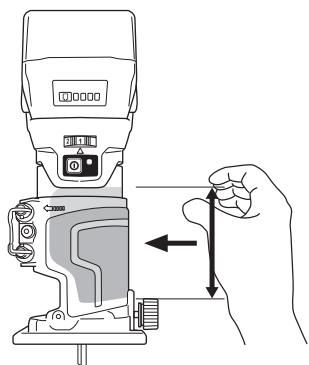
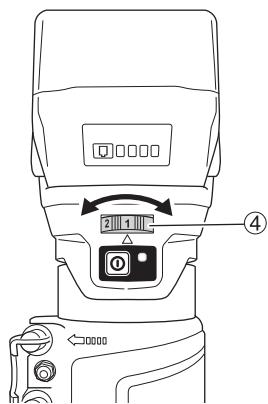
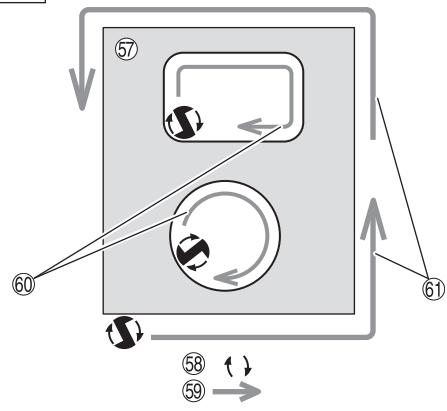
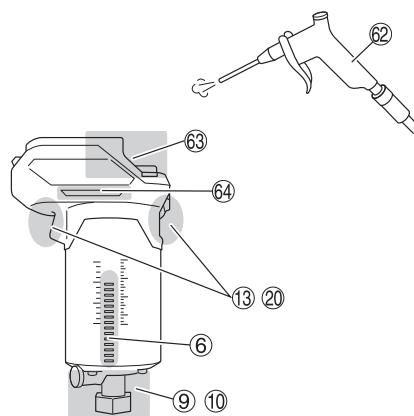


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22**24****23****25****26**

GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

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

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.

f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**

Use of an RCD reduces the risk of electric shock.

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 a dust mask, non-slip 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 and clothing 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.

h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.**

A careless action can cause severe injury within a fraction of a second.

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 remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.**

Such preventive safety measures reduce the risk of starting the power tool accidentally.

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 and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.**

Many accidents are caused by poorly maintained power tools.

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.

h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.**

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5) Battery tool use and care**a) 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.

b) Use power tools only with specifically designated battery packs.

Use of any other battery packs may create a risk of injury and fire.

c) 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.

d) 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.

e) Do not use a battery pack or tool that is damaged or modified.

Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.

f) Do not expose a battery pack or tool to fire or excessive temperature.

Exposure to fire or temperature above 130°C may cause explosion.

g) Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.

Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

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.

b) Never service damaged battery packs.

Service of battery packs should only be performed by the manufacturer or authorized service providers.

PRECAUTION

Keep children and infirm persons away.

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

ADDITIONAL SAFETY WARNINGS

- Always charge the battery at a temperature of 0°C–40°C. A temperature of less than 0°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.
- 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 allow foreign matter to enter the hole for connecting the rechargeable battery.
- Never disassemble the rechargeable battery and charger.
- Never short-circuit the rechargeable battery. Shortcircuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.
- Do not dispose of the battery in fire. If the battery is burnt, it may explode.
- 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.
- 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.
- When using this unit continuously, the unit may overheat, leading to damage in the motor and switch. Therefore, whenever the housing becomes hot, give the tool a break for a while.
- If the machine is used continuously at low speed, an extra load is applied to the motor which can result in motor seizure. Always operate the power tool so that the bit is not caught by the material during operation. Always adjust the bit speed to enable smooth cutting.
- Preparing and checking the work environment. Make sure that the work site meets all the conditions laid forth in the precautions.
- Make sure that the battery is installed firmly. If it is at all loose it could come off and cause an accident.
- Dust produced in operation
The dust produced in normal operation may affect the operator's health. Either of following way is recommended.
 - Wear a dust mask**
 - Use external dust collection equipment (optional accessories) (Fig. 22)**
- When using the external dust collection equipment, connect the adapter with the hose from external dust collection equipment.
- Handle the bits very carefully.
- Check the bit carefully for cracks or damage before operation. Replace cracked or damaged bit immediately.
- Avoid cutting nails. Inspect for and remove all nails from the workpiece before operation.
- Make sure to securely hold the tool during operation. Failure to do so can result in accidents or injuries. (Fig. 24)
- Make sure the bit is not contacting the workpiece before the switch is turned on.
- Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate improperly installed bit.
- Be careful of the bit rotating direction and the feed direction.

CORDLESS TRIMMER SAFETY WARNINGS**1. Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.**

Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

2. Use clamps or another practical way to secure and support the workpiece to a stable platform.

Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.

3. The bit and shaft, collet nut, collet cone are very hot immediately after operation. Avoid bare hand contact with the bit for any reason.**4. Use bits of the correct shank diameter suitable for the speed of the tool.**

English

21. Always switch off and wait for the bit to come to a complete stop before removing the tool from workpiece.
22. After changing the bits or making any adjustments, make sure the collet nut and any other adjustment device are securely tightened.
Loose adjustment device can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.
23. Do not expose directly your eye to the light by looking into the light.
If your eye is continuously exposed to the light, your eye will be hurt.
24. Never touch moving parts.
Never place your hands, fingers or other body parts near the tool's moving parts.
25. NEVER leave tool running unattended. Turn power off.
Don't leave tool until it comes to a complete stop.
26. The power tool is equipped with a temperature protection circuit to protect the motor. Continuous work may cause the temperature of the unit to rise, activating the temperature protection circuit and automatically stopping operation. If this happens, allow the power tool to cool before resuming use.
27. Do not give a strong shock to the switch panel or break it.
It may lead to a trouble.
28. Do not use the product if the tool or the battery terminals (battery mount) are deformed.
Installing the battery could cause a short circuit that could result in smoke emission or ignition.
29. Keep the tool's terminals (battery mount) free of swarf and dust.
 - Prior to use, make sure that swarf and dust have not collected in the area of the terminals.
 - During use, try to avoid swarf or dust on the tool from falling on the battery.
 - When suspending operation or after use, do not leave the tool in an area where it may be exposed to falling swarf or dust.
Doing so could cause a short circuit that could result in smoke emission or ignition.
30. Always use the tool and battery at temperatures between -5°C and 40°C.
31. When operating the tool, do not wear work gloves as such cloth wear can get caught in the tool.

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 a 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.

WARNING

If a conductive foreign matter enters in the terminal of lithium ion battery, the battery may be shorted, causing fire. When storing the lithium ion battery, obey surely the rules of following contents.

- Do not place conductive debris, nail and wires such as iron wire and copper wire in the storage case.
- To prevent shorting from occurring, load the battery in the tool or insert securely the battery cover for storing until the ventilator is not seen.

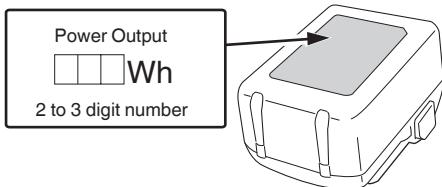
REGARDING LITHIUM-ION BATTERY TRANSPORTATION

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.
- If the BSL36B18X is installed in the power tool, the power output will exceed 100 Wh and the unit will be classified as Dangerous Goods for freight classification.



