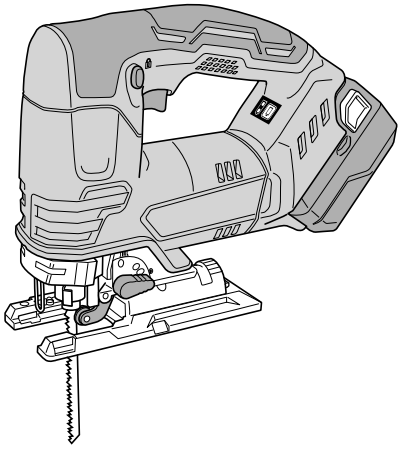
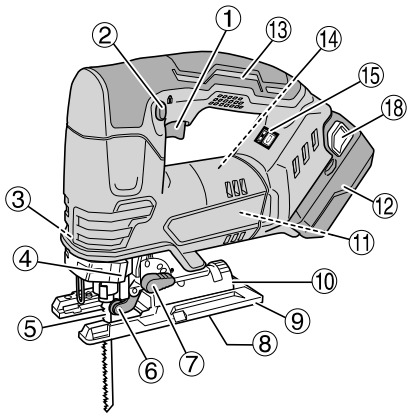
HiKOKI

CJ 18DA

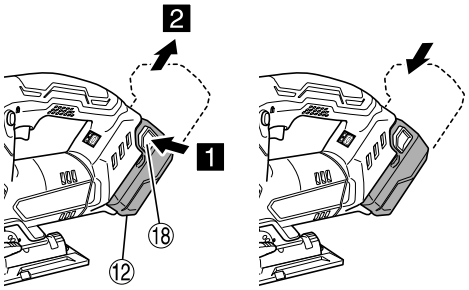


en Handling instructions
de Bedienungsanleitung
fr Mode d'emploi
it Istruzioni per l'uso
nl Gebruiksaanwijzing
es Instrucciones de manejo
pt Instruções de uso
sv Bruksanvisning
da Brugsanvisning
no Bruksanvisning
fi Käyttöohjeet
el Οδηγίες χειρισμού
pl Instrukcja obsługi
hu Kezelési utasítás
cs Návod k obsluze
tr Kullanım talimatları
ro Instrucțiuni de utilizare
sl Navodila za rokovanje
sk Pokyny na manipuláciu
bg Инструкция за експлоатация
sr Uputstvo za rukovanje
hr Upute za rukovanje

