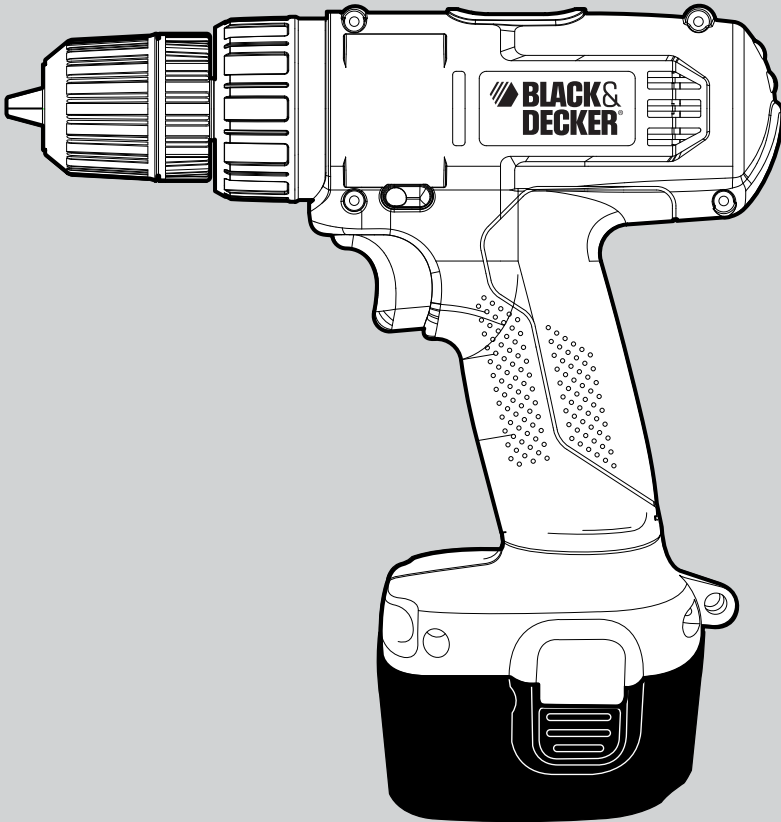




# BLACK & DECKER®

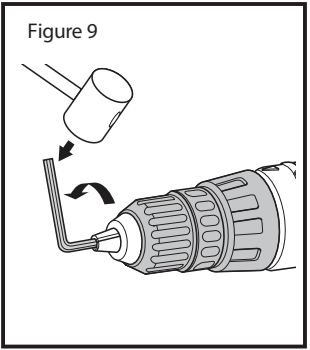
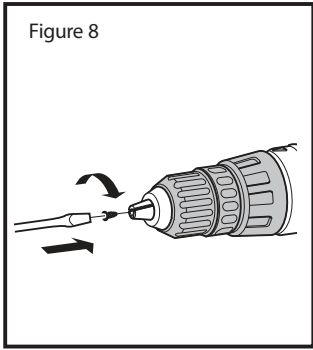
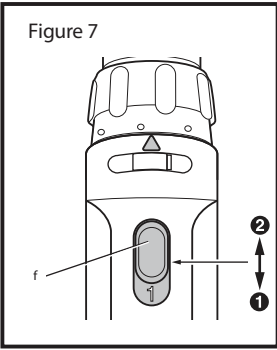
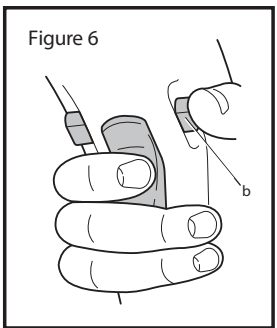
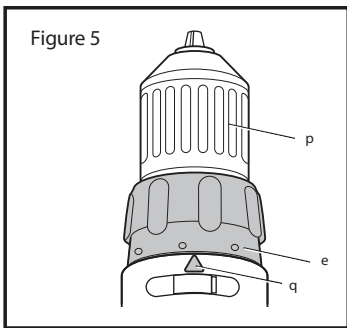
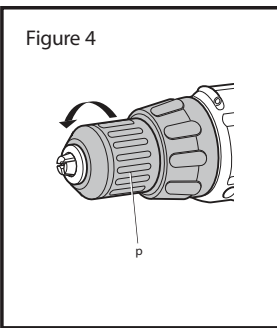
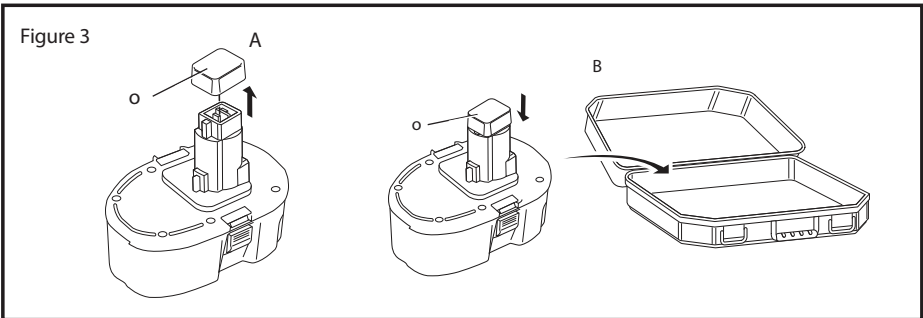
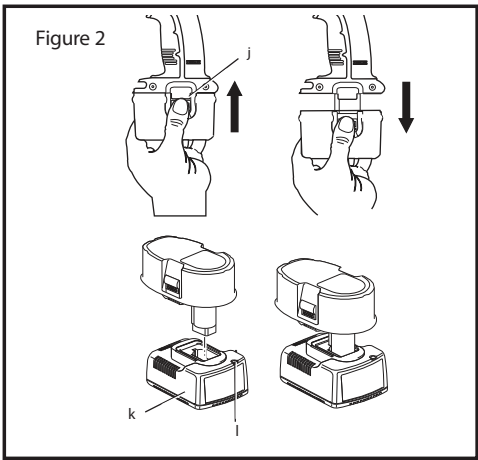
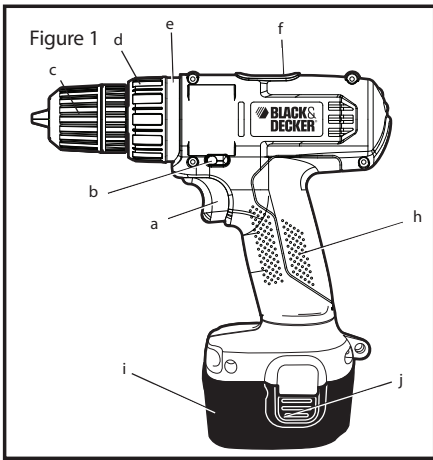
TRADESMAN SERIES



KTC12  
KTC96

English 3

Simplified Chinese 8



## KTC12/KTC96 10MM CORDLESS DRILL/ DRIVER

### TECHNICAL DATA

Cordless Drill/ Driver		KTC12	KTC96
Voltage	V	12	9.6
No Load Speed	rpm	0-350/ 0-1,200	0-300/ 0-1,000
Max. Torque	Nm	21	20
Drilling Capacity			
- Wood/Steel	mm	25/10	22/10
- Chuncuk Capacity	mm	1.0-10	1.0-10
Weight	kg	1.1	1.1
<b>Battery</b>			
Voltage	V	12	9.6
Capacity	Ah	1.2	1.2
Weight	g	0.5	0.46
<b>Charger</b>			
Approx. Charging Time	Hour	1	1
Weight	kg	1.1	1.1

### INTENDED USE

Your Black & Decker cordless drill/driver has been designed for all drilling & screw driving applications.

### GENERAL SAFETY RULES

Warning! Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. 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.

#### SAVE THESE INSTRUCTIONS.

##### 1. Work area safety

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

##### 2. Electrical safety

- 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.
- 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.

- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a 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

- 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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
- 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 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.
- 5. Battery tool use and care**
- a. **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
  - b. **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.
  - c. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
  - d. **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.
  - e. **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.