㉙	Template guide	㉚	Center hole
㉚	Screw	㉛	Nail (rotation axis)
㉛	Template	㉜	Dust collector
㉜	Trimmer guide	㉝	Positioning hole
㉝	Guide pin	㉞	Protrusion
㉞	Stop screw	㉟	Screw hole
㉟	Knob bolt (C)	㉟	Knob bolt (D)
㉟	Washer (A)	㉟	Work piece
㉟	Body feed direction	㉟	Rotation of bit
㉟	Straight guide	㉟	Trimmer feed
㉟	Guide holder	㉟	Inner peripheral cutting (Clockwise)
㉟	Wing nut	㉟	Outer peripheral cutting (Counterclockwise)
㉟	Bolt	㉟	Air gun
㉟	Wave washer	㉟	Battery sliding grooves
㉟	Washer	㉟	Ventilation holes

NAMES OF PARTS (Fig. 1–Fig. 26)

①	Battery	⑯	LED light
②	Head cover	⑰	Switch Panel
③	Name plate	⑲	Power button
④	Dial	⑳	Power indicator lamp
⑤	Motor	㉑	Latch
⑥	Rack portion	㉒	Charge indicator lamp
⑦	Lock lever	㉓	Removing
⑧	Pinion	㉔	Fixing
⑨	Collet nut	㉕	Socket wrench (8 mm)
⑩	Collet cone	㉖	Loosen
⑪	Base ass'y	㉗	Tighten
⑫	Shaft	㉘	23 mm Wrench
⑬	Switch button	㉙	Bit
⑭	Knob bolt (A)	㉚	Collet cone hole
⑮	Fixing nut	㉛	13 mm Wrench
⑯	Lock pin	㉝	Upper end of base ass'y
⑰	Knob bolt (B)	㉞	Scale

SYMBOLS

WARNING

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

	M3608DA: Cordless Trimmer
	To reduce the risk of injury, user must read instruction manual.
	Always wear eye protection.
	Always wear hearing protection.
	Direct current
	Rated voltage
	No-load speed
	Disconnect the battery
	Switching ON
	Switching OFF
	Warning
	Prohibited action

English

Battery

	Lights ; The battery remaining power is over 75%
	Lights ; The battery remaining power is 50%–75%.
	Lights ; The battery remaining power is 25%–50%.
	Lights ; The battery remaining power is less than 25%
	Blinks ; The battery remaining power is nearly empty. Recharge the battery soonest possible.
	Blinks ; Output suspended due to high temperature. Remove the battery from the tool and allow it to fully cool down.
	Blinks ; Output suspended due to failure or malfunction. The problem may be the battery so please contact your dealer.

2. Battery

Model	BSL36A18X	BSL36B18X
Voltage	36 V / 18 V (Automatic Switching*)	
Battery capacity	2.5 Ah / 5.0 Ah	4.0 Ah / 8.0 Ah
Available cordless products**	(Automatic Switching*)	
Available charger	Multi volt series, 18 V product	
	Sliding charger for lithium ion batteries	

* The tool itself will automatically switch over.

** Please see our general catalogue for details.

CHARGING

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

1. **Connect the charger's power cord to the receptacle.**
When connecting the plug of the charger to a receptacle, the charge indicator lamp will blink in red (At 1- second intervals).

2. **Insert the battery into the charger.**

Firmly insert the battery into the charger as shown in Fig. 3 (on page 2).

3. **Charging**

When inserting a battery in the charger, the charge indicator lamp will blink in blue.

When the battery becomes fully recharged, the charge indicator lamp will light up in green. (See **Table 1**)

(1) Charge indicator lamp indication

The indications of the charge indicator lamp will be as shown in **Table 1**, according to the condition of the charger or the rechargeable battery.

STANDARD ACCESSORIES

In addition to the main unit (1 unit), the package contains the accessories listed on page 29.

Standard accessories are subject to change without notice.

APPLICATIONS

○ Woodworking jobs centered on grooving and chamfering.

SPECIFICATIONS

1. Power tool

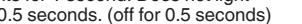
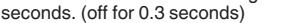
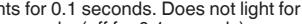
Model	M3608DA
Voltage	36 V
No-Load Speed	10000–30000 /min
Collet cone capacity	8 mm, 6 mm or 1/4"
Main Body Stroke	40 mm
Weight	1.9 kg (BSL36A18X) 2.2 kg (BSL36B18X)

* Existing batteries (BSL3660/3620/3626, BSL18xx series, etc.) cannot be used with this tool.

NOTE

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

Table 1

Indications of the charge indicator lamp				
Charge indicator lamp (RED / BLUE / GREEN / PURPLE)	Before charging	Blinks (RED)	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds) 	Plugged into power source
	While charging	Blinks (BLUE)	Lights for 0.5 seconds. Does not light for 1 second. (off for 1 second) 	Battery capacity at less than 50%
	While charging	Blinks (BLUE)	Lights for 1 second. Does not light for 0.5 seconds. (off for 0.5 seconds) 	Battery capacity at less than 80%
	While charging	Lights (BLUE)	Lights continuously	Battery capacity at more than 80%
	Charging complete	Lights (GREEN)	Lights continuously (Continuous buzzer sound: about 6 seconds)	
	Overheat standby	Blinks (RED)	Lights for 0.3 seconds. Does not light for 0.3 seconds. (off for 0.3 seconds) 	Battery overheated. Unable to charge. (Charging will commence when battery cools)
	Charging impossible	Flickers (PURPLE)	Lights for 0.1 seconds. Does not light for 0.1 seconds. (off for 0.1 seconds)  (Intermittent buzzer sound: about 2 seconds)	Malfunction in the battery or the charger

(2) Regarding the temperatures and charging time of the rechargeable battery
The temperatures and charging time will become as shown in **Table 2**.

Table 2

Charger		UC18YSL3				
Battery	Type of battery	Li-ion				
	Temperatures at which the battery can be recharged	0°C–50°C				
	Charging voltage	V	14.4		18	
			BSL14xx series		BSL18xx series	
			(4 cells)	(8 cells)	(5 cells)	(10 cells)
	Charging time, approx. (At 20°C)	min	BSL1415S : 15 BSL1415 : 15 BSL1415X : 15 BSL1420 : 20 BSL1425 : 25 BSL1430C : 30	BSL1430 : 20 BSL1440 : 26 BSL1450 : 32 BSL1460 : 38	BSL1815S : 15 BSL1815 : 15 BSL1815X : 15 BSL1820 : 20 BSL1825 : 25 BSL1830C : 30 BSL1850C : 32	BSL1830 : 20 BSL1840 : 26 BSL1850 : 32 BSL1860 : 38

NOTE

The recharging time may vary according to the ambient temperature and power source voltage.

4. Disconnect the charger's power cord from the receptacle.
5. 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.

Regarding electric discharge in case of new batteries, etc.

As the internal chemical substance of new batteries and batteries that have not been used for an extended period is not activated, the electric discharge might be low when using them the first and second time. This is a temporary phenomenon, and normal time required for recharging will be restored by recharging the batteries 2–3 times.