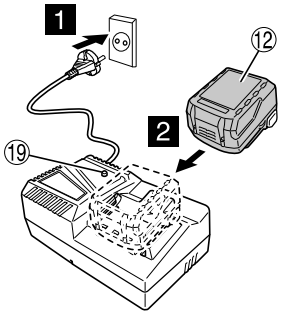
1



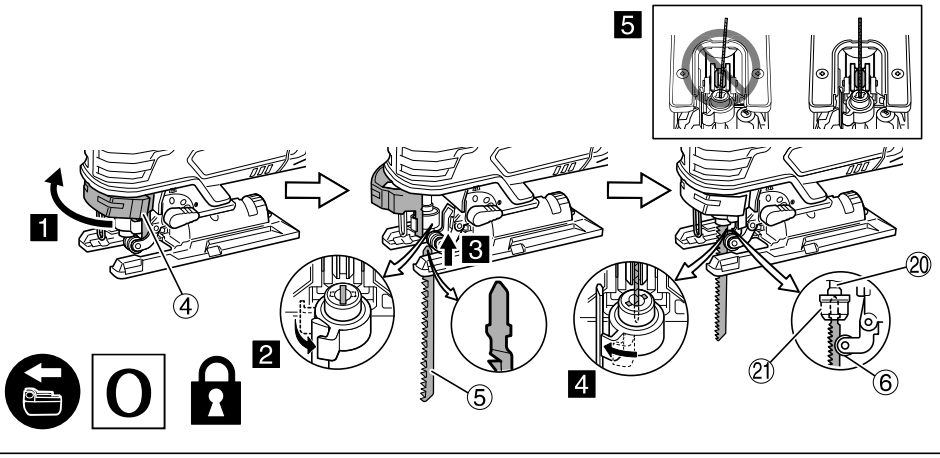
2



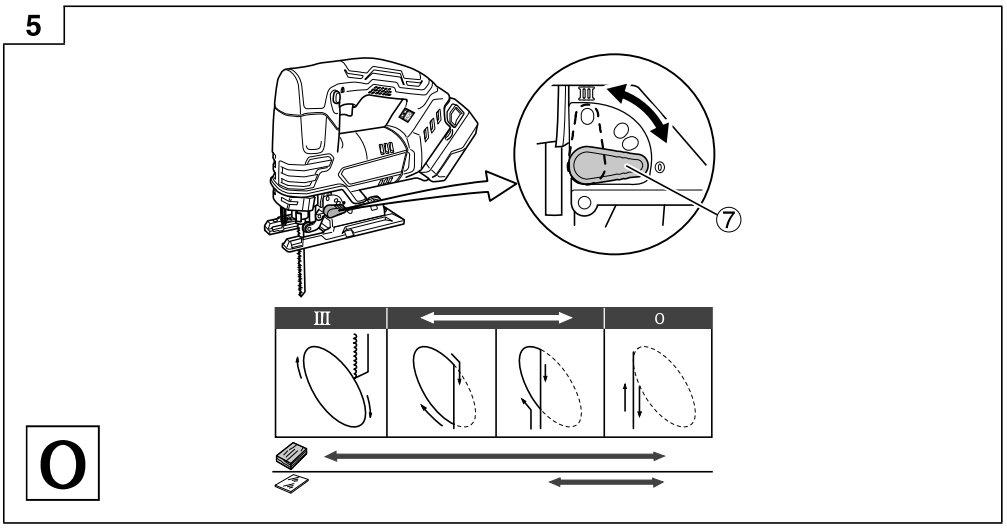
3



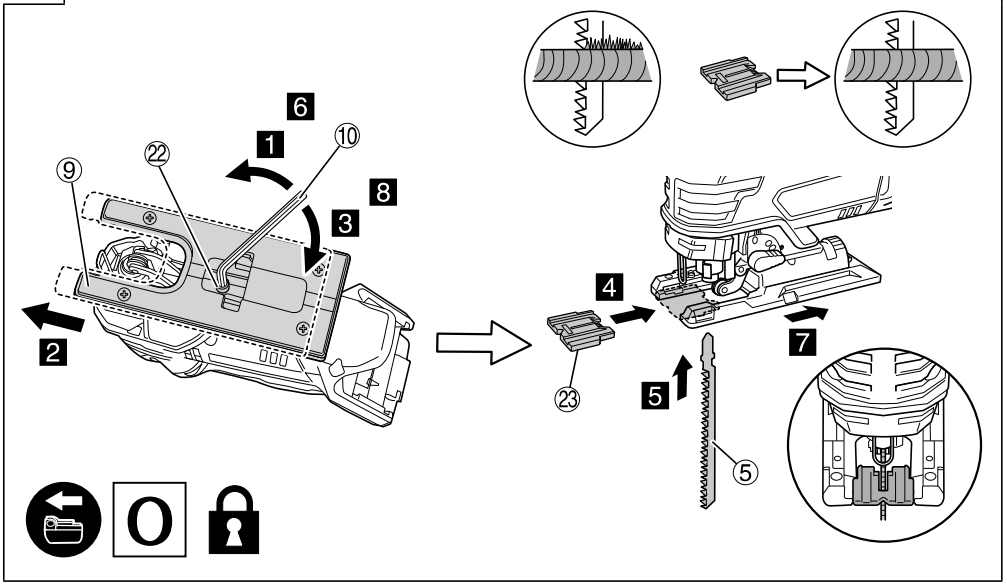
4



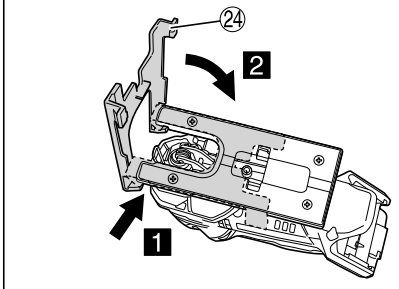
5

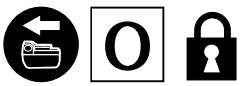


6

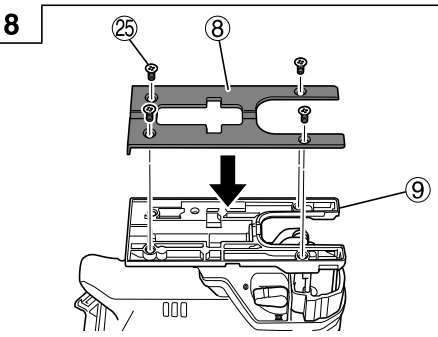


7





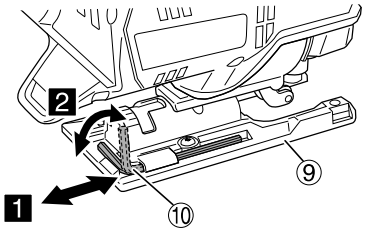
8



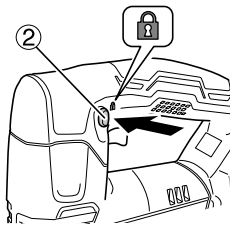


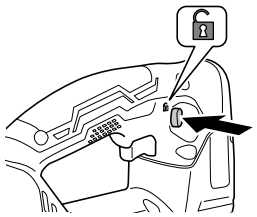
9



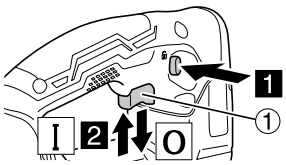


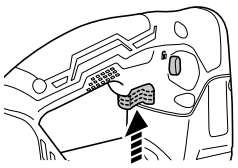
10

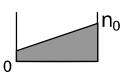




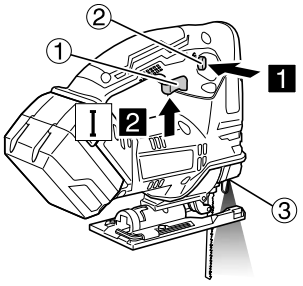
1 + 2 = I



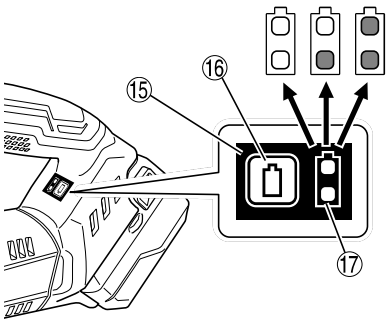




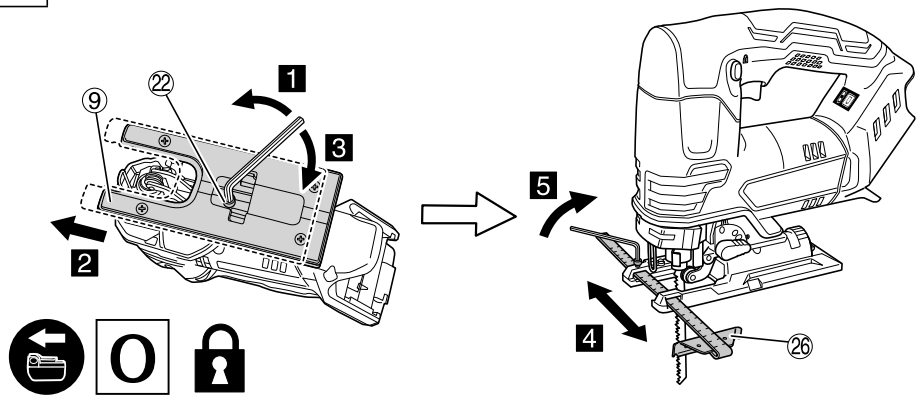
11



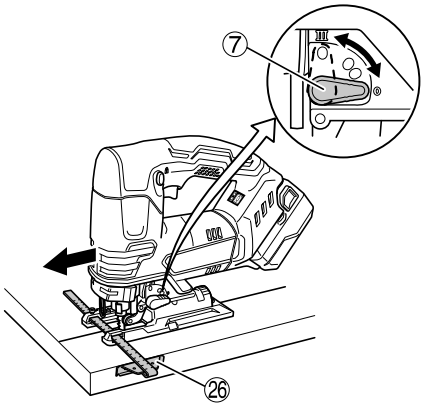
12



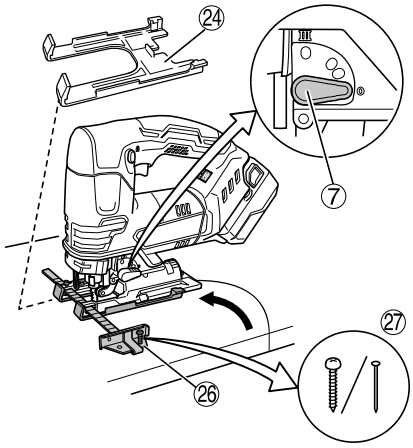
13



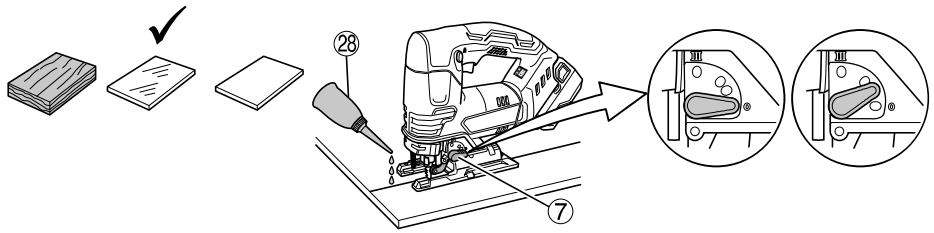
14



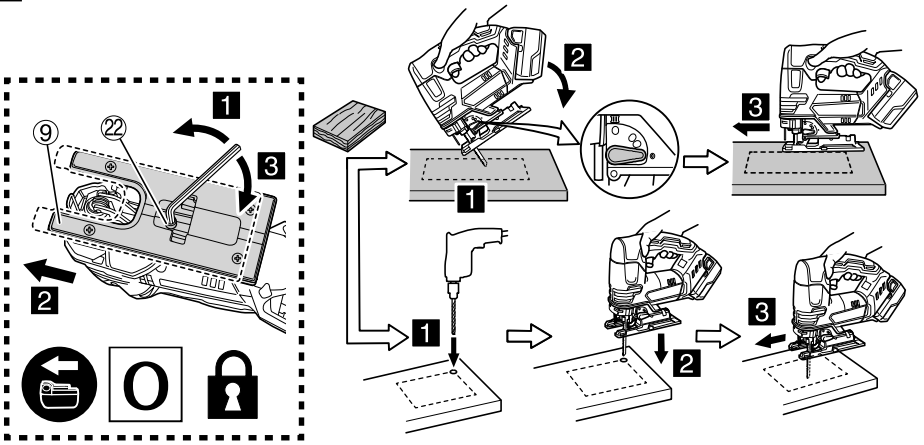
15



