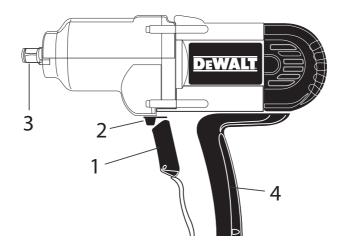
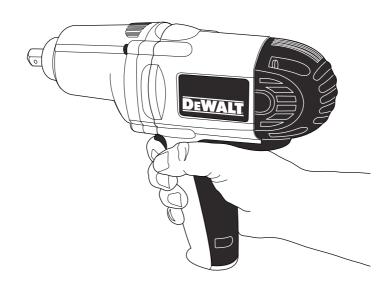
# DEWALT®

**DW293** 

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Α



В

# IMPACT WRENCH DW293

#### Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

#### Technical data

		DW293	
Voltage	V	220-240	
Power input	W	710	
No-load speed	min <sup>-1</sup>	2,100	
Impact rate	min <sup>-1</sup>	2,700	
Socket size		1/2"	
Weight	kg	3.2	

## **Definitions: Safety guidelines**

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.



**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.

**NOTICE:** Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.



Denotes risk of electric shock.



Denotes risk of fire.

## **Safety Instructions**



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

## General Power Tool Safety Warnings



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.

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

- f Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- g If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards
- 4 Power Tool Use and Care
- a Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation

- 5 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 SPECIFIC SAFETY RULES

## Safety Instructions for All Impact Wrench

- Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord. Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Fansteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- Use clamps or other practical way 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.
- Wear safety goggles or other eye protection.
   Hammering and drilling operations cause
   chips to fly. Flying particles can cause permanent
   eye damage.
- Bits, sockets and tools get hot during operation. Wear gloves when touching them.
- Do not operate this tool for long periods of time. Vibration caused by tool action may be harmful to your hands and arms. Use gloves to provide extra cushion and limit exposure by taking frequent rest periods.

## **Residual Risks**

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- Impairment of hearing.
- Risk of personal injury due flying particles.
- Risk of burns due to accessories becoming hot during operation.

- Risk of personal injury due to prolonged use.

## **Markings on Tool**

The following pictograms are shown on the tool:



Read instruction manual before use.

### DATE CODE POSITION (FIG. A)

The Date Code (7), which also includes the year of manufacture, is printed into the housing.

Example:

2010 XX XX

Year of Manufacture

## **Package Contents**

The package contains:

- 1 Impact wrench
- 1 Instruction manual
- Check for damage to the tool, parts or accessories which may have occurred during transport.
- Take the time to thoroughly read and understand this manual prior to operation.

## Description (fig. A)



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

- 1 On/off switch
- 2 Forward/reverse slider
- 3 Anvil
- 4 Main handle

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

This impact wrench is a professional power tool.

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

## Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.



Your DEWALT tool is double insulated in accordance with EN 60745; therefore no earth wire is required.

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the DEWALT service organisation.

## **Using an Extension Cable**

If an extension cable is required, use an approved extension cable suitable for the power input of this tool (see technical data). The minimum conductor size is 1 mm<sup>2</sup>; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.



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

## **OPERATION**

## Instructions for Use



#### WARNING:

Always observe the safety instructions and applicable regulations.



WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories.

## Screwdriving or Nutsetting (fig. A)

- Select the appropriate socket for the screw or nut to be driven.
- Select forward or reverse rotation as described above.
- Hold the tool in line with the fastener.

## **Proper Hand Position (fig. A, B)**



**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 (4), as shown.

### Switching On and Off (fig. A)

- To run the tool, press the on/off switch (1).
- To stop the tool, release the switch.

## **MAINTENANCE**

Your DEWALT 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: To reduce the risk of injury, switch off and disconnect the tool from the power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the tool is switched off. An accidental start-up can cause injury.



#### Lubrication

Your power tool requires no additional lubrication.



#### 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.

#### **Optional Accessories**

Consult your dealer for further information on the appropriate accessories.



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

Various types of sockets, holders and adaptors are available as an option.

Protecting the Environment



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

Should you find one day that your DEWALT 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.

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.