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

- If the battery is charged while it is heated because it has been left for a long time in a location subject to direct sunlight or because the battery has just been used, the charge indicator lamp of the charger lights for 0.3 seconds, does not light for 0.3 seconds (off for 0.3 seconds). In such a case, first let the battery cool, then start charging.
- When the charge indicator lamp flickers (at 0.2-second intervals), check for and take out any foreign objects in the charger's battery connector. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.
- Since the built-in micro computer takes about 3 seconds to confirm that the battery being charged with UC18YSL3 is taken out, wait for a minimum of 3 seconds before reinserting it to continue charging. If the battery is reinserted within 3 seconds, the battery may not be properly charged.

PRIOR TO OPERATION

WARNING

Pull out battery before carrying out any adjustment, servicing or maintenance.

When finished with a job, pull out the battery.

1. Removing and inserting the battery (Fig. 2)

2. Remaining battery indicator (Fig. 4)

3. Installation direction of base ass'y (Fig. 5)

The switch position can be changed according to preference by reversing the installation direction of the base ass'y.

4. Fix strength adjustment method (Fig. 6)

If there is a decline in the fix strength, adjust as follows. Tilt the lock lever towards the fixed side, and tighten a fixing nut (two locations) using the socket wrench (8 mm).

Fix it so that upper and lower spaces "A" of the base ass'y are equal.

NOTE

If the operation load of the lock lever is too heavy, there is too much fixed strength.

As this situation may damage parts, each fixing nut (two locations) should be loosened to readjust the fixed strength.

INSTALLING AND REMOVING BITS

WARNING

Be sure to switch power OFF and pull out the battery to avoid serious trouble.

1. Installation using the lock pin (Fig. 7)

- (1) Remove the base ass'y from the body.
- (2) Deeply insert the bit into collet cone hole. (The distance is 15 mm or more from side of collet nut.)
- (3) With the bit inserted and pressing the lock pin holding the shaft, use the 23 mm wrench to firmly tighten the collet nut in a clockwise direction (viewed from under the tool). (Fig. 7)
- (4) Fit the removed base ass'y to the rack provided on the body's outer housing after adjusting the pinion of the base ass'y thereto. Then tilt the lock lever towards the fix side, and fix the base ass'y securely.

When removing the bits, do so by following the steps for installing bits in reverse order.

CAUTION

- Ensure that the collet nut is firmly tightened after inserting a bit. Failure to do so will result in damage to the collet cone.
- Ensure that the lock pin is not inserted into the shaft after tightening the collet nut. Failure to do so will result in damage to the collet cone, lock pin and shaft.

2. Install without using the lock pin (Fig. 8)

- (1) Remove the base ass'y from the body.
- (2) Deeply insert the bit into collet cone hole. (The distance is 15 mm or more from side of collet nut.)
- (3) Use a 13 mm wrench to secure the shaft, and securely tighten the collet nut with the included wrench.
- (4) Fit the removed base ass'y to the rack provided on the body's outer housing after adjusting the pinion of the base ass'y thereto. Then tilt the lock lever towards the fix side, and fix the base ass'y securely.

When removing the bits, do so by following the steps for installing bits in reverse order.

CAUTION

- Ensure that the collet nut is firmly tightened after inserting a bit. Failure to do so will result in damage to the collet cone.

3. Exchanging the collet cone (Fig. 9)

- (1) Securing the shaft, remove the collet nut, and exchange the collet cone.
- (2) Attach the nut, insert the bit, and tighten the nut.

NOTE

When tightening the collet nut, make sure that the bit is inserted.

Otherwise, the collet cone may become misshapen.

HOW TO USE THE TRIMMER

1. Adjusting depth of cut (Fig. 10)

- (1) Place the tool on a flat wood surface.
- (2) Tilt the lock lever towards the remove side, and turn knob bolt (A) to lower the unit until the tip of the bit lightly touches the material. In this position, the scale on the upper end of the base ass'y can be read.
- (3) Turn knob bolt (A) upwards to adjust the scale to the desired cutting depth according in accordance with the position read.

2. Guiding the trimmer

WARNING

Be sure to switch power OFF and pull out the battery to avoid serious trouble.

(1) Template Guide (Standard accessory)

It is handy to process with a template a number of materials in one same shape.

(In this case 6 x 6 mm or 1/4" x 1/4" straight bit is usable.)

- ① Remove the base ass'y from the main unit.
- ② Install the template guide in the recessed part of the base ass'y and secure it with two screws. (Fig. 11)

NOTE

Tighten the two screws moderately. Optimum tightening torque is 10-15 kg-cm.

- ③ Install the base ass'y in the main unit.

CAUTION

When fit the template guide, the upper part of the template guide must not touch the collet nut.

When using the trimmer along the interior plane of the template, the dimensions of the finished product will be less than the dimensions of the template by a amount equal to dimension "a", the difference between the radius of the template guide and the radius of the bit. The reverse is true when using the trimmer along the exterior of the template. (Fig. 12)

Secure the template to the workpiece. Feed the trimmer in the manner that the template guide moves along the template as shown in Fig. 13.

(2) Trimmer guide (Standard accessory)

The guide is handy when used in processing of materials such as trimming and beveling of plywood.

- ① Fit the trimmer guide on the base ass'y with knob bolt (B).
- ② Loosen knob bolt (B) to move the trimmer guide up and down.
- ③ Loosen knob bolt (C) and turn the stop screw to move the guide pin. (Fig. 14)

After moving the guide pin, tighten knob bolt (C) to secure it.

- ④ As shown in Fig. 15, securely attach the bottom of the base ass'y to processed surface of the materials. Feed the trimmer with the guide pin alongside the material.

(3) Straight guide (Standard accessory)

Application:

- It is handy when used for linear processing work such as beveling, grooving and the like.
- ① Fit the straight guide with knob bolt (B) on the base ass'y and fix it.
- ② Adjust the length "B" from the bit to the surface of straight guide by loosening the wing nut and moving the straight guide as necessary. (Fig. 16)
- ③ As shown in Fig. 17, securely attach the bottom of the base ass'y to processed surface of the materials. Feed the trimmer while keeping the guide plane on the surface of the materials.

○ By exchanging the straight guide with the guide holder, the tool can be used for circle cutting work.

[Processing range (distance from the enter of rotation to the center of the bit)]

Minimum: 84 mm

Maximum: 182 mm

Note that circles measuring 102 to 124 mm and 143 mm to 158 mm cannot be processed.

- ① Turn wing nut and remove the bolt and washers (2 pieces).

- ② Reverse the top and bottom of the straight guide and attach it to the guide holder. (Fig. 18)

Depending on the radius of the circle to be processed, the holes will vary for the wing nut and bolt.

Processing a circle with a radius of 84 to 102 mm (Fig. 19-a)

Processing a circle with a radius of 124 to 182 mm (Fig. 19-b)

③ Installation to the tool is the same as that for straight line processing.

④ Align the hole of the straight guide left in the center position of the circle processing, and firmly secure with a nail less than 6 mm in diameter which will act as a rotation axis.

Rotate the body towards the right. (Fig. 20)

3. Switch operation (Fig. 21)

The unit will operate when the switch button is pressed after pressing the power button.

See Fig. 21 for specifications on button controls.

The power indicator lamp and LED light will always operate together with the power button.

