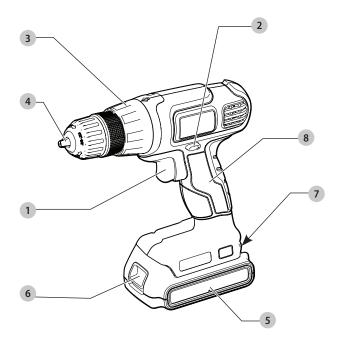


LD120 English 03

## LD120



## Components

- 1 Variable speed switch
- 2 Forward/reverse button
- 3 Mode Selection Collar
- 4 Keyless chuck
- **5** Battery
- 6 Battery release button
- **7** Screwdriver bit holder
- 8 Main handle

1

Fig. B

## Indicators

Charging

Bloc-piles en Cours de Chargement

Unidad en Proceso de Carga

Fully Charged

Bloc-piles Chargé Unidad Cargada

Hot/Cold Pack Delay

Suspension de Charge Contre le Chaud/Froid

Restraso por Unidad Caliente/Fría

Bad Battery

Mauvaise batterie Batería defectuosa Fig. C

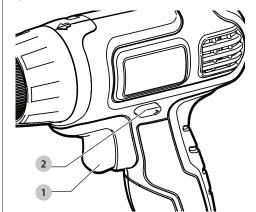


Fig. D

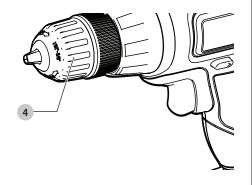


Fig. E

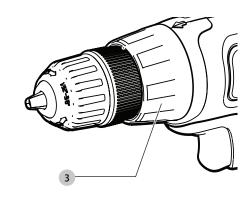
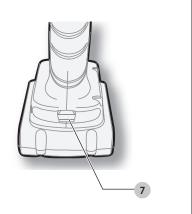


Fig. F





**WARNING: Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.



**WARNING:** To reduce the risk of injury, read the instruction manual.

### **Intended Use**

This drill driver is for consumer drilling and screwdriving applications.

**DO NOT** use under wet conditions or in the presence of flammable liquids or gases.

**DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

## **Definitions: Safety Alert Symbols and Words**

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.



**DANGER:** Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.



**WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.



**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.



(Used without word) Indicates a safety related message. **NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.

### GENERAL POWER TOOL SAFETY WARNINGS



WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### 1) Work Area Safety

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### 2) Electrical Safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase
  the risk of electric shock
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

### 3) Personal Safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing 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.
- 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 jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

 h) Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

### 4) Power Tool Use and Care

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/ or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- h) Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

### 5) 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.
- Use power tools only with specifically designated battery packs. 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 terminals 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.
- e) **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may
  exhibit unpredictable behavior resulting in fire,
  explosion or risk of injury.
- f) Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 265 °F (130 °C) may cause explosion.
- g) Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

### 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.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.

## DRILL/DRIVER SAFETY WARNINGS

## 1) Safety Instructions for All Operations

- a) **Wear ear protectors when impact drilling.** Exposure to noise can cause hearing loss.
- Brace the tool properly before use. This tool
  produces a high output torque and without properly
  bracing the tool during operation, loss of control may
  occur resulting in personal injury.
- c) Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory or fasteners may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

### 2) Safety Instructions When Using Long Drill Bits

- a) Never operate at higher speed than the maximum speed rating of the drill bit. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- b) Always start drilling at low speed and with the bit tip in contact with the workpiece. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- Apply pressure only in direct line with the bit and do not apply excessive pressure. Bits can bend causing breakage or loss of control, resulting in personal injury.

## **Additional Safety Warnings for Drills**

- Do not operate this tool for long periods of time.
   Vibration caused by the operating action of this tool may cause permanent injury to fingers, hands, and arms. Use gloves to provide extra cushion, take frequent rest periods, and limit daily time of use.
- Hammer bits and tools get hot during operation.
  Wear gloves when touching them.

