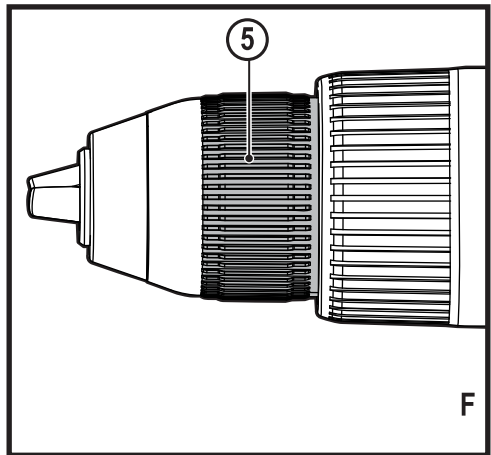
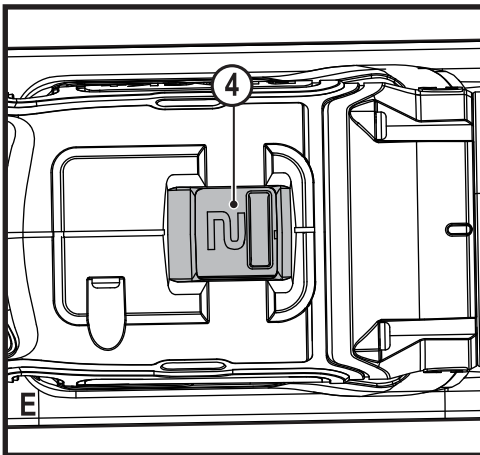
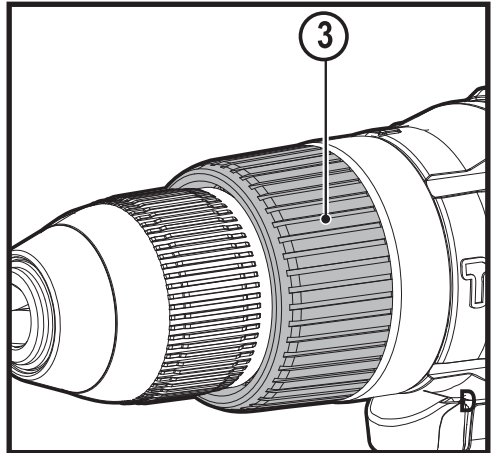
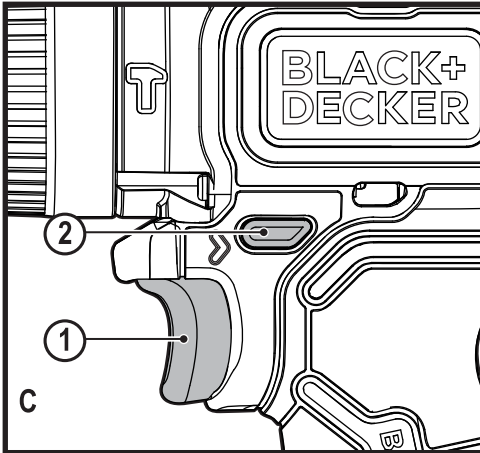
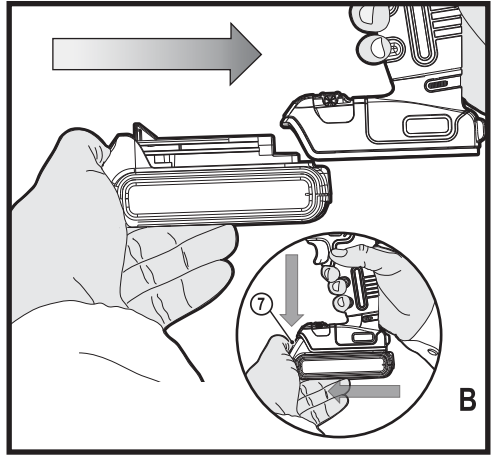
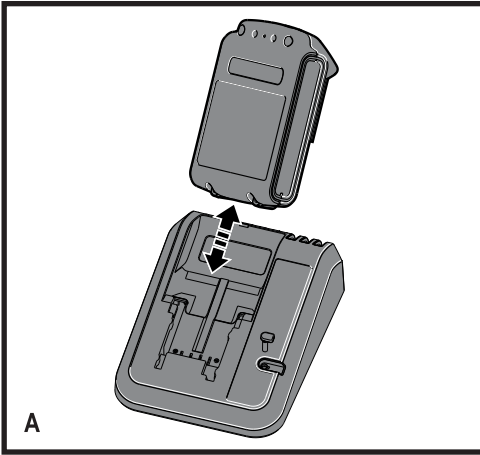


BL188

English
繁體中文

3
9



Intended use

Your BLACK+DECKER BL188 Drill, has been designed for screwdriving applications and for drilling in wood, metal and masonry. This tool is intended for consumer use only.

