

MEMO

Aimsak**Operation Instructions****BLDC****BL18S60**

18V Brushless 6" Circular Saw

**BL18S60****BL22S80**

21.6V Brushless 6" Circular Saw

**BL22S80****Index**

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※ Product images may differ from the actual product.

⚠ To ensure safety, make sure that you read, understand and observe the safety instructions.

[CAUTION]

Do not use too much force to use the tool. Select the right tool for the purpose and application to enhance work efficiency. Be advised that any use of a tool that doesn't meet its specifications may result in decreased performance and shortened lifespan.

Aimsak

MADE IN KOREA <2018-06>

PU050305

Aimsak Inc.

【 Tool Specification 】

※ Check the model number and carefully read and understand the Manual.

► Specification

Spec	Model	BL18S60 18 V Brushless 6" Union Circular Saw	BL22S80 21.6 V Brushless 6" Union Circular Saw
Voltage		DC 18 Vd.c.	DC 21.6 Vd.c.
No Load Speed		Low 3,400 / Hi 5,200 min ⁻¹	Low 3,700 / Hi 5,600 min ⁻¹
Blade Diameter		165mm(6.5")	165mm(6.5")
Max. Cutting Depth		58 mm	58 mm
	0 °	45 °	45 mm
	50 °	41 mm	41 mm
Weight		3.0 kg	3.1 kg
Charger		ALC 4640M	
Charger Power Input		AC 200~240 V / 50~60 Hz	

※ Aimsak battery is developed for Aimsak products only. Under the same voltage (e.g., 21.6V, 18V, 14.4V, 10.8V, 7.2V) or same mechanical specifications by battery type (e.g., slide, plug-in), it is compatible regardless of capacity (ampere: Ah).

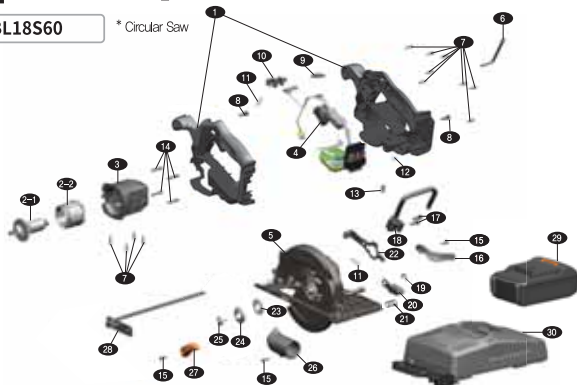
► Contents

Item	Model	BL18S60	BL22S80
Circular Saw		1 EA	1 EA
Battery		2 EA	2 EA
Charger		1 EA	1 EA
Distance Bar		1 EA	1 EA
Hook		1 EA	1 EA
Dust Nozzle		1 EA	1 EA
Saw Blade for Wood		1 EA	1 EA
Inner Flange	D20	1 EA	1 EA
	D19	1 EA	1 EA
Outer Flange		1 EA	1 EA
Flange Bolt		1 EA	1 EA
Operation Manual		1 EA	1 EA
Carrying Bag		1 EA	1 EA

【 Exploded View 】

BL18S60

* Circular Saw



BL22S80

* Circular Saw



※ In the exploded new for each product, functions and parts are subject to change without prior notice with performance improvement.

Part Name

NO.	Part Name	Q'ty	NO.	Part Name	Q'ty	NO.	Part Name	Q'ty	NO.	Part Name	Q'ty
1	Housing	1	8	Bolt (M5*20)	2	16	Blow Nozzle	1	24	Outer Flange	1
2-1	Rotor	1	9	Speed Lever	1	17	Bolt (M5*15)	2	25	Flange Bolt	1
2-2	Stator	1	10	Lock Button	1	18	Hook	1	26	Dust Nozzle	1
3	Motor Cover	1	11	Spring	2	19	E Ring	1	27	Safety Cover Lever	1
4	Switch	1	12	Front Battery Bumper	1	20	Fixing Lever	1	28	Distance Bar	1
5	Gear Box	1	13	Side Battery Bumper	2	21	Spring	1	29	Battery	2
6	Hex Wrench	1	14	Bolt (M4*20)	4	22	Lock Plate	1	30	Charger	1
7	Bolt (M3*15)	12	15	Bolt (M4*6)	3	23	Inner Flange	D20 D19	1		

【 Safety Instructions 】

Please read the Manual thoroughly and observe the safety instructions.
Keep manual in a safe and handy place for easy reference.

