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**DEWALT**®

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***XR LI-ION***

**[www.DEWALT.com](http://www.DEWALT.com)**

**DCE410**

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English (*original instructions*)

4

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简体中文

14

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Fig. A  
图 A

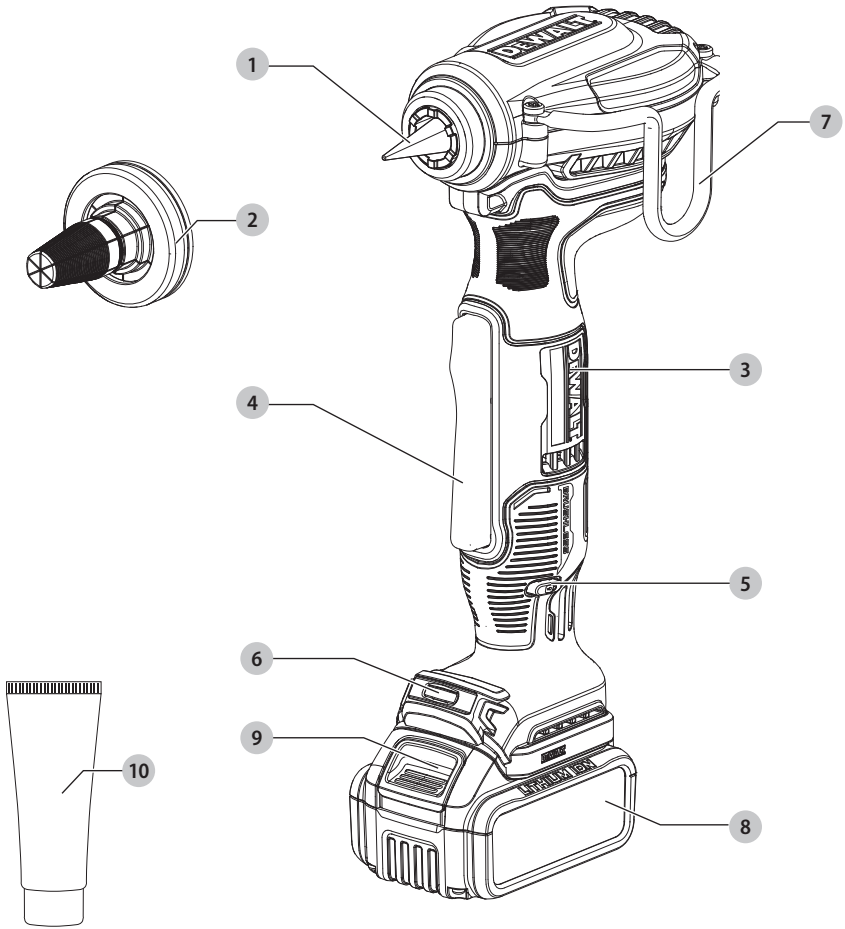


Fig. B  
图 B

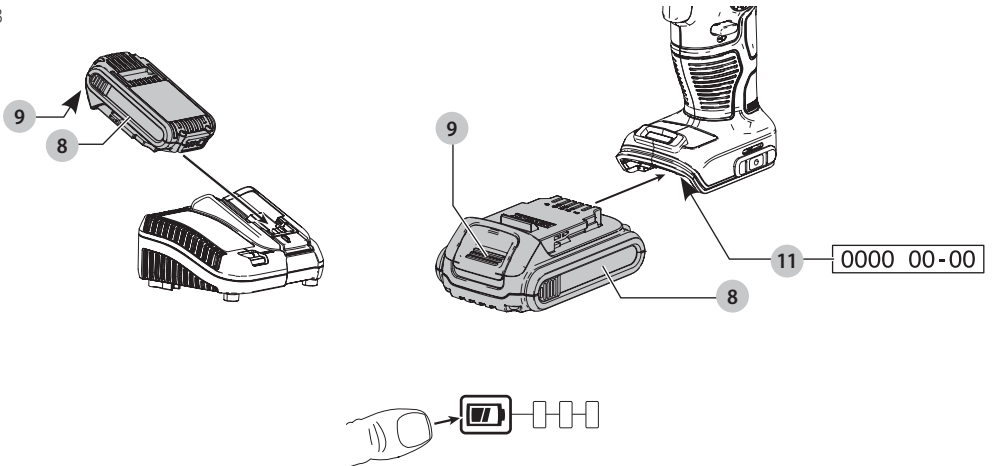


Fig. C  
图 C

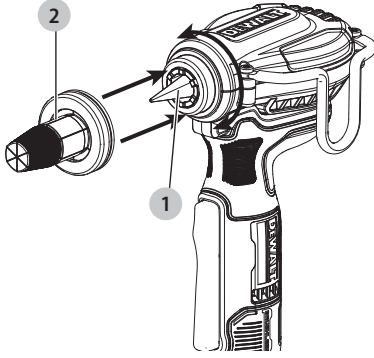


Fig. D  
图 D

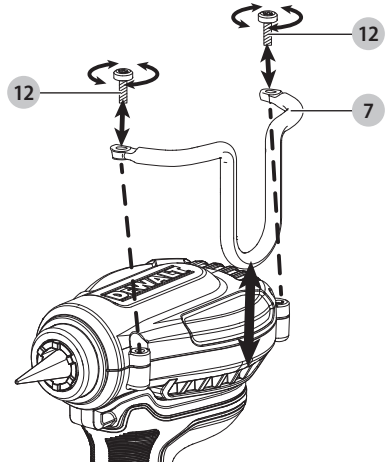


Fig. E  
图 E

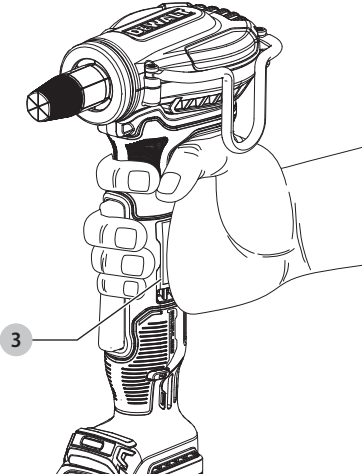


Fig. F  
图 F

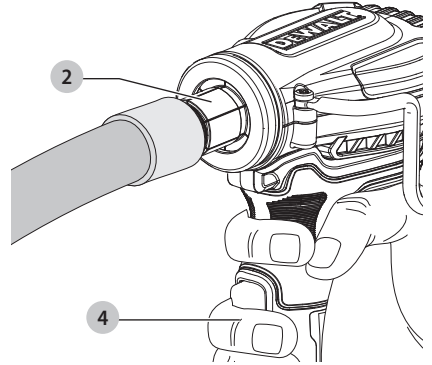


Fig. G  
图 G

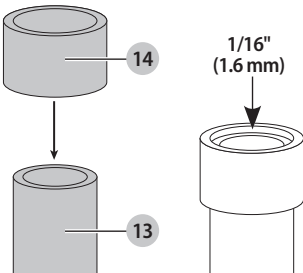


Fig. H  
图 H

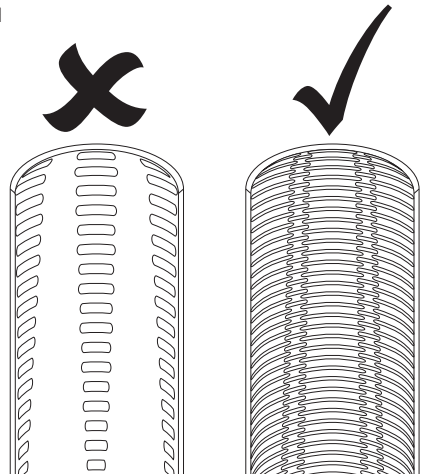
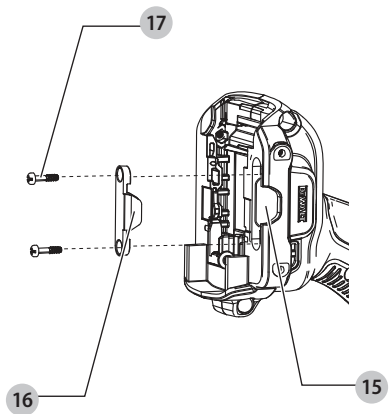


