

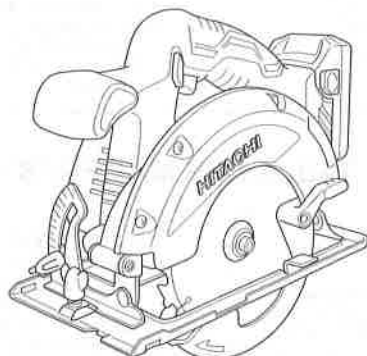
HITACHI

Designed for operating in USA & Canada only.
When this product is used in areas other than the USA & Canada,
we cannot guarantee the product quality and performance.

Model
Modèle
Modelo

C 18DGL

Cordless Circular Saw
Scie circulaire sans fil
Sierra circular a batería



SAFETY INSTRUCTIONS AND INSTRUCTION MANUAL

⚠ WARNING

IMPROPER OR UNSAFE use of this power tool can result in death or serious bodily injury!
This manual contains important information about product safety. Please read and understand this manual **BEFORE** operating the power tool. Please keep this manual available for other users and owners before they use the power tool. This manual should be stored in safe place.

INSTRUCTIONS DE SECURITE ET MODE D'EMPLOI

⚠ AVERTISSEMENT

Une utilisation **INCORRECTE OU DANGEREUSE** de cet outil motorisé peut entraîner la mort ou de sérieuses blessures corporelles!
Ce mode d'emploi contient d'importantes informations à propos de la sécurité de ce produit. Prière de lire et de comprendre ce mode d'emploi **AVANT** d'utiliser l'outil motorisé. Garder ce mode d'emploi à la disponibilité des autres utilisateurs et propriétaires avant qu'ils utilisent l'outil motorisé. Ce mode d'emploi doit être conservé dans un endroit sûr.

INSTRUCCIONES DE SEGURIDAD Y MANUAL DE INSTRUCCIONES

⚠ ADVERTENCIA

¡La utilización **INAPROPIADA O PELIGROSA** de esta herramienta eléctrica puede resultar en lesiones de gravedad o la muerte!
Este manual contiene información importante sobre la seguridad del producto. Lea y comprenda este manual **ANTES** de utilizar la herramienta eléctrica. Guarde este manual para que puedan leerlo otras personas antes de utilizar la herramienta eléctrica. Este manual debe ser guardado en un lugar seguro.

Hitachi Koki

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IMPORTANT SAFETY INFORMATION

Read and understand all of the safety precautions, warnings and operating instructions in the Instruction Manual before operating or maintaining this power tool.

Most accidents that result from power tool operation and maintenance are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.

Basic safety precautions are outlined in the "SAFETY" section of this Instruction Manual and in the sections which contain the operation and maintenance instructions.

Hazards that must be avoided to prevent bodily injury or machine damage are identified by WARNINGS on the power tool and in this Instruction Manual.

NEVER use this power tool in a manner that has not been specifically recommended by HITACHI.

MEANINGS OF SIGNAL WORDS

WARNING indicates a potentially hazardous situations which, if ignored, could result in death or serious injury.

CAUTION indicates a potentially hazardous situations which, if not avoided, may result in minor or moderate injury, or may cause machine damage.

NOTE emphasizes essential information.

SAFETY

GENERAL POWER TOOL SAFETY WARNINGS

WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

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

- 1) **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 dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
 - c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.**
Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
 - d) **Remove any adjusting key or wrench before turning the power tool on.**
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
 - e) **Do not overreach. Keep proper footing and balance at all times.**
This enables better control of the power tool in unexpected situations.
 - f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**
Loose clothes, jewellery or long hair can be caught in moving parts.
 - g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**
Use of dust collection can reduce dust-related hazards.
- 4) **Power tool use and care**
- a) **Do not force the power tool. Use the correct power tool for your application.**
The correct power tool will do the job better and safer at the rate for which it was designed.
 - b) **Do not use the power tool if the switch does not turn it on and off.**
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
 - c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.**
Such preventive safety measures reduce the risk of starting the power tool accidentally.
 - d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.**
Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power 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.
- 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.**
- 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.

WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

CIRCULAR SAW SAFETY WARNINGS**Cutting procedures**

- a) **⚠ DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.**

If both hands are holding the saw, they cannot be cut by the blade.

- b) **Do not reach underneath the workpiece.**

The guard cannot protect you from the blade below the workpiece.

- c) **Adjust the cutting depth to the thickness of the workpiece.**

Less than a full tooth of the blade teeth should be visible below the workpiece.

- d) **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.**

It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

- e) **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring.**

Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.

- f) **When ripping always use a rip fence or straight edge guide.**

This improves the accuracy of cut and reduces the chance of blade binding.

- g) **Always use blades with correct size and shape (diamond versus round) of arbour holes.**

Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

- h) **Never use damaged or incorrect blade washers or bolt.**

The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

Kickback causes and related warnings

- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.**

Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.

- b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.**

Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.

Investigate and take corrective actions to eliminate the cause of blade binding.

- c) **When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.**

If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.

- d) **Support large panels to minimise the risk of blade pinching and kickback.**

Large panels tend to sag under their own weight.

Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

- e) **Do not use dull or damaged blades.**

Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

- f) **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.**

If blade adjustment shifts while cutting, it may cause binding and kickback.

- g) **Use extra caution when sawing into existing walls or other blind areas.**

The protruding blade may cut objects that can cause kickback.

Lower guard function

- a) **Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.**
*If saw is accidentally dropped, lower guard may be bent.
Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.*
- b) **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.**
Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c) **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts".**
*Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.
For all other sawing, the lower guard should operate automatically.*
- d) **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.**
*An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path.
Be aware of the time it takes for the blade to stop after switch is released.*

SPECIFIC SAFETY RULES

- 1. **Never touch moving parts.**
Never place your hands, fingers or other body parts near the tool's moving parts.
- 2. **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.
- 3. **Use right tool.**
Don't force small tool or attachment to do the job of a heavy-duty tool.
Don't use tool for purpose not intended—for example— don't use circular saw for cutting tree limbs or logs.
- 4. **Handle tool correctly.**
Do not drop or throw the tool.
- 5. **Definitions for symbols.**
Vvolts
—direct current
Nono load speed
---/min.....revolutions or reciprocation per minute
Hzhertz
Aamperes

- 6. **Keep all screws, bolts and covers tightly in place.**
Keep all screws, bolts, and plates tightly mounted. Check their condition periodically.
- 7. **Do not use power tools if the plastic housing or handle is cracked.**
Cracks in the tool's housing or handle can lead to electric shock. Such tools should not be used until repaired.
- 8. **Blades and accessories must be securely mounted to the tool.**
Prevent potential injuries to yourself or others. Blades, cutting implements and accessories which have been mounted to the tool should be secure and tight.
- 9. **Carefully handle power tools.**
Should a power tool be dropped or struck against hard materials inadvertently, it may be deformed, cracked, or damaged.
- 10. **Do not wipe plastic parts with solvent.**
Solvents such as gasoline, thinner benzine, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water and dried thoroughly.
- 11. **Keep motor air vent clean.**
The tool's motor air vent must be kept clean so that air can freely flow at all times. Check for dust build-up frequently.
- 12. **NEVER leave tool running unattended. Turn power off.**
Don't leave tool until it comes to a complete stop.
- 13. **NEVER touch the blade with bare hands after operation.**
- 14. For this mode, the saw blades should be 165 mm.
- 15. Because the cordless circular saw operates by battery power, be aware of the fact that it can begin to operate at any time.
- 16. When working at elevated locations, clear the area of other people and aware of conditions below you.

IMPORTANT SAFETY INSTRUCTIONS FOR BATTERY AND BATTERY CHARGER

⚠ WARNING

Death or serious bodily injury could result from improper or unsafe use of battery chargers and battery. To avoid these risks, follow these basic safety instructions:

⚠ CAUTION

USE ONLY HITACHI BATTERY TYPE BSL1815. OTHER TYPES OF BATTERIES MAY BURST AND CAUSE INJURY!

1. Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
2. Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.

3. This manual contains important safety and operating instructions for battery charger Model UC18YKSL.
4. To reduce risk of injury, charge HITACHI rechargeable battery type BSL1815. Other type of batteries may burst causing personal injury and damage.
5. To reduce risk of damage to electric plug and cord, pull by plug when disconnecting battery charger.
6. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
7. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used make sure:
 - a. That blades of extension cord are the same number, size, and shape as those of plug on battery charger.
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is large enough for AC ampere rating of battery charger as specified in Table 1.

Table 1
RECOMMENDED MINIMUM AWG SIZE FOR
EXTENSION CORDS FOR BATTERY CHARGERS

AC Input Rating Amperes*		AWG Size of Cord			
Equal to or greater than	but less than	Length of Cord, Feet (Meter)			
		25 (7.5)	50 (15)	100 (30)	150 (45)
0	2	18	18	18	16
2	3	18	18	16	14
3	4	18	18	16	14

* If the input rating of a battery charger is given in watts rather than in amperes, the corresponding ampere rating is to be determined by dividing the wattage rating by the voltage rating—for example:

$$\frac{1,250 \text{ watts}}{125 \text{ volts}} = 10 \text{ amperes}$$

8. Do not operate battery charger with damaged cord or plug—replace them immediately.
9. Do not operate battery charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
10. Do not disassemble battery charger and the battery; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
11. You must charge the battery before you can use the power tool.
12. To reduce risk of electric shock, unplug the charger from the electrical outlet when not in use, as well as before maintenance or cleaning.
13. **NEVER** charge outdoors. Keep the battery away from direct sunlight and use only where there is low humidity and good ventilation.
14. **NEVER** charge when the temperature is below 32°F (0°C) or above 104°F (40°C).
15. **NEVER** connect two battery chargers together.
16. **NEVER** insert any objects into the hole for the battery or the battery charger. Electric shock or damage to the battery and the battery charger may result.
17. **NEVER** use a booster transformer when charging.
18. **NEVER** use an engine generator or DC power to charge.
19. **NEVER** store the battery or battery charger in places where the temperature may reach or exceed 104°F (40°C).
20. **ALWAYS** operate charger on standard household electrical power (120 volts). Using the charger on any other voltage may overheat and damage the charger.
21. **ALWAYS** wait at least 15 minutes between charges to avoid overheating the charger.