## **Additional Safety Information**



**WARNING:** Never modify the power tool or any part of it. Damage or personal injury could result.



**WARNING: ALWAYS** use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

- ANSI Z87.1 eye protection (CAN/CSA Z94.3),
- ANSI S12.6 (S3.19) hearing protection,
- NIOSH/OSHA/MSHA respiratory protection.



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

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals. Direct particles away from face and body.
- Use the appropriate dust extractor vacuum to remove the vast majority of static and airborne dust. Failure to remove static and airborne dust could contaminate the working environment or pose an increased health risk to the operator and those in close proximity.
- Use clamps or other practical ways to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control and injury.
- Air vents often cover moving parts and should be avoided. Loose clothes, jewelry or long hair can be caught in moving parts.



CAUTION: When not in use, place tool on its side on a stable surface where it will not cause a tripping or falling hazard. Some tools with large battery packs will stand upright on the battery pack but may be easily knocked over.

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

BPMbeats per minute	
·	▲safety alert symbol
Vvolts	wear respiratory
min minutes	protection
=== or DC direct current	wear eye protection
/min per minute	Class II Construction
RPMrevolutions per	(double insulated)
minute	wear hearing
Aamperes	protection
Hzhertz	read all
W watts	documentation
Wh watt hours	avoid staring at
n <sub>0</sub> no load speed	light
nrated speed	$\sim$ or ACalternating current
	Ahamp hours

## **BATTERIES AND CHARGERS**

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below and then follow charging procedures outlined. When ordering replacement battery packs, be sure to include the catalog number and voltage.

### **READ ALL INSTRUCTIONS**

# Important Safety Instructions for All Battery Packs



WARNING: Read all safety warnings, instructions, and cautionary markings for the battery pack, charger and product. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

- Do not charge or use the battery pack in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Inserting or removing the battery pack from the charger may ignite the dust or fumes.
- NEVER force the battery pack into the charger. DO NOT modify the battery pack in any way to fit into a non-compatible charger as battery pack may rupture causing serious personal injury.
- Charge the battery packs only in BLACK+DECKER chargers.
- DO NOT splash or immerse in water or other liquids.
- **DO NOT** allow water or any liquid to enter battery pack.
- Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 104 °F (40 °C) (such as outside sheds or metal buildings in summer). For best life store battery packs in a cool, dry location.

NOTE: Do not store the battery packs in a tool with the trigger switch locked on. Never tape the trigger switch in the ON position.

Do not incinerate the battery pack even if it is severely damaged or is completely worn out. The battery pack can explode in a fire. Toxic fumes and materials are created when lithium-ion battery packs are burned.

- If battery contents come into contact with the skin, immediately wash area with mild soap and water. If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- Contents of opened battery cells may cause respiratory irritation. Provide fresh air. If symptoms persist, seek medical attention.
- Battery liquid may be flammable if exposed to spark or flame.
- Never attempt to open the battery pack for any reason. If the battery pack case is cracked or damaged, do not insert into the charger. Do not crush, drop or damage the battery pack. Do not use a battery pack or charger that has received a sharp blow, been dropped, run over or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on). Damaged battery packs should be returned to the service center for recycling.

## **Storage Recommendations**

The best storage place is one that is cool and dry, away from direct sunlight and excess heat or cold. Store the fully charged battery pack out of the charger.

## **Battery Pack Cleaning Instructions**

Dirt and grease may be removed from the exterior of the battery using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

## **Transportation**



WARNING: Fire hazard. Do not store, carry, or transport the battery pack so that metal objects can contact exposed battery terminals. For

example, do not place the battery pack in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, coins, hand tools, etc. When transporting individual battery packs, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

**NOTE:** Li-ion battery packs should not be put in checked baggage on airplanes and must be properly protected from short circuits if they are in carryon baggage.

## Important Safety Instructions for All Battery Chargers



WARNING: Read all safety warnings, instructions, and cautionary markings for the battery pack, charger and product. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

 DO NOT attempt to charge the battery pack with any chargers other than a BLACK+DECKER charger.