## Additional Power Tool Safety Warnings

- ⚠ **Warning!** Additional safety warnings for drills and impact drills
  - **Wear ear protectors with impact drills.** Exposure to noise can cause hearing loss.
  - **Use auxiliary handles supplied with the tool.** Loss of control can cause personal injury.
  - **Hold power tool by insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

## Additional Safety Instructions for Batteries and Chargers

### Batteries

- Never attempt to open for any reason.
- Do not expose the battery to water.
- We recommend taking battery off the charger when fully Charged.
- Do not store in locations where the temperature may exceed 40°C.
- Charge only at ambient temperatures between 4°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".
- ⚠ **Leaks from battery cells can occur under extreme conditions.** The battery fluid, a 25-30% solution of potassium hydroxide, can be harmful. In case of skin contact: (a) wash quickly with soap and water; or (b) neutralize with a mild acid such as lemon juice or vinegar. If the liquid gets into the eyes, flush them immediately with clean water for a minimum of 10 minutes. Seek medical attention. Do not incinerate the battery. Do not charge damaged battery packs. **Fire hazard!** Avoid short-circuiting the contacts of a detached battery.



### 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.
- Charger may need approximately 15 minutes to re-set after finishing charge to charging the 2nd battery.
- Never attempt to charge non-rechargeable batteries.
- Have defective cords replaced immediately.
- Do not expose to water.
- Do not open the charger.

- Do not probe the charger.

## Labels on the charger

The following symbols are found on your charger:






-  Your charging base is double insulated; therefore no earth wire is required. Always check that the power supply corresponds to the voltage on the rating plate.
-  The charging base is intended for indoor use only.

## Specific Safety Rules

- **Hold tool by insulated gripping surfaces when performing an operation where the tool may contact hidden wiring or its own cord.** Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- **When working on a ladder or on scaffolding be sure to lay the tool down on its side when not in use.** Some tools with large battery packs will stand upright but may be easily knocked over.
- Avoid touching the tip of a drill bit just after drilling, as it may be hot.
- When fitting and changing accessories, always use the instructions supplied with the accessory.
- Should your tool develop a fault, do not try to fix it yourself, but take it to one of our authorized repair agents.

## Symbols

The label on your tool may include the following symbols:

V	volts
A	Amperes
Hz	Hertz
W	Watts
min.	Minutes
	Alternating current
	Direct current
no	No load speed
	Class II Construction
	Earthing terminal
	Safety alert symbol
.../min	Revolutions or reciprocation per minute
.../bpm	Beats per minute

## Using an Extension Cable


An extension cable should not be used unless absolutely necessary. Use of an improper extension cable could result in a risk of fire and electric shock. If an extension cable must be used, use only those that are approved by


the country's Electrical Authority. Make sure that extension cord is in good condition before using. Always use the cord that is suitable for the power input of your tool (see technical data on name plate). The minimum conductor size is 1mm<sup>2</sup>; the maximum length is 30m. When using a cable reel, always unwind the cable completely.

## Features (Fig. A)


- Variable speed switch
- Forward/reverse slider
- Keyless chuck
- Mode selector/torque adjustment collar
- Collar settings
- Two gear selector
- Grip
- Battery pack
- Release buttons
- Charger
- Charging indicator

## Assembly and Adjustment

 **WARNING:** Prior to assembly and adjustment, always remove the battery pack. Always switch off the tool before inserting or removing the battery pack.

 **WARNING:** Use only Black & Decker battery packs and chargers.

## Inserting and Removing the Battery Pack from the Tool (fig. 2)

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

### TO INSTALL THE BATTERY PACK INTO THE TOOL HANDLE

1. Align the base of the tool with the notch inside the tool's handle (fig. 2).
2. Slide the battery pack firmly into the handle until you hear the lock snap into place.

### TO REMOVE THE BATTERY PACK FROM THE TOOL

1. Press the release buttons (j) and firmly pull the battery pack out of the tool handle.
2. Insert battery pack into the charger as described in the charger section of this manual.

### INSERTING AND REMOVING BITS (FIG. 1, 4)

1. Open the chuck by turning the sleeve (p) counter-clockwise and insert the bit shank.
2. Place the bit in the chuck as far as it will go and lift slightly before tightening.
3. Tighten firmly by turning the sleeve clockwise.

- To remove the bit, proceed in reverse order.

### SELECTING THE OPERATING MODE OR ADJUSTING THE TORQUE (FIG. 5)

The collar of this tool has 15 positions for the adjustment of the torque to suit the size of the screw and the workpiece material. For torque adjustment, refer to Screwdriving. Select the drilling mode or torque by aligning the symbol or number on the collar (e) with the indicator (q) on the housing.

