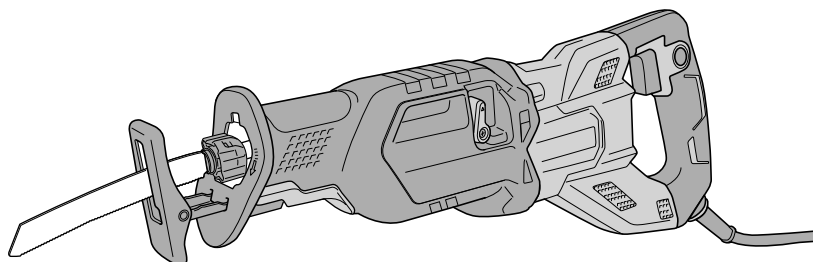


HIKOKI

CR 13VEY



Handling 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) Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.**

This will ensure that the safety of the power tool is maintained.

PRECAUTION

Keep children and infirm persons away.

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

RECIPROCATING 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. Preparing and checking the work environment. Make sure that the work site meets all the conditions laid forth in the precautions.
2. Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.
3. Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.
4. When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.
5. Prior to cutting into walls, ceilings or floors, ensure there are no electric cables or conduits inside.
6. Dust produced in operation
The dust produced in normal operation may affect the operator's health. To wear a dust mask is recommended.
7. 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 saw a break for a while.
8. If the machine is used continuously at minimum 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.
9. Always hold the body handle and front cover of the power tool firmly. Otherwise the counterforce produced may result in inaccurate and even dangerous operation.
10. Mounting the blade (Fig. 5)

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

- Turn off the switch and unplug the power cord. Be absolutely sure to keep the switch turned off and the power cord unplugged to prevent any accident.
- Pull the back of the saw blade two or three times by hand and check that the blade is securely mounted. When pulling the blade, you will know it is properly mounted if it clicks and the lever moves slightly.

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

11. Maintenance and inspection of saw blade mount

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

- As shown in Fig. 14, carry out lubrication around the blade holder on a periodic basis by use of cutting fluid, etc.

- Continued use of the tool without cleaning and lubricating the area where the saw blade is installed can result in some slack movement of the lever due to accumulated sawdust and chips. Then, clean up the inside of the blade holder with air and the like and carry out sufficient lubrication.

- Do not use any saw blade with a worn-out blade hole (A). Otherwise, the saw blade can come off, resulting in personal injury. (Fig. 1)

12. Adjusting the swing cutting operation

- Even for soft materials, you should perform straight cutting if you wish to make curved or clean cuts.

- Dust and dirt accumulated on the change lever section can degrade the function of the change lever. Periodically clean the change lever section.

- When performing swing cutting, use a saw with straight blade. If a saw with curved blade is used, the saw blade may be broken or the unit may be damaged.

13. How to use

- Avoid carrying it plugged to the outlet with your finger on the switch. A sudden startup can result in an unexpected injury.

- Be careful not to let sawdust, earth, moisture, etc., enter the inside of the machine through the plunger section during operation. If sawdust and the like accumulate in the plunger section, always clean it before use.

- Do not remove the front cover. Hold firmly the front cover by hand to operate. But, do not extend your hand or finger beyond the flange of front cover to avoid an injury.

- During use, press the base against the material while cutting.

Vibration can damage the saw blade if the base is not pressed firmly against the workpiece.

Furthermore, a tip of the saw blade can sometimes contact the inner wall of the pipe, damaging the saw blade.

- Select a saw blade of the most appropriate length. Ideally, the length protruding from the base of the saw blade after subtracting the stroke quantity should be larger than the material (see Fig. 10).

If you cut a large pipe, large block of wood, etc., that exceeds the cutting capacity of a blade; there is a risk that the blade may contact with the inner wall of the pipe, wood, etc., resulting in damage.

- To maximize cutting efficiency for the materials you are using and working conditions, adjust the speed of the saw blade and the switching to swing cutting.

Cutting

- Press the base firmly against the workpiece.
- Never apply any unreasonable force to the saw blade when cutting. Doing so can easily break the blade.

- Fasten a workpiece firmly before operation. (Fig. 11)
- When cutting metallic materials, use proper machine oil (turbine oil, etc.). When not using liquid machine oil, apply grease over the workpiece.