Fig. 1  
图 1

# CORDLESS PEX EXPANDER

## DCE410

### 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

			DCE410
Voltage	V <sub>DC</sub>		18 (20 Max)
Battery type			Li-Ion
No load speed	spm		45
Stroke length	mm		30
Length without head	mm		190
Max PEX-A Diameter	mm		Ø16-Ø40 For 40mm only applicable to spec Ø40x3.7mm
Weight (without battery pack)	kg		3.0

Batteries				Chargers / Charge Times (Minutes)***						
Cat#	V <sub>DC</sub>	Ah	Weight(kg)	DCB104	DCB107	DCB112 DCB1102	DCB115 DCB1104	DCB117 DCB1112	DCB118	DCB132
DCB546/DCB606	18/54 (20/60 Max)	6.0/2.0	1.08	60	270	170	90	40	60	90
DCB547/DCB609/DCB609G	18/54 (20/60 Max)	9.0/3.0	1.46	75*	420	270	135*	60	75*	135*
DCB548/DCB612	18/54 (20/60 Max)	12.0/4.0	1.46	120	540	350	180	80	120	180
DCB549/DCB615	18/54 (20/60 Max)	15.0/5.0	2.12	125	730	450	230	90	125	230
DCB180	18 (20 Max)	3.0	0.62	45	140	90	45	45	45	45
DCB181	18 (20 Max)	1.5	0.35	22	70	45	22	22	22	22
DCB182/DCB204	18 (20 Max)	4.0	0.61	60/40**	185	120	60	60/40**	60/40**	60
DCB183/DCB203	18 (20 Max)	2.0	0.40	30	90	60	30	30	30	30
DCB184/DCB184G/DCB205	18 (20 Max)	5.0	0.62	75/50**	240	150	75	75/50**	75/50**	75
DCB187	18 (20 Max)	3.0	0.54	45	140	90	45	45	45	45
DCB189/DCB240	18 (20 Max)	4.0	0.54	60	185	120	60	60	60	60
DCB186	18 (20 Max)	6.0	0.95	60	270	170	90	60	60	90
DCB208	18 (20 Max)	8.0	0.95	70	360	240	120	70	70	120
DCBP034	18 (20 Max)	1.7	0.32	27	82	50	27	27	27	27
DCBP520	18 (20 Max)	5.0	0.75	75/50**	240	150	75	75/50**	75/50**	75

\*Date code 201811475B or later

\*\*Date code 201536 or later

\*\*\*Battery charge times matrix provided for guidance only; charge times will vary depending on temperature and condition of batteries.



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

### 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.

## 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

- 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 a 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 and clothing 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.
- 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

- 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.
- 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.
- 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.
- 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.
- 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.
- 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 Safety Rules for Expansion Tools



**WARNING: Use the expander tool only with DEWALT or DEWALT-approved attachments. Other uses or modifying the expander tool for other applications may damage the expander tool, damage the attachments and/or can result in a**

**faulty installation. Faulty installations can result in catastrophic failures, injury to installers and damage to property.**



**WARNING: Proper preparation and installation is the responsibility of the installing contractor.**

- **Keep all body parts away from the attachments during operation and any time the power is ON. A moment of inattention while operating power tools may result in serious personal injury.** Fingers or hands can be pinched if they become caught in the attachments.
- **Inspect tool and attachments before use. Never attempt to repair or use a damaged expander head or other attachment.** Replace with a new expander head.
- **This tool produces large forces that can break attachments or parts and cause injury.** Always be attentive and take proper safety precautions, including wearing eye protection.
- **Only trained personnel should operate this tool.**
- **Before operating, inspect job site for hazards including chemicals or waste that could remain in pipes.**
- **Before operating, read and understand all safety and operating instructions including the fitting manufacturer's installation instructions and the instructions for any other equipment used with this tool.** Failure to follow all instructions and warnings may result in property damage and/or serious personal injury.
- **Secure and support the material to prevent movement during operation.**
- **Keep a firm grip on the tool at all times.** Forces on the tool may change during and after the operation.
- **Expansion operations may cause material pieces to fly. Flying particles can cause permanent eye damage.** ALWAYS wear eye protection.
- **Always wear gloves when operating tool and handling materials.** The ends of the materials can be sharp and can cause serious personal injury.
- **Always wear safety shoes to protect your feet from sharp metal debris on the floor.**
- **To reduce the chance of damage to your PEX expander, always store your tool with the expander head installed.**
- **The expander cone's sharp end may cause injury to the user without the expander head installed.**
- **Improper lubrication may lead to defective connections.**

## 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:

- Risk of personal injury due to flying particles.

## SAVE THESE INSTRUCTIONS

## Chargers

DEWALT chargers require no adjustment and are designed to be as easy as possible to operate.



## Electrical Safety

Make sure that the voltage of your charger corresponds to that of your mains.



Your DEWALT charger is double insulated, therefore no earth wire is required.

If the supply cord is damaged, it must be replaced only by DEWALT or an authorised service organisation.

## Using an Extension Cable

An extension cord should not be used unless absolutely necessary. Use an approved extension cable suitable for the power input of your charger (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.

## Important Safety Instructions for All Battery Chargers



**WARNING:** Observe all safety instructions on chargers and batteries.



**WARNING:** Shock hazard. Do not allow any liquid to get inside charger. Electric shock may result.



**WARNING:** We recommend the use of a residual current device with a residual current rating of 30mA or less.



**CAUTION:** Burn hazard. To reduce the risk of injury, charge only DEWALT rechargeable batteries. Other types of batteries may burst causing personal injury and damage.



**CAUTION:** Children should be supervised to ensure that they do not play with the appliance.

**NOTICE:** Under certain conditions, with the charger plugged into the power supply, the exposed charging contacts inside the charger can be shorted by foreign material. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean

- **DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual.** The charger and battery pack are specifically designed to work together (refer to the battery/charger table in this manual).
- **These chargers are not intended for any uses other than charging DEWALT rechargeable batteries.** Any other uses may result in risk of fire, electric shock or electrocution.
- **Do not expose charger to rain or snow.** Water entering a power tool will increase the risk of electric shock.
- **Pull by plug rather than cord when disconnecting charger.** This will reduce risk of damage to electric plug and cord.
- **Make sure that 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.
- **Do not place any object on top of charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat.** Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.
- **Do not operate charger with damaged cord or plug—** have them replaced immediately.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.** Take it to an authorised service centre.
- **Do not disassemble charger; take it to an authorised service centre when service or repair is required.** Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- **Disconnect the charger from the outlet before attempting any cleaning.** This will reduce the risk of electric shock. Removing the battery pack will not reduce this risk.
- **NEVER** attempt to connect two chargers together.
- **The charger is designed to operate on standard 220-240V household electrical power. Do not attempt to use it on any other voltage.** This does not apply to the vehicular charger.

## Charging a Battery (Fig. B)












**NOTE:** To ensure maximum performance and life of lithium-ion battery packs, charge the battery pack fully before first use.

1. Plug the charger into an appropriate outlet before inserting battery pack.
2. Insert the battery pack into the charger, making sure the battery pack is fully seated in the charger. The red (charging) light will blink repeatedly indicating that the charging process has started.
3. The Stage 1 Charging blink indicator represents the charge process that charges the majority of the battery's capacity. Stage 2 Charging blink indicator represents the remainder, or top off charge process, for the battery to reach full capacity.
4. The completion of charge for Stage 1 or Stage 2 will be indicated by the Stage's light remaining ON continuously. The battery pack is fully charged when both Stage 1 and Stage 2 Charging lights remain ON continuously, and it may be removed and used at this time or left in the charger.

**NOTE:** To remove the battery pack, some chargers require the battery pack release button to be pressed.

## Charger Operation

Refer to the indicators below for the charge status of the battery pack.