### FORWARD/REVERSE SLIDER (FIG. 6)

To select forward or reverse rotation, use the forward/reverse slider (b) as shown (see arrows on tool).

**⚠ WARNING:** To reduce the risk of personal injury, always wait until the motor has come to a complete standstill before changing the direction of rotation.

**⚠ WARNING:** To reduce the risk of personal injury, always wait until the motor has come to a complete standstill before changing the direction of rotation.

### TWO-GEAR SELECTOR (FIG. 7)

Your tool is fitted with a two-gear selector (f) to vary the speed/torque ratio.

- low speed/high torque (drilling large holes, driving
- screws) high speed/low torque (drilling smaller holes)

For speed rates, refer to the technical data.

**⚠ WARNING:** To reduce the risk of personal injury:

- Always push the two gear selector completely forward or backward.
- Do not change gears at full speed or during use.

### Removing and Fitting the Chuck (fig. 8, 9)

- Open the chuck jaws as far as possible.
- Insert a screwdriver into the chuck and remove the chuck retaining screw by turning clockwise as shown in figure 8.
- Tighten a hex key into the chuck and strike it with a hammer as shown in figure 9. This will loosen the chuck so that it can be unscrewed by hand.
- To refit the chuck, proceed in reverse order.

## OPERATION

### Instructions for Use

**⚠ WARNING:** To reduce the risk of personal injury:

- Always observe the safety instructions and applicable regulations.
- Be aware of the location of pipework and wiring.
- Apply only a gentle pressure to the tool. Excessive force does not speed up drilling but decreases tool
- To minimize break-through, progressively reduce the drill point pressure towards the end of the operation.

- Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.

### PRIOR TO OPERATION:

- Make sure your battery pack is (fully) charged.
- Insert the appropriate bit.
- Mark the spot where the hole is to be drilled.
- Select forward or reverse rotation.

### SWITCHING ON AND OFF (FIG. 1, 6)

- To run the tool, press the variable speed switch (a). The pressure exerted on the variable speed switch determines the tool speed.
- To stop the tool, release the switch.
- To lock the tool in the off position, move the forward/reverse slider (b) to the central position.

**⚠ WARNING:** To reduce the risk of personal injury the drill is equipped with a brake to stop the tool as soon as the variable speed switch is fully released.

## Drill Operation

- Select the desired speed/torque range using the gear shifter to match the speed and torque to the planned operation.
- For WOOD, use twist bits, spade bits, power auger bits or hole saws. For METAL, use high-speed steel twist drill bits or hole saws. Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry.
- Always apply pressure in a straight line with the bit. Use enough pressure to keep the drill bit biting, but do not push hard enough to stall the motor or deflect the bit.
- Hold tool firmly with both hands to control the twisting action of the drill.
- IF DRILL STALLS, it is usually because it is being overloaded. RELEASE TRIGGER IMMEDIATELY, remove drill bit from work, and determine cause of stalling. DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL – THIS CAN DAMAGE THE DRILL.
- Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.

### SCREWDRIVING (FIG. 1)

- Select forward or reverse rotation using the slider (b). Match the speed and torque to the planned operation. Insert the desired fastener accessory into the chuck as you would any drill bit.
- Set the collar (d) to position 1 and begin screwdriving (low torque). Make a few practice runs in scrap or unseen areas to determine the proper position of the clutch collar.

- If the clutch ratchets too soon, adjust the collar to increase the torque as required.

## Maintenance

Your Black & Decker power 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 the tool, remove the battery from the tool. Unplug the charger before cleaning it.

- Regularly clean the ventilation slots in your tool 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.

This tool is not user-serviceable. Take it to an authorized Black & Decker repair agent for service.

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

## Important

To ensure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (other than those listed in this manual) should be performed by authorized service centers or other qualified organizations, always-using identical replacement parts. Unit contains no user serviceable parts inside.

## Cleaning

**⚠️ WARNING:** Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask 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 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.

## 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.

## Accessories

The performance of any power tool is dependent upon the accessory used. Black & Decker accessories are

engineered to high quality standards and are designed to enhance the performance of power tool.

Black & Decker offers a large selection of accessories available at our local dealer or autho-rized service center at extr a cost.