CAUTION ON LITHIUM-ION BATTERY

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

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

Furthermore, please heed the following warning and caution.

⚠ WARNING

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

1. Make sure that swarf and dust do not collect on the battery.
 - During work make sure that swarf and dust do not fall on the battery.
 - Make sure that any swarf and dust falling on the power tool during work do not collect on the battery.
 - Do not store an unused battery in a location exposed to swarf and dust.
 - Before storing a battery, remove any swarf and dust that may adhere to it and do not store it together with metal parts (screws, nails, etc.).
2. Do not pierce battery with a sharp object such as a nail, strike with a hammer, step on, throw or subject the battery to severe physical shock.
3. Do not use an apparently damaged or deformed battery.
4. Do not use the battery in reverse polarity.
5. Do not connect directly to an electrical outlets or car cigarette lighter sockets.

6. Do not use the battery for a purpose other than those specified.
7. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
8. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
9. Keep away from fire immediately when leakage or foul odor are detected.
10. Do not use in a location where strong static electricity generates.
11. If there is battery leakage, foul odor, heat generated, discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger, and stop use.

⚠ 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 an electrically conductive foreign object enters the terminals of the lithium ion battery, a short-circuit may occur resulting in the risk of fire. Please observe the following matters when storing the battery.

- Do not place electrically conductive cuttings, nails, steel wire, copper wire or other wire in the storage case.
- Either install the battery in the power tool or store by securely pressing into the battery cover until the ventilation holes are concealed to prevent short-circuits (See Fig. 1).

**SAVE THESE INSTRUCTIONS
AND
MAKE THEM AVAILABLE TO OTHER USERS
AND
OWNERS OF THIS TOOL!**

FUNCTIONAL DESCRIPTION

NOTE

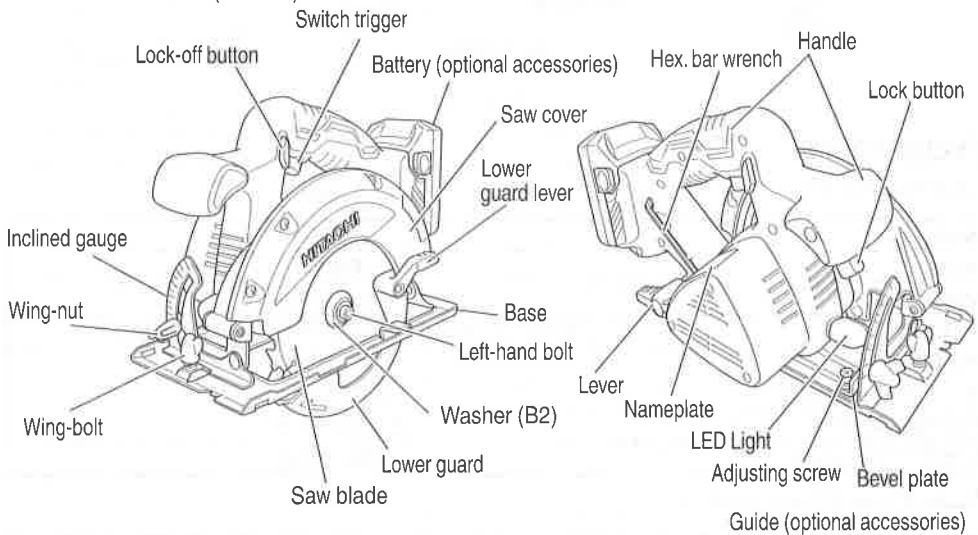
The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the power tool.

NEVER operate, or attempt any maintenance on the tool unless you have first read and understood all safety instructions contained in this manual.

Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own power tool.

NAME OF PARTS

1. Cordless Circular Saw (C18DGL)



○ Battery (optional accessories...sold separately)

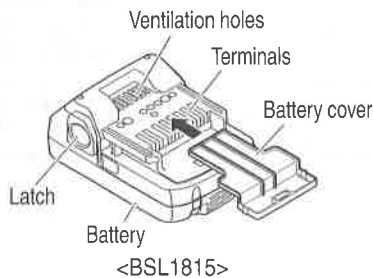
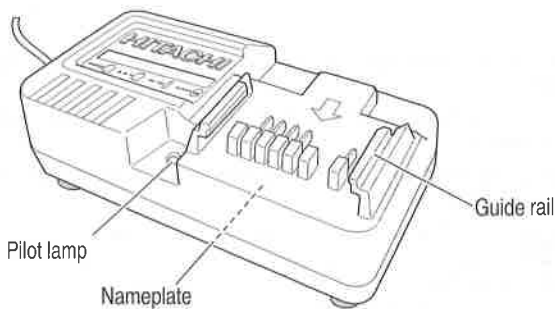