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

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

Sawing curved lines

- We recommend that you use the BI-METAL blade mentioned in Table 2 for the saw blade since it is tough and hardly breaks.

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

Plunge cutting (Fig. 12 and 13)



















- Avoid plunge cutting for metallic materials. This can easily damage the blade.
 - Never pull the switch trigger while the tip of the saw blade tip is pressed against the material. If you do so, the blade can easily be damaged when it collides with the material.
 - Make absolutely sure that you cut slowly while holding the body firmly. If you apply any unreasonable force to the saw blade during the cutting operation, the blade can easily be damaged.
- The motor can be locked sometimes, depending on the combination of the material to be cut and the blade. Whenever the motor gets locked, switch it off immediately.
 - Never touch moving parts.
Never place your hands, fingers or other body parts near the tool's moving parts.
 - 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.
 - NEVER leave tool running unattended. Turn power off. Don't leave tool until it comes to a complete stop.
 - 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.
 - Do not give a strong shock to the switch panel or break it. It may lead to a trouble.

①	Machine oil
②	Air gun

SYMBOLS




WARNING

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

	CR13VEY: Reciprocating Saw
	To reduce the risk of injury, user must read instruction manual.
	Switching ON
	Switching OFF
Lock 	Switch locks to the "ON" position.
	Mode selector switch
	Mode indicator lamp
	Minimum speed mode
Minm	
	Low speed mode
Lm	
	Middle speed mode
Mm	
	High speed mode
Hm	
	Max. speed mode
Maxm	
	Straight mode
	Orbital mode
	Straight cutting
	Orbital cutting
	Stroke
	Disconnect mains plug from electrical outlet

NAMES OF PARTS (Fig. 1 – Fig. 13)

①	Blade holder
②	Blade
③	Base
④	Base lever
⑤	Change lever
⑥	Handle
⑦	Switch trigger
⑧	Switch stopper
⑨	Motor
⑩	Front cover
⑪	Housing
⑫	Name plate
⑬	Hook
⑭	Switch palel
⑮	Mode selector switch
⑯	Blade hole
⑰	Lever
⑱	Slit of plunger
⑲	Another blade
⑳	Stroke

	Class II tool
	Warning
	Prohibited action

MOUNTING AND OPERATION

Action	Figure	Page
Switch Operation	2	7
Adjusting operating speed*1	3	8
Adjusting stroke	4	8
Mounting the blade	5	8
Dismounting the blade*2	6	9
When the blade broken*3	7	9
Adjusting the base	8	9
How to use the hook*4	9	9
Select a saw blade of the appropriate length	10	10
Fastening work piece firmly	11	10
Plunge cutting (for wood)	12	10
Plunge cutting with the saw blade installed in reverse	13	11
Maintenance and inspection of saw blade mount	14	11
Selecting accessories	—	13

STANDARD ACCESSORIES

In addition to the main unit (1 unit), the package contains the accessories listed on page 12.

Standard accessories are subject to change without notice.

APPLICATIONS

- Cutting metal and stainless steel pipe.
- Cutting various lumbers.
- Cutting mild steel plates, aluminum plates, and copper plates.
- Cutting synthetic resins, such as phenol resin and vinyl chloride.

For details refer to the section entitled "SELECTION OF BLADES".

SPECIFICATIONS

Voltage (by areas) *	(110 V, 220 V, 230 V, 240 V) ~	
Power Input *	1100 W	
Capacity	Mild Steel Pipe	O.D. 130 mm
	Vinyl Chloride Pipe	O.D. 130 mm
	Wood	Depth 300 mm
	Mild Steel Plate	Thickness 19 mm
No-Load Speed	0 – 3000 /min	
Stroke	32 mm	
Weight (without cord)	3.9 kg	

* Be sure to check the nameplate on product as it is subject to change by areas.

NOTE

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

Refer to **Table 1, 2 and 3** for use of the blades.

*1 Adjusting operating speed

CAUTION

Select mode while the trigger switch is released. Failure to do so could result in malfunction.

Once you connect the power plug to an outlet and switch on the power, you can change modes with each press of the mode selector switch.

