XHD Lithium Cordless Reciprocating Saw Brushless 18V - Bare Tool

TSC9

OPERATORS MANUAL

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Note

This manual is for your reference only. Due to the continuous improvement of the XHD Lithium products, changes may be made at any time without obligation or notice.

Thank You

For the purchase of this XHD Lithium product. We try our hardest to supply customers like you with the best quality products available, at the best price possible. We cant wait to continue working together in the future.

SPECIFICATIONS

Rated Voltage	18V DC
No Load Speed	0–3000 RPM
Saw Blade Type	1/2" Universal Shank
Stroke Length	25.4mm
Maximum Blade Length	150mm
Cutting Capacity Wood:	100mm
Cutting Capacity Metal:	40mm
Battery Pack Voltage	18V DC

Intended Use

The tool is intended for sawing wood, plastic, metal and building materials with a strong impact. It is suitable for straight and curved cutting.

PRODUCT IDENTIFICATION

1. Wood Blade (Included)
2. Shoe
3. Blade Slot Assembly
4. Barrel Grip
5. Oscillation Control Switch
6. Motor Vents
7. Variable Speed Trigger
8. Safety Lock Off
9. Main Handle
10. Battery Slot
11. Battery Release Button
12. XHD Battery (Not Included)
13. Shoe Adjustment Button
14. Hand Guard
15. Metal Blade (Not Pictured)

SAFETY GUIDELINES

⚠ WARNING

READ ALL SAFETY WARNINGS & INSTRUCTIONS. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire.

Work Area Safety

- **Ensure that your work area is kept clean and well lit.** Lack of visibility and clutter greatly increase the risk of accident when using tools.
- **Keep bystanders, pets, and children clear when operating this power tool or machine.** They can cause distraction or risk injury to themselves.
- **Ensure you are not operating the power tool or machinery in the presence of dust, liquids, flammable gases, or anything that can create an explosive atmosphere.** Power tools and machinery can create sparks which can lead to ignition and fire hazards in working environments.

Personal Safety

- **Always wear personal protective equipment (PPE).** Eye protection, ear protection, dust masks, and other protective equipment will help to reduce the risk of personal injury or long-term illnesses.
- **Dress appropriately. DO NOT wear loose clothing that can get caught in moving parts.** Keep hair, loose clothing, jewellery, and anything else that could be of risk, away from moving parts in the machine, or they could become caught therein.
- **Always remain alert and DO NOT operate power tools or machinery under the influence of any substances such as alcohol or drugs, including prescription medications.** Lack of focus could lead to injury or accidents while operating these power tools and machinery.
- **Always ensure proper footing and balance.** Overreaching can lead to slipping and falling which can result in injury or accident.
- **Ensure the power switch is in the OFF position before connecting any battery, or power source to the power tool or machinery.** This can cause injury as tools and machinery can suddenly fire incidentally when live, causing accidents.
- **Use all provided dust collection and extraction attachments, if included.** This equipment, along with the use of PPE dust masks, can help keep you safe from dust inhalation, and keep your work site clear from hazards.
- **Ensure loose parts such as wrenches or adjusting keys are removed before starting the power tool or machinery.**

SAFETY GUIDELINES

Power Tool & Machinery Use & Care

- **Use the correct tool for the job.** Forcing a tool to do a job it was not designed for increases the risk of accident or injury.
- **Disconnect tools and machinery from power, or remove batteries before doing any maintenance or adjustments, or before storing the tools and machinery.** This reduces or removes the risk of a power connection that causes the tool or machinery to accidentally fire, which can help prevent injury or accident.
- **Check the general condition of the power tool for damage or any problems that could affect the way the tool or machine works.** An unrepaired tool or machine can lead to accident and injury. Only have your tool or machine repaired with genuine parts from your local distributor
- **Only use the power tool and machinery with genuine parts or accessories that are designed to be used with this power tool and machinery.** Failure to do so could result in accident or injury, or damage your tool or machinery.
- **Store your tool or machinery out of reach of children, and away from untrained personnel when not in use.** Use by somebody untrained, or a child, could lead to accident or serious injury.

Service

- **Have your tools and machinery serviced by your local distributor with genuine XHD Lithium replacement parts.** This will ensure that the safety of the power tool or machine is maintained.