Indicators			
	Stage 1 Charging		
	Stage 2 Charging		
	Fully Charged		
	Hot/Cold Pack Delay*		

\*The red light will continue to blink, but a yellow indicator light will be illuminated during this operation. Once the battery pack has reached an appropriate temperature, the yellow light will turn off and the charger will resume the charging procedure.

The compatible charger(s) will not charge a faulty battery pack. The charger will indicate faulty battery by refusing to light.

**NOTE:** This could also mean a problem with a charger.

If the charger indicates a problem, take the charger and battery pack to be tested at an authorised service centre.

### 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 will charge at a slower rate than a warm battery pack. The battery pack will charge at that slower rate throughout the entire charging cycle and will not return to maximum charge rate even if the battery pack warms.

The DCB118 charger is equipped with an internal fan designed to cool the battery pack. The fan will turn on automatically when the battery pack needs to be cooled. Never operate the charger if the fan does not operate properly or if ventilation slots are blocked. Do not permit foreign objects to enter the interior of the charger.

### Electronic Protection System

XR Li-Ion 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 if the Electronic Protection System engages. If this occurs, place the lithium-ion battery pack on the charger until it is fully charged.

### Wall Mounting

These chargers are designed to be wall mountable or to sit upright on a table or work surface. If wall mounting, locate the charger within reach of an electrical outlet, and away from a corner or other obstructions which may impede air flow. Use the back of the charger as a template for the location of the mounting screws on the wall. Mount the charger securely using drywall screws (purchased separately) at least 25.4 mm long with a screw head diameter of 7–9 mm, screwed into wood to an optimal depth leaving approximately 5.5 mm of the screw

exposed. Align the slots on the back of the charger with the exposed screws and fully engage them in the slots.

### Battery 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. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

## Battery Packs

### Important Safety Instructions for All Battery Packs

**⚠ WARNING:** DEWALT batteries should only be used with DEWALT products.

When ordering replacement battery packs, be sure to include catalogue number and voltage.

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below. Then follow charging procedures outlined.

#### READ ALL INSTRUCTIONS

- **Do not charge or use battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Inserting or removing the battery from the charger may ignite the dust or fumes.
- **Never force battery pack into charger. Do not modify battery pack in any way to fit into a non-compatible charger as battery pack may rupture causing serious personal injury.**
- Charge the DEWALT battery packs only in DEWALT chargers.
- **DO NOT** splash or immerse in water or other liquids.
- **Do not store or use the tool and battery pack in locations where the temperature may fall below 4 °C (34 °F) (such as outside sheds or metal buildings in winter), or reach or exceed 40 °C (104 °F) (such as outside sheds or metal buildings in summer).**
- **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 persists, seek medical attention.



**WARNING:** Burn hazard. Battery liquid may be flammable if exposed to spark or flame.



**WARNING:** Never attempt to open the battery pack for any reason. If battery pack case is cracked or damaged, do not insert into charger. Do not crush, drop or damage

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 (i.e., pierced with a nail, hit with a hammer, stepped on). Electric shock or electrocution may result. Damaged battery packs should be returned to service centre for recycling.



**WARNING: Fire hazard. Do not store or carry 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, etc.



**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.

## Transportation



**WARNING: Fire hazard.** Transporting batteries can possibly cause fire if the battery terminals inadvertently come in contact with conductive materials. When transporting batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

**NOTE:** Lithium-ion batteries should not be put in checked baggage.

DEWALT batteries comply with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods; International Air Transport Association (IATA) Dangerous Goods Regulations, International Maritime Dangerous Goods (IMDG) Regulations, and the European Agreement Concerning The International Carriage of Dangerous Goods by Road (ADR). Lithium-ion cells and batteries have been tested to section 38.3 of the UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria.

In most instances, shipping a DEWALT battery pack will be excepted from being classified as a fully regulated Class 9 Hazardous Material. In general, only shipments containing a lithium-ion battery with an energy rating greater than 100 Watt Hours (Wh) will require being shipped as fully regulated Class 9. All lithium-ion batteries have the Watt Hour rating marked on the pack. Furthermore, due to regulation complexities, DEWALT does not recommend air shipping lithium-ion battery packs alone regardless of Watt Hour rating. Shipments of tools with batteries (combo kits) can be air shipped as excepted if the Watt Hour rating of the battery pack is no greater than 100 Whr. Regardless of whether a shipment is considered excepted or fully regulated, it is the shipper's responsibility to consult the latest regulations for packaging, labeling/marketing and documentation requirements.

The information provided in this section of the manual is provided in good faith and believed to be accurate at the time the document was created. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with the applicable regulations.

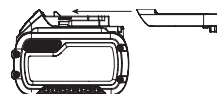
## Transporting the FLEXVOLT™ Battery

The DEWALT FLEXVOLT® battery has two modes: **Use** and **Transport**.

**Use Mode:** When the FLEXVOLT™ battery stands alone or is in a DEWALT 18V (20V Max) product, it will operate as an 18V (20V Max) battery. When the FLEXVOLT™ battery is in a 54V (60V Max) or a 108V (120V Max) (two 54V (60V Max) batteries) product, it will operate as a 54V (60V Max) battery.

**Transport Mode:** When the cap is attached to the FLEXVOLT™ battery, the battery is in Transport mode. Keep the cap for shipping.

When in Transport mode, strings of cells are electrically disconnected within the pack resulting in 3 batteries with a lower Watt hour (Wh) rating as compared to 1 battery with a higher Watt hour rating. This increased quantity of 3 batteries with the lower Watt hour rating can exempt the pack from certain shipping regulations that are imposed upon the higher Watt hour batteries.



For example, the Transport Wh rating might indicate 3 x 36 Wh, meaning 3 batteries of 36 Wh each.

The Use Wh rating might indicate 108 Wh (1 battery implied).



## Storage Recommendations

1. The best storage place is one that is cool and dry away from direct sunlight and excess heat or cold. For optimum battery performance and life, store battery packs at room temperature when not in use.
2. For long storage, it is recommended to store a fully charged battery pack in a cool, dry place out of the charger for optimal results.

**NOTE:** Battery packs should not be stored completely depleted of charge. The battery pack will need to be recharged before use.

## Labels on Charger and Battery Pack

In addition to the pictographs used in this manual, the labels on the charger and the battery pack may show the following pictographs:



Read instruction manual before use.



See **Technical Data** for charging time.



Do not probe with conductive objects.



Do not charge damaged battery packs.



Do not expose to water.



Have defective cords replaced immediately.



Charge only between 4 °C and 40 °C.



Only for indoor use.



Discard the battery pack with due care for the environment.



Charge DEWALT battery packs only with designated DEWALT chargers. Charging battery packs other than the designated DEWALT batteries with a DEWALT charger may make them burst or lead to other dangerous situations.



Do not incinerate the battery pack.



USE (without transport cap). Example: Wh rating indicates 108 Wh (1 battery with 108 Wh).



TRANSPORT (with built-in transport cap). Example: Wh rating indicates 3 x 36 Wh (3 batteries of 36 Wh).

## Battery Type

The DCE410 operates on an 18 volt (20v Max) battery pack. Refer to **Technical Data** for more batteries information.

## Package Contents

The package contains:

- 1 DCE410 PEX Expander
- 1 BMC kitbox
- 1 Multi-voltage charger (kitted version only)  
Li-Ion battery packs
- 1 20mm PEX Expander Head
- 1 25mm PEX Expander Head
- 1 32mm PEX Expander Head
- 1 32mm fast PEX Expander Head
- 1 40mm PEX Expander Head
- 1 Expander grease (DCE400GR)
- 1 Instruction manual

**NOTE:** Battery packs, chargers and kitboxes are not included with N models. Battery packs and chargers are not included with NT models. B models include Bluetooth® battery packs.

**NOTE:** The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth®, SIG, Inc. and any use of such marks by DEWALT is under license. Other trademarks and trade names are those of their respective owners.

- 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.

## Markings on Tool

The following pictograms are shown on the tool:



Read instruction manual before use.



Wear eye protection.



Visible radiation. Do not stare into light.

## Date Code Position (Fig. A)

The production date code **11** consists of a 4-digit year followed by a 2-digit week and is extended by a 2-digit factory code.