Make sure to observe the following safety instructions at all times to remain safe from electric shock, fire or any other hazard while using or charging the tool. Do not become careless or inattentive after becoming familiar with its usage; always follow the safety rules. Any violation of the safety instructions or incorrect use of the tool may result in serious injury. The terms "power tool" in the CAUTION refers to either electric or battery-operated power tool.

1. Work Area Safety

- ▶ **Keep work area clean and well lit.**
Cluttered or dark areas invite accidents.
- ▶ **Do not operate power tools in an explosive atmospheres such as in the presence of flammable liquids, gases or dust.**
Any spark from power tools may ignite the dust or fumes.
- ▶ **Keep children and bystanders away while operating the power tool.**
Distractions can cause a loss of control.

2. Electrical Safety

- ▶ **Power tool plugs must match the outlet. Never modify the power plug in any way.**
Do not use any adapter plugs with grounded power tools.
Unmodified plugs and matching outlets will reduce the risk of electric shock.
- ▶ **Avoid body contact with grounded surfaces such as pipes, radiators, microwave ovens and refrigerators.**
There is an increased risk of electric shock by contacting these surfaces.
- ▶ **Do not expose power tools to rain or wet conditions.**
Water entering a power tool will increase the risk of electric shock.
- ▶ **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts.**
Damaged or entangled cords increase the risk of electric shock.
- ▶ **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.
- ▶ **If operating a power tool in a humid place is unavoidable, use earth leakage circuit breaker (ELCB).**
The use of the ELCB reduces the risk of electric shock

3. User Safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool when tired or under the influence of drugs, alcohol or medication.**
A moment of inattention while operating power tools may result in serious personal injury.

- ▶ **Use personal protective equipment. Always wear eye protection.** The use of protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection under appropriate conditions will reduce the risk of personal injury.
- ▶ **Be careful to not start the tool accidentally. Ensure the switch is in the OFF position before connecting to a power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with a finger on the switch or turning tools on while their switch is in the ON position invites accidents.
- ▶ **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.
- ▶ **Do not use the tool in an awkward position.** Keep proper footing and stay balanced at all times to enable better control of the power tool in unexpected situations.
- ▶ **Dress properly. Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- ▶ **When using dust-proof equipment or dust collector, make sure that it is properly connected.** The use of such unit can reduce dust-related hazards.

4. Power Tool Use and Care

- ▶ **Do not use too much force when using the tool.**
Select the right tool for the purpose and application to enhance work efficiency and safety. Be advised that any use of a tool that doesn't meet its specifications may result in decreased performance and shortened lifespan.
- ▶ **Do not use a tool with a broken power switch.**
Any power tool with a broken switch is dangerous and must be repaired.
- ▶ **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.**
These preventive safety measures reduce the risk of the accidental start of power tools.
- ▶ **Keep power tools out of the reach of children. Do not allow a person who is unfamiliar with the power tools or has failed to read the Manual to operate them.**
Power tools can be dangerous in the hands of untrained users.
- ▶ **Handle power tools with caution. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool operation.**
If any defect is found, make sure that it is repaired before use. Poor maintenance often causes accidents.
- ▶ **Keep cutting tools sharp and clean.** Well-managed cutting tools with sharp cutting edges are well operated and easy to control.
- ▶ **Before using power tools, accessories and tools, observe the instructions and guidelines for a particular type and consider work conditions and details.**
The use of such items for purposes other than those specified herein may result in hazardous situations.
- ▶ **Before operation, tightly fix the work piece. Do not hold it by hand.**
This may result in bodily injury. Make sure that it is fixed by a holding device before operation.
- ▶ **Check if the power is switched off before connecting the power cable or inserting the battery.**
If the battery is inserted when the power is ON, an accident may occur.
- ▶ **If a tool halts due to overload during operation, stop the operation immediately.**
If it is used in overload conditions, its lifespan can drop considerably.
- ▶ **If a rechargeable tool or charger having a USB port is used, make sure that there is no short between USB connector pins.**
Shorts may result in fire or explosion.