Safety instructions

General power tool safety warnings



Warning! Read all safety warnings and all instructions. Failure to follow the warnings and 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 all of the warnings listed below 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 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 operating 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.
 - 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 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.
 - 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.
 - b. **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 behaviour 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 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.
 - b. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

Additional power tool safety warnings



Warning! Additional safety warnings for drills/screwdrivers

- ◆ **Wear ear protectors when impact drilling.** Exposure to noise can cause hearing loss.
- ◆ **Use auxiliary handles supplied with the tool.** Loss of control can cause personal injury.
- ◆ **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory or fasteners may contact hidden wiring.** Cutting accessory or fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ◆ **Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ◆ **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- ◆ Before drilling into walls, floors or ceilings, check for the location of wiring and pipes.
- ◆ Avoid touching the tip of a drill bit just after drilling, as it may be hot.
- ◆ The intended use is described in this instruction manual. The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury and/or damage to property.

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.
- c. 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.

Safety of others

- ◆ This tool 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 tool by a person responsible for their safety.
- ◆ Children should be supervised to ensure that they do not play with the appliance.

Residual risks

Additional residual risks may arise when using the tool which may not be included in the enclosed safety warnings. These risks can arise from misuse, prolonged use etc.

Even with the application of the relevant safety regulations and the implementation of safety devices, certain residual risks can not be avoided. These include:

- ◆ Injuries caused by touching any rotating/moving parts.
- ◆ Injuries caused when changing any parts, blades or accessories.
- ◆ Injuries caused by prolonged use of a tool. When using any tool for prolonged periods ensure you take regular breaks.
- ◆ Impairment of hearing.
- ◆ Health hazards caused by breathing dust developed when using your tool (example:- working with wood, especially oak, beech and MDF.)

Labels on tool

The following symbols are shown on the tool along with the date code:



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



Wear ear protectors with impact drills.
Exposure to noise can cause hearing loss

Additional safety instructions for batteries and chargers (Not provided with the tool)

Batteries

- ◆ Never attempt to open for any reason.
- ◆ Do not expose the battery to water.
- ◆ Do not store in locations where the temperature may exceed 40 °C.
- ◆ Charge only at ambient temperatures between 10 °C and 40 °C.
- ◆ Charge only using the charger provided with the tool.
- ◆ When disposing of batteries, follow the instructions given in the section "Protecting the environment".



Do not attempt to charge damaged batteries.

Chargers

- ◆ Use your BLACK+DECKER charger only to charge the battery in the tool with which it was supplied. Other batteries could burst, causing personal injury and damage.
- ◆ Never attempt to charge non-rechargeable batteries.
- ◆ Have defective cords replaced immediately.
- ◆ Do not expose the charger to water.
- ◆ Do not open the charger.
- ◆ Do not probe the charger.



The charger is intended for indoor use only.



Read the instruction manual before use.

Electrical safety



Your charger is double insulated; therefore no earth wire is required. Always check that the mains voltage corresponds to the voltage on the rating plate. Never attempt to replace the charger unit with a regular mains plug.

- ◆ If the supply cord is damaged, it must be replaced by the manufacturer or an authorised BLACK+DECKER Service Centre in order to avoid a hazard.

Features

This appliance includes some or all of the following features.

1. Trigger Switch
2. Forward/Reverse Button
3. Torque Adjust Collar
4. Dual Range Gear Selector
5. Keyless Chuck
6. Battery
7. Battery Release Button
8. LED Work Light
9. Bit Tip Holder

Use

Warning! Let the tool work at its own pace.

Do not overload.

Charging the battery - Figure A

The battery needs to be charged before first use and whenever it fails to produce sufficient power on jobs that were easily done before. The battery may become warm while charging; this is normal and does not indicate a problem.

Warning! Do not charge the battery at ambient temperatures below 10 °C or above 40 °C. Recommended charging temperature: approx. 24 °C.

Note: The charger will not charge a battery if the cell temperature is below approximately 10 °C or above 40 °C. The battery should be left in the charger and the charger will begin to charge automatically when the cell temperature warms up or cools down.

- ◆ Plug the charger into any standard 230 Volts 50 Hz electrical outlet.
- ◆ Slide the battery pack into the charger as shown in fig. A.
- ◆ The green LED will flash indicating that the battery is being charged.
- ◆ The completion of charge is indicated by the green LED remaining on continuously. The pack is fully charged and may be used at this time or left on the charger.

Warning! fire Hazard. When disconnecting the charger from the tool, be sure to unplug the charger from the outlet first, then disconnect the charger cord from the tool.

To install battery pack - Figure B

- ◆ Insert battery pack firmly into tool until an audible click is heard as shown in figure B. Ensure battery pack is fully seated and fully latched into position.

To remove battery pack - Figure B insert

- ◆ Depress the battery release button (7) as shown in figure B1 and pull battery pack out of tool.