⚠ WARNING

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Always Use Common Sense

- It is not possible to cover every conceivable situation you can face. Always exercise care and use your common sense. If you get into a situation where you feel unsafe, stop and seek expert advise. Contact your dealer, service agent, or an experienced user. Do not attempt any task you feel unsure of!
- **Do not let familiarity gained from the 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.

SAFETY GUIDELINES

Battery Tool Use & Care

- Prevent unintentional starting. Ensure the switch is in the OFF position before connecting to the battery pack, picking up, or carrying the machine. Carrying the machine with your finger on the switch or energising a machine that has the switch ON invites accidents.
- Disconnect the battery pack from the machine before making any adjustments, changing accessories, or storing the machine. Such preventive safety measures reduce the risk of starting the machine accidentally.
- Recharge the battery 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.
- Use machines only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- When the battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws, or small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush the area with water. If liquid contacts eyes, seek medical help. Liquid ejected from the battery may be acidic and may cause irritation or burns.
- Do not use a battery pack or machine that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion, or risk of injury.
- Do not expose a battery pack or machine to fire or excessive temperature. Exposure to fire or temperature above 130°C may cause explosion.
- Follow all charging instructions and do not charge the battery pack or machine outside of the temperature range specified in the instructions.
- Charging the battery improperly, or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Have servicing performed by a local XHD distributor repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Do not modify or attempt to repair the machine or the battery pack except as indicated in the instructions for use and care.

Battery Long Life Tips

- Charge the battery cartridge before it is completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
- Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
- Charge the battery cartridge with room temperature at 10°C – 40°C. Allow a hot battery cartridge to cool before charging it.
- Charge the battery cartridge once in every six months if you do not use it for extended periods at a time.

SAFETY GUIDELINES

Reciprocating Saw Specific Safety

- Hold 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.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
- Avoid cutting nails. Inspect workpiece for any nails and remove them before operation.
- Check for the proper clearance beyond the workpiece before cutting so that the blade will not strike the floor, workbench, etc.
- Hold the tool firmly with both hands.
- Make sure the blade is not contacting the workpiece before the switch is turned on.
- Keep hands away from moving parts.
- Do not leave the tool running. Operate the tool only when hand-held.
- Always switch off and wait for the blade to come to a complete stop before removing the blade from the workpiece.
- Do not touch the blade or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
- Do not leave the tool on at no load.
- Do not use your hands to remove sawdust, chips or waste close to the blade.
- Always use the correct dust mask/respirator for the material and application you are working with.
- Never reach over the blade to remove waste or off-cuts.
- Do not attempt to free a jammed blade until the machine has been switched off.
- Do not attempt to slow or stop a blade with any object. Let the blade come to rest naturally.
- Periodically check the tool for loose nuts, bolts and tighten as necessary.

⚠ WARNING

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

- ***Lead from lead-based paint,***
- ***Crystalline silica from bricks, 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 dust masks that are specially designed to filter out microscopic particles.

BEFORE USE

⚠ WARNING

Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking the tool.

Installing or Removing the Battery

- To remove the battery cartridge, slide it from the tool while depressing the button on the front of the cartridge.
- To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, that means it is not locked completely.

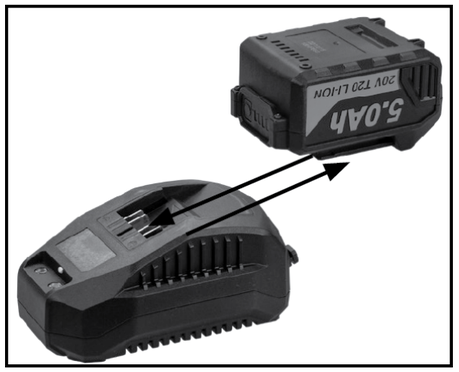
⚠ CAUTION

Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

Indicating the Remaining Battery Capacity

- Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator will light up for few seconds.

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.



INDICATOR LAMPS			*REMAINING CAPACITY*
LIGHTED	*OFF*	*BLINKING*	
■ ■ ■ ■			75% to 100%
■ ■ ■	□		50% to 75%
■ ■	□ □		25% to 50%
■	□ □ □		0% to 25%
◪	□ □ □		Charge the Battery.
■ ■	□ □		The Battery may have Malfunctioned
	↑ ↓		
□ □		■ ■	

BLADES

Tool/Battery Protection System

- The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload Protection

- When the tool/battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat Protection

- When the tool/battery is overheated, the tool stops automatically. In this situation, let the tool/battery cool before turning the tool on again.