5. Cautions for Battery and Charger

- ▶ **Do not use the battery and charger in the vicinity of flammable materials** (e.g., lacquer, paint, benzene, thinner, gasoline, etc.).
Doing so can lead to fire or explosion.
- ▶ **Do not expose the battery and charger to sunlight or other high-temperature environments, and keep away from fire.**
Failure to do so may cause fire or explosion.
- ▶ **Check if the battery and charger terminals are stained with metal powders or dirt.**
Such contamination may result in electric shock.
- ▶ **Do not leave the tool in a place where strong static electricity can occur.**
Doing so may result in fire or explosion.
- ▶ **Make sure that there is no small metal pieces** (e.g., chuck adapter, nail, clip, coin, etc.) near the battery and charger.
Such metal can cause a short and result in fire.
- ▶ **Do not expose the battery or charger to wet or humid environments. Keep it dry at all times.**
If it is wet, overcurrent may occur, causing overheating, fire, electric shock or fault.
- ▶ **Do not keep the battery or charger together with small metallic pieces** (e.g., screw, metallic adapter, nail, solder wire, cross bit, drill bit, metal clip/powder, etc.) in a plastic box or toolbox.
Doing so can generate shorts and lead to fire or explosion.

6. Li-ion Battery Instructions

Li-ion batteries can give 100% performance when they are charged at any amount or are not completely discharged.

※ Li-ion batteries do not have a memory effect.

What is 'memory'?

At first use or after being left unused for a long time, the battery has 70-80% of its original storage capacity.

- ▶ **Do not expose the battery to rain or water.** A battery short circuit causes overcurrent and can result in overheating, fire or faults.
- ▶ **After charging, make sure that the battery is stored with a cover.**
- ▶ **Use the proper batteries for each power tool.**
The use of wrong batteries may result in bodily injury or fire.
- ▶ **If a tool is continuously operated until a battery pack is discharged, cool it down at room temperature for about 10 minutes prior to battery replacement.**
This measure can reduce the risk of battery and tool damage.
- ▶ **If batteries are hot, make sure that they are cooled before being charged.** They have a NTC temperature sensor for charging at 0-45°C only, which in turn extends their lifespan. They will not charge in a different temperature range. If the temperature returns back to the normal range, charging will resume. If used in normal conditions, Li-ion batteries can be charged more than 2,000 times.
- ▶ **Secondary batteries have their lifespan as well.** If a battery life shortens, contact the customer service center for battery replacement.
- ▶ **Do not store batteries fully discharged. If they are left unused for a long time, make sure that they are charged.** If fully discharged, batteries may not charge anymore. Please contact the customer service center.
- ▶ **Do not disassemble the batteries under any circumstances.**
Keep them safe from external shock. Short circuits may result in a fire or explosion.

- ▶ **Do not contact the positive and negative terminals with a metallic object.**
If batteries are stored with a metal component, necklace, hairpin or other metallic object, a short may occur and result in bodily injury, fire or explosion.
- ▶ **Make sure that positive and negative poles are right corresponded.**
Do not charge the battery when positive and negative poles are reversed.
Doing so can lead to a fire or explosion.
- ▶ **In the event of excessive use or at high temperature, electrolytes can spill from the battery.**
If this touches the user's skin, wash off with soap immediately. If this gets into eyes, wash with clean water and see a doctor right away.
This substance can cause vision loss. It can damage skin and cause burns.
- ▶ **If the battery is severely damaged or fully discharged, do not leave it near fire.**
Doing so may result in fire or explosion.
- ▶ **When the battery is dead, cover the terminals with insulation tape prior to disposal and have it collected by a professional battery collector or nearby agency. Do not throw the battery into a trash can, fire or water.** Doing so will cause environmental pollution and could lead to fire or explosion.
- ▶ **If any abnormalities such as heating is detected during charging, unplug the power cable immediately.** Failure to do so can lead to fire or explosion.

7. Li-ion Charger Instructions

- ▶ **Do not use the charger for purposes other than charging.**
- ▶ **Check the battery voltage prior to charging. Do not use unauthorized batteries.**
Use the batteries specified in the Manual only. Failure to do so may lead to fire or explosion.
- ▶ **Check the power plug and cord before using the charger.**
Any defect may result in a fault or electric shock.
- ▶ **Do not carry or hang the charger by the power cord. Do not unplug the cable from the outlet by the power cord.** Keep the charger safe from heat, moisture and sharp edges.
Failure to do so may lead to a short circuit.
- ▶ **If the charger is damaged or overheated, unplug the power cable immediately.**
Charging under such abnormal conditions may lead to fire or explosion.
- ▶ **Do not charge the battery in a plastic box or closed toolbox.**
Doing so may result in fire or explosion.
- ▶ **Do not connect the charger to the DC outlet, engine generator, booster and transformer.**
Doing so may lead to fire or explosion.
- ▶ **Do not cover the vent during charging.** Make sure that no metal or steel chip enters into the hole as these may cause fire or explosion.
- ▶ **Do not use the charger in a closed space. Use in well-ventilated environments.**
- ▶ **Do not cover with cloth or any other material while charging.** Doing so may lead to fire.
- ▶ **Do not disassemble the charger.** Doing so may lead to fire or fault.
- ▶ **Unplug the power cable after charging.** Failure to do so may result in fire or explosion.