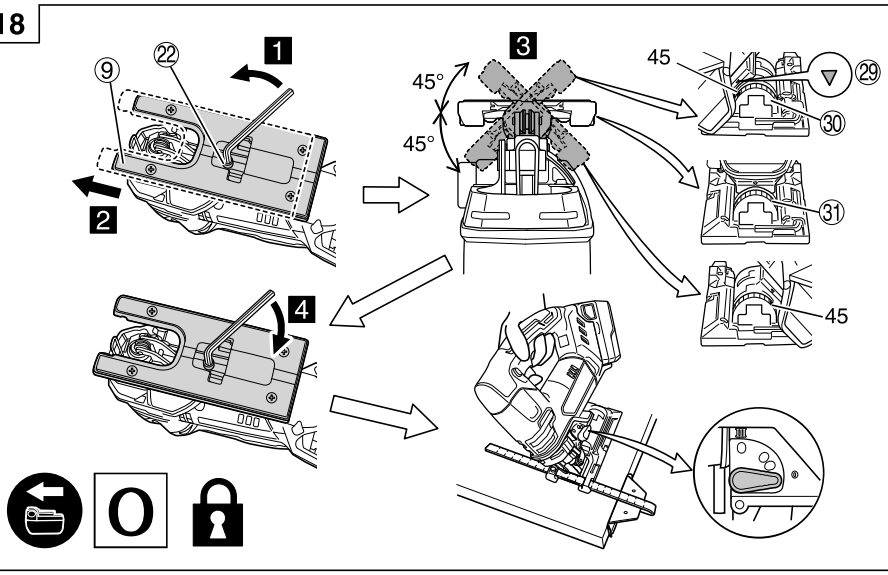
16



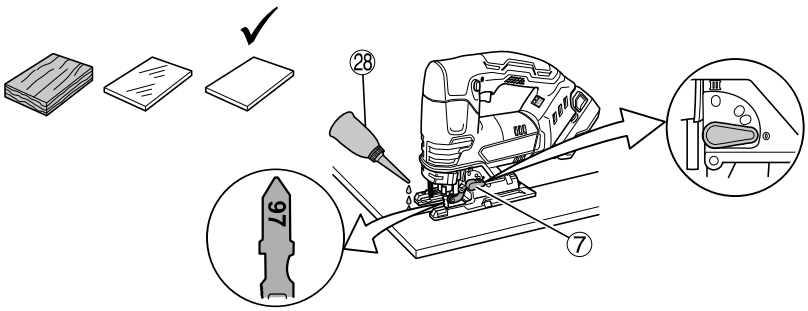
17



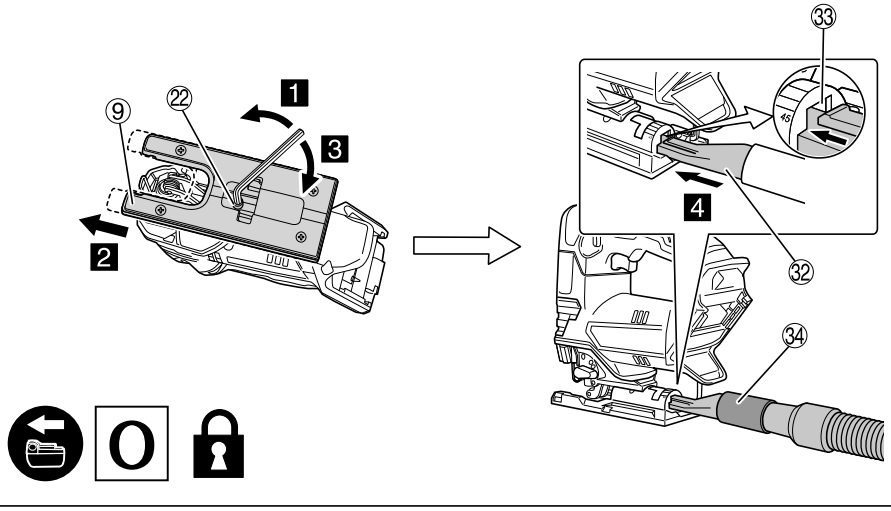
18



19



20



English

(Original instructions)

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-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 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.

CORDLESS JIG SAW SAFETY WARNINGS

1. **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.**
   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 workpiece by hand or against your body leaves it unstable and may lead to loss of control.

ADDITIONAL SAFETY WARNINGS

1. 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.
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.
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. Shortcircuiting 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. 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.
8. 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.
9. 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 blade a break for a while.
10. 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 blade is not caught by the material during operation. Always adjust the blade speed to enable smooth cutting.
11. Preparing and checking the work environment. Make sure that the work site meets all the conditions laid forth in the precautions.
12. Make sure that the battery is installed firmly. If it is at all loose it could come off and cause an accident.
13. Dust produced in operation
    The dust produced in normal operation may affect the operator’s health. Either of following way is recommended.

    a) Wear a dust mask
    b) Use external dust collection equipment (optional accessories) (Fig. 20)

    When using the external dust collection equipment, connect the adapter with the hose from external dust collection equipment.