**⚠️ CAUTION:** The use of any other accessory not recommended for use with this tool could be hazardous.

## Protecting The Environment

**♻️** Separate collection. This product must not be disposed of with normal household waste.

Should you find one day that your Black & Decker product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.

**♻️** Separate collection of used products and packaging allows materials to be recycled and used again.

Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials. If necessary, contact your local municipality for proper disposal instructions in your city/town.

## Batteries

Black & Decker batteries can be recharged many times. At the end of their useful life, discard batteries with due care for our environment:

Run the battery down completely, and then remove it from the tool.

NiCd and NiMH batteries are recyclable. Take them to a local recycling station.

## 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 power tool service. Whether you need technical advice, repair, or genuine factory replacement parts, contact the Black & Decker location nearest to you.

## Notes

- 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.



## KTC12/KTC96 10毫米充电电钻 / 起子

### 技术参数

充电电钻 / 起子		KTC12	KTC96
电压	伏	12	9.6
空载速度	转 / 分	0-350/ 0-1,200	0-300/ 0-1,000
最大扭矩	牛顿米	21	20
最大钻孔直径			
- 木材/钢铁	毫米	25/10	22/10
- 夹头尺寸	毫米	1.0-10	1.0-10
重量	公斤	1.1	1.1
<b>电池</b>			
电压	伏	12	9.6
容量	安时	1.2	1.2
重量	公斤	0.5	0.46
<b>充电器</b>			
充电时间	小时	1	1
重量	公斤	1.1	1.1

## 一般安全规则

警告！阅读说明没有按照以下列举的说明而使用或操作将导致触电、着火和/或严重伤害。在所有以下列举的警告中术语“电动”工具指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

### 保存这些说明

#### a) 工作场地

1. 保持工作场地清洁和明亮。混乱和黑暗的场地会引发事故。
2. 不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。电动工具产生的火花会点燃粉尘或气体。
3. 让儿童和旁观者离开后操纵电动工具。分心会使你放松控制。

#### b) 电气安全

1. 电动工具插头必须与插座相配。不能以任何方式改装插头。需接地的电动工具不能使用任何转换插头。未经改装的插头和相配的插座将减少触电危险。
2. 避免人体接触接地表面，如管道、散热片和冰箱。如果你身体接地会增加触电危险。
3. 不得将电动工具暴露在雨中或潮湿环境中。水

进入电动工具将增加触电危险。

4. 不得滥用电线。绝不用电线搬运、拉动电动工具或拔出其插头。让电动工具远离热、油、锐边或运动部件。受损或缠绕的电线会增加触电危险。
5. 当在户外使用电动工具时，使用适合户外使用的外接电线。适合户外使用的电线将减少触电危险。

#### c) 人身安全

1. 保持警觉，当操作电动工具时关注所从事的操作并保持清醒。切勿在有疲倦、药物、酒精或治疗反应下操作电动工具。在操作电动工具期间精力分散会导致严重人身伤害。
2. 使用安全装置。始终配戴护目镜。安全装置，诸如适当条件下的防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
3. 避免突然起动。确保开关在插入插头时处于断开位置。手指放在已接通电源的开关上或开关处于接通时插入头可能会导致危险。
4. 在电动工具接通之前，拿掉所有调节钥匙或扳手。遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。
5. 手不要伸得太长。时刻注意脚下和身体平衡。这样在意外情况下能很好地控制电动工具。
6. 着装适当。不要穿宽松衣服或佩带饰品。让你的头发、衣服和袖子远离运动部件。宽松衣服、佩饰或长发可能会卷入运动部件。
7. 如果提供了与排屑装置、集尘设备连接用的装置，则确保他们连接完好且使用得当。使用这些装置可减少碎屑引起的危险。

#### d) 电动工具使用和注意事项

1. 不要滥用电动工具，根据用途使用适当的电动工具。选用适当的设计额值的电动工具会使你工作有效、更安全。
2. 如果开关不能接通或关断工具电源，则不能使用该电动工具。不能用开关来控制的电动工具是危险的且必须进行修理。



