

MEMO

BLDC

BL18R70

18 V Brushless Driver Drill



BL18R70

BL18T70

18 V Brushless Hammer Drill



BL18T70

Index

- 1. Specification 2
- 2. Exploded view 2~3
- 3. Safety Instructions 3~7
- 4. Operating Instructions 7~13
- 5. Maintenance & Storage 13
- 6. Warranty 14

⚠ [Caution]

Do not use battery from Aimsak in the product & charger from other brand.

It may occur serious defect of battery in use and Aimsak quality assurance (A/S), PL Law will not be provided.

⚠ Must read and follow safety instruction in the manual for the safe work.

【 Tool Specification 】

▶ Specification

Model	BL18R70	BL18T70
Spec	18V Brushless Driver Drill	18V Brushless Hammer Drill
Voltage	DC 18 Vd.c.	
Chuck capacity	13 mm	
No load speed	1 : 0 ~ 460 min ⁻¹ / 2 : 0 ~ 2,000 min ⁻¹	
Blows per minute	1 : 0 ~ 6,900 bpm / 2 : 0 ~ 30,000 bpm	
Max. Torque	70 Nm	
Switch	Various speed Control	
Battery	Li-ion 18 V	
Net. Weight	1.93 kg	1.94 kg
Charger	ALC 4640M	
Charger input	AC 200~240 V, 50 / 60Hz	

※ Check model number of purchased product and read operation instructions.

※ Aimsak battery is designed to be used for Aimsak products only. Battery is compatible with same voltage capacity (21.6V, 18V, 14.4V, 10.8V, 7.2V) if battery type (ex. Slide, plug-in) is the same.

△ **Caution!** B30L18N / B40L18N etc, N Series battery is not compatible.

【 Exploded View 】

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

BL18R70 *Brushless Driver Drill



* Side handle(option) : Not Included.

▶ Contents

Item	Model	BL18R70	BL18T70
Corless Tool		1 EA	1 EA
Battery		2 EA	2 EA
Charger		1 EA	1 EA
Operation Instructions		1 EA	1 EA
Carrying Case		1 EA	1 EA

Part Name

NO.	Part Name	Q' ty
1	Left Hand Screw	1
2	Keyless Chuck	1
3	Star Screw	17
4	Gear Box	1
5	Shift Lever	1
6	Screw	4
7	Stator	1
8	Rotor Ass'y	1
9	Cover Rear	1
10	Belt Hook	1
10-1	Screw	1
10-2	Nut	1
11	Rubber Bump A	2
11-1	Rubber Bump C	2
12	Housing	1
13	Lever Reversing	1
14	Switch Ass'y	1
15	Battery	2
16	Charger	1
17	Aux Handle	1

BL18T70 *Brushless Hammer Drill



Part Name

NO.	Part Name	Q' ty
1	Left Hand Screw	1
2	Keyless Chuck	1
3	Star Screw	17
4	Gear Box	1
5	Shift Lever	1
6	Screw	4
7	Stator	1
8	Rotor Ass'y	1
9	Cover Rear	1
10	Belt Hook	1
10-1	Screw	1
10-2	Nut	1
11	Rubber Bump A	2
11-1	Rubber Bump C	2
12	Housing	1
13	Lever Reversing	1
14	Switch Ass'y	1
15	Battery	2
16	Charger	1
17	Aux Handle	1

* Side handle(option) : Not Included.

【 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 as 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

- ▶ Keep work area clean and well lighted. Cluttered and dark area may cause injuries.
- ▶ 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.
- ▶ Keep children and bystanders away while operating power tool. Distractions can cause you to lose control.