Trigger switch & forward/reverse button - figure C

- ◆ The drill is turned ON and OFF by pulling and releasing the trigger switch (1) shown in figure C. The farther the trigger is depressed, the higher the speed of the drill.
- ◆ A forward/reverse control button (2) determines the rotational direction of the tool and also serves as a lock off button.
- ◆ To select forward rotation, release the trigger switch and depress the forward/reverse control button on the right side of the tool.
- ◆ To select reverse, depress the forward/reverse control button on the left side of the tool.
- ◆ 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.

Adjusting torque control - figure D

This tool is fitted with a torque adjustment collar (3) to select the operating mode and to set the torque for tightening screws. Large screws and hard workpiece materials require a higher torque setting than small screws and soft workpiece materials.

- ◆ For drilling in wood, metal and plastics, set the collar to the drilling position symbol.
- ◆ For screwdriving, set the collar to the desired setting. If you do not yet know the appropriate setting, proceed as follows:
 - ◆ Set the collar to the lowest torque setting.
 - ◆ Tighten the first screw.
 - ◆ If the clutch ratchets before the desired result is achieved, increase the collar setting and continue tightening the screw.
 - ◆ Repeat until you reach the correct setting.
 - ◆ Use this setting for the remaining screws.

Dual range switch - figure E

The dual range feature of your drill allows you to shift gears for greater versatility.

- ◆ To select low speed, high torque setting (position 1), turn tool off and permit to stop. Slide gear shifter button (4) away from the chuck.
- ◆ To select the high speed, low torque setting (position 2), turn tool off and permit to stop. Slide gear shifter button back toward the chuck.

Note: Do not change gears when tool is running. If you are having trouble changing gears, make sure that the dual range gear button is either completely pushed forward or completely pushed back.

keyless chuck - figure F

Warning! Make certain the battery pack is removed to prevent tool actuation before installing or removing accessories.

To insert a drill bit or other accessory:

- ◆ Grasp the chuck (5) and rotate it in the counterclockwise direction, as viewed from the chuck end.
- ◆ Insert the bit or other accessory fully into the chuck, and tighten securely by rotating the chuck in the clockwise direction as viewed from the chuck end.

Warning! Do not attempt to tighten or loosen 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 occur when changing accessories.

Hammer Action

The BL188 drill has hammer action which is engaged by twisting the collar to the hammer symbol **T**. Use hammer action when drilling in masonry.

Warning! When the torque adjustment collar is in the drill or hammer drill positions, the drill will not clutch. The drill may stall if overloaded, causing a sudden twist.

Screw driving

- ◆ For driving fasteners, the forward/reverse button should be pushed to the left.
- ◆ Use reverse (button pushed to the right) for removing fasteners.

Note: When moving from forward to reverse, or vice versa, always release the trigger switch first.

Drilling

- ◆ Use sharp drill bits only.
- ◆ Support and secure work properly, as instructed in the Safety Instructions.
- ◆ Use appropriate and required safety equipment, as instructed in the Safety Instructions.
- ◆ Secure and maintain work area, as instructed in the Safety Instructions.
- ◆ Run the drill very slowly, using light pressure, until the hole is started enough to keep the drill bit from slipping out of it.

- ◆ Apply pressure in a straight line with the bit. Use enough pressure to keep the bit biting but not so much as to stall the motor or deflect the bit.
- ◆ Hold the drill firmly with two hands, one hand on the handle, and the other gripping the bottom around the battery area or the auxiliary handle if provided.
- ◆ **DO NOT CLICK THE TRIGGER OF A STALLED DRILL OFF AND ON IN AN ATTEMPT TO START IT. DAMAGE TO THE DRILL CAN RESULT.**
- ◆ Minimize stalling on breakthrough by reducing pressure and slowly drilling through the last part of the hole.
- ◆ Keep the motor running while pulling the bit out of a drilled hole. This will help reduce jamming.
- ◆ Make sure switch turns drill on and off.

Problem	Possible cause	Possible solution
Battery pack will not charge.	Battery pack not inserted into charger.	Insert battery pack into charger until LED lights.
	Charger not plugged in.	Plug charger into a working outlet.
Unit shuts off abruptly.	Surrounding air temperature too hot or too cold.	Move charger and battery pack to a surrounding air temperature of above 40 degrees F (45°C) or below 105 degrees F (+40.5°C)
	Battery pack has reached its maximum thermal limit.	Allow battery pack to cool down.
	Out of charge. (To maximize the life of the battery pack it is designed to shut off abruptly when the charge is depleted)	Place on charger and allow to charge.

Drilling in wood

Holes in wood can be made with the same twist drill bits used for metal or with spade bits. These bits should be sharp and should be pulled out frequently when drilling to clear chips from the flutes.

Drilling in metal

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulphurized cutting oil.

Drilling in masonry

Shift drill into 'Hammer mode'. Use carbide tipped masonry bits. Refer to drilling section. Keep even force on the drill but not so much that crack the brittle material. A smooth, even flow of dust indicates the proper drilling rate.

LED work light

When drill is activated by pulling the trigger switch (1), the integrated LED work light (8) will automatically illuminate the work area.