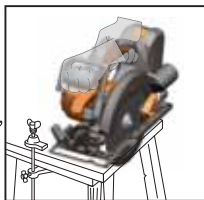
8. Services

- ▶ **To repair a power tool, battery and charger, contact our customer service center.**
Make sure that genuine parts are used for such repair to extend their safety.
- ▶ **Ensure that power tools are under proper care and management. Check that they are undamaged and function normally.** It is also important to check all conditions which can influence the operation of tools. If any abnormality is detected, repair before use.
Unless the tools are properly repaired and managed, an accident can occur.
- ▶ **If any problem is found, contact our authorized customer service center.**

Rechargeable Circular Saw Instructions

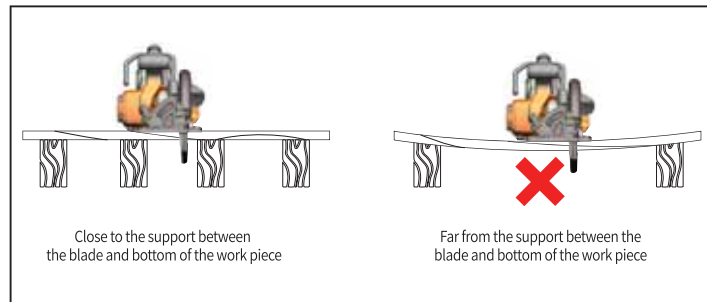
#. Safety Warning for Cutting

- ▶ **This power tool is designed for cutting. Carefully read and understand all safety warnings, instructions, drawings and specifications.** Any violation of the following rules may result in electric shock or severe injury.
- ▶ **Do not put your hand near the cutting area or saw tooth.** Doing so can lead to hand injury.
- ▶ **Do not touch the bottom of the work piece.** It is not protected.
- ▶ **Do not hold a work piece after cutting.** Fix in a secure and safe manner. Securing the work piece minimizes the operator's exposure to hazards, discontinuation of operation or loss of control.
- ▶ **The RPM stated on the saw blade should be higher than the maximum no-load RPM specified on a power tool.** Otherwise, the saw blade could break and result in bodily injury.
- ▶ **In the event of cutting in a place at risk of accident contact with an unseen wire, grip the insulated handle of the power tool only.** Touching an electric wire can lead to electric shock.
- ▶ **During ripping, make sure that a fence or linear guide is put up.** This will improve accuracy and prevent the blade from stopping.
- ▶ **Choose the right blade in terms of size and flange composition.** Use of a blade that is not matched with the circular saw used can cause loss of control of the tool.
- ▶ **Do not use a damaged or unfit flange or bolt.** Using a proper product ensures perfect operation and safety.
- ▶ **Keep a safe distance from people in a work area. Anyone entering the workplace must wear protective gear.** Debris from work pieces or a broken circular saw can result in bodily injury.
- ▶ **Check that the saw blade has completely stopped before putting down the power tool.** Placing the tool on a work table while still spinning can cause loss of control of the tool.
- ▶ **Make sure to carry a power tool only when it is switched OFF.** If the blade is still spinning, clothing can be fed into the spinning blade, resulting in bodily injury.
- ▶ **Clean the vents regularly.** An accumulation of dirt in the housing can increase the risk of an electric hazard.
- ▶ **Do not use the power tool with flammable substances around.** Any spark may ignite the dust or fumes.
- ▶ **Do not remove the work piece while the blade is still spinning.** Wait until the blade stops, and then take hold of the work piece. Be aware that even though the power has been turned off, the blade will still spin for a while.
- ▶ **Make sure that the work piece is free from any foreign material such as nails.** Be aware that blade damage or recoil can lead to bodily injury.
- ▶ **Do not start cutting while the blade is reversed. Doing so may result in serious injury.**
- ▶ **Do not attempt to stop the blade by pressing its sides.**
- ▶ **Do not use grinding wheels.**
- ▶ **Do not use saw blades for metal.**