If the power is ON and the tool is not operated for approximately 10 seconds, the power will be automatically switched OFF and the power indicator lamp and LED light will also be switched off.

4. Dust Collector Set (Standard accessory) (Fig. 22)

Connect the dust collector set cleaner to collect dust.

- ① Slot the protrusion on the inside of the dust collector to the positioning hole at the front lower left of the base ass'y, and attach it to cover the front of the base ass'y.
- ② Using the included knob bolt (D) to secure the dust collector hole to the body's screw hole.

5. Adjusting the rotation speed

The M3608DA has an electronic control system that allows rotation speed changes.

As shown in Fig. 23, dial position "1" is for minimum speed, and position "6" for maximum speed.

6. Cutting

CAUTION

- Wear eye protection when operating this tool.
- Keep your hands, face and other body parts away from the bits and any other rotating parts, while operating the tool.

NOTE

- Do not press the lock pin while the motor is rotating. Also, do not switch the tool on while pressing the lock pin.
- Doing so may damage the lock pin and/or shaft as well as result in injury.
- Please limit the cutting depth of a single cut to under 5 mm.
- When cutting a deep groove, repeat the cut 2 or 3 times. Deep cutting operations can make the tool difficult to control and may overload the motor, resulting in malfunction.
- Moving the tool forward fast may cause a poor quality of cut, or damage to the bit or motor. Moving the tool forward too slowly may burn and mar the cut.

The proper feed rate will depend on the bit size, the kind of workpiece and depth of cut. Before beginning the cut on the actual workpiece, it is advisable to make a sample cut on a piece of scrap lumber. This will show exactly how the cut will look as well as enable you to check dimensions.

- Abnormalities and overloads will trigger the overload protector, and stop operation. Remove the load immediately, and turn the power off, then on. The rotation speed should return to normal.

It is recommended that the most appropriate guide be used which is suitable to the type of the work in order to carry out the work exactly without failure.

(Refer to "2. Guiding the trimmer".) The workpieces to be processed should be firmly fixed.

English

- (1) Keep the bit separated from the workpieces and hold the body firmly before switch is turned on. (Fig. 24)
- (2) The bit rotates clockwise (arrow direction indicated on the base ass'y). To obtain maximum cutting effectiveness, feed the trimmer in conformance with the feed directions shown in Fig. 25.

LED LIGHT WARNING SIGNALS (Fig. 27)

This product features functions that are designed to protect the tool itself as well as the battery. When any of the safeguard functions are triggered, any of the LED light will blink as described in **Table 3**.

In this case, follow the instructions described under corrective action.

NOTE

On occasion, about two seconds after stopping operation of the tool, the LED light will shut off and the power will switch OFF.

This means that either the power is near empty or that the battery is overheated.

In such a case, allow the battery to cool and then recharge it for use.

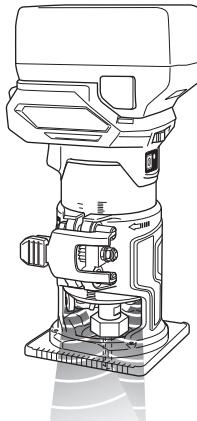


Fig. 27

Table 3

Safeguard Function	LED Light Display	Corrective Action
Overload Protection	On 0.1 second/off 0.1 second █ █ █ █ █ █ █ █ █ █ █ █ █ █ █ █	Remove the cause of the overloading.
Temperature Protection	On 0.5 second/off 0.5 second █ █ █ █ █ █ █ █	Allow the tool and battery to thoroughly cool.

MAINTENANCE AND INSPECTION

WARNING

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

1. Inspecting the bit

Continued use of a dull or damaged bit will result in reduced cutting efficiency and may cause overloading of the motor. Replace the bit 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. Inspection of terminals (tool and battery)

Check to make sure that swarf and dust have not collected on the terminals.

On occasion check prior, during and after operation.

CAUTION

Remove any swarf or dust which may have collected on the terminals.

Failure to do so may result in malfunction.

5. Cleaning on the outside

WARNING

Wear protective glasses and a dust mask when cleaning the filter with an air gun.

Failure to do so may result in inhalation or exposure of the eyes to debris or dust.

Use an air gun or other similar tool to remove materials, chips, etc. which have adhered to the body (especially where indicated in Fig. 26), and wipe with a soft dry cloth or a cloth moistened with soapy water. Do not use chlорic solvents, gasoline or paint thinner, for they melt plastics.

6. Storage

Store the power tool and battery 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.

SELECTING ACCESSORIES

The accessories of this machine are listed on page 30. For details regarding each bit type, please contact the HiKOKI Authorized Service Center.

NOTE

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

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 those designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal parts).

TROUBLESHOOTING

WARNING

- To avoid injury from an accidental start, turn the switch OFF and remove the plug from the power source or remove the battery from the main body before making any adjustments.
- All electrical or mechanical repairs should be done only by qualified service technicians. Contact HiKOKI Authorized Service Center.

1. Power tool

Problem	Possible Cause	Remedy
Tool doesn't run	No remaining battery power	Charge the battery.
	Battery isn't fully installed.	Push the battery in until you hear a click.
	The power is OFF.	Press the power button to switch the power ON.
Tool suddenly stopped	Tool was overburdened	Get rid of the problem causing the overburden.
	Battery or tool overheated	During operation, lighten the applied pressure.
	No remaining battery power	Allow the tool and battery to thoroughly cool.
Doesn't cut well	The bit is worn or missing teeth.	Replace with a new bit.
	The collet chuck is loose.	Firmly tighten the collet chuck.
Battery cannot be installed	Attempting to install a battery other than that specified for the tool.	Please install batteries that are multi volt or BSL18xx series.

2. Charger

Symptom	Possible cause	Remedy
The charge indicator lamp rapidly flickers purple, and battery charging doesn't begin.	The battery is not inserted all the way.	Insert the battery firmly.
	There is foreign matter in the battery terminal or where the battery is attached.	Remove the foreign matter.
The charge indicator lamp blinks red, and battery charging doesn't begin.	The battery is not inserted all the way.	Insert the battery firmly.
	The battery is overheated.	If left alone, the battery will automatically begin charging if its temperature decreases, but this may reduce battery life. It is recommended that the battery be cooled in a well-ventilated location away from direct sunlight before charging it.
Battery usage time is short even though the battery is fully charged.	The battery's life is depleted.	Replace the battery with a new one.
The battery takes a long time to charge.	The temperature of the battery, the charger, or the surrounding environment is extremely low.	Charge the battery indoors or in another warmer environment.
	The charger's vents are blocked, causing its internal components to overheat.	Avoid blocking the vents.
	The cooling fan is not running.	Contact a HiKOKI Authorized Service Center for repairs.

