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CORDLESS ANGLE GRINDER

EN **ORIGINAL INSTRUCTIONS**

CE

DG-1800L
DG-1801L

DG18BL-100S
DG18BL-115S
DG18BL-125S

DG-1800L
DG-1801L
DG18BL-100S
DG18BL-115S
DG18BL-125S

To reduce the risk of injury, user must read instruction manual

KEYANG ELECTRIC MACHINERY CO., LTD.

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It is essential that instruction manual is read before the power tool is operated for the first time.
Always keeps this instruction manual together with the power tool.
Ensure that the instruction manual is with the power tool when it is given to other persons.

Table of Contents

Note

As our engineers are striving for the constant research and development to develop the quality of products, **shape or structure of our model can be changed without previous notice.**

1 General Power Tool Safety Warnings

WARNING! Read all safety warnings and all instructions.
Failure to follow the warnings instructions may result in electric shock, fire and/or seroius 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(gorunded) power tools.
Unmodified plugs and matching outlets will reduce risk of eteclric 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 codltions.
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 operationg power tools may result in serious personal injury.

b) Use personal protective equipment . Always wear eye protection.
Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c) Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool.
Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d) Remove any adjusting key or wrench before turning the power tool on.
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) Do not overreach. Keep proper footing and balance at all times.
This enables better control of the power tool in unexpected situations.

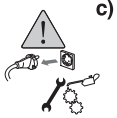
f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.
Loose clothes, jewellery or long hair can be caught in moving parts.

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application.
The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off.
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.



c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.
Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
Power tools are dangerous in the hands of untrained users.

e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.
Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean.
Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.
Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Battery tool use and care

a) Recharge only with the charger specified by the manufacturer.
A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

b) Use power tools only with specifically designated battery pack.
Use of any other battery packs may create a risk of injury and fire.

c) When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.
Shorting the battery teminals together may cause burns or a fire.

d) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.
Liquid ejected from the battery may cause irritation or burns.

6) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts.
This will ensure that the safety of the power tool is maintained.
The use of any accessory or attachment, other than those recommended in the instruction manual, may present a risk of personal injury.

2 Angle Grinder Safety Warnings

1) Safety instructions for all operations Safety warnings common for grinding, Sanding, Wire Brushing, Polishing or Abrasive Cutting-Off operations

a) This power tool is intended to function as a grinder, sander, wire brush or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this tool.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

b) Operations such as grinding, sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.
Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) Do not use accessories which are not specifically designed and recommended by the tool manufacturer.
Just because the accessory can be attached to your power tool, it does not assure safe operation.

d) The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.
Accessories running faster than their rated speed can break and fly apart.

e) The outside diameter and thickness of your accessory must be within the capacity rating of your power tool.
Incorrectly sized accessories cannot be adequately guarded or controlled.

f) Threaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange.
Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

g) Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.
Damaged accessories will normally break apart during this test time.

h) Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.
The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

i) Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.
Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

j) Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring.
Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.

k) Position the cord clear of the spinning accessory.
If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

l) Never lay the power tool down until the accessory has come to a complete stop.
The spinning accessory may grab the surface and pull the power tool out of your control.

m) Do not run the power tool while carrying it at your side.
Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

n) Regularly clean the power tool's air vents.
The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

o) Do not operate the power tool near flammable materials.
Sparks could ignite these materials.

p) Do not use accessories that require liquid coolants.
Using water or other liquid coolants may result in electrocution or shock.

2) Further safety instructions for all operations

Kickback and Related Warnings

Kick back is sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding. For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.
The operator can control torque reactions or kickback forces, if proper precautions are taken.

b) Never place your hand near the rotating accessory.
Accessory may kickback over your hand.

c) Do not position your body in the area where power tool will move if kickback occurs.
Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.

d) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.
Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

e) Do not attach a saw chain woodcarving blade or toothed saw blade.
Such blades create frequent kickback and loss of control.

3) Additional safety instructions for grinding and cutting-off operations

Safety Warnings Specific for Grinding and Abrasive Cutting-Off Operations

a) Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.
Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.

b) The grinding surface of centre depressed wheels must be mounted below the plane of the guard lip.
An improperly mounted wheel that projects through the plane of the guard lip cannot be adequately protected.

c) The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.
The guard helps to protect the operator from broken wheel fragments, accidental contact with wheel and sparks that could ignite clothing.

d) Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.
Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.

e) Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.
Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.

f) Do not use worn down wheels from larger power tools.
Wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.