Over Discharge Protection

- When the battery capacity is not enough, the tool stops automatically. In this case, remove the battery from the tool and charge the battery.

⚠ CAUTION

Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

Changing Blades

⚠ WARNING

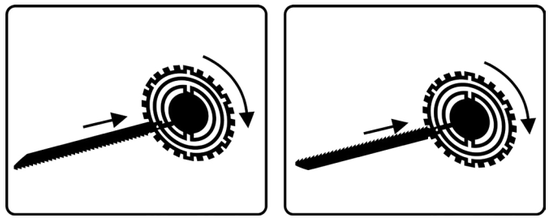
To reduce the risk of injury, always remove the battery pack before changing or removing accessories.

⚠ WARNING

DO NOT continue to use blunt, warped or otherwise damaged saw blades.

NOTE: ALWAYS fit a saw blade specific to the material you are cutting.

- Rotate the Blade Slot Assembly fully counter-clockwise (Fig. Below), and insert the blade shank as far as it will go into the slot in the required orientation. For most uses the teeth will be facing down.



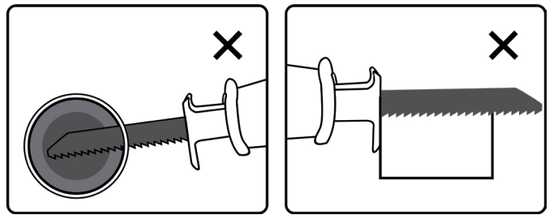
- Release the Blade Slot Assembly collar.
- Pull the blade to ensure that it is secure. If it is not locked firmly in place repeat the above procedure.
- To remove a blade from the chuck, rotate the chuck collar fully counter-clockwise, and pull the blade forward, out of the chuck.

NOTES: This reciprocating saw uses standard 1/2" universal shank saw blades.

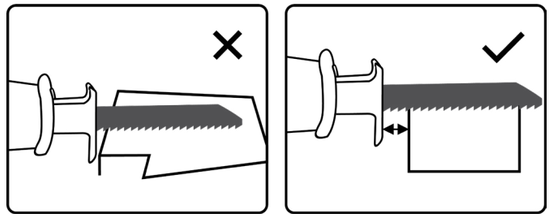
BLADES

NOTES:

- Use a blade length that extends beyond the Shoe at all stages of the reciprocating action stroke and is long enough for the workpiece.

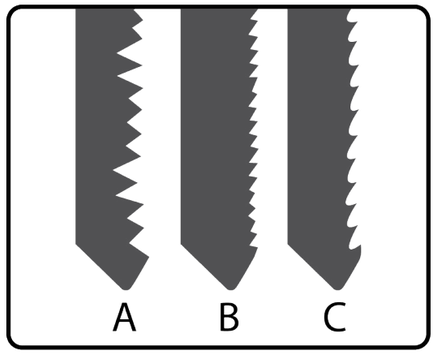


The blade end should not be within the body of the workpiece at any stage of the reciprocating action (see below).



- When removing broken blades be very careful of sharp metal where the blade has broken. If necessary, use pliers to remove the blade.
- Dust, wood chippings, and swarf can cause the blade locking mechanism to malfunction. If this occurs, remove the blade and hold the Blade Slot Assembly in open mode. Remove particles from the mechanism by vacuuming or blowing dry compressed air through the blade Slot.
- It may be necessary to twist the Blade Clamp Assembly wheel back and forth to loosen the dust — do this with the slot facing downwards. After cleaning, use a dry graphite based lubricant on the Blade Clamp mechanism.

Types of Blades



- **(A)** is a general purpose bi-directional cut suitable for branches on bushes or trees. It cuts fast but will push the branch away from the Shoe as it cuts on one part of its reciprocating action.
- **(B)** is a teeth configuration suitable for metal with a very fine tooth pitch. This takes a very small amount of material with each cut and is normally uni-directional. E.g., if cutting a pipe, the reciprocating saw would not push the pipe away from the Shoe as its major cut is only when cutting towards the Shoe.
- **(C)** is a typical uni-directional wood saw blade. It cuts as it returns to the saw, not when it travels away from the saw.