#. Recoil and Safety Warnings

- ▶ **A recoil is a backward movement that occurs when the saw blade is stuck or improperly set. If such problem occurs, the spinning tool stops rapidly.** Then, the uncontrollable blade can threaten the operator. If the blade is stuck, the tool can turn toward the operator because of the recoil of the motor. If the blade is twisted or improperly set, it digs into the upper side of the work object and turns toward the operator. Then, the saw blade can break. Recoil is a consequence resulting from the incorrect use of a power tool. It can be avoided by the following preventive actions:
- ▶ **Hold the tool with both hands and take a proper posture to absorb reaction. Keep your body out of the line of the blade.** The operator can inhibit this reaction force through proper preventive measures.
- ▶ **If the blade stops, or the work piece cannot be cut anymore, switch off the power and hold the circular saw until the spinning completely stops. If the tool resumes or reacts, do not remove or pull the saw back from the work piece.** Remove the battery and check and take care of the causes of the problem after the tool stops.
- ▶ **To resume operation while the blade is in the middle of a work piece, check if the saw teeth are stuck into the work piece.** If saw teeth are stuck, they could rebound or react when the tool is restarted.
- ▶ **Be careful when you work on an edge or sharp section. Make sure that the saw blade has not stuck or has rebounded from a work piece.** If such problem occurs, you may lose control of the tool and it may react.
- ▶ **To prevent such reaction, put a support or panel near the cutting area.** Be advised that a large, heavy work piece can fall. Make sure that a support is placed near the cutting line.



- ▶ **Do not use a blunt or damaged blade.** The use of an improper and blunt blade produces a narrow cut mark and results in excessive friction, saw stopping and reaction.

- ▶ **Adjust the depth and angle of the blade and fix the work piece before operation.**
If the blade is adjusted during cutting, the tool can stop or rebound.
- ▶ **Do not apply too much force to the saw.**
Doing so may cause it to become less accurate and result in reaction.

#. Safety Guard

- ▶ **Check if the safety cover is properly closed before use. Do not start the saw unless the safety cover moves freely and can be closed immediately.**
The exposure of the blade can lead to bodily injury or blade damage.
- ▶ **Check if the safety cover spring moves normally.**
The safety cover may not function well due to an accumulation of damage or debris.
- ▶ **Fold the safety cover by hand for 'flange cutting' and 'complex cutting'.**
Release the safety cover right after it is lifted up and the blade is inserted into a work piece. In cases other than the above, the safety cover functions automatically.
- ▶ **Check if the blade is protected by a safety cover at all times before putting down the saw after cutting.**
An exposed blade may result in bodily injury. Switch off the power and wait until the blade stops.



Wear Eye Protection



Wear Mask



Follow Safety Instruction

#. Other Safety Warnings

- ▶ **Wear eye protection.**
- ▶ **Be careful not to harm the flange (especially installation surface) or lock bolts.** Any damage to these parts may result in breakage.
- ▶ **Make sure that the blade is safe from a work piece before switching on the power.**
- ▶ **Allow the tool to idle for a while before a work piece is inserted.** Check if there is any vibration, that it is properly installed, and that the blade is well balanced.
- ▶ **Do not leave a tool when it is ON.** Operate only when you hold it in hand.
- ▶ **After operation, do not touch the blade and work piece until they are completely cooled.** They can be very hot and cause burns.
- ▶ **Follow the manufacturer's instructions for the accurate installation and use of the blade.** Handle and store the saw blade with care.
- ▶ **Check if a work piece is properly placed.** Operation is safer if it is held by a fixing device.
- ▶ **Check if the blade keeps spinning even after the power is switched OFF.**

【 Operating Instructions 】

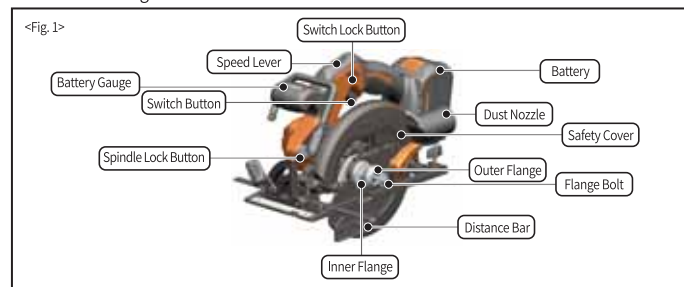
◆ Tool Operation

▶ Cautions before Operation

In the event of an overcurrent in Li-ion batteries, the switch cuts off an electrical current, and the tool stops. At over-discharge, the tool is automatically stopped to protect the Li-ion batteries.