4) Additional safety instructions for cutting-off operations

Additional Safety Warnings Specific for Abrasive Cutting-Off Operations

a) Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.
Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.

b) Do not position your body in line with and behind the rotating wheel.
When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.

c) When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.
Investigate and take corrective action to eliminate the cause of wheel binding.

d) Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully reenter the cut.
The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.

e) Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.
Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.

f) Use extra caution when making a "pocket cut" into existing walls or other blind areas.
The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

5) Additional safety instructions for sanding operations

Safety Warning Specific for sanding Operation

a) Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations, when selecting sanding paper.
Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

6) Additional safety instructions for wire brushing operations

Safety Warnings Specific for Wire Brushing Operations

a) Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.
The wire bristles can easily penetrate light clothing and/or skin.

b) If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard.
Wire wheel or brush may expand in diameter due to work load and centrifugal forces.

7) Additional safety warnings

a) Wear ear protectors.
Exposure to noise can cause hearing loss.

b) Use auxiliary handles supplied with the tool.
Loss of control can cause personal injury.

c) Use appropriate detectors to determine if utility lines are hidden in the work area or call the local utility company for assistance.
Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage or may cause an electric shock.

d) When the power supply is interrupted, e. g., by removing the battery, unlock the On/Off switch and set it to the Off position.
This prevents uncontrolled restarting.

e) When working stone, use dust extraction. The vacuum cleaner must be approved for the extraction of stone dust.
Using this equipment reduces dust-related hazards.

f) Use a cutting guide when cutting stone.
Without sideward guidance, the cutting disc can jam and cause kickback.

g) When working with the machine, always hold it firmly with both hands and provide for a secure stance.
The power tool is guided more secure with both hands.

h) Secure the workpiece.
A workpiece clamped with clamping devices or in a vice is held more secure than by hand.

3 Battery Safety Warnings

- **Do not throw the battery into the live fire.**
  In the fire, the battery may explode due to high temperature and cause serious injury.
- **Do not short the terminals of the battery**
  If the terminals of the battery is short circulated, excessive current will flow and fire or explosion may occur causing serious injury.
- **Avoid strong impact on the battery and do not pierce the battery case with a sharp object.**
  Fire or explosion may occur causing serious injury.
- **Store the battery indoors at 0~40ºC and avoid direct light and closed hot and humid places.**
  Fire or explosion may occur causing serious injury.
- **Make sure the battery is attached in the body of the tool tightly before you start operation.**
  When the battery is not attached tightly, it may be fallen during the operation and cause an injury in the top of your foot.
- **Charge only Keyang approved rechargeable batteries. Other types of batteries may burst causing personal injury and damage.**
- **Do not disassemble battery.**
  Incorrect re assembly may result in a risk of electric shock, electrocution or fire.
- **Accessories may be hot after prolonged use.**
  When removing the bit from the tool avoid contact with skin and use proper protective gloves when grasping the bit or accessory.
- **Keep the battery from being overheated.**
  If overheated battery is inserted, high temperature stand by is indicated and charging can only start after the battery has been cooled down. When the battery is overheating due to continuous operation, in order to protect the battery performance will automatically shut off the power.
- **Leaving the battery for a prolonged time without using it will shorten the life of the battery.**
  If the battery is to be stored for a prolonged time, charge it completely before storing it. To use the battery for a long period of time, charge it completely every 3 months.

4 Battery Charger Safety Warnings

- **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- **Children should be supervised to ensure that they do not play with the appliance.**
- **Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.**
- **Do not use non-rechargeable batteries with KEYANG battery charger.**
- **Do not use the charger under the rain or when it is wet.**
  Failure to observe this can cause serious injury or death due to electric shock.
- **Do not insert metal wire or any conductive object through the ventilating opening of the charger.**
  Failure to observe this can cause serious injury or death due to electric shock.
- **Do not attempt to disassemble the charger and keep the charger out of the reach of children.**
- **If the cord of the charger has been damaged, replace or repair it immediately.** Using the charger with damaged cord may cause electric shock. Electric shock may cause injury.
- **Make sure the temperature of the battery will not exceed 45˚C**
  When the temperature of the battery exceeds 45˚C its performance and life will be decreased. When the temperature of the battery is increased, the temperature switch begins to work and the contact point is detached. When you put theoverheated battery in the battery charger, the poor battery mark is displayed. Cool the battery before you charge it.