- Speed change mode allows the number of maximum strokes to be switched between 5 levels: minimum speed, low speed, middle speed, high speed and Max. speed.

With speed change mode, the set number of maximum strokes will be maintained even if there is a change in load.

Operating speed

Mode	Status	Operating speed
Transmission Mode	Min.	0 – 1200 /min
	Low	0 – 1700 /min
	Middle	0 – 2000 /min
	High	0 – 2500 /min
	Max.	0 – 3000 /min

*2 Dismounting the blade

CAUTION

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

- (1) After pivoting the lever, point the blade downward. The blade should fall out on its own. If the blade fails to fall out, pull it out by hand. (**Fig. 6**)

*3 When the blade is broken

Even when the saw blade is broken and remains inside the small slit of the blade holder, it should fall out when the lever is pivoted and the blade is pointed downward. If the blade fails to fall out on its own, take it out by using the procedures described below.

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

(2) If the broken saw blade is hidden inside the small slit, hook the broken blade using a tip of another saw blade and take it out. (Fig. 7)

*4 How to use the Hook

The hook can be used to hang up the unit temporarily during operations.

CAUTION

The hook should never be used to hang the unit on your person.

When using the hook, check to make sure that the main unit will not slip and fall, or become unstable by the wind, etc.

Never hang the unit from your belt or trousers as this could cause accidents.

SELECTION OF BLADES

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

The blade number is engraved in the vicinity of the mounting portion of each blade. Select appropriate blades by referring to Table 1-3.

Table 1: HCS blades

Blade No.	Uses	Thickness (mm)
No. 4	For cutting and roughing lumber	50 – 70
No. 5	For cutting and roughing lumber	Below 30

Table 2: BI-METAL blades

Blade No.	Uses	Thickness (mm)
No. 101 No. 103 No. 109 No. 141(S)	For cutting steel and stainless pipes less than 60 mm in outer diameter	2.5 – 6
No. 102 No. 104 No. 110 No. 142(S) No. 143(S)	For cutting steel and stainless pipes less than 100 mm in outer diameter	2.5 – 6
No. 107	For cutting steel and stainless pipes less than 60 mm in outer diameter	Below 3.5
No. 108	For cutting steel and stainless pipes less than 100 mm in outer diameter	Below 3.5
No. 121	For cutting and roughing lumber	100
No. 131	All purpose	100
No. 132	All purpose	100

Table 3: Selection of blades for other materials

Material to be cut	Material quality	Thickness (mm)	Blade No.
Iron plate	Mild steel plate	2.5 – 10	No. 101, 102, 103, 104, 109, 110, 131, 141(S), 142(S), 143(S)
		Below 3.5	No. 107, 108
Nonferrous metal	Aluminium, Copper and Brass	5 – 20	No. 101, 102, 103, 104, 109, 110, 131, 132, 141(S), 142(S), 143(S)
		Below 5	No. 107, 108
Synthetic resin	Phenol resin, Melamine resin, etc.	10 – 50	No. 101, 102, 103, 104, 131, 132, 141(S), 142(S), 143(S)
		5 – 30	No. 107, 108, 109, 110
	Vinyl chloride, Acrylic resin, etc.	10 – 60	No. 101, 102, 103, 104, 131, 132, 141(S), 142(S), 143(S)
5 – 30		No. 107, 108, 109, 110	

MAINTENANCE AND INSPECTION

CAUTION

Be sure to switch OFF and disconnect the attachment plug from the receptacle to avoid a serious accident.

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. Replacing supply cord

If the replacement of the supply cord is necessary, it has to be done by HiKOKI Authorized Service Center to avoid a safety hazard.