Fig. 1

2. Battery Charger (optional accessories...sold separately)



<UC18YKSL>

Fig. 2

SPECIFICATIONS

1. Cordless Circular Saw

Model	C18DGL
Motor	DC motor
No-load speed	4,500/min
Blade Size	6-1/2" (165 mm) D x 5/8" (15.9 mm) H x 1/16" (1.6 mm) T
Max. Cutting Depth at 90°	2-1/8" (54 mm)
Max. Cutting Depth at 45°	1-3/4" (44.5 mm)
Max. Blade Angle	Adjustable 0 - 50°
Weight (without battery)	6.2 lbs. (2.8 kg)

2. Battery Charger (optional accessories)

Model	UC18YKSL
Input power source	Single phase: AC120 V 60 Hz
Charging time (At a temperature of 68°F (20°C))	BSL1815: Approx. 40 min.
Charging voltage	DC 14.4 V - 18 V
Charging current	DC 2.0 A
Weight	0.8 lbs. (0.35 kg)

NOTE: The charging time may vary according to ambient temperature and power source voltage.

ASSEMBLY AND OPERATION

APPLICATIONS

- Cutting various types of wood.

REMOVAL AND INSTALLATION METHOD OF BATTERY

- How to install the battery.
Align the battery with the groove in tool handle and slip it into place.
Always insert it all the way until it locks in place with a little click. If not, it may accidentally fall out of the tool, causing injury to you or someone around you (Fig. 3).
- How to remove the battery.
Withdraw battery from the tool handle while pressing the latch (2 pcs) of the battery (Fig. 3).

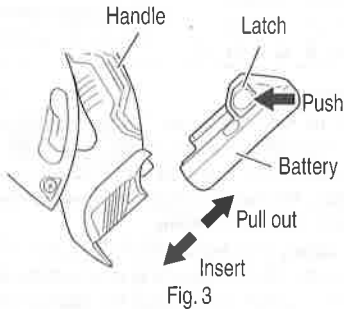


Fig. 3

2. Insert the battery to the battery charger.
Insert the battery into the battery charger as shown in Fig. 4. Make sure it contacts the bottom of the battery charger.

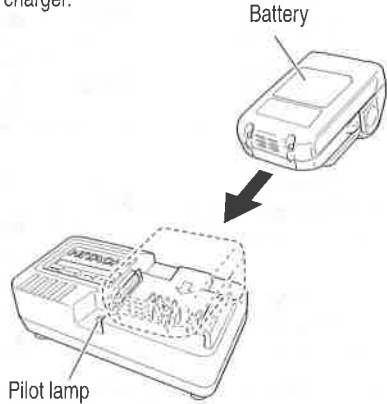


Fig. 4

3. Charging
 - When the battery is connected to the battery charger, charging will commence and the pilot lamp will light in red. (See Table 2)

NOTE

If the pilot lamp does not light or blink in red, pull out the plug from the receptacle and check if the battery is properly mounted.

- When the battery is fully charged, the pilot lamp will blink in red slowly. (At 1-second intervals) (See Table 2)

CHARGING METHOD

NOTE

Before plugging into the receptacle, make sure the following points.

- The power source voltage is stated on the nameplate.
- The cord is not damaged.

⚠ WARNING

Do not charge at voltage higher than indicated on the nameplate.

If charged at voltage higher than indicated on the nameplate, the charger will burn out.

1. Insert the plug of battery charger into the receptacle.
When the plug of battery charger has been inserted into the receptacle, pilot lamp will blink in red. (At 1-second intervals)



⚠ WARNING

Do not use the electrical cord if damaged. Have it repaired immediately.

Table 2

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

- Regarding the temperature of the rechargeable battery. The temperatures for rechargeable batteries are as shown in Table 3, and batteries that have become hot should be cooled for a while before being recharged.

Table 3

Rechargeable batteries	Temperatures at which the battery can be recharged
BSL1815	32°F – 122°F (0°C – 50°C)

4. Disconnect battery charger from the receptacle.

⚠ CAUTION
Do not pull the plug out of the receptacle by pulling on the cord.
Make sure to grasp the plug when removing from receptacle to avoid damaging cord.

5. Remove the battery from the battery charger. Supporting the battery charger with hand, pull out the battery from the battery charger.

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.

- ⚠ CAUTION**
- When the battery charger has been continuously used, the battery charger will be heated, thus constituting the cause of the failures. Once the charging has been completed, give 15 minutes rest until the next charging.
- If the battery 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). The battery will not be recharged. In such a case, let the battery cool before 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.

NOTE

- Charging times may be longer depending on the surrounding temperature and battery conditions.
- Charge time lamp indications are only a guide, and may vary depending on the surrounding temperature and battery conditions.
- Remove the battery from the charger when not in use.

How to make the batteries perform longer.

- Recharge the batteries before they become completely exhausted.

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

- 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.

PRIOR TO OPERATION

⚠ CAUTION

To avoid serious accident, ensure the switch is in the OFF position, and pull out the battery.

1. Check the work area environment
Check the work area to make sure that it is clear of debris and clutter.
Clear the area of unnecessary personnel. Ensure that lighting and ventilation is adequate.
2. Mounting the Saw Blade (Fig. 5)

⚠ WARNING

If the left-hand bolt is worked using other tools than the provided hex. wrench, excessive tightening and insufficient tightening may take place, resulting in injury.