5 Check before Use

1. The power source

- Observe correct main voltage. The voltage of power source must agree with the voltage specified in the name plate.
- Make sure the rated voltages in the electric drill and the battery are the same. When the rated voltage of the battery is higher than that of the electric drill, the motor can be damaged by fire.

2. Attachment of the battery

Make sure the battery is attached correctly before you use the electric tool.

Make sure the battery is attached in the body of the tool tightly before you start operation. When the battery is not attached tightly, it may be fallen during the operation and cause an injury in the top of your foot.

3. Polarity of the battery

When the polarity of the battery is not correct, it may cause the trouble of the switch. Also, the reversal of the rotating direction can bring a dangerous situation.

4. Work place

Check work place considering cautions.
Do not use the product where there is a fire hazard.
Prevent dust accumulation at the workplace. Dusts can easily ignite.
Dusts from materials such lead-containing coatings, minerals and metal can be harmful to one's health.
Contact with or inhaling the dusts can trigger allergic reactions to the operator or bystanders and/or lead to respiratory infections.
Certain metal dusts are considered hazardous, especially in conjunction with alloys such as zinc, aluminium or chromium.
Materials containing asbestos may only be worked by specialists.
Provide for good ventilation of the working place.
It is recommended to wear a P2 filter-class respirator.
Observe the relevant regulations in your country for the materials to be worked.

5. Trial run

Before starting the work, wear protection (goggles, safety helmet, ear plugs, protective gloves) and runthe tool in the direction avoiding other persons to see if the tool is operated normaly.

6. An explanation of any symbols or pictograms on the tool relevant to safe use

V - Volts
⎓ - Direct Current
⧈ - Class Ⅱ construction
n - Rated speed
/min - Revolutions or reciprocations per minute
~ - Alternating current

CE

EC Declaration of conformity

We declares that these products meet the standards EN 60745-1, EN 60745-2-3, EN 55014-1, EN 55014-2, EN 61000-3-2 and EN 61000-3-3, EN 50581 in compliance with the directives 2006/42/EC, 2014/30/EU, 2011/65/EU

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6 Noise and Vibration Emissions

1. Noise emission

Noise emission values determined according to EN 60745

The A-weighted emission sound pressure level(L_{pA})	82dB(A)
The A-weighted emission sound power level(L_{wA})	93 dB(A)
Uncertainty(K)	3dB

2. The operator to wear hearing protection

3. Vibration emission

Vibration total values(triaxial vector sum) determined according to EN 60745

Grinding Cutting-off wheel	Vibration emission value($a_{h,AG}$)	6m/s²
	Uncertainty(K)	1.5m/s²
Sanding Wire brushing	Vibration emission value($a_{h,DG}$)	2.5m/s²
	Uncertainty(K)	1.5m/s²

4. The following information

- The declared vibration total value has been measured in accordance with a standard test method given in EN 60745 and may be used for comparing one with another.
- The declared vibration total value may also be used in a preliminary assessment of exposure.

5. A warning

- The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used.
- Identify additional safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

7 Specifications and List of Contents

1. Specifications

Items	Model	DG-1800L	DG-1801L
Tool	Rated voltage [V]	DC 18	
	No-load speed [/min]	10,000	
	Size of grinding stone [mm] (outside dia. x thick x inside dia.)	100 x 6 x 16	115 x 6 x 22.23
	Thrdad of grinder spindle	M10	M14
	Weight [Kg]	2.2	2.3

Items	Model	DG18BL-100S	DG18BL-115S	DG18BL-125S
Tool	Rated voltage [V]	DC 18		
	No-load speed [/min]	8,500		
	Size of grinding stone [mm] (outside dia. x thick x inside dia.)	100 x 6 x 16	115 x 6 x 22.23	125 x 6 x 22.23
	Thrdad of grinder spindle	M10	M14	
	Weight [Kg]	2.2	2.4	

	Model	BL18006 BL18010 BL18012	BL18018 BL18033 BL18040	BL18034
Battery	Voltage [V DC]	18		
	Capacity [mAh]	4000	5000	6000
	Charging time [min]	40	50	65
	Weight [kg]	0.6		