DEWALT provides a facility for the collection and recycling of DEWALT 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 DEWALT office at the address indicated in this manual. Alternatively, a list of authorised DEWALT repair agents and full details of our after-sales service and contacts are available on the Internet at: www.2helpU.com

# 冲击扳手 DW293

#### 恭喜!

感谢您选购 DEWALT 工具。凭借多年的产品开发和创新经验,DEWALT 已经成为专业电动工具用户最可靠的合作伙伴之一。

## 技术数据

		DW293
电压	伏特	220
输入功率	瓦	710
空载转速	转/分	2,100
冲击率	转/分	2,700
套筒尺寸		13mm
重量	千克	3.2

## 定义:安全指引

下列定义描述了各警示词的严重程度。请仔细阅读本手册.并注意这些警示符号。



**危险**:表示紧急的危险情形,如不加以避免,将导致死亡或严重伤害。



警告:表示潜在的危险情形,如不加以避免,可能导致死亡或严重伤害。



警示:表示潜在的危险情形,如不加以避免,可能导致轻度或中度伤害。

注意:表示存在不涉及人身伤害的情况,如果不加以避免,可能导致财产 损失。



指示有触电风险。



指示存在火灾风险。

## 安全说明



警告: 为降低伤害风险,请阅读使用 手册。

## 电动工具通用安全警告



警告!阅读所有警告和所有说明。不遵 ▲ 照以下警告和说明会导致电击、着火 和/或严重伤害。

## 保存所有警告和说明书以备查阅。

在所有下列的警告中术语"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。

## a) 工作场地的安全

- 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作电动工具。**注意 力不集中会使你失去对工具的控制。

#### b) 申气安全

- 1) 电动工具插头必须与插座相配。绝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电击危险。
- 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电击危险。
- 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电击危险。
- 4) 不得滥用电线。绝不能用电线搬运、拉动电动工具或拔出其插头。使电线远离热源、油、锐边或运动部件。受损或缠绕的软线会增加电击危险。

- 5) **当在户外使用电动工具时,使用适合户外使 用的外接软线。**适合户外使用的软线将减少 电击危险。
- 6) 如果在潮湿环境下操作电动工具是不可避免的,应使用剩余电流动作保护器(RCD)。 使用RCD可减小电击危险。

## c) 人身安全

- 1) 保持警觉,当操作电动工具时注意所从事的 操作并保持清醒。当你感到疲倦,或在有药 物、酒精或治疗反应时,不要操作电动工 具。在操作电动工具时瞬间的疏忽会导致严 重人身伤害。
- 2) 使用个人防护装置。始终佩戴护目镜。安全 装置,诸如适当条件下使用防尘面具、防滑 安全鞋、安全帽、听力防护等装置能减少人 身伤害。
- 3) 防止意外起动。确保开关在连接电源和/或电池盒、拿起或搬运工具时处于关闭位置。手指放在已接通电源的开关上或开关处于接通时插入插头可能会导致危险。
- 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) **手不要伸展得太长。时刻注意立足点和身体 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戴饰品。让你的衣服、手套和头发远离运动部件。宽松 衣服、佩饰或长发可能会卷入运动部件中。
- 7) 如果提供了与排屑、集尘设备连接用的装置,要确保他们连接完好且使用得当。使用 这些装置可减少尘屑引起的危险。

## 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。**选用适当设计的电动工具会使你工作更有效、更安全。
- 2) 如果开关不能接通或关闭工具电源,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/或使电池 盒与工具脱开。这种防护性措施将减少工具 意外起动的危险。
- 4) 将闲置不用的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 未经培训的用户手中是危险的。
- 5) 保养电动工具。检查运动件是否调整到位或 卡住,检查零件破损情况和影响电动工具运 行的其他状况。如有损坏,电动工具应在使 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,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。 将电动工具用于那些与其用途不符的操作可能会导致危险。

## e) 检修

a) **将你的电动工具送交专业维修人员,使用同样的备件进行修理。**这样将确保所维修的电动工具的安全性。

## 附加安全细则

## 适用于所有冲击扳手的安全说明

**在紧固件可能触及暗线或其自身软线之处进行操作** 时,要通过绝缘握持面来握持工具。紧固件碰到带电 导线会使工具外露的金属零件带电从而使操作者受到 电击。

- 螺丝可能接触隐藏的电线或工具本身的电源线时,请握住绝缘手柄表面。紧固件如果接触到"带电"导线,电动工具金属部件表面就会"带电"并使操作人员触电。
- 紧固件如果接触到"带电"导线,电动工具金属 部件表面就会"带电"并使操作人员触电。如果 接触到"带电"导线,电动工具金属部件表面就 会带电并使操作人员触电。

- 使用夹具或采取其他可行的方法,将工件固定、 支撑到稳定的平台上。手持或用身体顶住工件都 是不稳定的,会导致操作失控。
- 请佩戴安全护目镜或其它护目装备。冲击或钻孔 会导致飞散的碎片。飞散的颗粒会对眼睛造成永 久性伤害。
- **钻头、套筒和工具会在使用过程中发热。**接触时 请佩戴手套。
- **不要长时间操作此工具。** 工具运行导致的振动 可能会伤害您的手和手臂。使用手套提供额外缓 冲,经常停下休息,限制使用时间。

## 剩余风险

尽管遵守了相关的安全法规并采用了安全装备,某些剩余风险仍然是无法避免的。这些风险包括:

- 听力损伤。
- 飞散碎木料造成的人身伤害风险。
- 操作过程中附件发热而产生的烧伤危险。
- 长时间使用导致的人身伤害风险。

## 工具上的标记

工具上印有下列标志:



使用前请阅读使用手册。

#### 日期码位置(图A)

日期码 (7) 印在工具外壳上,其中还包含制造年份。 例如:

2010 XX XX

制造年份

## 包装内容

本产品包装内含有:

冲击扳手 1 台

使用手册 1 本

- 检查工具、部件或附件是否在运输过程中损坏。
- 操作前, 请抽空仔细阅读并掌握本手册。

## 说明(图A)



**警告**:切勿改装电动工具或其任何部件, 否则可能会导致损坏或人身伤害。

- 1 On/off 开关
- 2 正/反转滑块
- 3 套筒
- 4 主手柄

冲击扳手是专业的电动工具。

**请勿**让儿童接触工具。缺乏经验的操作员需要在监督 下使用本工具。

## 电气安全

电机只适用一种工作电压。请务必检查电源电压是否 与铭牌上的电压一致。



您的 DEWALT 工具依据 IEC 60745 标准带有双重绝缘,因此无需接地线。

若电源线损坏,必须交由 DEWALT 服务部门采用专门制备的电线进行更换。

## 使用延长电缆

如果需要使用延长线,请使用与此工具(见技术数据) 匹配的经认证延长线。最小的导线尺寸为 1mm²; 最大长度为 30 m。

使用电缆卷筒时, 请务必拉出所有的电缆。



**警告**:在改变旋转方向之前,请务必等到 电动机完全停止。

## 操作

## 使用说明



## 警告:

请始终遵守安全守则以及适用规则的 要求。



警告: 为降低严重的人身伤害风险, 在进 行任何调整或移除/安装配件或附件之前, 请关闭工具电源和断开工具电源连接。

## 螺旋操作或螺母拧紧操作(图A)

- 选用适当的套筒拧紧螺钉或螺母。
- 如上所述,选择正转或反转。
- 保持工具与紧固件成一直线。

## 正确的手持方式(图 A、B)



警告: 为降低严重的人身伤害风险,请 始终使用正确的手持方式,如图所示。



警告: 为降低严重的人身伤害风险, 预期有突然反作用力时, 务必紧握住 工具。

正确的手持方式需要一只手握住主手柄 (4), 如图 所示。

#### 启动与关闭(图A)

- 要运转工具,请按下开关(1)。
- 如果要停止工具, 请放开开关。

## 维护

DEWALT 电动工具设计精良,可以长期使用,而且只需最少的维护。要持续获得令人满意的工作效果,需要对工具进行适当的保养和定期清洁。



警告: 为降低人身伤害的风险,在拆、装配件或调整、修理工具之前,请关闭工具 并切断工具电源。请务必确保工具关闭。 意外启动可能会导致人身伤害。



#### 润滑

本电动工具无需另行润滑。



#### 清洁



警告: 一旦通风口和周围积聚了可见的粉尘, 请立即用干燥的空气吹走主机外壳内的粉尘和灰尘。执行此过程时, 需戴上经认可的护目装备和防尘面具。



警告: 切勿使用溶剂或其他刺激性化学制品来清洁工具的非金属部件。这些化学物质可能会削弱这些部位使用的材料。请用布蘸温和的肥皂水擦拭。切勿让任何液体渗入工具,切勿让工具的任何部分浸在液体中。

#### 可选附件

请向您的经销商咨询更多关于合适附件的信息。



警告: 由于非 DEWALT 供应的附件未经本产品匹配测试,将此类附件用于本工具可能会造成危险。为降低伤害风险,请仅使用 DEWALT 推荐的附件。

备有各种类型的套筒、固定器以及适配器选件供 选择。

## 保护环境



分类回收。本产品不得与普通家庭垃圾一 起外理。 如果您发现您的 DEWALT 产品需要更换或您已经不再需要使用这些产品,请不要将它们与家庭垃圾一起处理。请将它们单独分类回收。



分类回收使用过的产品和包装能够让材料 得以再循环和再利用。再生材料的再利用 有助于防止环境污染,并降低对原材料的 需求。

当地法规可能要求由市政废物处理点或向您出售新产品的零售商提供从家庭中分类回收电气产品的服务。

DEWALT 提供设施收集和回收使用寿命到期的 DEWALT 产品。若要享受这项服务,请将产品送回 任一授权维修代理,他们将代表我们回收您的产品。

请根据本手册所提供的地址与当地 DEWALT 办事处 联系,查询离您最近的授权维修代理的位置。您也 可以通过网站获取 DEWALT 授权维修代理名单以及 我们售后服务与联络人的完整详情,网址为:

#### www.2helpU.com

制造商: 百得德国公司

地 址: Black & Decker Str.40 65510 Idstein, 德国

产 地:墨西哥

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