一般安全規則

△ 警告

閱讀所有安全警告說明

未遵守警告與說明可能導致電擊、火災或其他嚴重傷害。

請妥善保存本使用說明書，以供未來參考之用。

「電動工具」一詞在警告中，係指電源操作（有線）之電動工具或電池操作（無線）之電動工具。

1) 工作場所安全

- a) 保持工作場所清潔及明亮。
雜亂或昏暗的區域容易發生意外。
- b) 勿在易產生爆炸之環境中操作，譬如易燃液體、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，確保兒童及過往人員遠離。
分神會讓您失去控制。

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) 避免身體接觸到地面，諸如管子、散熱器、爐灶及冰箱。
如果您的身體接地或觸地，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繫的危險。
- d) 勿濫用電源線。請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繫之危險。
- e) 電動工具在室外操作時，請務必要使用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。
- f) 若無法避免在潮濕地區操作電動工具，請使用以漏電斷路器 (RCD) 來保護電源。
使用 RCD，可降低觸電危險。

3) 人員安全

- a) 保持機警，注意您正在做什麼，並運用正確常識操作電動工具。
當你感到疲勞或受藥品、酒精或醫療影響時，請勿操作電動工具。
操作中瞬間的不注意，可能造成人員嚴重的傷害。

- b) 使用個人防護裝備，經常配戴安全眼鏡。
配戴防塵口罩、防滑安全鞋、硬帽等防護裝備，或在適當情況下使用聽覺防護，可減少人員傷害。
- c) 防止意外發生。在連接電源或電池組、拿起或攜帶工具前，請確認開關是在「off」（關閉）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、首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。
使用集塵裝置可減少與灰塵相關的危險。
- h) 請勿因頻繁使用本工具，熟悉操作而忽略本工具的安全原則。
粗心的行動有可能瞬間即造成嚴重傷害。

- 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您所需。
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或關的位置，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) 進行任何調整、更換配件或收存電動工具時，必須將插頭與電源分開，且需將電池組從電動工具中取出。
此種預防安全措施，可減少意外開啟電動工具之危險。
- d) 收存停用之電動工具，需遠離兒童，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，檢查是否可動零件有錯誤的結合或卡住、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，保持銳利之切割鋒口，可減少卡住並容易控制。

g) 按照說明書使用電動工具、配件及刀具時，必須考量工作條件及所執行之工作。
若未依照這些使用說明操作電動工具時，可能造成相關之危害情況。

h) 保持把手和握持面乾燥、清潔，且未沾到油脂和潤滑油。
滑溜的把手和握持面在操作時會有安全上的問題，且可能造成本工具意外失去控制。

5) 電池式電動工具的使用及注意事項

a) 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。

b) 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。

c) 當電池組不再使用時，需保存好並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。

d) 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。

e) 請勿使用損壞或改造的電池組或電動工具。
損壞或改造的電池可能會發生不可預知的行為，進而導致火災、爆炸或受傷的風險。

f) 請勿使電池組或電動工具接觸到火源或處於溫度過高的地方。
接觸火源或溫度超過 130°C 可能會引起爆炸。

g) 請遵循所有充電指示，並且不要在說明書指定的溫度範圍之外為電池組或電動工具充電。
充電不當或溫度超出指定範圍可能會損壞電池並增加火災的風險。

6) 維修

a) 讓您的電動工具由合格修理人員僅使用相同的維修零件更換。
如此可確保電動工具的安全得以維持。

b) 切勿對損壞的電池組進行維修。
電池組的維修只能由製造商或授權服務維修店進行。

注意事項

不可讓孩童和體弱人士靠近工作場所。

應將不使用的電動工具存放在孩童和體弱人士伸手不及的地方。

充電式修剪機安全警告

- 進行切割配件可能接觸到暗線的操作時，請握著電動工具的絕緣手柄表面。
接觸到“通電”電線的切割配件可能使電動工具的金屬零件“通電”，而造成操作人員觸電。
- 使用夾具或其他可實施的方式將工件固定並支撐在穩定的平台上。
用手握住工件或用身體抵住工件會使其不穩定，並可能導致失去控制。
- 在剛操作後，刀刃和軸、筒夾螺帽、筒夾錐會非常熱。避免因任何原因徒手觸碰刀刃。
- 使用適合工具速度的正確長柄直徑的鑽頭。

附加安全警告

- 給電池充電時溫度必須為 0°C – 40°C。溫度低於 0°C 會導致過度充電，這是很危險的。不能在溫度高於 40°C 時給電池充電。
最合適的充電溫度是 20°C – 25°C。
- 請勿連續使用充電器。
完成一次充電後，將充電器放置約 15 分鐘後才能再次給電池充電。
- 勿讓雜質進入充電池連接口內。
- 切勿拆卸充電電池與充電器。
- 切勿使充電電池短路。
電池短路將會造成很大的電流和過熱，從而燒壞電池。
- 請勿將電池丟入火中。電池受熱會爆炸。
- 充電後電池壽命若太短不夠使用，請儘快將電池送往經銷店。不可將用過的電池丟棄。
- 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，將引起觸電事故或使充電器受損。
- 連續使用本機時，鎚鑽可能出現過熱而導致馬達和開關損壞。因此，每當機殼變熱時，讓工具休息一會兒。
- 如果以低速連續使用機器，會對馬達施加額外負載，從而導致馬達卡住。在操作電動工具的過程中，應使刀刃全程不被材料卡住。全程調整刀刃速度以實現滑順的切割。
- 準備並檢查作業環境。確保作業現場滿足安全注意事項中所述的所有條件。
- 確保電池安裝牢固。如果有鬆動，可能會脫落而造成事故。
- 操作中產生的粉塵。
正常操作時產生的粉塵可能影響操作員的健康。建議採用以下任一方式。

a) 戴上防塵面具

b) 使用外部集塵設備（可選配件）（圖 22）

使用外部集塵設備時，用外部集塵設備的軟管連接適配器。

14. 小心處理鑽頭。

15. 在操作之前，請仔細檢查鑽頭是否有破裂或損壞。立即更換破裂或損壞的鑽頭。

16. 避免切割釘子。在操作之前，檢查並移除工作材料上的所有釘子。

17. 操作時請務必牢牢地握住本工具。否則可能會導致事故或受傷。(圖 24)

18. 在打開開關之前，確保鑽頭未與工作材料接觸。

19. 在實際的工作材料上使用本工具之前，請先讓工具運行一段時間。注意是否有振動或搖晃，這可能表示鑽頭安裝不正確。

20. 注意鑽頭旋轉方向和進給方向。

21. 從工作材料移除工具之前，請總是關閉電源並等待鑽頭完全停止。

22. 更換刀刃或進行任何調整後，確保筒夾螺帽和其他任何調整裝置都已牢牢旋緊。

鬆動的調整裝置可能會意外移位並導致失控，且鬆動的旋轉組件將被猛烈拋出。

23. 不要直視光而使眼睛直接暴露於光下。使眼睛持續暴露於光下會致其受傷。

24. 切勿觸摸移動部位。

切勿將手、手指或身體其他部位靠近工具的移動部位。

25. 切勿在無人照看的情況下讓工具運行 關閉電源。在工具完全停止之前請勿離開。

26. 本電動工具配備有溫度保護電路以保護馬達。連續作業可能會造成工具的溫度上升，啟動溫度保護電路並自動停止操作。如果發生這種情況，請在恢復使用前讓電動工具冷卻。