14. During use, do not touch the metal portion of the tool.
15. Changing blades
    - Be sure to switch power OFF and disconnect the battery from the body when changing blades.
    - Do not open the lever when plunger is moving. (**Fig. 4**)
    - Confirm the protrusions of blade inserted to the blade holder surely. (**Fig. 4**)
    - Confirm the blade located between the groove of roller. (**Fig. 4**)
16. Always make sure to push in the lock off button to the locked position when not using.
17. Using the splinter guard when cutting wood materials will reduce splintering of cut surfaces.
    Insert the splinter guard in the space on the base, and push it completely.

18. In order to prevent blade dislodging, damage or excessive wear on the plunger, please make sure to have surface of the base plate attached to the work piece while sawing.
19. At low speed do not cut a wood with a thickness of more than 10 mm or metal with a thickness of more than 1 mm.
20. To ensure accurate cutting when using the guide (**Fig. 15**), always set the orbital position to "0".
21. When sawing a small circular arc, reduce the feeding speed of the machine. If the machine is fed too fast, it could cause the blade to break.
22. Circular cutting must be done with the blade approximately vertical to the bottom surface of the base.
23. Angular cutting can not be done when adopting dust collector.
24. Connecting with cleaner (sold separately)
    By connecting with cleaner through dust collector and adapter (sold separately), most of dust can be collected.
25. When cutting metallic materials, use an appropriate cutting fluid (spindle oil, soapy water, etc.) to prolong the blade's service life. (**Fig. 16**) And cut the material at medium speed.
26. When cutting a window hole in materials other than lumber, initially bore a hole with a drill or similar tool from which to start cutting. (**Fig. 17**)
27. Do not fix and secure the switch lock. Besides, keep your finger off the switch trigger when the tool is being carried around. Otherwise, the main body switch can be inadvertently turned ON, resulting in unexpected accidents.
28. 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.
29. Never touch moving parts.
    Never place your hands, fingers or other body parts near the tool's moving parts.
30. Never operate without all guards in place.
    Never operate this tool without all guards or safety features in place and in proper working order. If maintenance or servicing requires the removal of a guard or safety feature, be sure to replace the guard or safety feature before resuming operation of the tool.
31. NEVER leave tool running unattended. Turn power off.
    Don't leave tool until it comes to a complete stop.
32. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
    Jig saw create sparks which may ignite the dust or fumes.
33. 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.
34. Do not give a strong shock to the switch panel or break it. It may lead to a trouble.
35. 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.
36. 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.

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

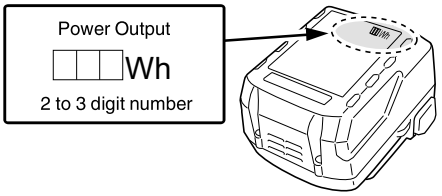
1. If liquid leaking from the battery gets into your eyes, do not rub your eyes and wash them well with fresh clean water such as tap water and contact a doctor immediately.
   If left untreated, the liquid may cause eye-problems.
2. If liquid leaks onto your skin or clothes, wash well with clean water 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 BSL36B18 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.



NAMES OF PARTS (Fig. 1 – Fig. 20)

①	Switch	⑭	Name plate
②	Lock-off button	⑮	Switch panel
③	LED light	⑯	Remaining battery indicator switch
④	Lever	⑰	Remaining battery indicator lamp
⑤	Blade	⑱	Latch
⑥	Guide roller	⑲	Pilot lamp
⑦	Change knob	⑳	Plunger
⑧	Base plate	㉑	Blade holder
⑨	Base	㉒	Base bolt
⑩	Hexagonal bar wrench	㉓	Splinter guard
⑪	Motor	㉔	Sub base (optional accessories)
⑫	Battery	㉕	Screw
⑬	Handle	㉖	Guide (optional accessories)
㉗	Wood screw / Nail	㉛	Scale
㉘	Oiler	㉜	Dust collector (optional accessories)
㉙	▽ mark	㉝	Notch
㉚	Semi-circular part	㉞	Adapter (optional accessories)

SYMBOLS

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

	CJ18DA : Cordless Jig saw
	To reduce the risk of injury, user must read instruction manual.
	Only for EU countries Do not dispose of electric tools together with household waste material! In observance of European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.
⎓	Direct current
V	Rated voltage
n_0	No-load speed
	Weight (According to EPTA-Procedure 01/2014)
	Switching ON
	Switching OFF
	Disconnect the battery
	Lock
	Unlock
	Wood
	Metal
	Stainless steel
	Remaining battery indicator switch
	The battery remaining power is nearly empty. Recharge the battery soonest possible
	The battery remaining power is a half.
	The battery remaining power is enough.
	Warning
	Prohibited action

English

STANDARD ACCESSORIES

In addition to the main unit (1 unit), the package contains the accessories listed on page 219.

Standard accessories are subject to change without notice.