	Model	C18046 / C18048
Charger	Input voltage [V AC]	220-240
	Output voltage [V DC]	10.8-18.0
	Weight [kg]	0.6
	Operating ambient Temp(°C)	0-40
	Charging current [A]	6.5
	Safety class	⧈

- Weight according to EPTA-Procedure 01/2003

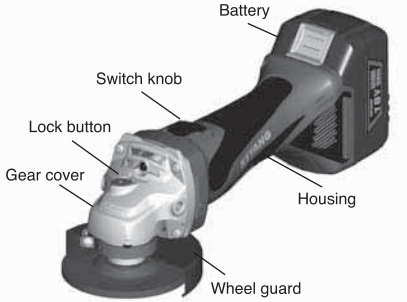
2. List of Contents

Items \ Model	DG-1800L DG18BL-100S	DG-1801L DG18BL-115S DG18BL-125S
Grinding stone	O	Optional
Wrench	O	O
Side handle	O	O
Rechargeable battery	O	O
Battery charger	O	O
Instuction manual	O	O
Plastic tool case	O	O

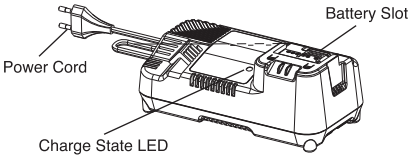
8 Description of functions and Applications

1. Description of functions

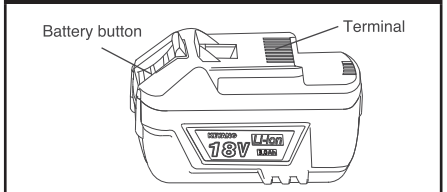
• Tool •



• Battery Charger •



• Rechargeable Battery •



2. Applications

- Finishing and smoothening iron, bronze, aluminum, cast-iron products.
- Grinding welded part, and removing rust.
- Finishing plastics, slates, bricks and marbles.
- Groove and cut roof tile, tile, stone, etc. by attaching diamond wheel.

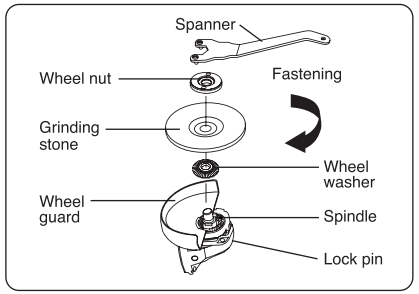
9 Installing and Removing

1. Grinding stone.

Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

Warning You must install the wheel guard and wear the safety goggles during using of the disc grinder with the special parts.

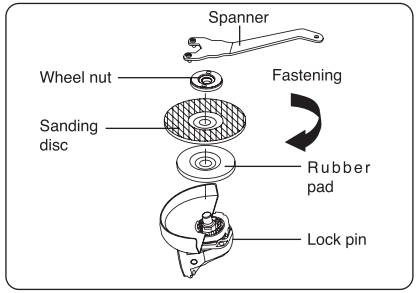
Grinding stone(Type 27)



1) Place the spindle upwards. Insert the depressed part of the wheel washer onto the plane part of the spindle.
2) Place the prominent part of the grinding stone onto the wheel washer.
3) Set the wheel nut onto the spindle over the grinding stone by a screw.
4) Insert the lock pin in the gear cover, then fasten the wheel nut with the spanner.

2. Sanding disc.

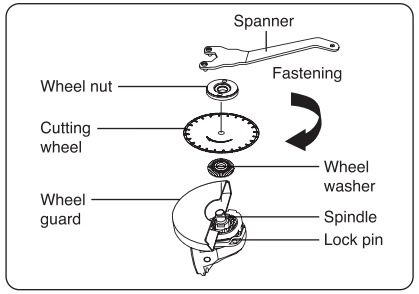
Sanding disc(Type 27)



Do not use the wheel washer and wheel nut for the grinding stone. Please use other washer nut for the sanding disc.
1) Set the rubber pad and sanding disc to the spindle.
2) Set the washer nut to the spindle above the sanding disc.
3) Fix the spindle by pressing the lock pin with fingers. And then, fasten the washer nut with a spanner tightly.
4) Do the same process reversibly to remove the sanding disc.