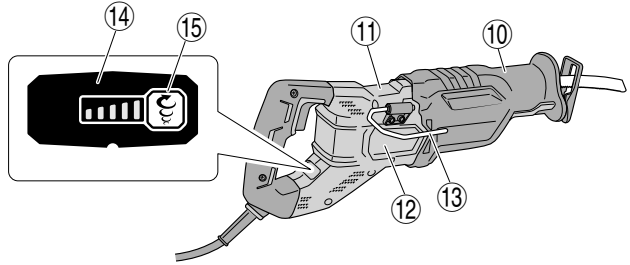
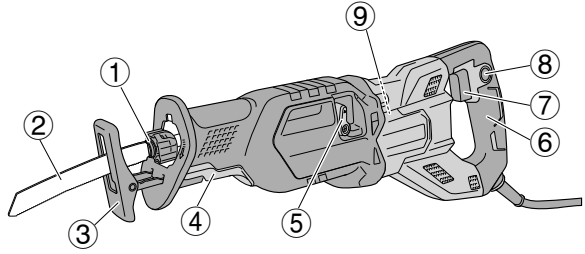
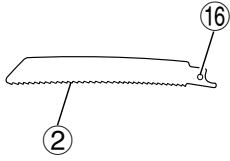
CAUTION

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

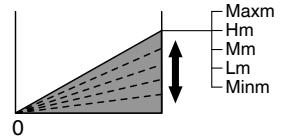
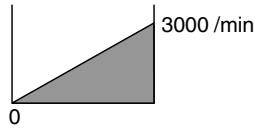
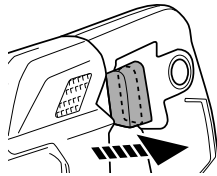
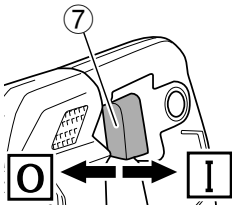
NOTE

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

1

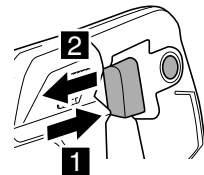
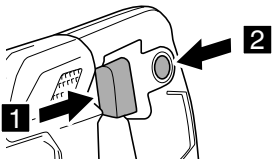


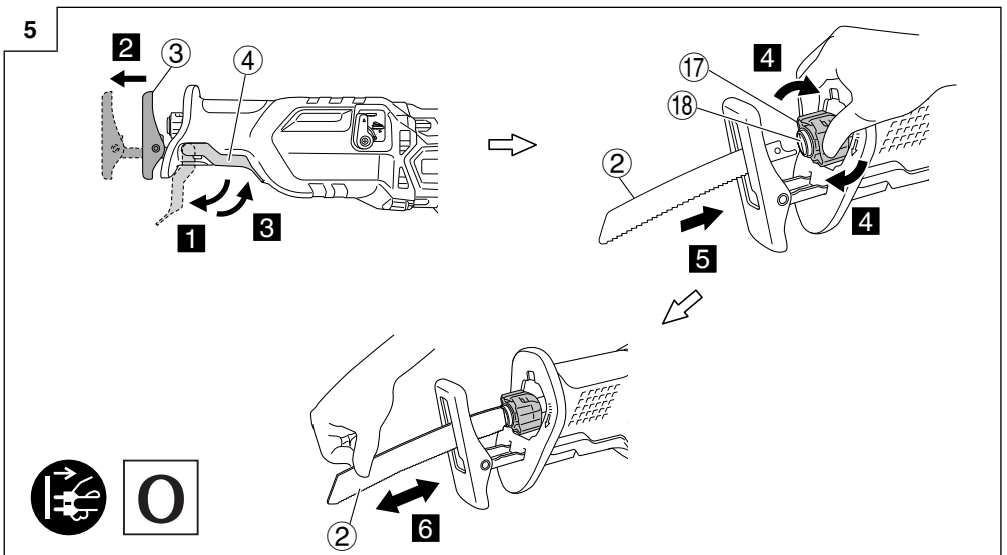
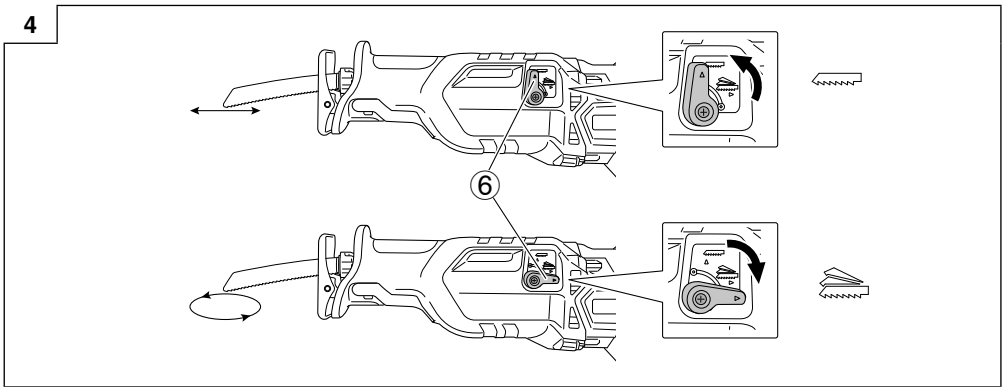
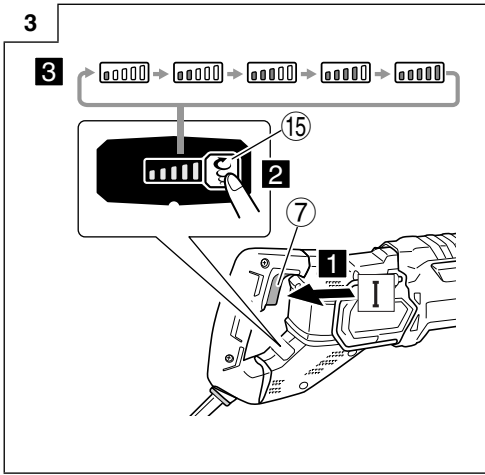
2