Note: The work light is for lighting the immediate work surface and is not intended to be used as a flashlight.

Bit tip storage

A bit storage slot (9) is built into the base of the tool.

Troubleshooting

Problem	Possible cause	Possible solution
Unit will not start.	Battery pack not installed properly.	Check battery pack installation.
	Battery pack not charged.	Check battery pack charging requirements
Unit starts immediately upon inserting battery	The switch has been left in the "on" position.	The switch must be moved to "off" to prevent the tool from immediately starting when battery is inserted.

Maintenance

Your BLACK+DECKER 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.

Your charger does not require any maintenance apart from regular cleaning.

Warning! Before performing any maintenance on the tool, remove the battery from the tool. Unplug the charger before cleaning it.

- ◆ Regularly clean the ventilation slots in your tool and 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.
- ◆ Regularly open the chuck and tap it to remove any dust from the interior.

Technical data

		BL188
Voltage	V _{dc}	20V Max
No-load speed	RPM	0-420 / 0-1650
No-load Impact	BPM	0-7140 / 0-28050
Max. torque	Nm	52
Chuck capacity	mm	13
Max drilling capacity		
Masonry/Steel/Wood	mm	13/13/35
Weight	kg	1.21 (1.59 with battery)

Charger		BDC2A
Input voltage	V_{AC}	110
Output voltage	V_{DC}	18
Current	mA	2000
Approx. charge time	Hrs	1

Battery		LBXR2020	BL2018
Voltage	V_{AC}	18V(20V max)	18V
Capacity	Ah	2.0	2.0
Type		Li-Ion	Li-Ion

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

BLACK+DECKER provides a facility for the collection and recycling of BLACK+DECKER products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.

You can check the location of your nearest authorised repair agent by contacting your local BLACK+DECKER office at the address indicated in this manual. Alternatively, a list of authorised BLACK+DECKER repair agents and full details of our after-sales service and contacts are available on the Internet at: www.2helpU.com

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.



Separate collection of used products and packaging allows materials to be recycled and used again. Reuse of recycled materials helps prevent

environmental pollution and reduces the demand for raw materials.

Some local governments may require the local or municipal waste disposal centers or retailers of new products to provide households with electronic product recycling services.

Service Information

BLACK+DECKER offers a full network of company-owned and authorized service locations throughout 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.
- ◆ Complete product range may not be available in all countries. Contact your local BLACK+DECKER dealers for range availability.

設計用途

您的BLACK+DECKER BL188 20V Max無碳刷震動電鑽設計用於螺旋應用以及在木材、金屬及石材上鑽孔。本工具僅供一般DIY消費者家庭使用，營業使用者不適用一年保修條款。

安全指示



電動工具一般安全警告

警告！請閱讀所有安全警告及指示。若不遵循以下所示警告及指示，可能會導致觸電、火災及/或嚴重傷害。

請妥善保存所有警告及指示以備將來查閱。

以下所示所有警告中的術語「電動工具」係指由電源供電(插電式)或由電池供電(充電式)的電動工具。

1. 工作場地安全

- 請保持工作場地清潔明亮。雜亂或黑暗的場地會引發事故。
- 請勿在易爆環境(例如存在易燃液體、氣體或粉塵的環境)中操作電動工具。電動工具產生的火花可能會引燃粉塵或煙霧。
- 操作電動工具時，請遠離兒童與旁觀者。分心會導致您疏忽於控制。

2. 電氣安全

- 電動工具插頭必須與插座相符。切勿以任何方式改裝插頭。請勿將接地的電動工具與任何配電器插頭搭配使用。使用未經改裝的插頭與相符的插座可降低觸電風險。
- 請避免人體接觸接地表面(例如管道、散熱片、爐灶及冰箱)。若您的身體接地，會提高觸電的風險。
- 請勿將電動工具暴露在雨中或潮濕環境中。水進入電動工具會提高觸電風險。
- 請勿濫用電線。切勿使用電線來搬運、拉動電動工具或拔出插頭。請讓電線遠離熱、油、銳邊或活動部件。受損或纏繞的電線會提高觸電風險。
- 在室外操作電動工具時，請使用適合室外使用的延長電纜。採用適合室外使用的電線可降低觸電危險。
- 若必須在潮濕環境中操作電動工具，請使用受漏電保護器(RCD)保護的電源供應器。使用RCD可降低觸電風險。

3. 人身安全

- 操作電動工具時，請保持警覺、留意所執行的操作並運用常識。請勿在疲倦或在受到毒品、酒精或藥品的影響時使用電動工具。操作電動工具時，一時的注意力分散可能會導致嚴重人身傷害。
- 請使用人身防護設備。始終佩戴護目裝置。防護設備(例如在適當條件下使用的防塵面具、防滯安全鞋、安全帽或聽力保護裝置)可減少人身傷害。
- 避免意外啟動。在連接至電源及/或電池組、拾起或搬運工具之前，請確保開關處於關閉位置。若