3. Cutting-off wheel.

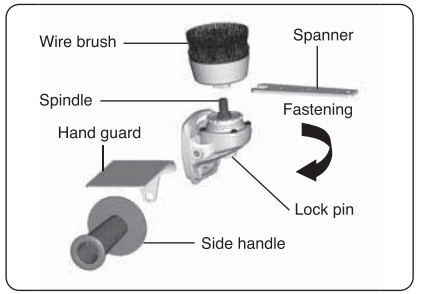
Cutting-off wheel(Type 42)



1) Place the spindle upwards. Insert the depressed part of the wheel washer onto the plane part of the spindle.
2) Place the prominent part of the cutting -off wheel onto the wheel washer.
3) Set the wheel nut onto the spindle over the cutting-off wheel by a screw.
4) Insert the lock pin in the gear cover, then fasten the wheel nut with the spanner.

4. Wire brush.

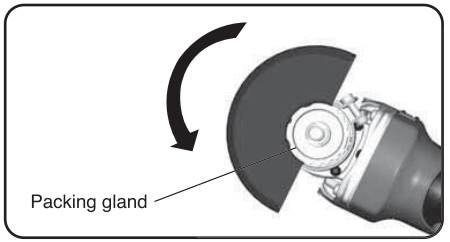
Wire brush



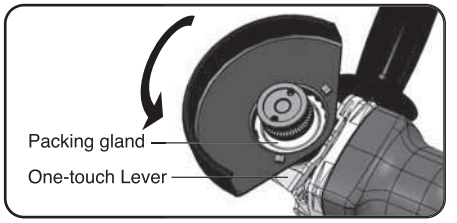
For operations with the wire brush always mount the hand guard
1) The wire brush must be able to be screwed onto the grinder spindle until it rests firmly against the grinder spindle flange at the end of the grinder spindle threads.
2) Tighten the wire brush with an spanner.

5. Wheel Guard

When using a depressed center grinding wheel/Multi-disc, fles wheel, wire wheel bush, cut-off wheel or dimond wheel, the wheel guard must be fitted on the tool so that the closed side of the guard always points toward the operator.



- ■ Mount the wheel guard with the protrusion on the wheel guard band aligned with the notch on the packing gland.
- ■ Then rotate the wheel guard around 180 degrees. Be sure to tighten the screw securely.
- • To remove wheel guard, follow the installation procedure in reverse.



- ■ Fit recessed cutout of packing gland and protruded area of wheel guard.
- ■ After switch on one-touch lever, rotate wheel guard at the desired angle.
- ■ Check whether one-touch lever comes back to original location.
- • To remove wheel guard, please push one-touch lever and move the wheel guard to the opposite direction of the arrow.

10 Operating Instructions

1. How to charge the battery

(1) Insert the plug of the charger in the socket, and the charging indicating lamp will be flickered in green,red and yellow in turn within one second. And then, the battery charger will be in the standby position.
(2) Insert the battery in the battery charger considering the polarity, and the charging will be started immediately.

A new battery will work properly after five times of charging and discharging. Charge and discharge the battery, which is not used for a long time, for two to three times to function well.

(3) When the battery working time is remarkably short despite full charging, the life of the battery may be over. Replace the battery immediately.

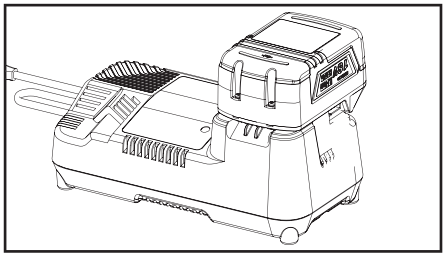
Take care not to short-circuit the terminal of the battery. The short-circuit of the terminal may cause a fire or explosion doing a serious personal injury.

2. Charging process

Use only the specified battery and battery charger. Otherwise battery and charger can be damaged by fire, explosion, charging error or overheat.

1) Charging indication

Green Blinks	: Before charging
Red Lights	: While charging
Green Lights	: Charging completed
Red Blinks	: Overheat standby (Battery overheated)
Yellow Blinks	: Charging impossible



Be sure to unplug the charger after finishing the charging.

2) If charging of the heated battery is attempted immediately after it has been used or charged, indicator blinks in red (overheat standby). Also, cooling fan in the charger automatically starts running to cool the hot battery down to normal temperature and, after the cooling, indication changes to red glowing and charging begins.

3) This charger detects charge status and transfers to fine charging mode when the battery has been almost fully charged and keeps the battery in full charge state.