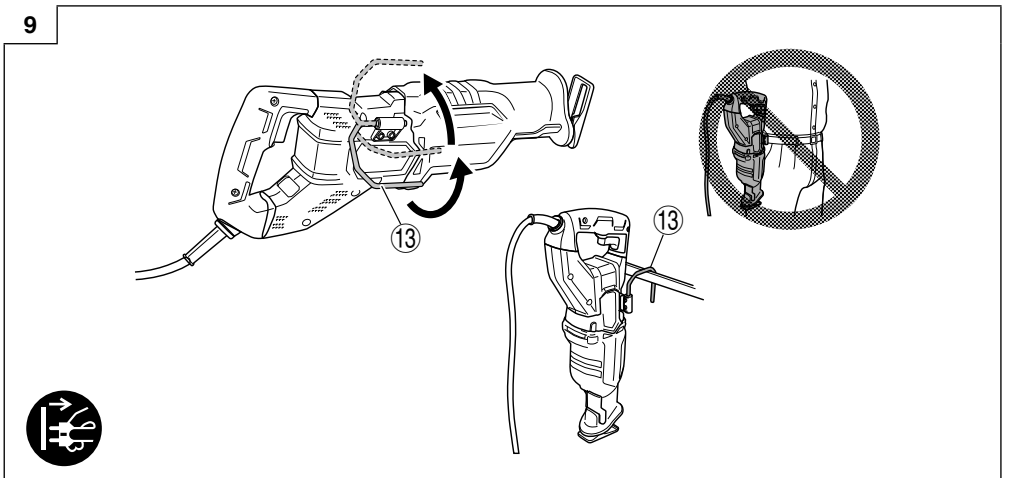
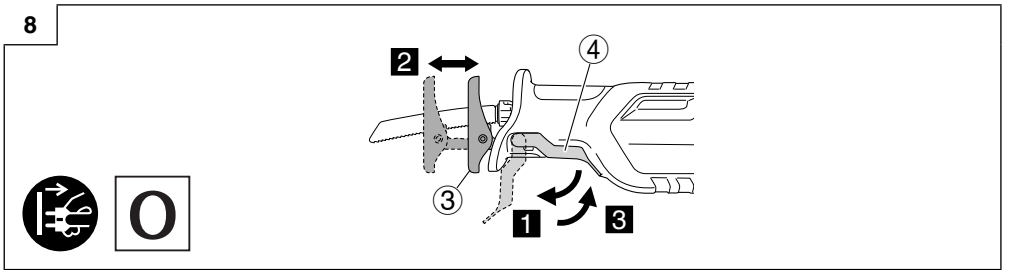
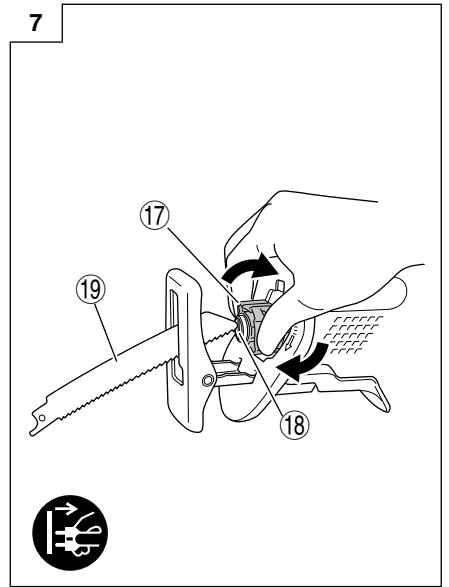
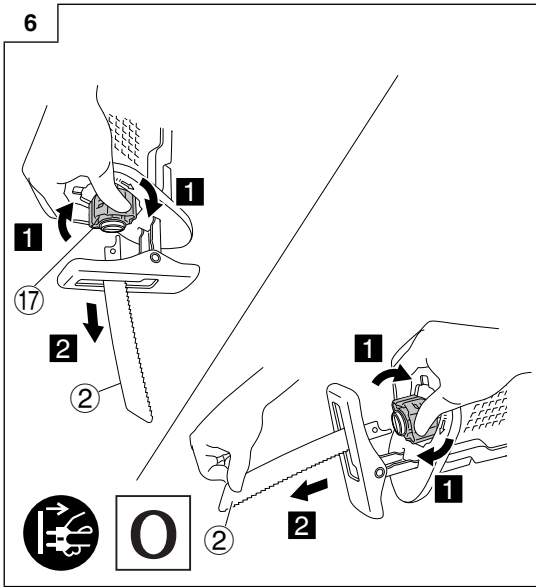