2. Electrical safety

- ▶ **Power tool plugs must match the outlet. Never modify the plug in anyway. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- ▶ **Avoid body contact with the earthed or grounded surface, such as pipes, radiators, or refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering into power tool will increase the risk of electric shock.
- ▶ **Do not abuse the cord. Never use the cord of 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 power tools at outdoor, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor reduces the risk of electric shock.
- ▶ **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of a RCD reduces the risk of electric shock.
- ▶ **When working on possible contact of wire or cord with hidden fastener, grab insulated surface of power tools.** If fastener contacts with “conductive” wire, exposed metal part of power tools can be conducted and there is risk of electric shock.
- ▶ **Use appropriate power input for charger.**

3. Personal safety

- ▶ **Stay alert, watch what you are doing and use common sense when operating power tools.** A moment of inattention while operating power tools may result in serious personal injury.
- ▶ **Do not use power tools while you are tired or under the influence of drugs, alcohol or medication.** Inattention while operating power tools may result in serious personal injury.
- ▶ **Use personal protective equipment. Always wearing the 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 do 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. Place reversing lever in neutral position while storing or carrying the tool.
- ▶ **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 clothes or jewelry. Keep hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

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.

- ▶ **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 conditions that may affect the power tool operation.** defect is found, make sure that it is repaired before use. Poor maintenance often causes accidents.
- ▶ **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.

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 representative 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 purpose 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.
- ▶ **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.**

【 Operating Instructions 】

◆ Tool Operation

▶ Cautions before Operation

In the event of overcurrent in the Li-ion battery, the current is cut off and the tool is stopped. The tool is automatically stopped to prevent battery damage at over-discharge. This function is designed to protect the Li-ion batteries.

- * **The surface of the gearbox can become heated during continuous load work.**
Put on gloves before operation to reduce the risk of burn accidents.

▶ Installing or removing bit (See Fig. 1)

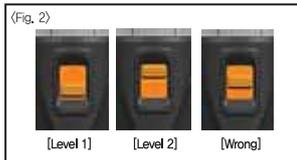
- 1) Switch off the tool and put the reversing lever in neutral.
- 2) Turn the sleeve counterclockwise to open the chuck jaws.
- 3) Place the bit in the chuck as far as it goes. Turn the sleeve clockwise to tighten the chuck until it locks in place with "Click" sound.



▶ Speed Control <See Fig. 2>

- ① Level 1: low speed – for more torque
- ② Level 2: high speed – for more speed

※ Use level 1 for drilling that requires more torque in order to avoid the halt of tool due to overload



⚠ Caution! Make sure to change the speed when the tool is powered off.

Make sure to have the right location of shift lever to avoid the damage of gear due to wrong place of shift lever. Shift lever may stuck during speed change. This is not the fault of tool. Do not make speed change by force if there is stuck of shift lever and make no-load run of tool after returning shift lever to original location. If struck of shift lever continues, make no-load run of tool again before making complete change of speed.

▶ Adjust the torque (See Fig. 3)

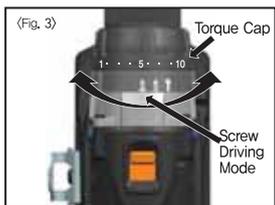
Adjust the torque ring to the proper torque lever for operation,

Position 1 (lowest torque) : Working with small screws and soft materials,

Position 23 (highest torque) : Working with large screws and rigid materials,

Set to high torque or drill torque when releasing screw,

※ Select level 1 ~ 23 After Setting Screw Driving Mode



▶ Drilling & Hammering <See Fig. 4, 5>



DRILL

Place torque setting to drill mode. Use HSS drill bit for metal drilling. Otherwise, there will be poor performance of drilling.



HAMMER
DRILL

Place torque setting to hammer mode. Use concrete bit for hammering. Otherwise, there will be poor performance of drilling. ※ Hammer drill function is only for BL18T70



SCREW
DRIVING

Place torque setting to torque mode. Otherwise, it may cause damage to work piece or to operator.

<Fig. 4>



<Fig. 5>

Use	Bit Shape
Concrete	
Metal	
Wood	

※ Bit : Sold Separately

※ Use concrete bit only for hammer drilling by BL18T70

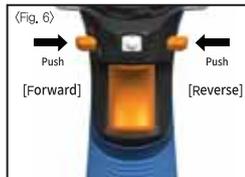
▶ Forward/Reverse Direction <See Fig. 6>

Push down the forward/reverse lever to the end in the direction of the arrow.