Understanding the difference between uni-directional and bi-directional saw blades and when to use each type will make safer and more effective use of the reciprocating saw. Only use bi-directional saw blades when it is safe to do so. Some high-performance blades with a fast cutting action may be based on a bi-directional cut as are some blades designed for materials such as plaster.

Always use a uni-directional blade when the workpiece isn't securely clamped.

WARNING

Always use adequate protective equipment, including eye protection, respiratory and hearing protection, as well as suitable gloves, when working with this tool.

WARNING

NEVER attempt to cut with a saw blade fitted that is not suitable for the material. NEVER use blunt or otherwise damaged saw blades.

Switching On & Off

NOTE: ALWAYS use clamps to secure your workpiece to the workbench wherever possible.

- Hold the tool securely with both hands by the Main Handle (9) and Barrel Grip (4) ensuring your hands are always behind the Hand Guard (14) at all times.
- Ensure the tool is not in contact with the workpiece before depressing the trigger switch on.
- Press in the Safety Lock-Off (8) and hold the trigger switch in.

NOTE: The Safety Lock-Off is on both sides of the tool for both left and right handed operation.

- Press the Variable Speed Trigger (7) to start the saw.

NOTE: The speed of the blade is controlled by increasing/decreasing pressure on the Variable Speed Trigger.

- Release the Variable Speed Trigger Switch to stop the saw.

WARNING

Always wait until the saw blade has stopped moving completely, before putting the machine down. It is recommended to remove the battery after use for safety.

Adjusting the Tool Speed

- This XHD Lithium reciprocating saw features variable speed control, adjusted by the Variable Speed Trigger Switch (7), which enables it to be used with a variety of different materials, workpieces, and objects.

NOTE: If in doubt about the correct cutting speed, refer to the blade manufacturer's instructions, and follow recommendations specific to the material being cut.

WARNING

ALWAYS adjust the speed according to material requirements. Use appropriate cutting fluid or cooling agent when cutting metals.

Making General Cuts

- Mark out the cutting line.
- Ensure that the material to be cut is secure. Small workpieces should be held in a vice or clamped to the workbench.
- Hold the saw firmly using both hands - one on the insulated Main Handle (9), and one on the insulated Barrel Grip (4).
- Make sure that the blade is clear of any obstruction, or foreign objects.
- Squeeze the trigger and allow the blade to reach full speed.
- Place the shoe on the workpiece and begin sawing.

WARNING

Use ONLY enough pressure to keep the saw cutting. NEVER force the saw blade; allow the blade and the saw to do the work. Use of excessive pressure that causes bending or twisting of the blade may cause the blade to break.

Making Plunge Cuts

WARNING

ONLY attempt the plunge cutting procedure in soft materials such as wood, plasterboard, or similar. DO NOT attempt plunge cuts in metal or hard materials. ONLY use blades specifically designed for plunge cutting.

WARNING

Plunge cutting is an advanced technique with higher risk. Attempt plunge cuts only when you are competent and experienced in this technique.

WARNING

Inspect both sides of the workpiece surface carrying out the plunge cut. Ensure there are no foreign objects on the underneath, or objects which could be damaged. Be aware of hidden pipework and cables when plunge cutting into drywalls, ceilings or floor boards. If pipes or cables may be present, switch off all electrical circuit breakers and shut off water and gas supplies at the relevant mains valves.

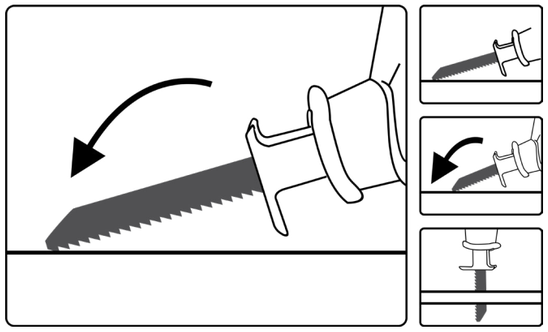
WARNING

Blindly plunge cutting into walls, floors and ceilings may lead to serious injury and substantial damage to property.

OPERATION

Making Plunge Cuts

- Mark the line of the cut.
- Choose a point inside the area to be cut out and place the tip of the blade over that point.
- Rest the front edge of the shoe on the work-piece so the blade does not make contact with the workpiece surface.