1 + 2 = I (Lock)

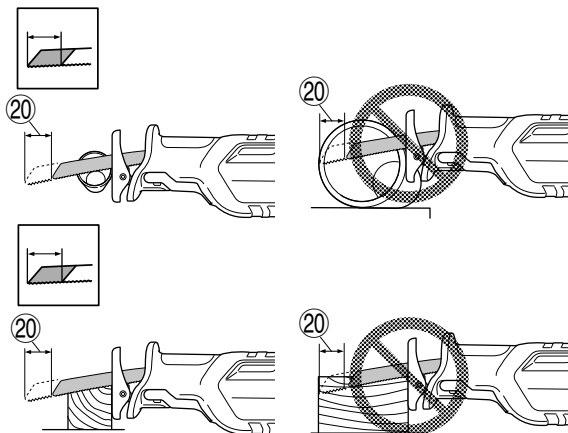
1 + 2 = O



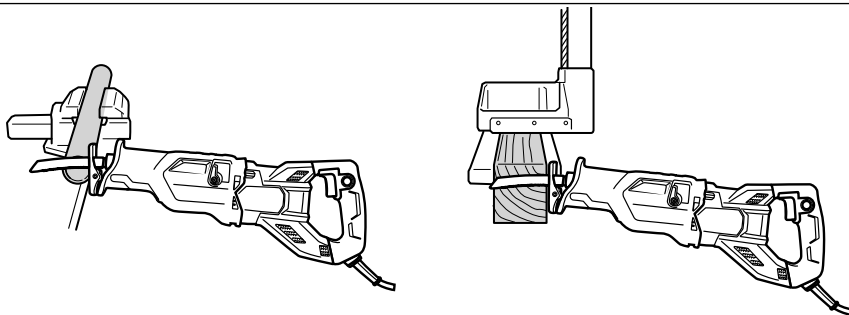




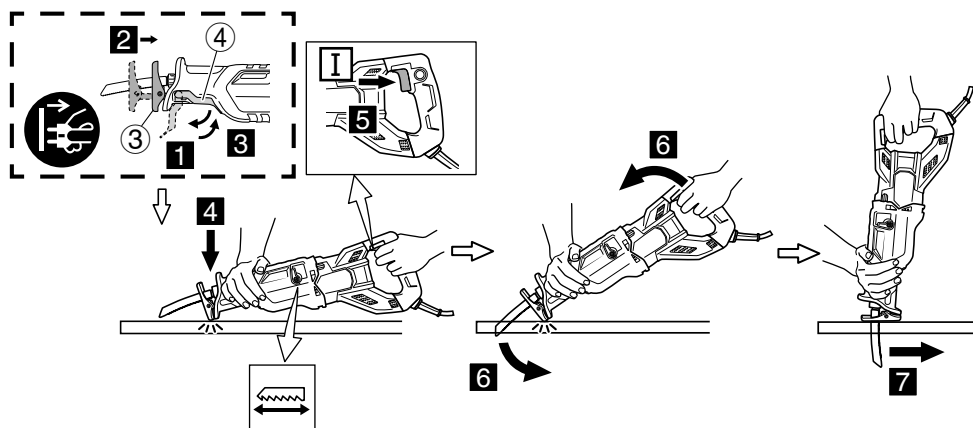
10



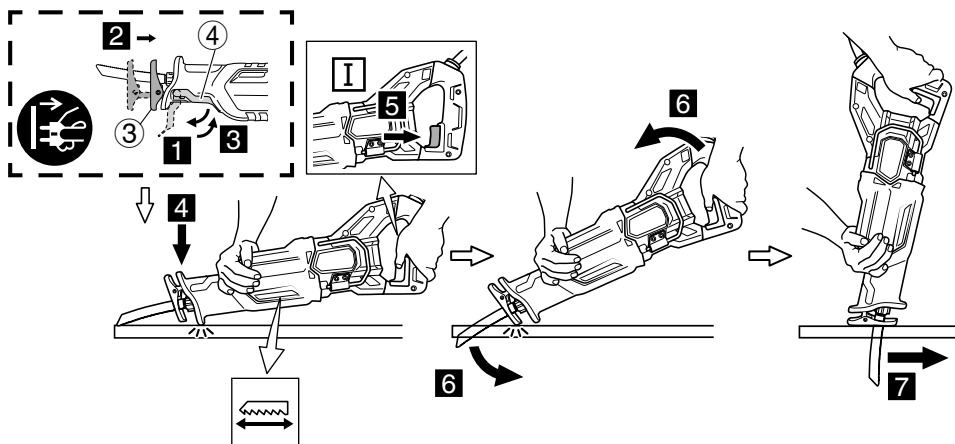
11



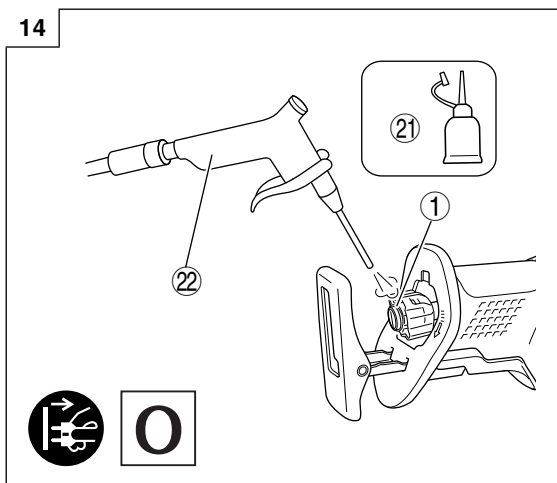
12

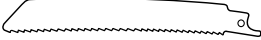
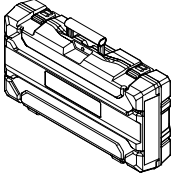


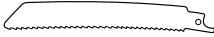
13



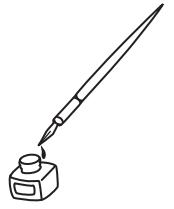
14

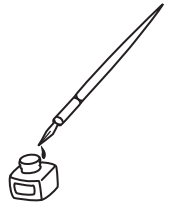


	CR13VEY
 No. 141 (S)	1
	1



No.4	959611
No.5	958185
No.95	959799
No.96	959800
No.101	318611
No.102	318612
No.103	318613
No.104	318614
No.107	318617
No.108	318618
No.109	324818
No.110	324819
No.121	318619
No.131	318620
No.132	318621
No.141(S)	370683
No.142(S)	370684
No.143(S)	370685





Koki Holdings Co., Ltd.

Shinagawa Intercity Tower A, 15-1, Konan 2-chome,
Minato-ku, Tokyo, Japan