- BLACK+DECKER chargers and battery packs are specifically designed to work together.
- These chargers are not intended for any uses other than charging BLACK+DECKER rechargeable battery packs. Charging other types of battery packs may cause them to overheat and burst, resulting in personal injury, property damage, fire, electric shock or electrocution.
- Do not expose the charger to rain or snow.
- Do not allow water or any liquid to enter charger.
- Pull by the plug rather than the cord when disconnecting the charger. This will reduce the risk of damage to the electric plug and cord.
- Make sure that the cord is located so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.
- Do not use an extension cord unless it is absolutely necessary. Use of improper extension cord could result in risk of fire, electric shock or electrocution.
- When operating a charger outdoors, always provide a dry location and use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- An extension cord must have adequate wire size
   (AWG or American Wire Gauge) for safety. The smaller
   the gauge number of the wire, the heavier the cord and
   thus the greater its capacity. An undersized cord will
   cause a drop in line voltage resulting in loss of power and
   overheating. The following table shows the correct size
   to use depending on total length of all extension cords
   plugged together, and nameplate ampere rating. If in
   doubt, use the next heavier gauge.
- **Do not place any object on top of the charger.** Place the charger in a position away from any heat source.
- **Do not operate the charger with a damaged cord or plug**—have them replaced immediately.
- Do not operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way. Take it to an authorized service center.
- Do not disassemble the charger; take it to an authorized service center when service or repair is required. Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- Foreign materials of a conductive nature, such as, but not limited to, grinding dust, metal chips, steel wool, aluminum foil or any buildup of metallic particles should be kept away from the charger cavities.
- Always unplug the charger from the power supply when there is no battery pack in the cavity.

## Charging a Battery (Fig. B)

- 1. Plug the charger into an appropriate outlet.
- 2. Insert and fully seat battery pack. Green charging light will continuously blink while charging.
- Charging is complete when the green light remains continuously ON. Battery pack can be left in charger or removed.

4. Charger will not charge a faulty battery pack, which may be indicated by the light staying OFF or the red light rapidly blinking. Take charger and battery pack to an authorized service center if light stays OFF or red light rapidly blinks.

**NOTE:** Refer to label near charging light on charger for blink patterns.

### Hot/Cold Pack Delay

When the charger detects a battery pack that is too hot or too cold, it automatically starts a Hot/Cold Pack Delay, suspending charging until the battery pack has reached an appropriate temperature. The charger then automatically switches to the pack charging mode. This feature ensures maximum battery pack life.

A cold battery pack may charge at a slower rate than a warm battery pack.

The hot/cold pack delay will be indicated by the red light continuously flashing a short ON followed by a longer ON (see charger for blink pattern). Once the battery pack has reached an appropriate temperature, the charger will resume the charging procedure.

### **Electronic Protection System**

Li-lon tools are designed with an Electronic Protection System that will protect the battery pack against overloading, overheating or deep discharge. The tool will automatically turn off and the battery pack will need to be recharged.

## **Important Charging Notes**

- The charger and battery pack may become warm to the touch while charging. This is a normal condition, and does not indicate a problem. To facilitate the cooling of the battery pack after use, avoid placing the charger or battery pack in a warm environment such as in a metal shed or an uninsulated trailer.
- 2. If the battery pack does not charge properly:
  - a. Check operation of receptacle by plugging in a lamp or other appliance;
  - b. Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights;
  - c. If charging problems persist, take the tool, battery pack and charger to your local service center.
- 3. You may charge a partially used pack whenever you desire with no adverse effect on the battery pack.

## **Charger Cleaning Instructions**



**WARNING:** Shock hazard. Disconnect the charger from the AC outlet before cleaning. Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

## SAVE THESE INSTRUCTIONS FOR FUTURE USE

### **ASSEMBLY AND ADJUSTMENTS**



WARNING: To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

# Installing a Bit or Accessory into a Keyless Chuck (Fig. D)



**WARNING:** Do not attempt to tighten drill bits (or any other accessory) by gripping the front part of the chuck and turning the tool on. Damage to the chuck and personal injury may result. Always lock off trigger switch and disconnect tool from power source when changing accessories.



**WARNING:** Always ensure the bit is secure before starting the tool. A loose bit may eject from tool causing possible personal injury.