3. 在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或将电池盒脱开电源。这种防护性措施将减少电动工具突然起动的危险。
4. 将闲置电动工具贮存在儿童所及范围之外，并且不要让不熟悉电动工具或对这些说明不了解的人操作电动工具。电动工具在未经训练的用户手中是危险的。
5. 保养电动工具。检查运动部件的安装偏差或卡住、零件破损情况和影响电动工具运行的其它条件。如有损坏，电动工具必须在使用前修理好。许多事故由维护不良的电动工具引发。
6. 保持切削刀具锋利和清洁。保养良好的有锋利切削刃的刀具不易卡住而且容易控制。
7. 按照使用说明书以及打算使用的电动工具的特殊类型要求的方式，考虑作业条件和进行的作业来使用电动工具、附件和工具的刀头等。电动工具用作那些与要求不符的操作可能会导致危险情况。

#### e) 维修

1. 将你的电动工具送交专业维修人员，必须使用同样的备件进行更换。这样确保所维修的电动工具的安全性。

## 电动工具的附加安全守则



**注意！** 请遵守电钻和冲击钻的附加安全守则

- 使用冲击钻时，请佩戴听力保护器。暴露在噪音中会损伤听力。
- 请使用随工具提供的辅助手柄。工具失控会导致人身伤害。
- 请拿着工具的绝缘表面，因机具可能会接触到隐藏的电源线或自身电线。接触带电的电线，可使工具的金属露部件也带电，并电击操作者。

## 电池及充电器的附加安全守则

### 电池

- 任何情况下，均不得试图打开电池。
- 不得触水。
- 电池充满电后，建议从充电器上取下。
- 不得存放于温度可能超过40 的地方。
- 仅在4 至40 的室温下充电。
- 仅使用工具的原装充电器充电。
- 弃置电池时，请遵守“保护环境”部分的规定。
- 在极端条件下，电池会发生泄露。电池的电解液为25 ~ 30%的氢氧化钾溶液，可能会造成伤害。如与之有皮肤接触：(a) 请立即用肥皂和清水冲洗；或(b) 用柠檬汁或醋等弱酸中和。如果不慎进入眼睛，请立即用清水冲洗至少10分钟，然后就医。切勿焚烧电池。

已损坏的电池不得充电。

**火灾危险！** 请避免电池电极短路。

### 充电器

- 仅可使用百得充电器给工具的原装电池充电。其它电池可能爆炸，造成人身伤害或物品损坏。
- 在充电完成后给第二块电池充电之前，充电器可能需要大约15分钟复位。
- 切勿试图给非充电电池充电。
- 电线一旦损坏，请立即更换。
- 不得触水。
- 不得打开充电器。
- 不得刺戳充电器。

### 充电器上的标志

充电器上有如下标志：



本充电座为双重绝缘，因此无须接地线。使用前，切记检查并确保电源电压与铭牌上的使用电压相符。



本充电座仅限室内使用。

## 特殊安全守则

- 使用电动工具时，应拿著其绝缘表面，因机具可能会接触到隐藏的电源线或自身电线。接触带电的电线，可使工具的金属露部件也带电，并电击操作者。
- 在爬梯或脚手架上工作时，请确保在不用时侧放工具。一些带大电池的工具可以竖直放置，但很容易倾倒。
- 刚钻完时，钻头可能很烫，应避免接触。
- 安装或更换配件时，切记遵守配件上的使用指南。
- 工具故障时，切勿试图自行修理。请把工具送往我们的授权维修点维修。

## 标志

工具上的铭牌可能包含以下标志：

- V .....伏特
- A .....安培
- Hz .....赫兹
- W .....瓦特
- min .....分钟
- ~ .....交流电
- .....直流电
- $n_0$  .....空载速度
- .....II级 双重绝缘
- ⊕ .....接地端子
- △ .....安全警示标志
- .../min.. 每分钟的旋转或往复次数
- .../bpm..每分钟的击打次数

## 使用延长线

如非必要，请勿使用延长线。使用不正确的延长线会引致火灾或电击的危险。如果非要使用不可，请用当地电力机构认可的延长线。使用前先确定延长线的性能良好，并且符合工具的电源输入（见铭牌上的技术数据）。延长线的电线导体部分尺寸应不小于1平方毫米，最大电线长度为30米。使用电缆卷轴架时，请始终完全松开电缆。