## Description (Fig. A)



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

- 1 Expander cone
- 2 Expander head
- 3 Handle
- 4 Trigger switch
- 5 Trigger lock
- 6 LED worklight
- 7 Hang hook
- 8 Battery pack
- 9 Battery pack release button
- 10 Expander Grease
- 11 Date code

## Intended Use

Your DCE410 is designed for professional PEX tube expansion applications. Your DCE410 is designed for PEX- A materials only. Using your PEX expander with unrecommended material may cause cracking or splitting, resulting in an improper seal.

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

The DCE410 is a professional power tool.

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

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision.
- This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

## ASSEMBLY AND ADJUSTMENTS



**WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/

*installing attachments or accessories. An accidental start-up can cause injury.*

## Inserting and Removing the Battery Pack from the Tool (Fig. B)

**NOTE:** Make sure your battery pack **8** is fully charged.

### To Install the Battery Pack into the Tool Handle

1. Align the battery pack **8** with the rails inside the tool's handle.
2. Slide it into the handle until the battery pack is firmly seated in the tool and ensure that you hear the lock snap into place.

### To Remove the Battery Pack from the Tool

1. Press the battery pack release button **9** 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.

## Fuel Gauge Battery Packs (Fig. B)

Some DEWALT battery packs include a fuel gauge which consists of three green LED lights that indicate the level of charge remaining in the battery pack.

To actuate the fuel gauge, press and hold the fuel gauge button. A combination of the three green LED lights will illuminate designating the level of charge left. When the level of charge in the battery is below the usable limit, the fuel gauge will not illuminate and the battery will need to be recharged.

**NOTE:** The fuel gauge is only an indication of the charge left on the battery pack. It does not indicate tool functionality and is subject to variation based on product components, temperature and end-user application.

## Installing and Removing the Expander Head (Fig. A, C)

**IMPORTANT:** To reduce the chance of damage to your PEX expander, always store your tool with the expander head **2** installed.

1. To install an expander head **2** screw onto the tool clockwise until hand tight. **DO NOT** over tighten.
2. To uninstall an expander head, unscrew from the tool counterclockwise.

## Hang Hook (Fig. A, D)



**WARNING:** To reduce the risk of serious personal injury, **ONLY** use the tool's hang hook to hang the tool from a work belt. **DO NOT** use the hang hook for tethering or securing the tool to a person or object during use. **DO NOT** suspend tool overhead or suspend objects from the hang hook.



**WARNING:** To reduce the risk of serious personal injury, ensure the screws holding the hang hook are secure.



**CAUTION:** To reduce the risk of personal injury or damage, **DO NOT** use the hang hook to hang the expander tool while using as a spotlight.

**IMPORTANT:** When attaching or replacing the hang hook **7**, use only the screws **12** that are provided. Be sure to securely tighten the screws **12**.

The hang hook **7** can be attached to either side of the tool using only the screws **12** provided, to accommodate left- or right- handed users.

**NOTE:** If the hang hook is not desired at all, it can be removed from the tool.

1. To move the hang hook **7**, remove the screws **12** that hold the hang hook **7** in place. Install removed screws and securely tighten the screws **12**.
2. Remove the screws **12** on the desired side of the tool and reassemble the hang hook **7**. Be sure to securely tighten the screws.

## 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 battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.



**WARNING:** Proper material preparation and installation is the responsibility of the installing contractor.



**WARNING:** The tubing and hardware must be used in compliance with applicable building codes and as approved by the authorities having jurisdiction.

For proper installation procedures and to reduce the risk of failure resulting in injury or property damage, follow all published safety and installation instructions and specifications of the Pex tubing.



**CAUTION:** Pinch hazard. Keep fingers away from expander head while in use.

### Proper Hand Position (Fig. A, E)



**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 **3**.

### Trigger Switch and Lock Off (Fig. A)

To turn the tool on, squeeze the trigger switch **4**. To turn the tool off, release the trigger switch.

Your PEX expander is equipped with a trigger lock **5**. To lock the trigger switch in the OFF position, push the trigger lock from the left side of the tool. To unlock the trigger switch, push the trigger lock from the right side of the tool.

**NOTE:** Depressing the trigger switch will activate the LED worklight **6**. The LED worklight will automatically turn off after twenty seconds. To turn the light off immediately, remove and

reinstall the battery. The worklight is for lighting the immediate work surface and is not intended to be used as a flashlight.

**NOTICE:** To reduce the chance of damage to the tool **ALWAYS** lock the tool when not in use.

## Creating a PEX Tubing Connection

### (Fig. A, F, G)



**WARNING:** Prior to use inspect all workpieces for cracks, defects or wear. Defective workpieces may shatter.



**CAUTION:** Using incorrectly sized expansion heads may result in a faulty connection, possibly resulting in damage to property.

To create a proper PEX tubing connection:

1. Select appropriate expander head **2** to match the tubing and, if needed, remove any dirt and debris.
2. Using a clean, lint-free cloth, apply a thin coat of DEWALT grease **10** to the expander cone **1**. **DO NOT** over-lubricate.
3. Make a perpendicular cut to PEX tubing to the needed length. Use **ONLY** cutters designed for PEX tubing.
4. Slide the PEX ring **14** over the end of the PEX tubing **13** until it sits properly against the ring stop. If the PEX ring does not have a stop, leave an overhang of no more than 1.6 mm (Fig. G).
5. Insert the expander head into the PEX tubing (Fig. F).
6. Squeeze the trigger switch **4**. The expander head will begin to expand, retract, and rotate slightly.

**NOTE:** Hold the ring and tubing so they do not rotate with the head.

PEX spec	Recommended Number of Expansions	Recommended Accessory
Ø16X1.8mm	8-10	DCE40016
Ø20X2.0mm	10-12	DCE40020
Ø25X2.3mm	10-11	DCE40025
Ø32X2.9mm	13-14	DCE40032
Ø32X2.9mm (Fast Expansion)	6-7	NA607040
Ø40X3.7mm	9-10	NA597978

Do not expand more times than necessary.

**NOTE:** The number of expansions needed may vary depending on temperature or user technique. To avoid over-expanding the PEX tubing, do not keep tool in the expanded position with PEX tubing in place.

7. After achieving the recommended number of expansions, remove the tubing when the expander cone **1** segments are retracted and release the trigger switch **4**. **DO NOT** expand the PEX tubing beyond the tool's capacity of 40 mm (up to 3.7 mm wall thickness).
8. Wipe off the excess grease from inside the PEX tubing.
9. Slide the PEX tubing over the fitting until it is flush with the fitting shoulder. The connection may be tight. If you are unable to slide the PEX tubing over the fitting, remove the fitting from the PEX tubing and re-expand until you can secure a proper fit.

**NOTE:** The PEX tubing should fit tightly against the fitting shoulder. If there is more than a 1.6 mm gap between the PEX tubing and the shoulder. If there is a gap larger than 1.6 mm:

- For 25 mm and below tubing, cut 50 mm off the end of the PEX tubing and restart the procedure with a new PEX Ring.
- For 25 mm above, cut 70 mm off the end of the PEX tubing and restart the procedure with a new PEX Ring.

## Cold Weather Use

Use of your PEX expander in colder temperatures (4 °C) requires a longer contraction time and less expansions. Attempting to make PEX connections in extreme temperatures (-15 °C) is not recommended.

## Expansion Markings (Fig. H)



**CAUTION:** Incorrect expansion of the PEX tubing can create deep grooves in the material which could result in faulty connections and risk of property damage.

Examples of correct and incorrect markings on the inside of the PEX tubing are shown in Fig. H. Incorrect markings could indicate the head is not rotating properly, or the tubing is rotating with the head.

## 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 serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

The charger and battery pack are not serviceable.

## Lubrication

To lubricate the head use only DEWALT PEX Expander Grease.

## 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.

## Cleaning the Expander Head and Cone (Fig. A)

1. Remove the expander head **2** and soak in a degreasing agent to remove grease from between expander segments.
2. Wipe expander cone **1** with clean, dry, lint-free cloth.
3. Re-lubricate using DEWALT grease.