- (1) Thoroughly remove any sawdust which has accumulated on the spindle, bolt and washers.
- (2) Apply quality machine oil to the surfaces of washers (B2) and (A1) which come into contact with the blade.
- (3) As shown in Fig. 5, one side of the saw blade should be fitted to the projecting center of washer (A1) which matches the blade's inner diameter, and the other side to the concave side of washer (B2).
- (4) To ensure that the saw blade rotates in the correct direction, make sure the arrow on the saw blade points in the same direction indicated by the arrow on the saw cover.
- (5) Using the fingers, tighten the left-hand bolt securing the saw blade as much as possible. Then press the lock button, lock the spindle, and fully tighten the left-hand bolt with the hex. wrench.

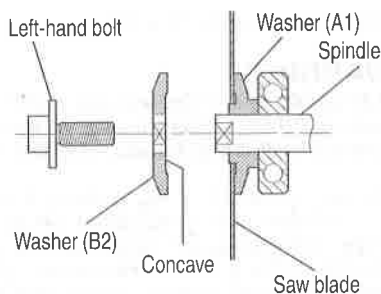


Fig. 5

⚠ CAUTION

After mounting the saw blade, reconfirm that the lock button is firmly secured in the prescribed position.

3. Dismounting the saw blade

⚠ CAUTION

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

- (1) Set the cutting volume at maximum, and place the Circular Saw as shown in Fig. 6.

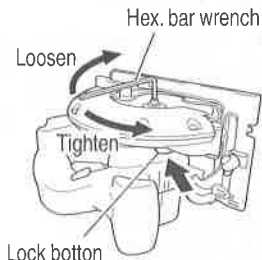


Fig. 6

- (2) Depress the lock button, lock the spindle, and remove the left-hand bolt and washer (B2) with the hex. bar wrench.
- (3) While holding the lower guard lever to keep the lower guard fully retracted into the saw cover, remove the saw blade (Fig. 7).

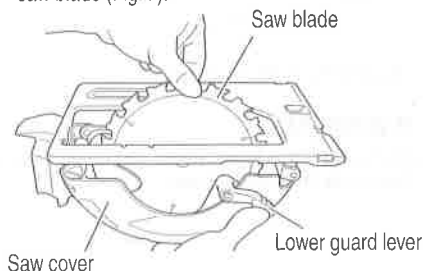


Fig. 7

4. Check performance of lower guard

⚠ WARNING

Make absolutely sure that the lower guard is not fixed. Also, check and see if it can move smoothly. If the saw blade is kept exposed, injury can result.

The lower guard (refer to Fig. 1) serves to protect your body from coming into contact with the saw blade. Make absolutely certain that the cover smoothly performs to cover the saw blade. If the lower guard should not move smoothly, never use it without repairing it.

In such a case, get in touch with the store where you bought the circular saw or the HITACHI AUTHORIZED SERVICE CENTER for necessary repair.

5. Check for proper operation of the brake
This circular saw features an electric brake that functions when the switch is released. Before using the circular saw, ensure that the electric brake functions properly. If it does not, bring the tool to a HITACHI AUTHORIZED SERVICE CENTER.
6. Adjusting the cutting depth (Fig. 8)

⚠ WARNING

If the lever is loose, injury can result. Tighten it securely after adjustment.

To adjust cutting depth, loosen the lever and, while holding the base with one hand, move the main body up and down to obtain the prescribed cutting depth. After adjusting to the prescribed cutting depth, tighten the lever securely.

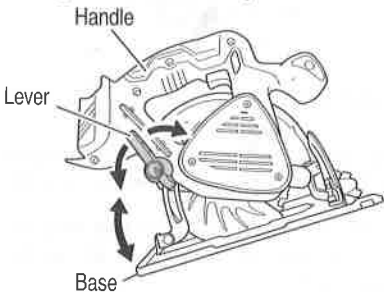


Fig. 8

7. Adjusting the angle of inclination

⚠ WARNING

If the wing-nut is loose, injury can result. Tighten it securely after adjustment.

As shown in Fig. 9 by loosening the wing-nut on the inclined gauge, the saw blade may be inclined to a maximum angle of 50° in relation to the base. Always insure that the wing-nut is thoroughly tightened after making the desired adjustment.

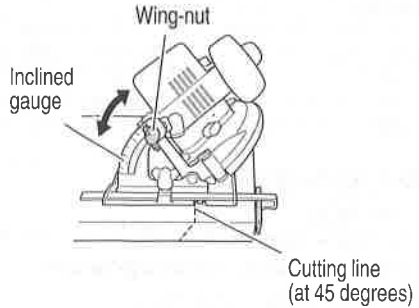


Fig. 9

NOTE

Values of the inclined gauge provided on the base merely serve as a rough guideline. For cutting operation at an inclined precise angle, use the circular saw after adjusting the angle between the base and the saw blade with a protractor, etc.