## 部件（图A）

- a) 变速开关
- b) 正转/倒转滑动拨杆
- c) 无键夹头
- d) 模式开关/扭矩调节环
- e) 调节环设定
- f) 两档选择开关
- h) 把手
- i) 电池组
- j) 释放按钮
- k) 充电器
- l) 充电状态指示灯

## 组装和调整



**警告：** 组装和调整前，请先取下电池组。在插入或取下电池组之前，切记关闭工具开关。



**警告：** 仅可使用百得电池组和充电器。

### 电池组安装与拆卸（图2）



**警告：** 为降低严重人身伤害的风险，在进行任何调整或安装/拆卸附件与配件前，请关闭开关并取下电池组。工具意外启动会导致人身伤害。

### 将电池组安装到工具手柄中

1. 把工具底座与工具手柄内的缺口对正（图2）。
2. 把电池组用力滑入手柄，直至听到咬合到位的声音。

### 从工具上取下电池组

1. 按下释放按钮（j），把电池组用力从工具手柄中拉出。
2. 按照本手册充电器部分的说明，将电池组插入充电器。

### 钻头安装与拆卸（图1、4）

1. 逆时针旋转套套（p），打开夹头并插入钻头。
2. 把钻柄尽可能插入夹头，在紧固前稍微抬起钻头。


3. 顺时针拧牢轴套。
4. 要拆卸钻头，反向进行上述操作。


### 选择操作模式或调整扭矩 (图5)

本工具的调整环有15个扭矩调整点，以适应不同尺寸的螺丝和工件材料。扭矩调整方法可参考拧螺丝部分。要选择钻进模式或扭矩，只需将环(e)上的符号或数字对准外壳上的指针(q)即可。

### 正转/倒转滑动拨杆 (图6)

要选择正转或倒转，请使用如图所示的正转/倒转滑动拨杆(b) (见工具上的箭头)。

 **警告：** 为了降低人身伤害的风险，请切记等马达完全停止后，再改变旋转方向。

 **警告：** 为了降低人身伤害的风险，请切记等马达完全停止后，再改变旋转方向。

### 两档选择开关 (图7)

本工具配有两档选择开关(f)，用来改变速率/扭矩比。

1. 低速/高扭矩 (钻大孔、拧螺丝时)。

2. 高速/低扭矩 (钻较小孔时)。

对于额定速度，可参考技术参数。

 **警告：** 为了降低人身伤害的风险：

- 切记将两档选择开关完全向前或向后推到位。
- 不得在全速或使用过程中换档。

### 夹头的拆卸与安装 (图8、9)

1. 将夹头爪尽可能打开。
2. 把一螺丝刀插入夹头并顺时针旋转，取下夹头固定螺钉，如图8所示。
3. 把内六角扳手紧固到夹头内，并锤击扳手，如图9所示。这会松开夹头，然后用手旋下夹头。
4. 要安装夹头，反向进行上述操作。

## 操作

### 使用指南

 **警告：** 为了降低人身伤害的风险：


- 请遵守安全指示及相关条例。
- 清楚管道和电线的位置。
- 对工具轻缓用力。用力过大，钻进速度不增反降。
- 为尽量避免钻过头，在将近结束时逐步降低钻点压力。
- 钻孔后抽出钻头时，应保持马达旋转。这有助于防止卡钻。

### 操作前：

1. 确保电池组充(满)电。
2. 安装适用的钻头。
3. 标出钻孔的位置。
4. 选择正转或反转。

### 开关 (图1、6)

1. 要启动工具，按压变速开关(a)。工具的转速取决于按压变速开关的程度。
2. 要止动工具，释放开关。
3. 要把工具锁定到关闭位置，把正转/倒转滑动拨杆(b)移动到中央位置。

 **警告：** 为了降低人身伤害的风险，本工具配有制动器，一旦变速开关被完全释放，制动器会使工具停止。

### 钻孔作业

1. 使用档位选择器，选择所需速度/扭矩范围，与作业要求相匹配。
2. 钻木材时，应使用麻花钻头、扁钻头、机械螺旋钻头或孔锯。钻金属时，使用高速钢麻花钻头或孔锯。钻金属时，使用切削润滑剂；但铸铁和黄铜出外，必须干钻。
3. 用力方向始终与钻头成一直线。请施加足够的压力，保证钻进所需；但不要大到马达失速或钻头倾斜。
4. 请双手紧握电钻，控制电钻的扭转效应。
5. 如果电钻失速，常常是由于过载。请立即松开触发开关，从工件上退出钻头，查找失速的原因。