## Optional 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 with this product.

Recommended accessories for use with your product are available at extra cost from your local dealer or authorized service center. If you need assistance in locating any accessory, please contact DEWALT. Call **1-800-4-DEWALT (1-800-433-9258)** or visit our website: **www.dewalt.com**

### DCE410

Compatible PEX expander heads	DCE40016: 16 mm PEX Expander Head
	DCE40020: 20 mm PEX Expander Head
	DCE40025: 25 mm PEX Expander Head
	DCE40032: 32 mm PEX Expander Head
	NA607040: 32 mm fast PEX Expander Head
	NA597978: 40 mm PEX Expander Head
Lubricant	DCE400GR Expander Grease

Consult your dealer for further information on the appropriate accessories.

## 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**.

## Rechargeable Battery Pack

This long-life battery pack must be recharged when it fails to produce sufficient power on jobs which were easily done before. At the end of its technical life, discard it with due care for our environment:

- Run the battery pack down completely, then remove it from the tool.
- Li-Ion cells are recyclable. Take them to your dealer or a local recycling station. The collected battery packs will be recycled or disposed of properly.

## After Service and Repair

DEWALT service centers are staffed with trained personnel to provide customers with efficient and reliable product service. We do not take any responsibility when you have repaired in unauthorized service center. You can refer to the leaflet of CONTACT CENTER LOCATOR in product package and contact us through hotline, website or social media to find the nearest DEWALT service center around you.

# 锂电无刷扩管机

## DCE410

### 恭喜!

您选择了本款DeWALT工具。凭借多年的产品开发和创新能力，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

		DCE410
电压	$V_{DC}$	18 (最大20)
电池包类型		锂离子
空载速度	spm	45
冲程长度	mm	30
机身长度	mm	190
最大PEX-A直径	mm	Ø16-Ø40 仅适用于40毫米，规格为Ø40x3.7毫米
重量 (不含电池包)	kg	3.0

电池				充电器 / 充电时间 (分钟)***		
型号	$V_{DC}$	电池容量 (Ah)	重量 (kg)	DCB112 DCB1102	DCB115 DCB1104	DCB118
DCB606	18/54 (最大 20/60)	6.0/2.0	1.05	170	90	60
DCB609/DCB609G	18/54 (最大 20/60)	9.0/3.0	1.46	270	135*	75*
DCB612	18/54 (最大 20/60)	12.0/4.0	1.44	350	180	120
DCB615	18/54 (最大 20/60)	15.0/5.0	2.12	450	230	125
DCB182	18 (最大 20)	4.0	0.61	120	60	60/40**
DCB203	18 (最大 20)	2.0	0.40	60	30	30
DCB184/DCB184G	18 (最大 20)	5.0	0.62	150	75	75/50**
DCB208	18 (最大 20)	8.0	0.95	240	120	70
DCBP034	18 (最大 20)	1.7	0.32	50	27	27
DCBP520	18 (最大 20)	5.0	0.75	150	75	75/50**

\*日期码 201811475B 或以后

\*\*日期码 201536 或以后

\*\*\*电池包充电时间表仅供参考；实际充电时间将根据电池包的温度和状况而变化。



**警告:**为降低伤害风险, 请阅读使用手册。

### 定义:安全指南

下列定义描述了各标志术语的严重程度。请仔细阅读本手册, 并注意这些标志。



**危险:**表示存在紧急危险情况, 如果不加以避免, 将导致死亡或严重伤害。



**警告:**表示存在潜在的危險情况, 如果不加以避免, 可能导致死亡或严重伤害。



**小心:**表示存在潜在危險情况, 如果不加以避免, 可能导致轻度或中度伤害。

**注意:**表示存在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。



表示存在触电风险。



表示存在火灾风险。

### 电动工具通用安全警告



**警告:**请阅读本电动工具随附的所有安全警告、说明、图示和规定。未能遵照以下所列说明会导致电击、火灾和/或严重伤害。



## 保存所有警告和说明书以备查阅。

警告中的术语“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。

### 1) 工作场地的安全

- 保持工作场地清洁和明亮。杂乱和黑暗的场地会引发事故。
- 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。
- 操作电动工具时,远离儿童和旁观者。注意力不集中会使你失去对工具的控制。

### 2) 电气安全

- 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降低电击风险。
- 避免人体接触接地表面,如管道、散热片和冰箱。如果你身体接触接地表面会增加电击风险。
- 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风险。
- 不得滥用电源线。绝不能用电源线搬运、拉动电动工具或拔出其插头。使电源线远离热源、油、锐边或运动部件。受损或缠绕的电源线会增加电击风险。
- 当在户外使用电动工具时,使用适合户外使用的延长线。适合户外使用的电线将降低电击风险。
- 如果无法避免在潮湿环境中操作电动工具,应使用带有剩余电流装置(RCD)保护的电源。RCD的使用可降低电击风险。

### 3) 人身安全

- 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。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。
- 使用个人防护设备。始终佩戴护目镜。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。
- 防止意外启动。在连接电源和/或电池包、拿起或搬运工具前,应确保开关处于关断位置。手指放在开关上搬运工具或开关处于接通时通电会导致危险。
- 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。
- 请勿过分伸展。时刻注意立足点和身体平衡。这样能在意外情况下能更好地控制住电动工具。
- 着装适当。不要穿宽松衣服或佩戴饰品。让你的头发和衣服远离运动部件。宽松衣服、佩饰或长发可能会卷入运动部件。
- 如果提供了与排屑、集尘设备连接用的装置,要确保其连接完好且使用得当。使用集尘装置可降低尘屑引起的危险。
- 不要因为频繁使用工具而产生的熟悉感而掉以轻心,忽视工具的安全准则。某个粗心的动作可能在瞬间导致严重的伤害。

### 4) 电动工具使用和注意事项

- 切勿强制使用电动工具。根据用途使用合适的电动工具。选用合适的按照额定值设计的电动工具会使你工作更有效、更安全。
- 如果开关不能接通或关断电源,则不能使用该电动工具。不能通过开关来控制的电动工具是危险的且必须进行修理。
- 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/或卸下电池包(如可拆卸)。这种防护性的安全措施降低了电动工具意外启动的风险。
- 将闲置不用的电动工具贮存在儿童所及范围之外,并且不允许不熟悉电动工具 and 不了解这些说明的人操作电动工具。电动工具在未经培训的使用者手中是危险的。
- 维护电动工具及其附件。检查运动部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,应在使用前修理好电动工具。许多事故是由维护不良的电动工具引发的。
- 保持切削刀具锋利和清洁。维护良好地有锋利切削刃的刀具不易卡住而且容易控制。
- 按照使用说明书,并考虑作业条件和要进行的作业来选择电动工具、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情况。
- 保持手柄和握持表面干燥、清洁,不得沾有油脂。在意外的情况下,湿滑的手柄不能保证握持的安全和对工具的控制。

### 5) 电池式工具使用和注意事项

- 仅使用生产者规定的充电器充电。将适用于某种电池包的充电器用到其他电池包时可能会发生着火危险。
- 仅使用配有专用电池包的电动工具。使用其他电池包可能会产生伤害和着火危险。
- 当电池包不用时,将它远离其他金属物体,例如回形针、硬币、钥匙、钉子、螺钉或其他小金属物体,以防电池包一端与另一端连接。电池包端部短路会引起燃烧或着火。
- 在滥用条件下,液体可能会从电池包中溅出,应避免接触。如果意外碰到液体,用水冲洗。如果液体碰到了眼睛,还应寻求医疗帮助。从电池中溅出的液体可能会发生腐蚀或燃烧。
- 不要使用损坏或改装过的电池包或工具。损坏或改装过的电池包可能呈现无法预测的结果,导致着火、爆炸或伤害。
- 不要将电池包暴露于火或高温中。电池包暴露于火或高于130°C的高温中可能会发生爆炸。
- 请遵循所有充电说明,请勿在说明中规定的温度范围以外的环境对电池包或工具充电。不当或在指定范围以外的温度下充电,可能导致电池损坏并增加火灾风险。