27. 請勿對開關面板施加強烈的衝擊或將其折斷。這可能會引發問題。

28. 如果工具或電池端子（電池座）變形，請勿使用本產品。

安裝電池可能會造成短路，從而導致冒煙或起火。

29. 保持工具的端子（電池座）沒有削屑和灰塵。

○ 使用前請確認端子區域沒有堆積削屑和灰塵。

○ 使用過程中盡量避免工具上的削屑或灰塵掉落在電池上。

○ 暫停操作或使用後，請勿將工具留在可能暴露於有掉落削屑或灰塵的區域。

否則可能會造成短路，從而導致冒煙或起火。

30. 務必在 -5°C 至 40°C 的溫度下使用本工具和電池。

31. 操作本工具時，請勿佩戴工作手套，因為穿戴此類織物可能會卡在工具中。

鋰離子電池使用注意事項

為延長使用壽命，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，而是啟動保護功能的結果。

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

為事先防止電池發生滲漏、發熱、冒煙、爆炸及起火等事故，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. 發現有滲漏或異味時，請立即將電池遠離火源處。
10. 請勿在會產生強烈靜電的地方使用。
11. 如電池出現滲漏、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。若水等具有導電性的液體滲入，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

- 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分沖洗，立刻送醫。若不加以處理，液體可能會導致眼睛不適。
- 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。
- 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。

警告

若具有導電性的異物進入鋰離子電池的端子，可能會造成短路，進而引發火災。請在存放電池時遵循以下事項。

- 請勿將導電物品，如鐵釘、鐵絲等金屬絲，銅線和電線放入儲存箱內。
- 為了防止發生短路，將電池裝入工具內或確實壓下電池蓋儲存電池，直至遮住通風孔為止。

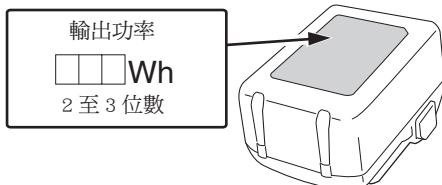
關於鋰離子電池的運輸

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。
- 如果 BSL36B18X 安裝在電動工具中，則功率輸出將超過 100 Wh，且本機將被歸類為貨運分類的危險貨物。



零件名稱 (圖 1—圖 26)

①	電池	⑬	底座組件的上端
②	頭套	⑭	刻度片
③	銘牌	⑮	模板導架
④	撥盤	⑯	螺絲
⑤	馬達	⑰	模板
⑥	機架部分	⑱	修整器導架
⑦	鎖定桿	⑲	導銷
⑧	小齒輪	⑳	止動螺絲
⑨	筒夾螺帽	㉑	旋鈕螺栓 (C)
⑩	筒夾鉗	㉒	墊圈 (A)
⑪	底座組件	㉓	機身進給方向
⑫	軸	㉔	直導架
⑬	開關按鈕	㉕	導架座
⑭	旋鈕螺栓 (A)	㉖	蝶形螺帽
⑮	固定螺帽	㉗	螺栓
⑯	鎖銷	㉘	波形墊圈
⑰	旋鈕螺栓 (B)	㉙	墊圈
⑱	LED 燈	㉚	中心孔
⑲	開關面板	㉛	釘子 (旋轉軸)
⑳	電源按鈕	㉜	集塵器
㉑	電源指示燈	㉖	定位孔
㉒	卡榫	㉗	突起處
㉓	充電信號燈	㉘	螺絲孔
㉔	拆卸	㉙	旋鈕螺栓 (D)
㉕	固定	㉚	工作材料
㉖	套筒扳手 (8 mm)	㉛	鑽頭的旋轉
㉗	旋鬆	㉜	修剪機進給
㉘	旋緊	㉖	內圍切割 (順時針)
㉙	23 mm 扳手	㉗	外圍切割 (逆時針)
㉚	鑽頭	㉘	氣槍
㉛	筒夾鉗孔	㉙	電池滑槽
㉜	13 mm 扳手	㉚	通氣孔

符號

警告

以下為使用於本機器的符號。請確保您在使用前明白其意義。

	M3608DA: 修剪機
	使用前請詳讀使用說明書。
	始終佩戴眼部保護裝置。
	始終佩戴聽力保護裝置。
	直流電流
	額定電壓
	無負荷速度
	取出電池
	開關 ON
	開關 OFF
	警告
	禁止操作

電池

	亮起： 電池剩餘電量超過 75%。
	亮起： 電池剩餘電量為 50% – 75%。
	亮起： 電池剩餘電量為 25% – 50%。
	亮起： 電池剩餘電量少於 25%。
	閃爍： 電池剩餘電量幾近零。請盡快進行充電。
	閃爍： 由於高溫導致輸出被暫停。從工具中取出電池，並使其完全冷卻。
	閃爍： 由於故障或機能失常導致輸出被暫停。問題可能是電池，請聯繫您的經銷商。

標準附件

除了主機身(1台)以外，包裝盒內包含第29頁所列之附件。

標準附件可能不預先通告而徑予更改。

用途

○ 以開槽和削角為主的木工作業。

規格

1. 電動工具

機型	M3608DA
電壓	36 V
無負荷速度	10000 – 30000 /分
筒夾錐容積	8 mm, 6 mm 或 1/4"
主機身行程	40 mm
重量	1.9 kg (BSL36A18X) 2.2 kg (BSL36B18X)

* 本工具不能使用現有的電池 (BSL3660/3620/3626、BSL18xx系列)。

註：

為求改進，本手冊所載規格可能不預先通告而徑予更改。

2. 電池

機型	BSL36A18X	BSL36B18X
電壓	36 V / 18 V (自動切換*)	
電池容量	2.5 Ah / 5.0 Ah	4.0 Ah / 8.0 Ah
(自動切換*)		
可用的充電式產品**	多伏特系列，18 V 產品	
可用的充電器	鋰離子電池用滑動式充電器	

* 工具本身將自動切換。

** 詳情請參閱本公司的綜合目錄。

充電

使用電動工具之前，按下述方法將電池進行充電。

1. 將充電器的電源線纜連接到插座。

插頭接上插座時，充電信號燈會閃爍紅燈 (閃爍間隔時間為 1 秒)。

2. 將電池裝入充電器

將電池牢固地裝入充電器，如圖 3 所示 (第2頁)。

3. 充電中

當電池插入充電器時，充電信號燈會閃爍藍燈。

當電池已完全充電時，充電信號燈會亮起綠燈。

(見表 1)

(1) 充電信號燈指示

依據充電器或充電池的狀態，充電信號燈會有不同的指示，如表 1 所示。

表 1

充電信號燈的指示

充電信 號燈 (紅 / 藍 / 綠 / 紫)	充電前	閃爍 (紅)	亮起 0.5 秒，熄滅 0.5 秒。(熄滅間 0.5 秒) ████████████	插入電源
	充電時	閃爍 (藍)	亮起 0.5 秒，熄滅 1 秒。(熄滅間 1 秒) ███████████	電池容量少於 50%
		閃爍 (藍)	亮起 1 秒，熄滅 0.5 秒。(熄滅間 0.5 秒) ███████	電池容量少於 80%
		亮起 (藍)	持續亮起 ████████████	電池容量超過 80%
	充電完成	亮起 (綠)	持續亮起 (連續的蜂鳴聲：約 6 秒)	
	過熱待機	閃爍 (紅)	亮起 0.3 秒，熄滅 0.3 秒。(熄滅間 0.3 秒) ██████████	電池過熱。 無法充電。 (待電池降溫後便會開始充電)
	無法充電	快速閃爍 (紫)	亮起 0.1 秒，熄滅 0.1 秒。(熄滅間 0.1 秒) ██	電池或充電器故障