切勿试图通过按下—松开触发开关来启动失速的电钻—这会损坏电钻。


6. 从成孔中拉出钻头时，请保持马达运转。这有助于防止卡死。

### 拧螺丝 (图1)

1. 使用滑动拨杆 (b) 选择正转或倒转，与与作业要求的速度和扭矩相匹配。把所需紧固配件插入夹头，与安装钻头的程序一样。
2. 把调节环 (d) 设定到位置1，开始拧螺丝 (低扭矩)。在废料或不可见区域尝试几次，确定离合器环的正确位置。
3. 如果离合器松开太快，调整环的位置，根据需要增加扭矩。

## 维护

您的百得电动工具设计精良，可以长期使用，仅需极少维护。要连续获得令人满意的工作效果，需要您做合适的保养和定期的清洁。

 **警告！** 维护工具前，必须取下电池；清洁充电器前，请拔下插头。

- 定期使用软刷或干布清洁工具的通风槽。
- 定期使用湿布清洁马达外壳，但不得使用任何研磨性或溶剂型清洁剂。
- 定期打开并轻拍夹头，清除内部灰尘。


本工具不可由用户进行维修。请将工具交给授权的百得修理机构。

除了定期清洁外，充电器不须其它维护。


## 重要说明

为确保产品的安全性和可靠性，应由授权的维修中心或其它合格组织修理、维护和调整（非本手册所列项目）机器，并始终使用相同的备件。装置内不含有用户可维修部件。


## 清洁

 **警告：** 一旦通风口及其周围积聚可见的粉尘，请即用干燥的压缩空气吹走主机外壳内的粉尘

和灰尘。进行这一步骤时，请佩戴经认可的护目装备和认可的面罩。

 **警告：** 切勿使用溶剂或其它刺激性化学品来清洁工具的非金属部件。这些化学品可能削弱零件中使用的材料。只能使用抹布蘸中性肥皂水进行清洁。勿使任何液体进入工具；勿使工具的任何部分浸入液体中。


### 充电器清洁说明

 **警告：触电危险。** 清洁之前，请把充电器与交流电插座断开。可使用布或软的非金属刷，清除充电器内部的粉尘和油脂。不得使用水或任何清洁溶液。


## 配件

所有电动工具的性能都是依赖使用得当的配件的，百得的配件都是经精心设计，并以最佳物料制造、再经无数次严谨的测试合格才推出市场的；故其质量一等等，务求与电动工具相辅相成。购买百得配件会令您的百得电动工具如虎添翼。


百得有一系列的配件，可以在当地的经销商及维修中心选购。

 **注意：** 本电动工具使用任何未经推荐的配件，均可能导致危险。

## 保护环境

 分类回收。此类产品不得和普通家庭垃圾一起处理。

如果某一天您的百得产品需要更换或不再使用，请不要把它和家庭垃圾一起处理。把该产品单独分类回收。

 旧产品和旧包装的分类回收使材料能够得以再循环和再利用。再循环材料的重新利用有助于防止环境污染和减少原料需求。

必要时，请与本市/镇市政联系，以咨询相关的处理信息。

## 电池

百得电池可以多次充电使用。在其使用寿命结束时，请务必小心处理，以保护环境：

将电完全用尽，从工具上取下电池。

NiCd和NiMH电池是可以回收的。把它们送往本地的回收站。

## 维修信息

百得为您提供我们在全亚洲公司所有的和公司授权的维修点网络。所有的百得维修中心均配备训练有素的人员，可为客户提供高效可靠的电动工具维修。无论您需要的是技术建议、修理还是原厂备件，均可联系最近的百得维修点为您服务。

## 注意事项

- 百得实行的是对我们的产品持续改进的政策；因此，我们保留不另行通知即可更改产品规格的权利。
- 标准装置和配件因国家而异。
- 产品规格会按国家而有所不同。
- 完整的产品系列不一定在所有的国家均可用。请联系您当地的百得经销商，咨询产品系列的可用性。