8. Prepare a wooden work bench (Fig. 10)
Since the saw blade will extend beyond the lower surface of the lumber, place the lumber on a work bench when cutting. If a square block is utilized as a work bench, select level ground to ensure it is properly stabilized. An unstable work bench will result in hazardous operation.

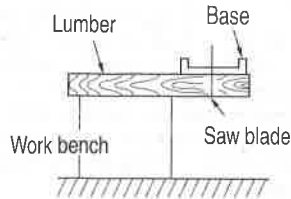


Fig. 10

⚠ CAUTION

To avoid possible accident, always ensure that the portion of lumber remaining after cutting is securely anchored or held in position.

9. Check battery insertion

⚠ WARNING

If the battery is inserted while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

⚠ CAUTION

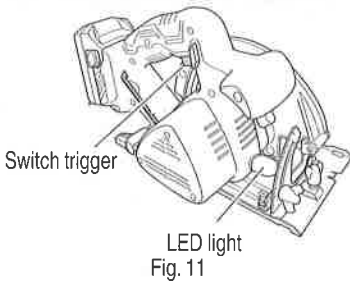
Until the battery locks in place with a little click, if not, it may accidentally fall out of the tool causing injury to you or someone around you.

OPERATION**⚠ WARNING**

- Never touch the moving parts.
- Never operate the circular saw with the saw blade turned upward or to the side.
- Do not fix and secure the switch lock. Besides, keep your finger off the switch trigger when the circular saw is being carried around. Otherwise, the main body switch can be inadvertently turned ON, resulting in unexpected accidents.
- Do not use any abrasive wheels.
- Use only blade diameter specified on the product nameplate.

⚠ CAUTION

- Don't remove circular saw from workpiece during a cut while the saw blade is moving.
- Pull out the battery after completing operation.
- Do not look directly into the light from the LED lamp. Continuous and direct exposure to the light from the LED lamp can injure your eyes.



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

NOTE

Take care not to lock the motor. If the motor is locked, immediately turn the power off. If the motor is locked for a while, the motor or battery may be burnt.

1. Check if saw blade is tightened
While the saw blade is tightened securely for immediate use when it is assembled at the factory, be sure to check it out again for caution's sake. A bolt can be tightened when it is turned clockwise. Use the provided box wrench to check it out. For further

details, refer to the item of [PRIOR TO OPERATION] on Page 13.

2. Check if the lever is tightened
If the lever to adjust cutting depth (Fig. 8) is loose, injury can result. Make sure that it is tightened securely.
3. Switch operation
 - (1) Switch lock
For safe operation, there is a "Lock-off button" located on the side of the handle. An LED lamp will light up when the trigger switch is in the ON position. (Fig. 12)
 - (2) Trigger switch
After the switch is turned ON, even when you release your hand from the lock-off button, the body continues running and the LED light continues being turned ON as long as you keep on pulling the switch trigger.
If you release the switch trigger, you can turn OFF the switch and the "Lock-off button" returns to the original position automatically and the LED light turns OFF too.

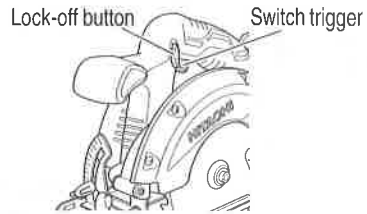


Fig. 12

4. Cutting procedures

⚠ CAUTION

- Recheck that the saw blade is securely clamped.
- Confirm that the lever for adjusting the slot depth, the wing-nut for adjusting the angle of inclination.

- (1) Place the base on the material, then align the premarked line and the saw blade with the notch at the front of the base (Fig. 13).

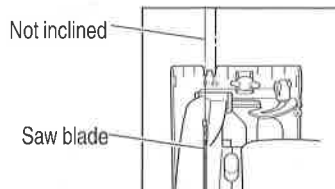
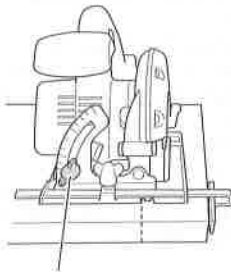


Fig. 13 <Top View>

- (2) When the base is not inclined, use the left side of the notch (Fig. 13, Fig. 14).
If the base is inclined (45 degrees), use the right side of the notch (Fig. 13, Fig. 15).



Wing-nut

Fig. 14 Not inclined

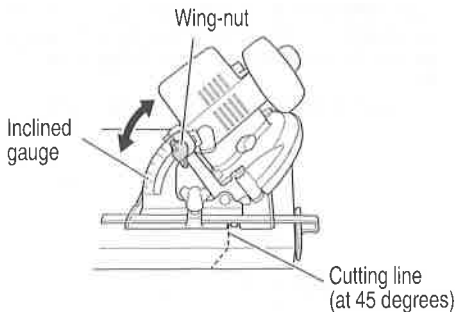


Fig. 15

NOTE

When using the saw at the inclination of 45 degrees, use both the marks of on the bevel plate and [45] on the inclined gauge of the base (Fig. 16).

What's more, if it is absolutely essential to use the saw at a precise angle, make adjustment using a protractor, etc.