To insert a drill bit or other accessory, follow these steps.

- 1. Turn tool off and remove battery pack.
- Grasp the black sleeve of the chuck with one hand and use the other hand to secure the tool. Rotate the sleeve counterclockwise far enough to accept the desired accessory.
- 3. Insert the accessory about 3/4" (19 mm) into the chuck 4 and tighten securely by grasping and rotating the chuck sleeve clockwise with one hand while holding the tool with the other. When the chuck is nearly tightened you will hear a clicking sound. After 12-14 clicks the chuck is securely tightened around the accessory. Your tool is equipped with an automatic spindle lock mechanism. This allows you to open and close the chuck with one hand.

Be sure to tighten chuck with one hand on the chuck sleeve and one hand holding the tool for maximum tightness. To release the accessory, repeat steps 1 and 2 above.

### **OPFRATION**



WARNING: To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

# Installing and Removing the Battery Pack (Fig. A)

**NOTE:** For best results, make sure your battery pack is fully charged.

To install the battery pack 6 into the tool handle, align the battery pack with the rails inside the tool's handle and slide it into the handle until the battery pack is firmly seated in the tool and ensure that it does not disengage.

To remove the battery pack from the tool, press the release button 5 and firmly pull the battery pack out of the tool handle. Insert it into the charger as described in the charger section of this manual

## Proper Hand Position (Fig. A)



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** use proper hand position as shown.



**WARNING:** To reduce the risk of serious personal injury, **ALWAYS** hold securely in anticipation of a sudden reaction.

Proper hand position requires one hand on the main handle **8** and the other hand holding the battery pack **5**.

## Trigger Switch/Reversing Button (Fig. A)

- 1. The drill is turned ON and OFF by pulling and releasing the trigger switch 1.
- 2. A forward/reverse control button 2 determines the direction of the tool and also serves as a lock off button.
- 3. To select forward rotation, release the trigger switch and depress the forward/reverse control button to the left.
- 4. To select reverse, depress the forward/ reverse control button the opposite direction.

**NOTE:** The center position of the control button locks the tool in the off position. When changing the position of the control button, be sure the trigger is released.

## Mode Selection (Fig. A)

The mode selection collar 3 can be used to select the correct operating mode depending upon the planned application.

To select, rotate the collar until the desired symbol aligns with the arrow.



**WARNING:** When the mode selection collar is in the drill position, the drill will not clutch. The drill may stall if overloaded, causina a sudden twist.

Symbol	Mode	
Ê	Drilling	
1-15	Screwdriving (higher number = greater torque)	

## On Board Bit Storage (Fig. F)

A bit storage slot **7** is built into the base of the tool.

## Performing an Application (Fig. A, E)



WARNING: To reduce the risk of personal injury, ALWAYS ensure workpiece is anchored or clamped firmly.



**WARNING:** Always wait until the motor has come to a complete standstill before changing the direction of rotation.

### **Prior to Performing Work**

 Install the appropriate bit or accessory into the chuck. Refer to Installing a Bit or Accessory into a Keyless Chuck.



### WARNING:

Do not use this tool to mix or pump easily combustible or explosive fluids (benzine, alcohol. etc.).

 Do not mix or stir flammable liquids labeled accordingly.

### Screwdriving

Your tool has a clutch with adjustable torque for driving and removing a wide array of fastener shapes and sizes. The numbers 1–15 on the mode selection collar 3 are used to set a torque range for screwdriving. The higher the number on the collar, the higher the torque and the larger the fastener which can be driven.

- Turn the mode selection collar 3 to the desired position. Refer to Mode Selection.
- 2. Pull the trigger switch applying pressure in a straight line with the bit until the fastener is seated at the desired depth in the workpiece.

### **Recommendations for Screwdriving**

- Start with lower torque settings, then advance to higher torque settings to avoid damage to the workpiece or fastener.
- Make some practice runs in scrap or on unseen areas of the workpiece to determine the proper position of the mode selection collar.