### 6) 维修

- 让专业维修人员使用相同的备件维修电动工具。这将保证所维修的电动工具的安全。

- b) 切勿维修损坏的电池包。电池包只能由生产商或其授权的维修服务商进行维修。

## 扩管工具的其他安全规则

**警告：**扩管工具只能与DeWALT或DeWALT认可的附件一起使用。其他用途或为其他应用改装扩展工具可能会损坏扩展工具、附件和/或导致安装故障。错误安装可能导致灾难性的故障、安装人员受伤和财产损失。

**警告：**安装承包商负责确保准备和安装工作正常进行。

- 在操作过程中和接通电源的任何时候，都要让身体的所有部位远离附件。在操作电动工具时瞬间的疏忽会导致严重人身伤害。如果手指或手被附件夹住，可能会被夹伤。
- 使用前要检查工具和附件。切勿尝试修理或使用损坏的扩管机头或其他附件。请更换新的扩管机头。
- 该工具会产生很大的力，可能会损坏附件或零件并造成伤害。请务必注意并采取适当的安全预防措施，包括佩戴护目镜。
- 只有经过培训的人员才能操作此工具。
- 操作前，检查工作现场是否存在危险，包括可能残留在管道中的化学品或废弃物。
- 操作前，请阅读并理解所有安全和操作说明，包括配件制造商的安装说明以及与本工具一起使用的任何其他设备的说明。不遵守所有说明和警告可能会导致财产损失和/或致人重伤。
- 固定并支撑材料，防止在操作过程中发生移动。
- 任何时候都要牢牢抓住工具。在操作过程中和操作之后，工具上的力可能会发生变化。
- 扩管操作可能导致材料碎片飞散。飞溅的颗粒会对眼睛造成永久性伤害。始终佩戴护目镜。
- 操作工具和处理材料时一定要戴手套。材料的末端可能很锋利，会致人重伤。
- 务必穿安全鞋，以保护双脚免受地面尖锐金属碎片伤害。
- 为降低损坏PEX扩管机的风险，存放工具时应始终安装扩管机头。
- 如果没有安装扩管机头，扩管锥的尖锐末端可能会对用户造成伤害。
- 润滑不当可能导致连接缺陷。

## 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：

- 飞溅颗粒造成的人身伤害风险。

请妥善保管好这些说明

## 充电器

DeWALT充电器无需做出任何调整，专为简易操作而设计。

## 电气安全

请务必检查充电器的电压是否和电源上的电压一致。



您的DeWALT充电器是双重绝缘的，因此无需使用接地线。

如果电源线损坏，必须仅由DeWALT或授权的维修机构负责更换。

## 使用延长线

除非绝对必要，否则请勿使用延长线。使用适合您的充电器输入功率的合格延长线（请参阅**技术数据**）。最小的导线尺寸为1 mm<sup>2</sup>；最大长度为30 m。

使用电缆卷筒时，请务必拉出所有的电缆。

## 针对所有电池包充电器的重要安全说明

**警告：**请遵守有关充电器和电池的所有安全说明。

**警告：**电击危险。请勿让任何液体进入充电器，否则可能会导致触电。

**警告：**我们建议使用漏电保护额定电流为30毫安或以下的漏电保护装置。

**小心：**烧伤危险。为降低人身伤害风险，请仅使用DeWALT充电式电池包充电。使用其它类型的电池包可能会引起爆裂，并导致人身伤害和损害。

**小心：**应看管好儿童，以确保他们不将此设备当做玩具来玩。

**注意：**在某些情况下，当充电器的插头插入电源插座时，充电器内部裸露的充电接触点可能因为外来物件而短路。请勿让能导电的异物靠近充电器腔，这些外来物件包括但不限于钢棉、铝箔或任何金属颗粒的堆积物。充电器内没有电池包时，请断开充电器与电源的连接。清洗前，务必拔掉充电器。

- 请勿试图使用本手册指定的充电器以外的其他任何充电器为电池包充电。充电器和电池包专为配合使用而设计（请参阅本手册中的电池/充电器表）。
- 这些充电器不适合用于为DeWALT充电式电池充电以外的任何其他用途。否则，可能会导致火灾、触电或电击。
- 请勿将充电器暴露于雨中或雪中。水进入电动工具将增加电击风险。
- 断开充电器连接时，应捏住插头将其拔下，而非通过拉拽电源线拔下插头。这将降低对电插头和电线的损害风险。
- 确保电源线布置在不易踩踏、踢绊、拉扯或会受到损害或压力的位置。
- 除非绝对必要，否则请勿使用延长线。使用不正确的延长线可能导致火灾、触电或电击的风险。
- 请勿将任何物件放在充电器上面，或是把充电器放在可能会堵住通风槽的柔软表面，导致充电器的内部过热。请把充电器放置在远离任何热源的地方。充电器通过外壳顶端和底端的槽进行通风。
- 请勿使用电源线或插头已损坏的充电器，请立即更换这些充电器。
- 如果充电器受到强烈重击、掉落或出现其他损坏情况，请勿使用充电器。请将损坏的充电器送到授权服务中心。

- **请勿自行拆卸充电器。请将需要检修或修理的充电器送到授权服务中心。重装不正确可能导致触电、电击或火灾风险。**
- **清洁前，请先断开充电器和插座的连接，以降低触电风险。**取出电池包不会降低此风险。
- **不得将两个充电器连接在一起。**
- **充电器是为220-240V的标准家用电源而设计。请勿试图在任何其他电压下使用充电器。此规则不适用于车载充电器。**

## 为电池充电 (图B)

**注意:**为了确保锂离子电池包的效能和使用寿命最大化,在首次使用电池包之前必须将其完全充电。

1. 插入电池包前,先将充电器的插头插到相应的电源插座上。
2. 将电池包插入充电器,确保电池包在充电器中完全就位。红色(充电中)指示灯将不断闪烁,表示充电过程已经开始。
3. 第1阶段充电闪烁指示器表示为大部分电池容量充电的充电过程。第2阶段充电闪烁指示灯代表电池包即将充满电。
4. 第1阶段或第2阶段的充电完成后,对应阶段的指示灯将常亮。第1阶段和第2阶段的充电指示灯常亮时,表示电池包已充满电,此时可取出电池包使用,或将其留在充电器中。

**注意:**在拆卸电池包时,部分充电器需要按住电池包释放按钮。

## 充电器操作

关于电池包的充电状态,请参阅以下指示灯说明。

指示灯			
	第1阶段充电		
	第2阶段充电		
	已完全充电		
	热/冷电池包延迟*		

\*红色指示灯会继续闪烁,但黄色指示灯在本次操作过程中会亮起。电池包达到适当温度后,黄色指示灯会熄灭,充电器将恢复充电程序。

兼容充电器不会对故障电池包充电充电器指示灯不亮时表示电池包有故障。

**注意:**这可能也表示充电器有问题。

如果充电器提示存在故障,请将充电器和电池包送到授权的服务中心进行测试。

## 热/冷电池包延迟

当充电器检测到电池包过热或过冷时,它会启动热/冷电池包延迟模式,暂停充电,直到电池包达到适当的温度。然后,充电器会自动切换到电池包充电模式。此功能可确保电池包拥有最长的使用寿命。

冷电池包充电速度比热电池包充电速度慢。电池包在整个充电周期的充电速度都会较慢,即使电池包升温也不会恢复到最大速度。

DCB118充电器配备了内部风扇,用于冷却电池包。当电池包需要冷却时,该风扇会自动启动。如果风扇无法正常工作或通风槽被堵塞,切勿操作充电器。请勿让异物进入充电器的内部。