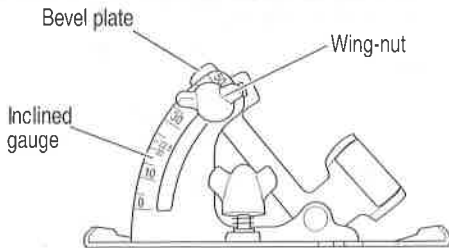


Fig. 16

- (3) Ensure that the switch is turned to the ON position before the saw blade comes in contact with the lumber. The switch is turned ON when the switch trigger is squeezed; and OFF when the switch trigger is released. Moving the saw straight at a constant speed will produce optimum cutting.

CAUTION

- Before starting to saw, ensure that the saw blade has reached full speed revolution.
- Should the saw blade be stopped or made an abnormal noise during operation, turn off the switch immediately.
- When finished with a job, pull out the battery from the main body.
- To avoid abnormal heating of the blade tip or damage to the saw blade, do not twist or apply excessive force to the saw blade when cutting. Let the blade move forward smoothly.
- In the situation where the circular saw is continuously operated while replacing the battery with stocked spare batteries one after another, the motor tends to overheat. Therefore, whenever the housing becomes hot, give the saw a break for a while.
- Avoid cutting operation in a state where the base bottom is afloat from the material being cut. Otherwise, the motor can get locked.

MAINTENANCE AND INSPECTION

⚠ WARNING

Be sure to turn off the switch and pull out the battery before doing any inspection or maintenance.

1. Inspecting the saw 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.

⚠ CAUTION

If a dull saw blade is used, reactive force is increased during cutting operation. Avoid the use of the dull saw blade without repair.

2. Check the Screws
Loose screws are dangerous. Regularly inspect them and make sure they are tight.

⚠ CAUTION

Using this power tool with loosen, screws is extremely dangerous.

3. Motor unit maintenance
The motor winding is an important part of this tool. Avoid damaging and be careful to avoid contact with cleaning oil or water.
After 50 hours of use, clean the motor by blowing into the ventilation holes of the motor housing with dry air from an air gun or other tool (Fig. 17).
Dust or particle accumulation in the motor can result in damage.
4. Inspecting and maintaining the lower guard
Always make sure that the lower guard moves smoothly.
In the event of any malfunction, immediately repair the lower guard.
For cleaning and maintenance, use an air gun or other tool to blow clean the space between the lower guard and gear cover as well as the rotation part of the lower guard with dry air (Fig. 17).
Doing so is effective for the emission of chips or other particles.
Accumulation of chips or other particles around the lower guard may result in malfunction or damage.

⚠ WARNING

To prevent dust inhalation or eye irritation, wear protective safety goggles and a dust mask when using an air gun or other tool to clean the lower guard, ventilation holes or other parts of the product.

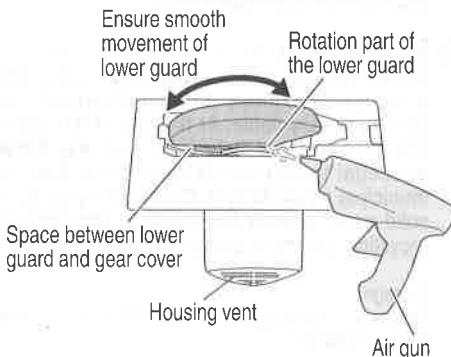


Fig. 17

5. Clean inside the saw cover
Periodically inspect and clean the saw cover to ensure that there is no accumulation of chips or other particles.
6. Adjusting the base and saw blade to maintain perpendicularity
The angle between the base and the saw blade has been adjusted to 90°, however should this perpendicularity be lost for some reason, adjust in the following manner.
 - (1) Turn the base face up (Fig. 18) and loosen the wing-nut.

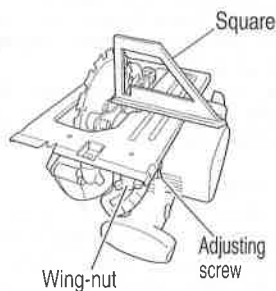


Fig. 18

- (2) Apply a square to the base and the saw blade and, turning the adjusting screw with a phillips-screwdriver, shift the position of the base to produce the desired right angle.
7. Check for dust
Dust may be removed with a clean rag or a cloth dampened with soapy water.
Do not use bleach, chlorine, gasoline or thinner, for they may damage the plastics.

8. Lubrication
The bearings in this tool have been sufficiently lubricated with quality lubricating oil, taking into account the expected life of this tool under normal operating conditions. As a result, no further lubrication is necessary.
9. Disposal of the exhausted battery

⚠ WARNING

Do not dispose of the exhausted battery. The battery may explode if it is incinerated. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

10. Storage
Storing in a place below 104°F (40°C) and out of the reach of children.

NOTE

Make sure that the battery is fully charged when stored for a long period (3 months or more). The battery with smaller capacity may not be able to be charged when used, if stored for a long period.