APPLICATIONS

- ○ Cutting various lumber and pocket cutting
- ○ Cutting mild steel plate, aluminum plate, and copper plate
- ○ Cutting synthetic resins, such as phenol resin and vinyl chloride
- ○ Cutting thin and soft construction materials
- ○ Cutting stainless steel plate (with No. 97 blade)

SPECIFICATIONS

Model	CJ18DA
Voltage	18 V
Max. cutting depth	Wood 135 mm Mild steel 10 mm Stainless steel 2.5 mm
No-Load Speed	0 – 2500 min^{-1}
Stroke	26 mm
Min. cutting radius	25 mm
Weight*	2.5 kg (BSL1850C) 2.9 kg (BSL36B18)

* According to EPTA-Procedure 01/2014
Depending on attached battery. The heaviest weight is measured with BSL36B18.

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

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 pilot 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**.
3. **Charging**
   When inserting a battery in the charger, the pilot lamp will light up continuously in red.
   When the battery becomes fully recharged, the pilot lamp will blink in red (At 1-second intervals). (See **Table 1**)

(1) Pilot lamp indication
The indications of the pilot lamp will be as shown in **Table 1**, according to the condition of the charger or the rechargeable battery.

Table 1

Indications of the pilot lamp				
Pilot lamp (red)	Before charging	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)	
	While charging	Lights	Lights continuously	
	Charging complete	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)	
	Overheat standby	Blinks	Lights for 1 second. Does not light for 0.5 seconds. (off for 0.5 seconds)	Battery overheated. Unable to charge. (Charging will commence when battery cools)
	Charging impossible	Flickers	Lights for 0.1 seconds. Does not light for 0.1 seconds. (off for 0.1 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

Battery \ Charger		UC18YFSL	
Charging voltage	V	14.4V	18V
Type of battery		Li-ion	
Temperatures at which the battery can be recharged		0°C – 50°C	
Charging time for battery capacity, approx. (At 20°C)			
1.5 Ah	min.	22 (4 cells)	22 (5 cells)
2.0 Ah	min.	30 (4 cells)	30 (5 cells)
2.5 Ah	min.	35 (4 cells)	35 (5 cells)
3.0 Ah	min.	45 (8 cells/4 cells)	45 (10 cells/5 cells)
4.0 Ah	min.	60 (8 cells)	60 (10 cells)
5.0 Ah	min.	75 (8 cells)	75 (10 cells)
6.0 Ah	min.	90 (8 cells)	90 (10 cells)
8.0 Ah	min.	–	120 (10 cells)

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 pilot lamp of the charger lights for 1 second, does not light for 0.5 seconds (off for 0.5 seconds). In such a case, first let the battery cool, then start charging.
- When the pilot 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 UC18YFSL 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.

MOUNTING AND OPERATION

Action	Figure	Page
Removing and inserting the battery	2	2
Charging	3	2
Changing blades	4	2
Adjusting the orbital operation	5	3
Splinter guard	6	3
Sub base*1 (sold separately)	7	4
Base plate replacement	8	4
Housing the hexagonal bar wrench	9	4
Switch operation	10	4
How to use the LED light*2	11	5
Remaining battery indicator	12	5
Mounting the guide (sold separately)	13	5
Rectilinear cutting	14	5
Cutting a circle or a circular arc	15	5
Cutting metallic materials	16	6
Pocket cutting	17	6
Angular cutting	18	6
Concerning cutting of stainless steel plates	19	7
Connecting with cleaner (sold separately)	20	7
Selecting accessories	—	220

*1 Sub base

NOTE
When the sub base is attached, the blade's protrusion from the material being cut will be reduced by 3 mm. When the blade has been moved down to the lowest point, check to make sure that it is protruding from the material.

*2 How to use the LED light

NOTE

To prevent the battery power consumption, turn off the LED light frequently. The light goes out after the switch is released.

SELECTION OF BLADES

Accessory 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. The blade number is engraved in the vicinity of the mounting portion of each blade. Select appropriate blades by referring to **Table 3**.

MAINTENANCE AND INSPECTION

CAUTION

Be sure to turn 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. **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**
   When the power tool is stained, wipe with a soft dry cloth or a cloth moistened with soapy water. Do not use chloric solvents, gasoline or paint thinner, for they melt plastics.
6. **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).

GUARANTEE

We guarantee HiKOKI power tools in accordance with statutory/country specific regulation. This guarantee does not cover defects or damage due to misuse, abuse, or normal wear and tear. In case of complaint, please send the power tool, undismantled, with the GUARANTEE CERTIFICATE found at the end of this Handling instruction, to a HiKOKI Authorized Service Center.

Information concerning airborne noise and vibration

The measured values were determined according to EN62841 and declared in accordance with ISO 4871.

Measured A-weighted sound power level: 96 dB (A)
Measured A-weighted sound pressure level: 85 dB (A)
Uncertainty K: 5 dB (A)

Wear hearing protection.

Vibration total values (triax vector sum) determined according to EN62841.