## 电子保护系统

XR锂离子电池工具采用了电子保护系统设计,可防止电池包过载、过热或过度放电。

如果电子保护系统处于运作状态,该工具将自动停止操作。如果发生这种情况,请将锂离子电池包放在充电器上,直至其完全充满电。

## 壁挂式安装

这些充电器设计为可以安装在墙上,也可以直立在桌面或工作台上。如果安装在墙上,请确保充电器的位置可以连接到电源插座,并且远离墙角或其他可能妨碍空气流通的障碍物。将充电器背面作为在墙上安装螺丝的位置模板。使用至少25.4毫米长、螺丝帽直径至少7-9毫米的石膏板螺丝(单独购买)牢牢固定充电器,将螺丝最大限度钉入木材,预留约5.5毫米露在墙外。将充电器背面的安装槽对准露出的螺丝,完全放置到位。

## 充电器清洁说明

**警告:电击危险。清洁前,请将充电器从交流电源插座上拔下。可用布或非金属软刷清除充电器外部的污垢和油脂。请勿使用水或任何清洁剂。不得让任何液体渗入工具,不得让工具的任何部件浸在液体中**

## 电池包

### 针对所有电池包的重要安全说明

**警告:DeWALT电池只能与DeWALT产品一起使用。**

在订购更换电池包时,请务必附上目录型号和电压。

包装箱内的电池包并未完全充电。使用电池包和充电器之前,请阅读下列安全说明,然后遵循所述的充电程序。

### 请阅读所有说明

- **请勿在易爆环境,如有易燃液体、气体或粉尘的环境中充电或使用电池包。在充电器中插入或取出电池包时可能会点燃粉尘或气体。**
- **不得强行将电池包放进充电器。请勿以任何方式改装电池包并将电池包插入不兼容的充电器,这种操作可能会导致电池包破裂,造成严重的人身伤害。**
- **只能用DEWALT充电器给DEWALT电池包充电。**
- **请勿飞溅电池包或将其浸泡在水或其他液体中。**
- **请勿在温度可能降至4°C(34°F)的地方(如冬天户外的棚子或金属建筑物中)或达到或超过40°C(104°F)的地方(如夏天户外的棚子或金属建筑物中)存储或使用工具和电池包。**
- **即使电池包严重受损或完全损坏,也请勿焚化电池包。电池包在火中会发生爆炸。锂离子电池包在燃烧时会释放有毒气体和物质。**
- **如果电池包液体接触到皮肤,请立即以中性肥皂和清水冲洗接触的地方。如果电池包液体不慎进入眼**

睛，应睁开眼睛并用清水冲洗至少15分钟或直到刺激感消失。如果需要医疗救助，请告知医护人员。电池包电解质由液状有机碳酸盐和锂盐的混合物组成。

- 已打开电池包的内部物质可能导致呼吸道刺激。请保持空气流通。如果症状持续存在，请就医。



**警告：**烧伤危险。电池包液如果接触到火花或火焰可能会燃烧。



**警告：**不得以任何理由试图打开电池包。电池包外壳破裂或损坏时，请勿将电池包插入充电器。请勿挤压、掉落或损坏电池包。请勿使用受过强烈重击、掉落、碾压或以任何其它方式（如被钉子穿透、受到锤子的重击、踩踏）受损的电池包或充电器。否则可能会引起触电或电击。损坏的电池包应送回服务中心进行回收。



**警告：**火灾危险。请勿在存储或搬运电池包时让金属物品接触暴露的电池包两极。例如，请勿将电池包放在围裙、口袋、工具箱、产品套件盒、抽屉等可能与螺钉、螺丝、钥匙等物品接触的地方。



**小心：**不使用时，应将工具侧放在稳定的表面上，以免造成绊倒或坠落的危险。一些带有大型电池包的工具有可以直立在电池包上，但可能很容易被撞倒。

## 运输



**警告：**火灾危险。电池包运输途中，如果电池包两极意外接触导电材料，可能会引发火灾。运输电池包时，务必保护电池包两极，确保与可能接触电池包导致短路的材料良好绝缘。

**注意：**不应将锂离子电池放入托运行李中。

DEWALT 电池包符合所有适用的行业和法律标准规定的运输规范，包括《联合国危险品运输建议规章范本》(UN Recommendations on the Transport of Dangerous Goods)、《国际航空运输协会 (IATA) 危险品规则》(International Air Transport Association (IATA) Dangerous Goods Regulations)、《国际海运危险品 (IMDG) 规则》(International Maritime Dangerous Goods (IMDG) Regulations)和《欧洲危险货物国际公路运输协定》(European Agreement Concerning The International Carriage of Dangerous Goods by Road) (ADR)。离子电池和电池包已遵循《联合国危险品运输建议规章范本手册》第38.3节关于测试和标准的说明通过测试。

大多数情况下，发运DEWALT 电池包不属于完全管制的9类危险品。一般情况下，只有当运输包含一个能量等级大于100瓦时 (Wh) 的锂离子电池时，才需要作为完全管制的9类危险品发运。所有锂离子电池外壳上均标注有瓦时等级。此外，由于法规比较复杂，无论瓦时等级是多少，DEWALT 都不建议单独空运锂离子电池。发运包含电池的工作（组合套件）时，如果电池包的能量等级不大于100瓦时 (Wh)，则可以按计划空运。

无论发运是否纳入完全管制范围内，运输公司均有责任遵循最新法规中关于包装、标签/标记和单据的要求。本手册本节的信息是出于善意提供，且认为在编制文档时准确无误。不提供明示或暗示的担保。购买方负有确保其行为遵守适用法规的责任。

## 运输 FLEXVOLT™ 电池

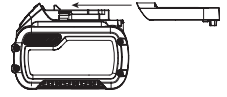
DEWALT FLEXVOLT® 电池包有两种模式：**使用**和**运输**。

**使用模式：**当 FLEXVOLT™ 电池单独使用或置于 DEWALT 18V (20V Max) 产品中时，将作为 18V (20V Max) 电池运行。当 FLEXVOLT™ 电池在 54V (60V Max) 或 108V (120V Max) (两块 54V (60V Max) 电池) 产品中时，其将作为 54V (60V Max) 电池运行。

**运输方式：**当盖子连接到 FLEXVOLT™ 电池时，电池处于运输模式。盖住盖子以便进行运输。

处于运输模式时，断开电池包的电源会产生 3 个瓦特小时额定值 (Wh) 较低的电池包，和 1 个瓦特小时额定值较高的电池包。这种增加的 3 个瓦特小时额定值较低的电池包可使电池包免于遵守某些对高瓦特小时电池包施加的运输规定。

例如，运输 Wh 额定值可能表示为 3 x 36Wh，即每节 36Wh 的 3 节电池包。使用 Wh 额定值可能表示 108Wh (1 个电池包)。



使用和运送标签标记示例



## 存放建议

1. 最好将电池包存放在阴凉、干燥、远离阳光直射、不会过热或过冷的地方。为了获得最佳的电池包性能和使用寿命，请您在不使用电池包时将其存储在室温下。
2. 长期存储时，建议将已完全充电的电池包从充电器取出，存储在阴凉、干燥的地方，以达到最佳效果。

**注意：**电池包不应在电池包已完全耗尽的状态下存放。使用电池包之前，必须重新为电池包充电。

## 充电器和电池包上的标签

除了在本手册中所使用的标志，充电器和电池包的标签还包括：



使用前请阅读使用手册。



如需了解充电时间详细信息，请参阅**技术数据**。



请勿使用导电物体戳刺。



请勿对损坏的电池包充电。



请勿将其暴露于水中。



应立即更换有缺陷的电线。



请只在 4°C 和 40°C 之间的温度下充电。



只能在室内使用。



弃置电池包时，请妥善处理以保护我们的环境。



只能用指定的DeWALT充电器给DeWALT电池包充电。使用DeWALT充电器为非DeWALT电池包充电可能会导致电池包爆炸或出现其他危险情况。



请勿焚化电池包。



使用(不含运输盖)示例:Wh额定值表示108 Wh (1个108 Wh的电池包)。



运输(带内置运输盖)。示例:Wh额定值表示3 x 36 Wh (3个36 Wh的电池包)。

## 电池包类型

DCE410使用18伏(最大20伏)电池包。更多信息，请参考**技术数据**。

## 包装内的物品

包装中包含：

- 1台 DCE410 PEX扩管机
- 1个 BMC工具箱
- 1个 多电压充电器(仅套装机包含)
- 1个 锂离子电池包(仅套装机包含)
- 1个 20 mm PEX扩管机头
- 1个 25 mm PEX扩管机头
- 1个 32 mm 快速PEX扩管机头
- 1个 40 mm PEX扩管机头
- 1支 扩管机润滑脂(DCE400GR)
- 1本 使用手册