3. Removing battery

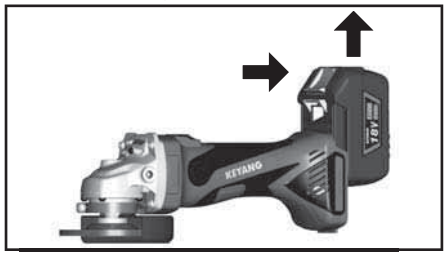
1) Removing battery on power tool

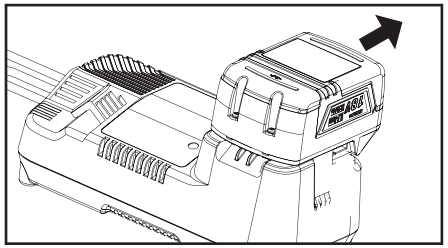
■ To remove the battery, press the battery button and pull the battery out of the power tool toward the rear.

2) Removing battery on charger

■ To remove the battery, press the battery button and pull the battery out of the chargerl toward the rear.

■ Do not exert any force.





4. Test

■ Check that the product is switched on and noisy.

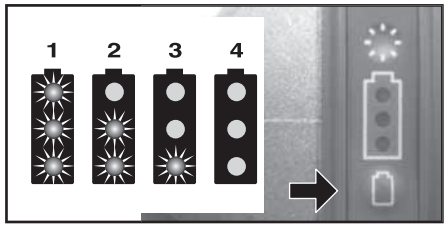
■ When switched on, If you insert battery. It's not running

5. Charge state of the battery

1) DG-1800L, DG-1801L

■ The charge state can be checked on the LED by pressing the charge state indicator button

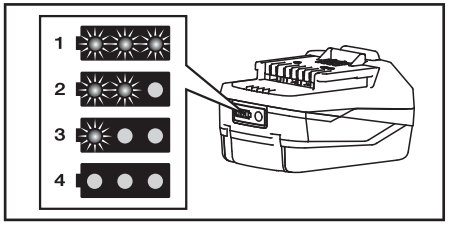
1 = Battery 100 - 70% charged
2 = Battery 70 - 30% charged
3 = Battery less than 30%
4 = Battery flat of defective



2) DG18BL-100S, DG18BL-115S, DG18BL-125S

■ Pressing the battery level button causes its LED to illuminate and enables the user to check the remaining battery power from the illumination state.

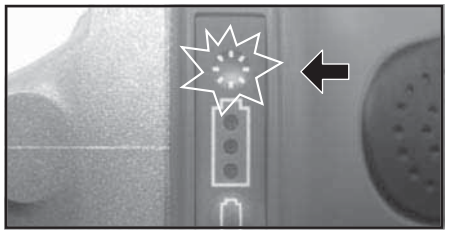
1 = Battery 100 - 70% charged
2 = Battery 70 - 30% charged
3 = Battery less than 30%
4 = Battery flat of defective



6. Indication lamp with multi function

■ Overload protection

- When the tool is overloaded, the indication lamp lights up. When the load on the tool is reduced, the lamp goes out.



- If the tool continues to be overloaded and the indication lamp continues to light up for approximately two seconds. the tool stops. This prevents the moter and its related parts from being damaged.
- In this case, to start the tool again, move the slide switch to the "I(OFF)" position once and then to the "O(ON)" position.

■ Battery catridgge replacing signal

- When the remainging battery capacity gers small, the indicator lamp lights up during operation earlier than enough capcity battery use.

■ Accidental re-start preventive function

- Even if the battery cartridge is insserted on the tool with the slide switch in the "O(ON)" position, the tool does not sstart. At this time, the lamp flickers slowly and this shows that the accidental re-start preventtive function is at work.
- To start the tool, first slide switch toward the "I(OFF)" position.

■ Battery catridgge replacing signal

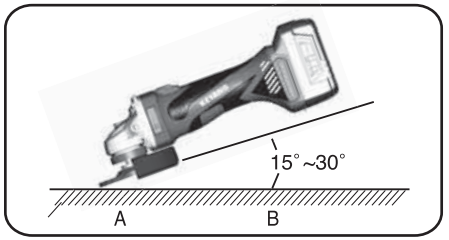
- When the remainging battery capacity gers small, the indicator lamp lights up during

7. Avoid excessive pressure on the grinding stone.

Avoid excessive pressure on the grinding stone. Grinding is done by tool's weight. Apply the grinding stone lightly to the work. Excessive pressure on the grinding stone will decrease grinding speed and cause rough finishing surface. Also, it may cause overheating and motor failure.