NOTE

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

11. Service and repairs
All quality power tools will eventually require servicing or replacement of parts because of wear from normal use. To assure that only genuine replacement parts must be used, all service and repairs must be performed by a HITACHI AUTHORIZED SERVICE CENTER, ONLY.
12. Service parts list

⚠ CAUTION

- **Repair, modification and inspection of Hitachi Power Tools must be carried out by a Hitachi Authorized Service Center.**
This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

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

MODIFICATIONS:

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts may be changed without prior notice.

Important notice on the batteries for the Hitachi 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).

ACCESSORIES

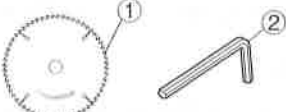
⚠ WARNING

ALWAYS use Only authorized HITACHI replacement parts and accessories. Never use replacement parts or accessories which are not intended for use with this tool. Contact HITACHI if you are not sure whether it is safe to use a particular replacement part or accessory with your tool.
The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

NOTE

Accessories are subject to change without any obligation on the part of the HITACHI.

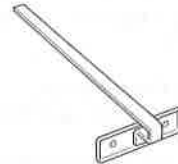
STANDARD ACCESSORIES

C18DGL (NN)						
	<p>① Saw Blade (mounted on tool) 1</p> <table border="1"> <thead> <tr> <th>External Diam.</th> <th>Hole Diam.</th> <th>Code No.</th> </tr> </thead> <tbody> <tr> <td>6-1/2" (165 mm)</td> <td>5/8" (15.9 mm)</td> <td>324293</td> </tr> </tbody> </table> <p>② Hex. bar wrench (Code No. 940543) (mounted on tool)..... 1 Battery, battery charger and battery cover are not contained.</p>	External Diam.	Hole Diam.	Code No.	6-1/2" (165 mm)	5/8" (15.9 mm)
External Diam.	Hole Diam.	Code No.				
6-1/2" (165 mm)	5/8" (15.9 mm)	324293				

OPTIONAL ACCESSORIESSOLD separately

5. Guide (Code No. 302756)

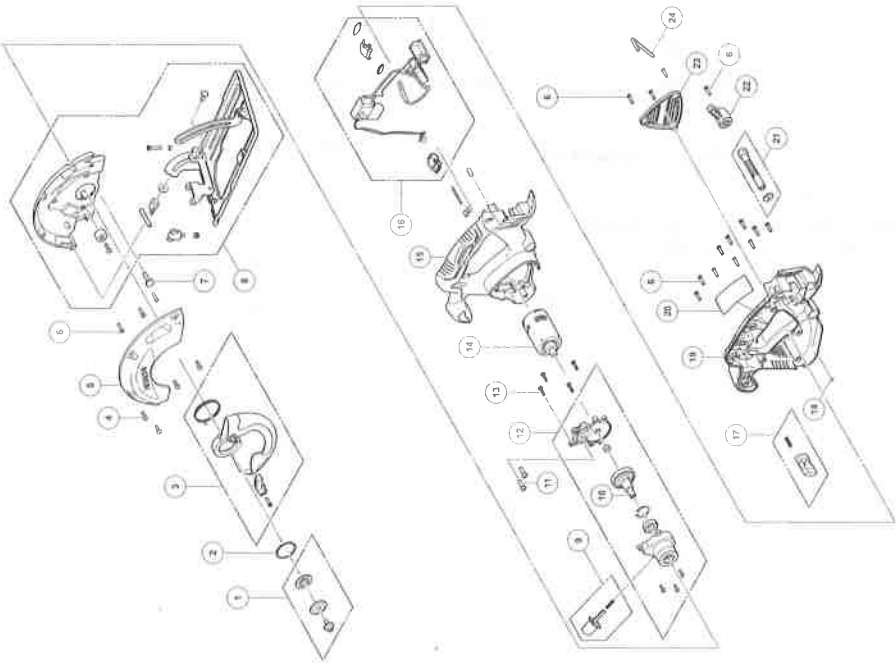
- Battery (BSL1815) (Code No. 333353)
- Battery charger (UC18YKSL)
- Battery cover (Code No. 329897)
- Saw Blade Use ... Cutting various types of wood.



External Diam.	Hole Diam.	No. of teeth	Code No.
6-1/2" (165 mm)	5/8" (15.9 mm)	24 Pieces	324293
		40 Pieces	317451

NOTE:

Specifications are subject to change without any obligation on the part of the HITACHI.



Item No.	Part Name	QTY
1	FLANGE BOLT SET	1
2	RETAINING RING	1
3	LOWER GUARD SET	1
4	TAPPING SCREW	4
5	SAW COVER	1
6	TAPPING SCREW	17
7	BOLT (SQUARE)	1
8	BASE ASS'Y	1
9	SPINDLE LOCK SET	1
10	GEAR	1
11	TAPPING SCREW	2
12	SPINDLE ASS'Y	1
13	TAPPING SCREW	4
14	MOTOR	1
15	HOUSING (A)	1
16	PCB ASS'Y	1
17	LOCK OFF BUTTON SET	1
18	O RING	1
19	HOUSING (B)	1
20	NAME PLATE (C18DGL)	1
21	LOCK ROD SET	1
22	LEVER	1
23	MOTOR COVER	1
24	HEX. BAR WRENCH 5MM	1



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