*Any stopping during operation because of overload is not a fault. It is safe to resume operations.

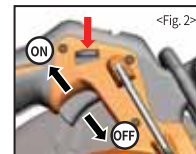
▶ Features <See Fig. 1>



▶ Switch <See Fig. 2>

Make sure that the switch is in the OFF position before inserting the battery

To start the tool, push down the switch lock and turn on the power. If the switch button is released, the switch lock is automatically returned back to the LOCK position.



▶ Spindle Lock <See Fig. 3>

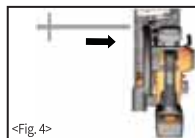
Do NOT touch the Spindle Lock while the spindle is running. Doing so may lead to tool damage.

For the installation or replacement of the saw blade, fix the spindle by pushing down the Spindle Lock in the direction of the arrow.



► Distance Bar <See Fig. 4.>

As shown in the figure, insert the distance bar and fix it by turning lock bolts. Follow the same procedure to insert the distance bar into the bottom.

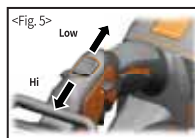


► Speed Adjustment <See Fig. 5.>

Adjust the speed using the speed control lever in the figure.

BL18S60	BL22S80
Hi : 5,200 rpm	Hi : 5,600 rpm
Low : 3,400 rpm	Low : 3,700 rpm

※ Speed RPM is for wood cutting. Do not use for metal.

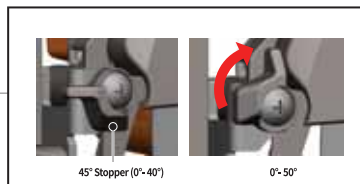
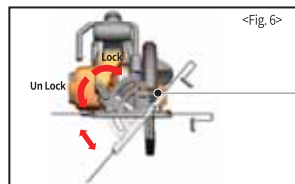


► Angle Adjustment <See Fig. 6.>

Adjust the angle (0-50°) using the angle control lever.

Use a 45-degree stopper for operations at 45°.

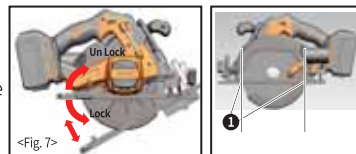
Turn the 45-degree stopper clockwise for operation at 0-50°.



► Depth Control <See Fig. 7.>

Adjust the depth (0-58mm), using a depth control lever.

The tooth of a saw will not pop out above a work piece for easy operation and improvement of work efficiency.



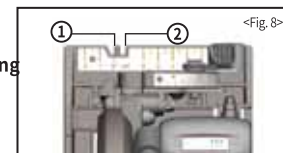
(1) - Saw Blade Guide

Using the Saw Blade Guide enables checking the cutting position while working on the middle of a work piece.

► Targeting <See Fig. 8.>

Adjust the target on the cutting line according to an operating angle.

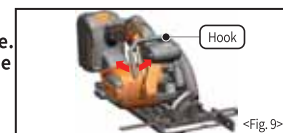
For linear cutting, match the cutting line at 0° (1) in front of the base. For 45° cutting, match it at 45° (2).



► How to Assemble and Use Hook <See Fig. 9.>

Do not hang a tool on a high or unstable place. When it is hung on a hook, make sure that the battery is removed.

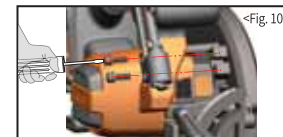
It is convenient when hanging up the tool for a moment. Turn the hook until a click is heard. Then, the hook is available for use. If not used, turn the hook in reverse direction until a click is heard.



► Hook Assembly <See Fig. 10.>

A hook is not assembled.

For assembly, tighten the blade cover hook using a screw driver.



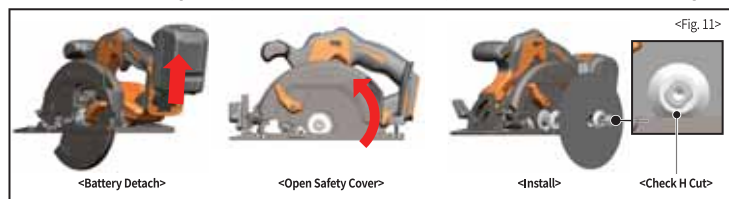
► How to Assemble and Remove the Circular Saw Blade <See Fig. 11 and 12.>

- Make sure that the battery is removed before installing or removing the circular saw.
- Unless it is tightly screwed in, the outer flange may loosen and the blade can be disassembled, resulting in severe injury.
- Adjust the Spindle Lock at the replacement of the saw blade only. Do not adjust the Spindle Lock while the tool is running.
- To use a 19mm saw blade, choose a 19mm Inner Flange D19.