Cutting boards:
Vibration emission value $\mathbf{a_h}$, **B** = 7.5 m/s^2
Uncertainty K = 1.5 m/s^2

Cutting sheet metal:
Vibration emission value $\mathbf{a_h}$, **M** = 5.0 m/s^2
Uncertainty K = 1.5 m/s^2

The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another.
It may also be used in a preliminary assessment of exposure.

WARNING

- The vibration emission during actual use of the power tool can differ from the declared total value depending in the ways in which the tool is used.
- Identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

NOTE

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

Table 3 List of appropriate blades

Material to be cut	Material quality \ Blade	No. 1 (Super long)	No. 11	No. 12	No. 15	No. 16	No. 21	No. 22	No. 41	No. 97
		Thickness of material (mm)								
Lumber	General lumber	Below 135	10 – 55	Below 20			10 – 55	5 – 40	10 – 65	
	Plywood		5 – 30	Below 10			5 – 30	3 – 20		
Iron plate	Mild steel plate				3 – 6	Below 3				2 – 5
	Stainless steel plate									1.5 – 2.5
Nonferrous metal	Aluminium copper, brass				3 – 12	Below 3				Below 5
	Aluminium sash				Height up to 25					Height up to 25
Plastics	Phenol resin, melamine, resin, etc.				5 – 20	Below 6	5 – 15	Below 6		5 – 15
	Vinyl chloride, acryl resin, etc.		5 – 30	Below 10	5 – 20	Below 5	5 – 30	3 – 20		5 – 15
	Foamed polyethylene, foamed styrol		10 – 55	3 – 25	5 – 25	3 – 25	10 – 55	3 – 40		5 – 25
Pulp	Card board, corrugated paper		10 – 55	3 – 25			10 – 55	3 – 40		
	Hardboard				3 – 25	Below 6				3 – 25
	Fiberboard					Below 6				

NOTE
The minimum cutting radius of No. 1 (Super long), No. 21, No. 22 and No. 41 blades is 100 mm.

English

TROUBLESHOOTING

Use the inspections in the table below if the tool does not operate normally. If this does not remedy the problem, consult your dealer or the HiKOKI Authorized Service Center.

Symptom	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.
Tool suddenly stopped	Tool was overburdened	Get rid of the problem causing the overburden.
		During operation, lighten the applied pressure.
	Battery overheated	Allow the tool and battery to thoroughly cool.
Blade - can't be attached - fall off	The shape of the attachment portion doesn't match	Use the appropriate blade (See "Selecting accessories")
	The lever is open.	Close the lever.
	There is foreign matter inside the blade holder.	Remove the foreign matter.
Switch can't be pulled	Lock-off button is pushed in.	Release the Lock-off button.
An abnormal high-pitched noise occurs when the trigger switch is pulled.	The trigger switch is being pulled only slightly.	This is not a malfunction. It does not occur if the trigger switch is pulled more fully.
Blade wears out too quickly.	Proper machine oil not used when cutting metallic materials	Use machine oil (turbine oil, etc.)
	Too much applied pressure during operation	During operation, lighten the applied pressure.
Unable to properly cut.	Blade is inappropriate for the quality and thickness of the material to be cut	Use the proper blade (See "Selecting accessories")
	Speed and orbital position are inappropriate for the quality and thickness of the material to be cut	Set the appropriate speed and orbital position (See "Mounting and operation" Fig. 14 – 19 on page 13.)
	Blade is worn, degraded or damaged	Replace with a new blade.

(Übersetzung der Original-Gebrauchsanweisung)

ALLGEMEINE SICHERHEITSHINWEISE FÜR ELEKTROGERÄTE

⚠ **WARNUNG**

Bitte beachten Sie sämtliche mit diesem Elektrogerät gelieferten Sicherheitshinweise, Anweisungen, Illustrationen und technischen Angaben.

Wenn die nachfolgenden Anweisungen nicht befolgt werden, kann es zu Stromschlag, Brand und/oder ernsthaften Verletzungen kommen.

Bitte bewahren Sie alle Warnhinweise und Anweisungen zum späteren Nachschlagen auf.

Der Begriff „Elektrowerkzeug" bezieht sich in den Warnhinweisen auf Elektrowerkzeuge mit Netz- (schnurgebunden) oder Akkubetrieb (schnurlos).

1) **Sicherheit im Arbeitsbereich**
   a) **Sorgen Sie für einen sauberen und gut ausgeleuchteten Arbeitsbereich.**
   Zugestellte oder dunkle Bereiche ziehen Unfälle förmlich an.
   b) **Verwenden Sie Elektrowerkzeuge niemals an Orten, an denen Explosionsgefahr besteht, wie zum Beispiel in der Nähe von leicht entflammbaren Flüssigkeiten, Gasen oder Stäuben.**
   Bei der Arbeit mit Elektrowerkzeugen kann es zu Funkenbildung kommen, wodurch sich Stäube oder Dämpfe entzünden können.
   c) **Sorgen Sie bei der Arbeit mit Elektrowerkzeugen dafür, dass sich keine Zuschauer (insbesondere Kinder) in der Nähe befinden.**
   Wenn Sie abgelenkt werden, können Sie die Kontrolle über das Werkzeug verlieren.