搬運電動工具時將手指放在開關上，或者在電動工具開關開啟時將插頭插入電源插座，這兩種行為都會引發事故。

- 開啟電動工具之前，請卸下所有調整鑰匙或扳手。電動工具旋轉部件上遺留的扳手或鑰匙可能會導致人身傷害。
 - 請勿過度伸張雙手。時刻注意腳下與身體的平衡。如此可在意外情況下更好地控制電動工具。
 - 穿著適當。廢物穿著寬鬆衣服或配戴飾品。讓頭髮、衣服及手套遠離活動部件。寬鬆衣服、配飾或長髮可能會捲入活動部件中。
 - 若為連接除塵與集塵設備而提供裝製，請確保妥善連接集塵器使用。使用集塵設備可降低與粉塵有關的危險。
- ### 4. 電動工具的使用與維護
- 請勿超負荷使用電動工具。請根據您的應用使用正確的電動工具。若使用的電動工具正確無誤，該工具能以設計額定值更有效、更安全地執行工作。
 - 若開關無法開啟或關必本電動工具，請勿使用。若開關無法控制電動工具，則電動工具存在危險，必須予以維修。
 - 在執行任何調整、變更配件或存放電動工具之前，必須從電圖上拔出插頭集/或卸下電動工具的電池組。此類防護性安全措施可降低電動工具意外啟動的風險。
 - 請將閒置的電動工具存放在兒童無法接觸的地方。請勿讓不熟悉電動工具或這些指示的人員操作電動工具。為經訓練的使用者操作電動工具會發生危險。
 - 維護電動工具。請檢查是否存在活動部件為對準或卡住、部件破損以及可能影響電動工具運作的其他任何狀況。若電動工具有損傷，請先維修後使用。許多事故都因電動工具維護不善所導致。
 - 請保持刀鋒鋒利清潔。妥善維護、刃刀鋒利的刀鋸卡住的可能性低，更易於控制。
 - 遵循使用指示以及工作條件和所要執行的工作使用電動工具、配件和工具刀頭等。若使用電動工具執行與設計用途不相符的操作，會導致危險。
- ### 5. 電池工具的使用與注意事項
- 只能用製造廠商指定的充電器為電池充電。使用僅適合一種電池組的充電器為其他類型的電池組充電會導致火災危險。
 - 請使用原廠的電動工具電池組。使用其它非原廠的電池組會導致人身傷害和火災危險。
 - 不使用電池組時，請將其遠離如迴紋針、硬幣、鑰匙、釘子螺絲以及其它可連通電池兩極的金屬物品。將電池兩極短路會導致灼傷或火災。
 - 濫用電池的情況下，液體會從電池中噴出；避免與液體接觸。若不慎接觸液體，請用清水沖洗。若液體噴濺到眼睛上，沖洗之後還要進行治療。從電池噴出的液體會刺激皮膚或造成灼傷。
- ### 6. 維修
- 電動工具之修理，僅可由認證的技術人員執行。請勿交由非百得認證服務中心的技術人員進行修

理、維護、調整。若產品經由非百得認證的維修工程師拆解、組裝、調整，恕無法適用百得一年家用保修條款。為充份發揮其功能，修理、維護、調整請務必使用原廠零件。百得認證服務中心擁有保修條款解釋權。

電動工具的附加安全警告



警告！電鑽之附加安全警告

- 當衝擊鑽孔時請配戴防護耳罩。暴露在噪音之下可能會導致聽力遺失。
- 使用工具隨附的輔助手柄。工具失控會導致人身傷害。
- 若在執行操作時切別配件可能會接觸隱藏的電線，請從絕緣手柄表面握住電動工具。若切別配件接觸到「帶電」導線，電動工具金屬部件表面就會「帶電」，從而導致操作人員處電。
- 若在執行操作時扣件可能會接觸隱藏的電線，請從絕緣手柄表面握住電動工具。若扣件接觸到「帶電」導線，電動工具金屬部件表面就會「帶電」，從而導致操作人員處電。
- 請使用夾具或其他可行方式，在穩定的平台上對工件進行固定及支撐。手持工件或用身體抵住工件會導致工件不穩，可能會導致失去控制。
- 在牆上、地板上、和天花板上鑽孔之前，請檢察電線和鋼管的位置。
- 不要在鑽孔後立刻碰觸可能還帶熱的鑽頭尖端。
- 設計用途已在本使用說明手冊中載明。若使用的配件或附件，或使用本工具執行的操作與本使用說明手冊中的建議不相符，可能會招致人身傷害及/或財產損失的風險。

他人的安全

- 生理、感覺或心理機能不健全的人員(包括兒童)或缺乏經驗及知識的人員，除非由負責齊安全的人員提供有關使用此器具的監督或指示，否則不得使用本工具。
- 應對兒童進行監督，以確保其不會玩要本器具。