Remove the battery and open the safety cover. Assemble the tool in order of: inner flange, saw blade, outer flange and flange bolts. Then, push and turn the Spindle Lock counterclockwise.

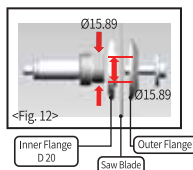
※ For assembly, closely watch the direction of the inner flange (forward/backward) and H-cut.

※During assembly, closely watch the direction of the saw blade.
If there is vibration/noise when power is on after saw blade is installed, it means saw blade is not rightfully installed. Remove battery and re-installed saw blade again.



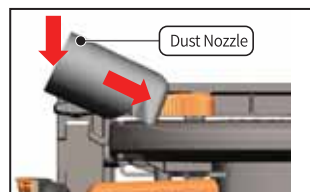
- Remove the saw blade in reverse order.
- To ensure safety, be careful not to harm the saw blade.
- Wear to the saw blade can result in product load and damage to the base metal.

※ Aimsak recommends a Ø20mm saw blade and inner flange 20.

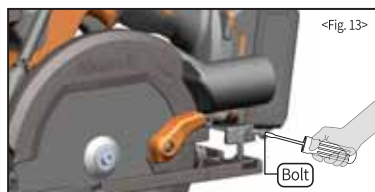


► Dust Nozzle Assembly & Disassembly <See Fig. 13.>

- Remove the dust nozzle in reverse order.
 - Unless tightly fastened, the dust nozzle can loosen.
- Plug the dust nozzle into the blade cover and fasten it with bolts.



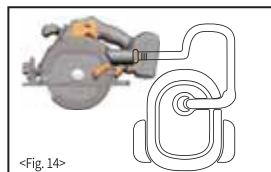
Remove the dust nozzle in reverse order.



► Connect Vacuum Cleaner <See Fig. 14.>

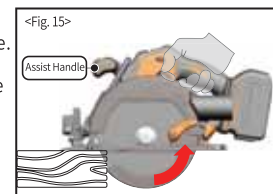
For clean cutting, connect a vacuum cleaner with the tool.

As shown in the figure, with the dust nozzle installed, plug the hose into the nozzle.



► Cutting <See Fig. 15.>

Tightly fix the tool by holding the assist handle. Start the tool with a little space between the circular saw and work piece. Slowly push the tool forward. Then, the work piece will start to be cut. At the same time, the safety cover will be pushed up automatically.



► Battery Level and Error Mode <See Fig. 16.>

If the switch is pulled down, the battery level LED is turned on. Seconds later, it is turned off. Check the battery level as follows:

LED Display	Battery
■ ■ ■ 3 light on	(Over) 80%
□ ■ ■ 2 light on	(Over) 50~80%
□ □ ■ 1 light on	(Below) 20~50%
□ □ □ 1 Flickering	20% or less



► Error Mode Display

An error mode functions as follows in illumination LED:

Issue	LED Indicator On Off	Handling Tips
Terminal contact failure	LED Off	In the event of an error, check with authorized repair center or repair shop
High temperature battery protection	LED On 0.7s / Off 0.3s	Use the tool after let it rest for a whole. Do not overload the tool during the use.
High temperature switch protection	LED On 0.3s / Off 0.7s	Use the tool after let it rest for a whole. Do not overload the tool during the use.
Overcurrent shutdown	LED On 0.05s / Off 0.1s On 0.2s / Off 0.65s (2 times Flashing)	Avoid excessive work.
Motor sensor recognition error	LED On 0.5s / Off 0.5s	In the event of an error, check with authorized repair center or repair shop

► Battery Installation and Removal <See Fig. 17 and 18.>

- Push down the battery until a click is heard. Failure to do so may cause the battery to be removed from the tool.
- Do not insert the battery while the switch is ON.

<Fig. 17> Inserting Battery







1. Push the battery in the direction of the arrow until a click is heard.

<Fig. 18> Removing Battery














1. Push up the button in the direction of the arrow. 2. While the battery button is pressed, pull up the battery in the direction of the arrow.