- Hold the tool securely with both hands by the Insulated Main Handle (9) and Barrel Grip (4), and make sure you have full control at all times.
- Squeeze the Variable Speed Trigger (7) fully, for maximum speed, and allow the blade to reach full speed.
- Slowly lower the blade until it makes contact with the workpiece.
- Continue to cut slowly, until the blade has fully penetrated the thickness of the work-piece (as shown in figure above).
- Commence with cutting as normal.

NOTES:

- Use the same plunge technique when re-entering the same inset cut slot until a section of material has been removed that allows entry from the edge of the material within the inset cut.
- If the technique is unsuccessful, due to the blade or hardness of the material, a more conventional method will be required for an inset cut, as used for metal. Drill a hole or multiple connected holes wider than the blade and start the cut from the drilled hole.

Metal Cutting Tips

NOTE: This saw is capable of cutting metals, such as sheet steel, pipe, steel rods, aluminium, brass, and copper.

- ALWAYS use a blade specified for cutting metal.
- Be careful not to bend or twist the blade and do not force the cutting action.
- ALWAYS use a suitable cutting fluid when sawing soft metals and steel. This keeps the blade cooler, prolongs blade life and makes cutting more efficient.
- Clamp the workpiece firmly and cut close to the clamping point to minimise vibration.
- When cutting conduit pipe or angle iron, clamp the workpiece in a vice, if possible, and cut close to the vice.
- To cut thin sheet metal, sandwich the sheet between hardboard or plywood and clamp the layers to prevent vibration and tearing of the metal.

OPERATION

Oscillation Mode

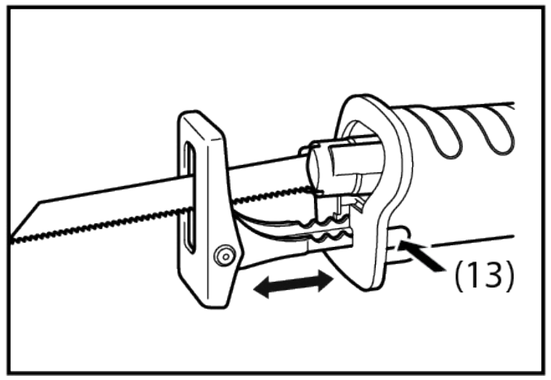
- The oscillation mode on the XHD Cordless Reciprocating Saw is a specialised feature designed to increase cutting efficiency, especially through softer materials. When activated, this mode moves the blade in a slightly elliptical pattern, creating a more aggressive cut that helps clear debris from the cutting path, allowing for faster, more controlled progress.

Switching Between Modes

- To activate oscillation mode, adjust the Oscil-lation Control Switch (5) located on the side of the saw.
- Switching back to the straight-cut mode is recommended for precise cuts in harder materials, such as metal or dense hardwood, where a controlled, linear motion is more effective.
- Ensure the saw is powered off and the blade has come to a complete stop before adjusting modes for safe operation.

Adjusting the Shoe

- When the blade loses its cutting efficiency in one place along its cutting edge, you are able to reposition the shoe to utilise a sharp, unused portion of its cutting edge, or for special jobs requiring low blade clearance. This will help to lengthen the life of the blade.
- To reposition the shoe, depress the Shoe Adjustment Button (13) and reposition either forward or back, as shown in the figure.
- Be sure the shoe 'clicks' into place before operating the saw.



MAINTENANCE

- Before cleaning or performing any maintenance, you must ensure the tool is switched off and disconnected from the power supply.
- Compressed air is the most effective way to clean this tool. Always wear PPE safety goggles when cleaning tools with compressed air.
- Ventilation openings and switch levers must be kept clean. DO NOT attempt to clean by inserting pointed objects through openings.
- Do not use harsh chemicals or solvents when cleaning this tool.
- If you discover any damaged or broken parts, consult your local XHD distributor for replacements and advise.

Battery Disposal

- Batteries and electronics should not be disposed of in household garbage. Please return your old batteries to your local distributor for safe and environmentally friendly disposal.
- Together, we can care for the environment.

Environment & Disposal

- Packaging materials are raw materials and can be re-used. Separate the different packaging materials and take them to the appropriate waste disposal facility. More information can be obtained from your local authorities.
- Old machines do not belong in your household garbage! Dispose of old machines appropriately, we are all responsible for the environment.