2) **Elektrische Sicherheit**
   a) **Elektrowerkzeuge müssen mit passender Stromversorgung betrieben werden. Nehmen Sie niemals irgendwelche Änderungen am Anschlussstecker vor. Verwenden Sie bei Elektrowerkzeugen mit Schutzkontakt (geerdet) niemals Adapterstecker.**
   Stecker im Originalzustand und passende Steckdosen reduzieren das Stromschlagrisiko.
   b) **Vermeiden Sie Körperkontakt mit geerdeten Gegenständen wie Rohrleitungen, Heizungen, Herden oder Kühlschränken.**
   Bei Körperkontakt mit geerdeten Gegenständen besteht ein erhöhtes Stromschlagrisiko.
   c) **Setzen Sie Elektrowerkzeuge niemals Regen oder sonstiger Feuchtigkeit aus.**
   Wenn Flüssigkeiten in ein Elektrowerkzeug eindringen, erhöht sich das Stromschlagrisiko.
   d) **Verwenden Sie das Anschlusskabel nicht missbräuchlich. Tragen Sie das Elektrowerkzeug niemals am Stromkabel, ziehen Sie es nicht damit heran und ziehen Sie den Stecker nicht am Anschlusskabel aus der Steckdose.**
   Halten Sie das Anschlusskabel von Hitzequellen, Öl, scharfen Kanten und beweglichen Teilen fern.
   Beschädigte oder verdrehte Anschlusskabel erhöhen das Stromschlagrisiko.
   e) **Verwenden Sie, wenn Sie ein Elektrowerkzeug im Freien benutzen, ein für den Außeneinsatz geeignetes Verlängerungskabel.**
   Ein für den Außeneinsatz geeignetes Kabel vermindert das Stromschlagrisiko.
   f) **Falls sich der Betrieb des Elektrowerkzeugs in feuchter Umgebung nicht vermeiden lässt, verwenden Sie eine Stromversorgung mit Fehlerstromschutzeinrichtung (Residual Current Device, RCD).**
   Durch den Einsatz einer Fehlerstromschutzeinrichtung wird das Risiko eines elektrischen Schlages reduziert.

3) **Persönliche Sicherheit**
   a) **Bleiben Sie wachsam, achten Sie auf das, was Sie tun, und setzen Sie Ihren Verstand ein, wenn Sie mit Elektrowerkzeugen arbeiten.**
   Benutzen Sie keine Elektrowerkzeuge, wenn Sie müde sind oder unter Einfluss von Drogen, Alkohol oder Medikamenten stehen.
   Bei der Arbeit mit Elektrowerkzeugen können bereits kurze Phasen der Unaufmerksamkeit zu schweren Verletzungen führen.
   b) **Benutzen Sie eine persönliche Schutzausrüstung. Tragen Sie immer einen Augenschutz.**
   Schutzausrüstung wie Staubmaske, rutschfeste Sicherheitsschuhe, Schutzhelm und Gehörschutz senken bei angemessenem Einsatz das Verletzungsrisiko.
   c) **Vermeiden Sie unbeabsichtigtes Einschalten. Achten Sie darauf, dass sich der Schalter in der Aus- (Off-) Position befindet, ehe Sie das Gerät mit der Stromversorgung und/ oder Batteriestromversorgung verbinden, es aufheben oder herumtragen.**
   Das Herumtragen von Elektrowerkzeugen mit dem Finger am Schalter oder das Herstellen der Stromversorgung bei betätigtem Schalter zieht Unfälle regelrecht an.
   d) **Entfernen Sie sämtliche Einstellwerkzeuge (Einstellschlüssel), ehe Sie das Elektrowerkzeug einschalten.**
   Ein an einem beweglichen Teil des Elektrowerkzeugs angebrachter Schlüssel kann zu Verletzungen führen.
   e) **Überstrecken Sie sich nicht. Achten Sie jederzeit darauf, sicher zu stehen und das Gleichgewicht zu bewahren.**
   Dadurch haben Sie das Elektrowerkzeug in unerwarteten Situationen besser im Griff.
   f) **Tragen Sie geeignete Kleidung. Tragen Sie keine lose Kleidung oder Schmuck. Halten Sie Ihr Haar und Ihre Kleidung von beweglichen Teilen fern.**
   Lose Kleidung, Schmuck oder langes Haar kann von beweglichen Teilen erfasst werden.
   g) **Wenn Anschlüsse für Staubabsaug- und -sammelvorrichtungen vorhanden sind, sorgen Sie dafür, dass diese richtig angeschlossen und eingesetzt werden.**
   Durch Entfernen des Staubes können staubbezogene Gefahren vermindert werden.
   h) **Lassen Sie es nicht zu, dass die durch häufigen Gebrauch von Werkzeugen erworbene Vertrautheit Sie nachlässig macht und Sie die Sicherheitsrichtlinien für das Werkzeug ignorieren.**
   Eine unvorsichtige Handlung kann in Sekundenbruchteilen zu schweren Verletzungen führen.