殘餘風險

使用本工具時，可能會出現隨附安全警告中所不包括的其他殘餘風險，誤用、長時間使用工具等因素會導致這些風險。

即使遵循相關安全規定並採用安全裝置，仍然無法避免某些殘餘風險。此類風險包括：

- 接觸旋轉/活動部件引起的傷害。
- 更換任何部件、刀片、或配件時引起的傷害。
- 長時間使用工具引起的傷害。長時間使用任何工具時，請確保定期休息。
- 聽力受損。
- 吸入使用(例如，對尤其事橡木、山毛櫸及中密度纖維板(MDF)等木料使用)本工具產生的粉塵而引起的建科為害。

震動

在技術數據和合格聲明中聲明的震動排放量已按照

EN60745提供的標準測試方法進行了測量並可能和其他的工具來相比較。聲明的震動排放量也可用於曝光的初步評估。

警告！震動排放量在電動工具的實際使用上可能會與聲明的有差違會取決於該工具的使用方式。震動級別可能會提高到所述的級別之上。

當在評估震動曝光時，為了去確定2002/44/EC年所要求的安全措施，定期的保護工作中在使用電動工具的人員，震動暴露的估計應考慮實際使用條件和工具使用的方式，包括將所有部件的操作週期，例如工具關掉的時間以及在觸發時間外，該工具的運行時間。

工具上的標籤

本工具上具有以下圖示與日期代碼：

製造年份及號碼(範例)

2016	23	BM
西元年份	週數	號碼



警告！為了降低受傷的風險，使用者必須仔細閱讀使用手冊。



當衝擊鑽孔時請配戴防護耳罩。暴露在噪音之下可能會導致聽力遺失。

電池與充電器的附加安全指示(包裝未含電池，充電器)

電池

- 切勿因任何理由嘗試打開電池。
- 請勿將電池暴露在水中。
- 不要將電池儲存在溫度可能超過40°C的地方。
- 只在環境溫度介於10°C和40°C之間的情況下充電。
- 只能使用本工具隨附的充電器為電池充電。
- 處置電池時，請遵循「保護環境」一節所提供的指示。



切勿試圖為損毀的電池充電。

充電器

- 只能使用工具隨附的 BLACK+DECKER 充電器為工具內的電池充電。其他非原廠電池可能會爆裂，導致人身傷害和損害。
- 切勿嘗試為非可充電電池充電。
- 立即更換損壞的電線。
- 請勿將充電器暴露在水中。
- 請勿打開充電器。
- 請勿刺破衝電器。



本充電器僅供室內使用。



使用之前請閱讀使用手冊。

電氣安全



您的充電器採用雙重絕緣，因此不需要使用接地線。請勿必檢查主電壓是否與銘牌一致。切勿嘗試使用一般的電源插頭取代充電器裝置。

- 若電源線損壞，必須送往製造廠商或授權的 BLACK+DECKER 服務中心更換以避免發生危險。

功能部件

本工具包括以下部分或全部功能部件。

1. 扳機開關
2. 正/反轉開關
3. 扭矩調整環
4. 雙速排擋選擇鍵
5. 快速夾頭
6. 電池
7. 電池釋放按鈕
8. LED 工作燈
9. 鑽頭夾持器

使用

警告！請讓工具以自身支速度工作。請勿使它過載。

為電池充電(圖A)

第一次使用電池之前，以及電池無法像從前一樣為作業輕鬆提供足夠的電量時，需要為電池充電。電池在充電時可能會變熱；這是正常現象，並不表示出現問題。

警告！請勿在環境溫度低於10°C或高於40°C的情況下為電池充電。推薦的充電溫度：約24°C。

註：如果電池溫度低於約10°C或高於40°C，充電器將無法為電池充電。電池應留在充電器中，電池溫度升高或降低後，充電器將自動開始充電。

- 將充電器插頭插入標準的 110 伏 60Hz 電源插座。將電池組滑入充電器，如圖A所示。
- 綠色LED燈將會閃爍，指示電池正在充電。
- 當綠色LED燈持續亮起時，代表充電完成。這個時後，電池組的電力全滿，可以立即使用或是留在充電器裡。

警告！有火災危險。中斷充電器與工具的連接時，請確保先從插座中拔出充電器插頭，然後再中斷充電器纜線與工具的連接。

在電池用完電量後，建議馬上充電。鋰電池請勿過度放電，電力過度耗竭會導致鋰電池損壞。

請將電池從機身上卸下列開存放，若長時間未使用電池(1年以上)，請每6個月為電池充電一次，以確保電池壽命。當主機突然停止動作，或無法輕鬆完成以往的作業量時，請馬上充電。

安裝電池組 (圖B)

- 穩固的插入電池組至工具中直到聽到卡答聲像圖B所示。確保電池組是完整的坐在和鎖定在位置上。

移除電池組 (圖B)

- 按下電池釋放按鈕(7)，如圖B1所示，然後從工具中拉出電池組。

觸發開關與正/反轉按鈕 (圖C)