(2) 關於充電池的溫度和充電時間

溫度和充電時間如表 2 中所示。

表 2

充電器		UC18YSL3				
電池類型		Li-ion				
電池可充電的溫度		0°C - 50°C				
充電電壓	V	14.4		18		
電池		BSL14xx 系列		BSL18xx 系列		多伏特系列
		(4 個電池芯)	(8 個電池芯)	(5 個電池芯)	(10 個電池芯)	(10 個電池芯)
充電時間， 約 (於 20°C)	分鐘	BSL1415S: 15	BSL1430: 20	BSL1815S: 15	BSL1830: 20	BSL36A18: 32
		BSL1415: 15	BSL1440: 26	BSL1815X: 15	BSL1840: 26	BSL36A18X: 32
		BSL1415X: 15	BSL1450: 32	BSL1820: 20	BSL1850: 32	BSL36B18: 52
		BSL1420: 20	BSL1460: 38	BSL1825: 25	BSL1860: 38	BSL36B18X: 52
		BSL1425: 25	BSL1460: 38	BSL1830C: 30	BSL1850C: 32	
		BSL1430C: 30				

註：

根據環境溫度和電源電壓，充電時間可能會有所不同。

4. 將充電器的電源線從插座拔下。

5. 拿穩充電器並取出電池。

註：

充電結束後，務必從充電器取出電池，然後妥善存放。

使用新電池或其他電池，產生電量較弱的問題時。

由於新電池及長時間未使用之電池的內部化學物質未活化，因此初次及第二次使用時的電量會較弱。此為暫時現象；在充電 2 至 3 次後，電量就會恢復正常。

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兒，待電池冷卻後再進行充電。

注意

○ 電池因長時間放置在直射陽光處遭到日曬或剛使用後會發熱，若在此時進行充電，充電器的信號燈會亮起 0.3 秒，非亮起 0.3 秒（熄滅 0.3 秒）。此時您必須先待電池冷卻，再進行充電。

○ 充電信號燈快速閃爍時（間隔時間為 0.2 秒），請檢查充電器的電池連接處是否有異物並加以清除。若沒有異物，則表示電池或充電器可能發生故障，請將其送往當地授權服務中心。

○ 由於 UC18YSL3 內置微電腦需要約 3 秒的時間確認進行充電的電池已被取出，請等待至少 3 秒後再將電池重新插入繼續充電。如果電池在 3 秒之內重新插入，電池可能無法正常充電。

操作前

警告

在進行任何調整、保養或維修之前，須先取出電池。

完成作業時，應取出電池。

1. 取出和安裝電池（圖 2）

2. 電池剩餘量指示器（圖 4）

3. 底座組件安裝方向（圖 5）

可根據偏好透過翻轉底座組件的安裝方向來更改開關位置。

4. 固定強度調整方法（圖 6）

如果固定強度下降，請如下調整。

將鎖定桿向固定側傾斜，然後使用套筒扳手（8 mm）旋緊固定螺帽（兩處）。

將其固定以使底座組件的上下空間“A”相等。

註

如果鎖定桿的操作負荷過重，則固定強度太大。

由於此種情況可能會損壞零件，因此應旋鬆每個固定螺帽（兩處）以重新調整固定的強度。

鑽頭的安裝和拆卸

警告

務必關閉電源並取出電池，以避免發生嚴重的故障。

1. 使用鎖銷安裝（圖 7）

(1) 從機身拆卸底座組件。

(2) 將刀刃深深地插入筒夾錐孔中。（從筒夾螺帽側面的距離為 15 mm 以上。）

(3) 在刀刃插入並按下鎖銷固定軸的狀態下，使用 23 mm 扳手以順時針方向（從本工具下方看）牢固地旋緊筒夾螺帽。（圖 7）

(4) 調整底座組件的小齒輪後，將卸下的底座組件固定到機身外殼上裝備的機架。然後將鎖定桿向固定側傾斜，並牢牢地固定底座組件。

拆卸刀刃時，請按照安裝刀刃的相反順序的步驟來進行操作。

注意

○ 插入刀刃後，確保筒夾螺帽牢固地旋緊。否則會導致筒夾錐損壞。

○ 旋緊筒夾螺帽後，確保鎖銷未插入軸中。否則會導致筒夾錐、鎖銷和軸損壞。

2. 不使用鎖銷安裝（圖 8）

(1) 從機身拆卸底座組件。

(2) 將刀刃深深地插入筒夾錐孔中。（從筒夾螺帽側面的距離為 15 mm 以上。）

(3) 使用 13 mm 扳手將軸固定，並使用隨附的扳手牢固地旋緊筒夾螺帽。

(4) 調整底座組件的小齒輪後，將卸下的底座組件固定到機身外殼上裝備的機架。然後將鎖定桿向固定側傾斜，並牢牢地固定底座組件。

拆卸刀刃時，請按照安裝刀刃的相反順序的步驟來進行操作。

注意

○ 插入刀刃後，確保筒夾螺帽牢固地旋緊。否則會損壞筒夾盤、鎖銷和軸。

3. 換筒夾錐（圖 9）

(1) 將軸固定，卸下筒夾螺帽，然後換筒夾錐。

(2) 裝上螺帽，插入刀刃，然後旋緊螺帽。

註

旋緊筒夾螺帽時，確保刀刃已插入。

否則，筒夾錐可能會變形。

如何使用修剪機

1. 調整切割深度。(圖 10)

- (1) 將工具放到水準的木頭平面上。
- (2) 將鎖定桿向拆卸側傾斜，然後轉動旋鈕螺栓 (A) 以放低本機，直到刀刃的尖端輕輕接觸材料。在此位置，可以讀取底座組件上端的刻度。
- (3) 向上轉動旋鈕螺栓 (A)，根據讀取的位置將刻度調整到所需的切割深度。

2. 引導修剪機

警告

務必關閉電源並取出電池，以避免發生嚴重的故障。

(1) 模板導架 (標準附件)

使用模板加工具有相同形狀的多種材料很方便。
(在這種情況下，可使用 6×6 mm 的直刀刃。)

- ① 從主機卸下底座組件。
- ② 將模板導架安裝在底座組件的嵌入部分中，並用兩顆螺絲將其固定。(見圖 11)

註

適度地旋緊兩顆螺絲。最佳旋緊扭矩為 10 – 15 kg·cm。

③ 將底座組件安裝在主機。

注意

安裝模板導架時，模板導架的上部不得接觸筒夾螺帽。

當沿著模板的內部平面使用修剪機時，完成的產品的尺寸將小於模板的尺寸，相當於尺寸“a”，即模板導架半徑和刀刃半徑之間的差異。當沿著模板的外部使用修剪機時，反之亦然。(圖 12)

將模板固定到工作上。以模板導架沿著模板移動的方式進給修剪機，如 圖 13 所示。

(2) 修剪機導架 (標準附件)

該導架在加工諸如膠合板的修邊和斜切之類的材料時很方便。

- ① 用旋鈕螺栓 (B) 將修剪機導架固定在底座組件上。
- ② 旋鬆旋鈕螺栓 (B) 以上下移動修剪機導架。
- ③ 旋鬆旋鈕螺栓 (C)，然後轉動止動螺絲以移動導銷。(圖 14)