⚠ WARNING

Always be sure that the tool is switched off and the battery removed before attempting to perform any inspection or maintenance.

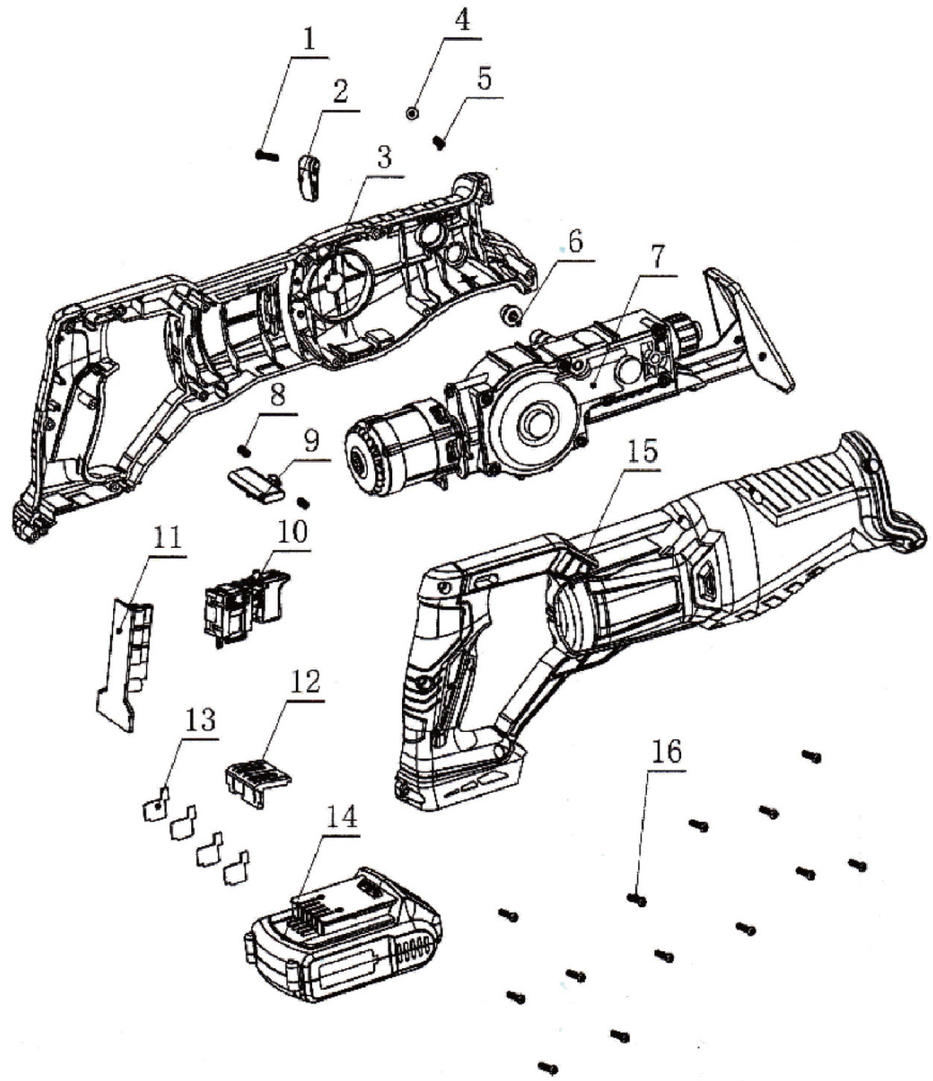
Cleaning

- Keep your machine clean at all times. Dirt and dust will cause internal parts to wear quickly, and shorten the machine's service life. Clean the body of your machine with a soft brush or dry cloth. If available, use clean, dry, compressed air to blow through the ventilation holes.

Storage

- Store this tool carefully in a secure, dry place out of the reach of children

EXPLODED PARTS LIST



1	Screw
2	Cutter Lifting Key
3	Left Housing
4	Steel Ball
5	Little Spring
6	Quick Change Key
7	Gear Box Assembly
8	Spring

9	Locking Switch
10	Speed-Control Switch
11	Brushless PCB Controller
12	Insert Frame
13	Body Insert
14	Battery Component
15	Right Housing
16	Self-Tapping Screw