► Indicators and Meaning (ALC 4540, ALC 4560, ALC 4640M)

Indicators		Meaning
Standby	 ► Green LED blinking	► Ready for charging.
Charging	 ► Red LED on	► Battery is charging.
Finish	 ► Green LED on	► Fully charged.
Battery High Temperature Battery low voltage	 ► Red & Green LED on Red/Green	► Battery temperature has missed the normal range (0~45 °C) Charge will automatically start when allowable temperature is reached. ► Pre-charging mode voltage of the battery is low. (When a constant voltage charging mode is switched to rise.)

► Battery Charger

※ To ensure the lifespan and safety of batteries, use the following chargers only: ALC 4540, ALC 4560, ALC 4640M and ALC 4650.

Voltage	Battery		Charger	
			18 V Charger	21.6 V Charger
18V		B40L18B	 ALC 4540	 ALC 4640M
		B40L18A B52L18A	 ALC 4560	
		B40L18D B50L18D B50L18DF	 ALC 4640M	 ALC 4650
21.6V		B50L22D B60L22D	 ALC 4650	
		B50L22B B60L22B		

※ B52L18B, B20L14B, B25L18A, B40L18D, B40L18DF, B20L18D, B20L18DF and B60L22D, use a charger that can check individual cell voltage.

※ [ALC 4540, ALC 4560, ALC 4640M] An individual cell voltage balancing circuit is built in so that it improves the lifespan and safety of batteries by preventing over-charging.

→ BL22S80 is compatible with 18V batteries. However, 18V models are not compatible with 21.6V batteries.

→ ALC 4525 (charger) is not compatible.

► Battery Charger Troubleshooting

1. The LED light is not turned on when the battery is inserted

Cause	Solution
The power cord is not plugged in.	Check the power connection.
The power cord is not plugged in. Contact error because the charger terminal is corroded or bent.	Check the charger and battery terminals.
The battery is short-circuited.	Insert another battery, and check if the charger functions normally.

Any colored LED light other than red is turned on when the battery is inserted

Cause	Solution
Battery temperature is high.	If the battery is hot, the green and red LED lights will be turned on simultaneously. Wait until the battery is cooled enough, and then reinsert it.
Battery temperature is low.	If the battery is cold, the LED light is OFF even though it is inserted into a charger. Leave the battery at room temperature. Once battery temperature rises to a rechargeable level, reinsert the battery.
Battery is at low voltage.	If the battery remains at low voltage due to over-discharge, the green and red LED lights will be turned on simultaneously in the beginning. This is a trickle charge mode activated to protect the battery. Check if the battery has returned to normal (red LED light) in a few minutes.

※ If the problem continues despite the said actions, contact the customer service center.

[Maintenance & Storage]

Make sure that the switch is turned off and the power supply disconnected before repair and maintenance. <See Fig. 19.>

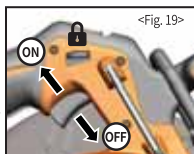
► Keep the tool and vents clean at all times. Check and clean them regularly.

※ Remove dirt on the saw blade with air or a brush after use and then store properly.

◆ Noise / Vibration

► Wear earplugs.

► According to measurement under EM 50260-1:199, the average noise level of 'A' is 78 dB(A) or below. During operation, noise can exceed 85 dB(A). The standard violation applied to the hands and arms is 2.5m/sq or less.



<Fig. 19>

[Warranty]

► **The term of warranty for the product is one year from the date of purchase. Unless the date of purchase is specified, the date of manufacture is applied.** However, please note whether the problem falls under the category of a paid repair service even during warranty period.

- The term of the warranty for the motor and battery is 6 months from the date of purchase.
- The battery is a consumable item. If the battery life ends, a new one must be purchased.

► Paid Repair Service Guidelines

- User negligence (soaking, external shock, overload work, etc.)
- Natural disaster (fire, earthquake, etc.)
- Product was randomly disassembled by the user
- A fault resulting from repair or remodeling by a person/company other than Aimsak (or authorized agency)
- A fault arising from operation in unusual work environments
- Consumable items which become less efficient over time (carbon brush, bearing, sealing, power cord, chuck, etc.)
- Bit, hand tools, giveaway, promotional gift (e.g., lantern)

Use the product within the scope of operation specified in the Manual.

Failure to do so may result in product damage, reduction of lifespan or bodily injury. We shall not be responsible for such problems and they will not be covered by the warranty.