移動導銷後，旋緊旋鈕螺栓 (C) 將其固定。

- ④ 如 圖 15 所示，將底座組件的底部牢固地裝到材料的加工表面。使用導銷將修剪機沿著材料的邊緣進給。

(3) 直導架 (標準附件)

用途：

- 用於斜切、切槽等線性加工工作業時很方便。
- ① 用旋鈕螺栓 (B) 將直導架固定在底座組件上，並將其固定。
- ② 旋鬆蝶形螺帽並根據需要移動直導架，調整從刀刃到直導架表面的長度“b”。(圖 16)

③ 如 圖 17 所示，將底座組件的底部牢固地裝到材料的加工表面。進給修剪機，同時將導板保持在材料表面。

- 透過將直導架更換為導架座，本工具即可用於圓形切割工作業。

[加工範圍(從開始進入旋轉到刀刃中心的距離)]

最小：84 mm

最大：182 mm

請注意，無法加工尺寸為 102 至 124 mm 和 143 mm 至 158 mm 的圓形。

- ① 轉動蝶形螺帽並卸下螺栓和墊圈 (2 個)。

- ② 翻轉直導架的頂部和底部，然後將其裝到導架座。(圖 18)

根據要加工的圓形的半徑，蝶形螺帽和螺栓的孔會有所不同。

加工半徑為 84 至 102 mm 的圓形 (圖 19-a)

加工半徑為 124 至 182 mm 的圓形 (圖 19-b)

- ③ 安裝到本工具與直線加工用相同。

- ④ 將直導架左邊的孔對準圓形加工的中心位置，並用直徑小於 6 mm 的釘子牢牢固定，釘子將用作旋轉軸。

向右旋轉機身。(圖 20)

3. 開關操作 (圖 21)

按下電源按鈕後再按下開關按鈕，本機將運作。有關按鈕控件的規格，請參閱 圖 21。

電源指示燈和 LED 燈將始終與電源按鈕一起運作。

如果打開電源後未操作本工具約 10 秒鐘，則電源將自動關閉，電源指示燈和 LED 燈也將關閉。

4. 碎屑收集套件 (標準附件) (圖 22)

連接碎屑收集套件清潔器以收集碎屑。

- (1) 將碎屑收集器內部上的突起處放入底座組件前左下方的定位孔中，然後進行安裝以覆蓋底座組件的前面。

- (2) 使用隨附的旋鈕螺栓 (D) 將碎屑收集器孔固定到機身的螺絲孔。

5. 調整轉速

M3608DA 具有允許轉速變化的電子控制系統。如 圖 23 所示，撥盤位置「1」表示最小速度，而位置「6」表示最大速度。

6. 切割

注意

- 操作本工具時請戴上防護鏡。

- 操作本工具時，保持手、臉和其他身體部位遠離鑽頭和其他轉動部件。

註

- 馬達正在旋轉時，請勿按下鎖銷。此外，請勿在按下鎖銷的同時打開本工具的開關。

否則可能會損壞鎖銷和／或軸，並導致受傷。

- 請限制單次切割的切割深度在 5 mm 以下。

5. 清理外部

警告

用空氣槍清潔過濾器時，請佩戴防護眼鏡和防塵口罩。

否則可能會導致碎屑或灰塵進入眼睛，或眼睛暴露於碎屑或灰塵中。

使用空氣槍或其他類似工具去除粘附在機身的材料、碎屑等（特別是在圖 26 中所指示的位置），並用柔軟的乾布或沾有肥皂水的布擦拭。切勿使用氯溶液、汽油或稀釋劑，以免塑膠部分溶化。

6. 收藏

電動工具和電池應收藏於溫度低於 40°C 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。

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。

選擇配件

本機器的配件列在第 30 頁。

有關每種鑽頭類型的詳情，請聯繫 HiKOKI 授權服務中心。

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。

疑難排解

警告

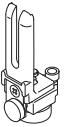
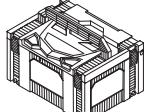
- 為避免因意外啟動而導致受傷，在進行任何調整之前，請關閉開關，並從電源上拔下插頭或從主機身取出電池。
- 所有電氣或機械維修只能由合格的維修技術人員進行。請聯繫 HiKOKI 授權服務中心。

1. 電動工具

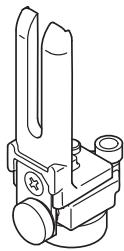
情況	可能原因	解決方法
工具無法運轉	無剩餘電池電量	為電池充電。
	電池未安裝牢固。	推動電池直至聽到咔噠一聲。
	電源關閉。	按下電源按鈕以打開電源。
工具突然停止	工具負擔過重	除去造成工具負擔過重的問題。
		在操作過程中，減輕施加的壓力。
	電池或工具過熱	使工具和電池徹底冷卻。
鋸切效果不佳	無剩餘電池電量	為電池充電。
	鑽頭磨損或鋸齒缺失。	更換新的鑽頭。
電池無法安裝	筒夾夾盤鬆動。	牢固地旋緊筒夾夾盤。
	試圖安裝非該工具所指定的電池。	請安裝多伏特型或 BSL18xx 系列電池。

2. 充電器

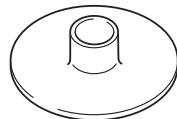
情況	可能原因	解決方法
充電指示燈迅速閃爍紫色，且電池不開始充電。	電池未完全插入。 電池端子內或電池安裝處有異物。	牢固地插入電池。 移除異物。
充電指示燈閃爍紅色，且電池不開始充電。	電池未完全插入。 電池過熱。	牢固地插入電池。 若放著不管，當電池溫度降低後就會自動開始充電，但這可能會縮短電池的壽命。建議在充電前將電池放在遠離陽光直射且通風良好的位置進行冷卻。
即使電池已充滿電，電池的使用時間仍然很短。	電池壽命已耗盡。	更換新的電池。
電池的充電時間很長。	電池、充電器或周圍環境的溫度非常低。 充電器的通風口被堵塞，造成其內部組件過熱。 冷卻風扇未運轉。	在室內或其他較溫暖的環境進行電池的充電。 避免堵塞通風口。 聯繫 HiKOKI 授權服務中心以進行修理。

		M3608DA	
		(XCPZ)	(NN)
	6 mm	1	1
	8 mm		
	1/4"	—	—
		1	1
		1	1
		1	1
		1	1
		1	1
	BSL36A18X	1	—
	UC18YSL3	1	—
		1	—
		1	—

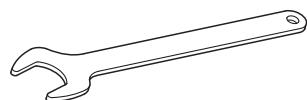
* The included collet chuck will differ according to region.



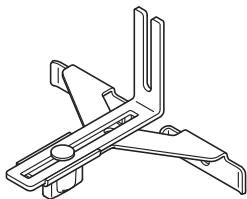
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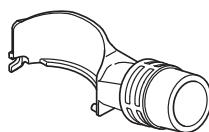
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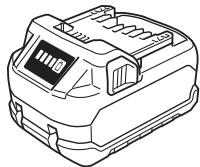
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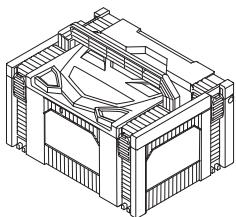
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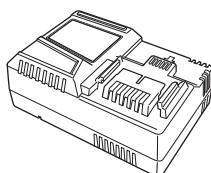
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UC18YSL3 (14.4 V-18 V)



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