8. Pressing angle

Do not apply the whole surfaces of the grinding stone to work material, but apply its circumference. Efficient grinding is achieved by keeping the angle between grinding stone and work material from 15˚ to 30˚ as shown in the picture.



9. Grinding direction

When using a new grinding stone, be certain to grind while pulling tool backwards (B direction) until the grinding stone becomes rounded on its edge. Then, the grinder can be moved to any direction. This grinding stone (Grinding particle: A, Mesh: #36) is best for heavy grinding in general steel materials. Also, it can be used in wide range of other materials. For its lower mesh, apply the grinding stone to the work material lightly and grind steadily to create smooth finishing surface that can be made by the grinding stone with higher mesh.

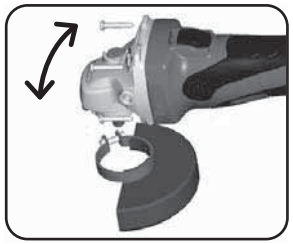
10. Caution after use

Switch off to stop the rotation of the grinding stone, and keep the hand grinder in safe place. When you keep the hand grinder with the grinding stone rotated in the place filled with dust and shavings, dust and shavings can be gotten into the hand grinder.

The grinding stone can be cracked or grooved by an impact. Please take care not to impact on the hand grinder. If the hand grinder is hit against something or fallen down, you must check the grinding stone and hand grinder.

11. How to rotate the head of the disc grinder

Remove the plug from plug socket before any operation. For the above purpose, rotate the head of the disc grinder in a 90-degree turn instead of rotating the handle. And then, unscrew four screws and the head. Do not remove the head from the main body wholly but rotate to new position. After that, set four screws and fasten them.



12. Residual current device

(Only for Australia and Newzealand markets)

Recommendation that the tool always be supplied via residual current device with a rated residual current of 30 mA or less.

13. Dust Cover Cleaning (DG18BL-100S, 115S, 125S)

- Disassemble the dust cover in accordance with the following photo.
- Clean the dust cover with an air blower and reassemble the parts.

If you use the product without the dust cover intact, it may cause problems with its durability. Please make sure the dust cover is properly installed.
※ Keeping the dust cover clean ensures high durability of the product.

11 Maintenance and Servicing

Before any work on the machine itself (maintenance, tool change, etc.) as well as during transport and storage, remove the battery from the power tool.

1. Cleaning

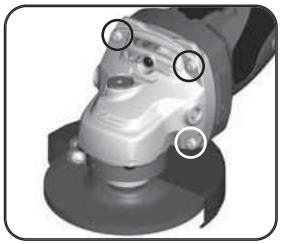
For safe and proper working, always keep the machine and ventilation slots clean.

2. Change of the grinding stone

Please change the grinding stone with new one when outer diameter of the grinding stone in 100 mm is worn to 50 mm (For the grinding stone in 115 mm is 60 mm)

3. Screws

Make sure screws in each part are set tightly at regular intervals. When screws are loose, fasten them tightly. The loose screw causes the danger situation.



4. Carbon brush

It is very difficult for customers to repair the tool for themselves. Contact nearby A/S center (agencies) for solution.

5. Motor

The winding and commutator in the motor are the core of the disc grinder.
Do not scratch the surface of the winding and commutator in the motor, and do not apply oil or water on it.

Dust in the motor causes the trouble of the motor. After using the disc grinder for 50hours, let the compressed air in the ventilation slots in the handle side by rotating the disc grinder in no-load revolution to eliminate dust from the motor.

6. Keep after operation

You must keep the tool out of reach of children in dry place.

7. Abnormal operation

It is very dangerous for customers to troubleshoot or repair the tool for themselves. Contact nearby A/S center (agencies) for solution.

8. Y attachment cord

If the replacement of the supply cord is necessary. this has to be done by the manufacturer or his agent in order to avoid a safety hazard.

9. After-sales Service and Customer Assistance

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts.
Exploded views and informationon spare parts can also be found under :
www.keyang.co.kr
Our customer service representatives can answer your questions concerning possible applications andadjustment of products and accessories.

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Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.