- 電鑽透過拉動與鬆開觸發開關 (1) 來開啟及關閉像圖C所示。愈用力擠壓觸發開關，電鑽便會以愈快的速度運轉。

- 正/反轉控制按鈕 (2) 可決定工具的旋轉方向，同時具備鎖止功能。
- 若要選擇正轉，請鬆開觸發開關，然後在工具的右方按下正/反轉控制按鈕。
- 若要選擇反轉，請在工具的左邊按下正/反轉控制按鈕。
- 當控制按鈕處於中心位置時，工具會被鎖定在關閉位置。變更控制按鈕的位置時，請確保觸發器已經鬆開。

調整扭矩的控制 (圖D)

本工具備有扭矩調整環 (3)，可藉此選取操作模式並設定扭緊螺釘的扭矩。大螺釘和堅硬工件材料，比小螺釘和柔軟工件材料需要更高的扭力設定。

- 為了在木材、金屬和塑膠上鑽孔，請將調整環設定到鑽孔位置符號
- 若要執行螺旋操作，請將調整環設定到所需設定。若您尚不知道應用設定，請執行下列操作：
- 將調整環設定到最低的扭矩設定。
- 鎖緊第一顆螺絲。
- 如果在達到預期的扭矩值之前離合器已鎖緊，請提高調整環設定並繼續鎖緊螺絲。
- 重複直到您達到正確設定為止。
- 對其餘螺釘使用此設定。

雙速排擋 (圖E)

藉助電鑽的雙速功能，您可進行換檔以獲得更大的適用性。

- 若要選擇低速、高扭矩設定 (位置 1)，請關閉工具並讓它停止轉動。將換檔器按鈕 (4) 沿遠離夾頭的方向滑動。
 - 若要選擇高速、低扭矩設定 (位置 2)，請關閉工具並讓它停止轉動。將換檔器按鈕向夾頭方向滑動。
- 注意：**工具運轉時不要換檔。如果無法換擋，請確保雙速換檔器按鈕已完全向前推動或完全向後推動。

快速夾頭 (圖F)

警告！安裝或卸下配件之前，請確保電池組已被移除以防火具啟動。

若要插入鑽頭或其他配件：

- 握住夾頭的後半部 (5) 並以逆時針方向旋轉(從夾頭末端看來)。
- 將鑽頭或其他配件完全插入夾頭，並以順時針方向旋轉夾頭(從夾頭末端看來)，以將其扭緊。

警告！不要嘗試透過擺住夾頭前部並啟動工具來擰緊或釋放鑽頭 (或任何其它配件)。更換配件時可能會導致夾頭損壞和人身傷害。

震動模式

BL188電鑽備有震動功能，經由扭轉調整環道錘子的標誌 T。當在做石材鑽孔時可使用震動功能。

警告！當鉅矩調整環在鑽孔或是鑽鑿位置時，鑽頭不會離合。如果超載鑽機可能會停頓，造成突然的扭曲。

螺絲驅動

- 正/反/開關應該推到左邊來做緊固的驅動
- 使用反向(開關推向右邊)來解除緊固

備註：當從正轉移動到反轉時，或反之亦然，務必先將扳

機開關釋放。

鑽孔

- 請僅使用鋒利的鑽頭。
- 依照安全說明，適當地支撐和固定工件。
- 依照安全說明，使用適當、必要的安全設備。
- 依照安全說明，固定和維護工作場地。
- 慢慢地讓電鑽運轉，輕輕地施壓，直到所鑽的孔足以讓鑽頭滑出為止。
- 以與鑽頭方向成一直線的方式施加壓力。使用足夠的壓力讓鑽頭持續穿透，但不要太用力以致讓電動機失速或鑽頭偏斜。
- 雙手緊握電鑽以控制電鑽的扭轉動作。
- 請勿試圖按下/鬆開失速電鑽的觸發器，否則可能會導致電鑽損壞。
- 減輕施加的壓力並慢慢鑽穿孔的最後部分，以便將穿透失速的可能性降至最低。
- 將鑽頭從已鑽好的洞拔出時，讓電機保持運轉。這有助於減少卡死情況。
- 確保開關可以將電鑽啟動和關閉。

在木材上鑽孔

木材鑽孔可以使用和鋼材鑽孔一樣的麻花鑽頭或扁鑽頭。這些鑽頭應保持鋒利，且在鑽孔時應經常拔出鑽頭來清理鑽屑。

在金屬上鑽孔

在金屬上鑽孔時使用切割潤滑劑。鑄鐵和黃銅是例外，它們應保持乾燥而直接鑽孔。效果最佳的切割潤滑劑是硫化切割油或豬油。

在石材上鑽孔

將電鑽更換到“震動模式”。使用碳化物端頭鑽石材的鑽頭。在電鑽鑽上保持平均的壓力但不要太大力量讓易碎材料破碎。一個順暢平順的塵屑流量表示正確的鑽孔率。

LED 工作燈

當拉下扳機開關(1)啟動電鑽時，LED工作燈(8)在工作區會自動亮起。

備註：工作燈是即時用來照亮工作表面的而不是被用來當作手電筒來使用的。

鑽頭收納

工具的底部備有鑽頭收納槽(9)。

疑難排解

問題	可能的原因	可能的解決方案
設備不會啟動。	電池組未適當的安裝。 電池組未充電	檢查電池組的安裝。 檢查電池組的充電需求。
機組一插上電池組就馬上啟動。	開關被留在“開”的位置。	開關必須被移到“關”去避免工具在電池插入後馬上啟動。
電池組無法充電。	電池組為插入充電器。	把電池組插到充電器上直到LED