## **Drilling**

**IMPORTANT:** For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped masonry bits.

- Turn the mode selection collar 3 to the drill symbol. Refer to *Mode Selection*.
- 2. Place drill bit in contact with the workpiece. **NOTE:** Use sharp drill bit only.
- 3. Pull the trigger switch applying pressure in a straight line with the bit until it reaches the desired depth.



**WARNING:** Drill may stall if overloaded causing a sudden twist. Always expect the stall. Grip the drill firmly to control the twisting action and avoid injury.

4. Keep the motor running when pulling the bit back out of a drilled hole to prevent jamming.

### **Recommendations for Drilling**

- When drilling, always apply pressure in a straight line with the bit, but do not push hard enough to stall the motor or deflect the bit.
- · IF THE DRILL STALLS:
  - RELEASE TRIGGER SWITCH IMMEDIATELY, remove drill bit from work, and determine cause of stalling.
  - DO NOT DEPRESS TRIGGER SWITCH ON AND OFF IN AN ATTEMPT TO START A STALLED DRILL— THIS CAN DAMAGE THE DRILL.
  - To minimize stalling or breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
- Large holes (5/16" to 1/2" [7.9 mm to 12.7 mm]) in steel can be made easier if a pilot hole (5/32" to 3/16" [4 mm to 4.8 mm]) is drilled first.
- If drilling thin material or material that is prone to splinter, use a wood "back-up" block to prevent damage to the workpiece.

### **MAINTENANCE**



WARNING: To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

## Cleaning



**WARNING:** Blow dirt and dust out of all air vents with clean, dry air at least once a week. To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection when performing this procedure.



**WARNING:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the plastic materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

### **Accessories**



**WARNING:** Since accessories, other than those offered by BLACK+DECKER, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only BLACK+DECKER recommended accessories should be used with this product.

Recommended accessories for use with your tool are available at extra cost from your local dealer or authorized service center. If you need assistance in locating any accessory, please contact BLACK+DECKER.

## Repairs

The charger and battery pack are not serviceable. There are no serviceable parts inside the charger or battery pack.



**WARNING:** To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush inspection and replacement, when applicable) should be performed by a BLACK+DECKER factory service center or a BLACK+DECKER authorized service center. Always use identical replacement parts.

### MAINTENANCE

Your BLACK+DECKER corded/cordless appliance/tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



# WARNING! BEFORE PERFORMING ANY MAINTENANCE ON CORDED/CORDLESS POWER TOOLS:

- Switch off and unplug the appliance/tool.
- Or switch off and remove the battery from the appliance/ tool if the appliance/tool has a separate battery pack.
- Or run the battery down completely if it is integral and then switch off.
- Regularly clean the ventilation slots in your appliance/ tool/charger using a soft brush or dry cloth.

Regularly clean the motor housing using a damp cloth.
 Do not use any abrasive or solvent-based cleaner.

### Technical data

		LD120
Voltage	$V_{DC}$	18V (20V Max)
No-load speed	Min-1	0-750
Chuck capacity	mm	1-10
Weight	kg	0.9

Charger		SSC-250040**
Input voltage	V <sub>AC</sub>	100-240
Output voltage	V <sub>DC</sub>	8-20
Current	mA	400
Approx. charge time	Hours	3-5

Battery		BL1518
Voltage	V <sub>DC</sub>	18V (20V Max)
Capacity	Ah	1.5Ah
Туре		Li-ion

## Protecting the environment



Separate collection. Products and batteries marked with this symbol must not be disposed of with normal household waste.

Products and batteries contain materials that can be recovered or recycled reducing the demand for raw materials. Please recycle electrical products and batteries according to local provisions. Further information is available at www.2helpU.com.

### Service Information

BLACK+DECKER offers a full network of company-owned and authorized service locations throughtout Asia. All BLACK+DECKER Service Centers are staffed with trained personnel to provide customers with efficient and reliable product service.

Whether you need technical advice, repair, or genuine factory replacement parts, contact the BLACK+DECKER location nearest to you.

#### Note

- BLACK+DECKER's policy is one of continuous improvement to our products and, as such, we reserve the right to change product specifications without prior notice.
- Standard equipment and accessories may vary by country.
- Product specifications may differ by country.

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