Forward: Screwing or drilling

Reverse: Unscrewing

⚠ Caution! Please change revolution direction when the tool is stopped only



▶ Switch action <See Fig. 7>

The RPM is adjusted by the degree of triggering. To stop the tool, release the switch. Since the switch has a safety brake, the tool stops as soon as the switch is released. If the switch is pulled back, the front LED light is turned on for operation at night or in a dark place. If the tool stops, the LED light turns off in 10 seconds.

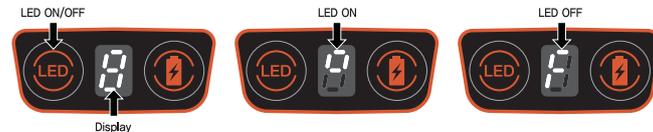
<Fig. 7> [LED on]



▶ LED ON/OFF <See Fig. 8>

If pushing LED button in the display, LED light will be on for 1 minute after displaying "0" and if pressing LED button once again LED light will be off after displaying "F"

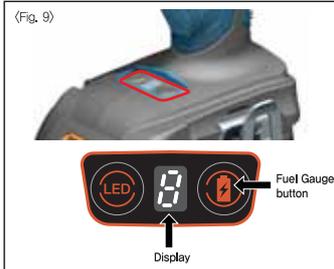
<Fig. 8>



▶ Battery Gauge Display <See Fig.9>

LED of speed level display on top of tool lights up a couple of seconds when trigger is pulled. Check the battery remaining as below.

LED	내용	LED 표시	내용
	3 lights on (over) 80%		1 lights on (over) 20~50%
	2 lights on (over) 50~80%		Blink 20% or less



▶ Error Mode Display ※ Continuous over-load operation decreases tool performance

An error mode functions as follows in illumination LED:

Issue	Display	LED Indicator On Off	Handling Tips
Terminal contact failure		LED Off	check with authorized repair center or repair shop
High temperature battery protection		LED On 0.7s / Off 0.3s	Use the tool after rest for a while. Do not overload the tool during the use.
High temperature switch protection		LED On 0.3s / Off 0.7s	Use the tool after rest for a while. 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	check with authorized repair center or repair shop
Low voltage		LED Off	Recharge battery

▶ Installing and removing battery <See Fig. 10-1, 10-2>

Do not use force when inserting the battery. To insert the battery, align the rail on the battery with the groove in the housing and slip into place. Always insert it all the way until it locks in place with a little click. If not, it may accidentally fall out of the tool.

<Fig. 10-1> (Inserting Battery)



1, Insert the battery all the way until it locks in place with a click as the picture,

<Fig. 10-2> (Removing Battery)



1, Push the button as the picture.
2, Withdraw it from the tool while sliding the button

▶ Attach side handle <See Fig.11>

1, Widen space between clamps as enough as handle can set
2, Put on the clamp on the assembly part of gear box
3, Fix the position by fastening handle clockwise direction not to separate it

⚠ Caution! If tool and handle is not combined completely, handle can be separated during the work & it may cause severe injury

<Fig. 11>



Charger & Battery Cautions

▶ Charger LED display indication

Indicators	Meaning
Standby  ▶ Green LED blinking	▶ Ready for charging
Charging  ▶ Red LED on	▶ Charging battery
Finish  ▶ Green LED on	▶ Battery fully charged
Battery High Temperature  ▶ Red & Green LED on Red/Green	▶ Charging is on hold due to out of possible charging temperature range of battery. (0~45°C) (Charging automatically starts when battery temperature reaches allowable temperature range.) ▶ Charger is in pre-charging mode due to low voltage of battery. (Charging automatically starts when battery voltage reaches allowable range.)

▶ Applicable Charger per Battery

Voltage	Battery	Applicable Charger
18V	 B40L18B	 ALC 4540  ALC 4560  ALC 4640M
	 B40L18A B52L18A	
	 B40L18D B40L18DF B50L18D B50L18DF B60L18D B60L18DF	

▶ Battery Charger Troubleshooting

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

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

2. 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 designated repair center by Aimsak or the customer service center.

【 Maintenance & Storage 】

Make sure that the switch is turned off and the power supply disconnected before repair and maintenance. Keep the tool and vents clean at all times for safe and right operation.

▶ Check and clean the tool regularly.

◆ 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.

【 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 warranty 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 Warranty 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.

MEMO