	充電器未插電。 環境空氣溫度太高或太低。	燈亮起。 將充電器插入工作插座。 將充電器與電池組移至空氣溫度高於 40°F(45°C) 或低於 105°F(+40.5°C) 的環境中。
裝置突然關閉。	電池組已達到其溫度上限。 電量耗盡。為了最大限度延長電池組的使用壽命，將電池組設計為在電量耗盡時突然關閉。	讓電池組冷卻。 將電池組放入充電器進行充電。

維護

您的 BLACK+DECKER 工具採用卓越的設計，能夠長時間使用，並且只需最少的維護。若要持續獲得滿意的操作效果，需進行正確的工具維護和定期的清潔。

您的充電器除了定期清潔之外，並不需要執行任何維護操作。

警告！在工具上執行任何維護工作之前，請卸下工具內的電池。請在清潔充電器之前拔出充電器的插頭。

- 請定期使用軟刷或乾布清潔工具和充電器內的通風槽。
- 請定期使用濕布清潔電動機外殼。請勿使用任何研磨性或基於溶劑的清潔劑。
- 請定期打開夾頭並輕敲以去除內部的任何塵埃。

保護環境



分開收集。本產品必須與一般家庭廢物分開處理。

若您發現您的 BLACK+DECKER 產品需要進行替換，或您已經不再需要使用這些產品，請不要將它們與家庭廢物一起處理。務必將本產品送往分類收集處。



透過分開收集用過的產品與包裝，可以實現材料的循環再生利用。重新使用回收的材料有助於防止環境污染，並降低對原材料的需求。

技術資料

		BL188
電壓	V _{DC}	20V Max
空載轉速	Min ⁻¹	0-420 / 0-1650
衝擊數	BPM	0-7140/0-28050
最大扭矩	Nm	52
夾頭範圍	mm	13

最大鑽孔能力		
鋼材/木材/磚	mm	13/35/13
重量	kg	1.21(1.59附電池)

充電器		BDC2A
輸入電壓	V _{AC}	110
輸出電壓	V _{DC}	18
電流	mA	2000
大約充電時間	小時	1

電池		LBXR2020	BL2018
電壓	V _{DC}	18V(20V max)	18V
容量	Ah	2.0	2.0
類型		Li-Ion	Li-Ion

20V MAX為最大電壓(無負載電壓), 標稱電壓為18V。

在購買新產品時, 當地法規可能有規定城市廢物處所或零售商處來分別收集家用電器產品。

BLACK+DECKER 提供設施來收集和回收那些工作壽命將盡的BLACK+DECKER產品。請好好利用這項服務並請將您的產品退回任何授權的維修代理商, 他們將會代理我們代收。

你可以連繫在此說明書中所指示的BLACK+DECKER公司來查看你附近周圍授權的維修代理商。或者, 授權的BLACK+DECKER維修代理商列表和我們的售後服務和聯繫人的全部細節可以在網上獲取: www.2helpu.com

電池



裝置內不含使用者可檢修的部件。

- 產品使用壽命結束時, 請將整個裝置送回維修代理處或當地的回收站, 以回收電池。請勿將本裝置連同生活垃圾一起丟棄。

維修資訊

BLACK+DECKER 提供遍佈亞洲的公司隸屬及授權服務地點。所有的 BLACK+DECKER 服務中心都具有訓練有素的人員, 為客戶提供高效、可靠的產品服務。

不論您需要的是技術建議、維修服務還是原廠正品替換部件, 都可以聯絡距您最近的 BLACK+DECKER 服務地點。

附註

- BLACK+DECKER 秉持不斷改善產品的原則, 因此, 我們保留隨時變更產品規格而不預先通知的權利。
- 標準設備及配件可能視國家/地區而有所不同。
- 產品規格可能視國家/地區而有所不同。
- 並非在所有的國家/地區都將提供完整的產品系列。如需各產品系列的供應情況, 請聯絡您當地的 BLACK+DECKER 代理商。

經銷商: 特力股份有限公司

地址: 台北市內湖區新湖三路 23 號 1.2.5 樓

電話: 0800-008-007

進口/委製廠商: 新加坡商百得電動工具(股)公司台灣分公司

地址: 台北市士林區德行西路33號2樓

電話: 02-2834-1741