**注意：**电池包、充电器和工具箱没有随 N 型号附送。电池包和充电器没有随NT型号附送。B型号包括Bluetooth® 电池包。

**注意：**Bluetooth®标志和徽标是Bluetooth®, SIG, Inc.的注册商标，DeWALT对这些标识的任何使用均经过许可。其他商标和商标名均归各自所有者所有。

- 检查工具、部件或配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。

## 工具上的标记

工具上印有下列图形：



使用前请阅读使用手册。



请佩戴护目装备。



可见辐射。请勿盯着光看。

## 日期代码位置(图A)

生产日期代码 **11** 由4位数的年和2位数的周组成，后跟2位数的工厂代码

## 说明(图A)

**警告：**不得改装本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 扩管锥
- 2 扩管机头
- 3 手柄
- 4 触发开关
- 5 触发锁
- 6 LED工作灯
- 7 挂钩
- 8 电池包
- 9 电池包释放按钮
- 10 扩管机润滑脂
- 11 日期代码

## 设计用途

DCE410专为专业PEX扩管应用而设计。DCE410仅适用于PEX-A材料。将PEX扩管机与不推荐的材料一起使用可能会导致开裂或劈裂，导致密封失效。

**请勿**在潮湿环境中，或在存在易燃液体或气体的环境中使用本机器。

DCE410是专业电动工具。

**请勿**让儿童接触本工具。缺乏经验的操作员需要在监督下使用本工具。

- **儿童和体弱者。**在没有他人监督的情况下，儿童或体弱者不适宜使用本产品。
- 本产品不适合体力、感官或智力不足以及缺乏经验、知识或技能的人员(包括儿童)使用，除非一旁有能为他们的安全负责的监督人员。不得在无人监管的情况下让儿童接触本产品。

## 组装与调整

**警告：**为降低严重的人身伤害风险，在进行任何调整或取出/安装附件或配件之前，请关闭工具并断开电池包连接。意外启动工具可能会造成伤害。

## 插入或取出工具上的电池包(图B)

**注意：**确保电池包**8**已经充满电。

### 要将电池包安装到工具手柄中

1. 将电池包**8**对准工具手柄内的轨道。
2. 将电池包滑入手柄内，使其牢牢地固定在工具内，并确保您听到其锁定到位的声音。

### 从工具中取出电池包

1. 按下电池释放按钮**9**，将电池包从工具握柄中稳妥地拉出。
2. 按本手册充电器部分所述将电池包插入充电器中。

## 电池包电量计(图B)

一些DeWALT电池包带有一个包含三个绿色LED指示灯的电量计，用于指示电池包内的剩余电量。

按下电量计按钮不松开,即可启动电量计。三个绿色LED指示灯将以组合方式亮起,以指示剩余电量。当电池内的电量低于可用限制时,电量计将不会亮起,电池将需要重新充电。

**注意:**电量计仅指示电池包的剩余电量。它并不表示该工具的功能,且将根据产品组件、温度和最终使用者的使用情况而有所不同。

## 安装和拆卸扩管机头(图A、C)

**重要事项:**为避免损坏PEX扩管机,请务必在安装扩管机头**2**后再存放它。

1. 参照图C位置,要安装扩管机头**2**,沿着顺时针方向将扩管机头螺纹拧到工具上,用手拧紧,切勿过度拧紧。
2. 要卸下扩管机头,请逆时针从工具上拧下。

## 挂钩(图A、D)

**警告:**为减少严重人身伤害的风险,仅可用工具的挂钩将工具挂在工作带上。使用过程中,请勿用挂钩将工具拴在或固定在人或物体上。请勿将工具悬挂在头顶或将物体悬挂在挂钩上。

**警告:**为了减少人身伤害的风险,请确保固定挂钩的螺钉紧固。

**小心:**为降低人身伤害或损坏的风险,在用作聚光灯时,请勿使用挂钩悬挂扩管机工具。

**重要事项:**安装或更换挂钩**7**时,仅可使用随附的螺钉**12**。一定要牢固地拧紧螺钉**12**。

为同时方便惯用左手和惯用右手用户,可用提供的螺钉**12**将挂钩**7**固定在工具的任何一侧。

**注意:**如果完全不需要挂钩,可将其从工具上取下。

1. 要卸下挂钩**7**,请卸下固定挂钩**7**的螺钉**12**。装上卸下的螺钉并牢牢拧紧螺钉**12**。
2. 卸下工具所需一侧的螺钉**12**,然后重新装配挂钩**7**。一定要牢固地拧紧螺钉。

## 操作

### 使用说明

**警告:**务必遵守安全指示和适用法规。

**警告:**为降低严重的人身伤害风险,在进行任何调整或取出/安装附件或配件之前,请关闭工具并断开电池包连接。意外启动工具可能会造成伤害。

**警告:**安装承包商负责确保材料准备和安装工作正常进行。

**警告:**使用管材和五金件时,必须遵循适用的建筑规范,并获得有管辖权的当局批准。为确保安装程序正确,降低故障导致人员受伤或财产损失的风险,请遵守所有现有的安全和安装说明要求,并参照PEX管的规格。

**小心:**挤压危险。使用时,手指应远离扩管机头。

## 正确的双手放置位(图A、E)

**警告:**为了减低严重人身伤害的风险,请务必如图示那样正确放置双手。

**警告:**为了减低造成严重人身伤害的风险,预期有突然反作用力时**务必**握紧。

手部正确的位置是一只手放在主手柄上**3**。

## 触发开关和锁定(图A)

要打开工具,请按下触发开关**4**。关闭工具时,松开触发开关。

您的PEX扩管机配有触发锁**5**。要将触发开关锁定在关闭状态,请从工具的左侧按下触发锁。要解锁触发开关,请从工具的右侧按下触发锁。

**注意:**按下触发开关将激活LED工作灯**6**。LED工作灯将在20秒后自动熄灭。要立即关灯,请取出电池,然后重新安装。工作灯用于直接作业面照明,不用作手电筒。

**注意:**为避免工具损坏

不使用工具时,务必将其锁上。

## 创建PEX管连接(图A、F、G)

**警告:**使用前检查所有工件是否有裂缝、缺陷或磨损。有缺陷的工件可能会破碎。

**小心:**使用尺寸不当的扩管机头可能会引发连接故障,造成财产损失。

要建立正确的PEX管连接:

1. 选择与管匹配的适当的扩管机头**2**,如有必要,清除任何污垢和碎屑。
2. 使用干净的无绒布,在扩管锥**1**上薄薄地涂上一层DEWALT润滑脂**10**。请勿过度润滑。
3. 垂直切割PEX管,使其达到所需长度。只能使用专为PEX管设计的切割器。
4. 直到其正确卡入卡环止位。如果PEX环没有止位,则应留出不超过1.6mm的悬空部分(图G)。
5. 将扩管机头插入PEX管中(图F)。
6. 按下触发开关**4**。扩管机头将开始扩管、缩回并轻微旋转。

**注意:**在扩管过程中,握住卡环和管,使其不随头部旋转。

PEX规格	建议扩管次数	推荐配件
Ø16X1.8mm	8-10	DCE40016
Ø20X2.0mm	10-12	DCE40020
Ø25X2.3mm	10-11	DCE40025
Ø32X2.9mm	13-14	DCE40032
Ø32X2.9mm (快速扩管)	6-7	NA607040
Ø40X3.7mm	9-10	NA597978
扩管次数不要超过所需次数。		

**注意:**所需的扩管次数可能因温度或用户技术而异。为避免PEX管过度扩管,在PEX管在位时,不要将工具保持在扩管位置。

7. 达到建议的扩管次数后,当扩管锥**1**缩回并松开触发开关**4**时,取下管。切勿扩超过工具极限能力40毫米(最大壁厚3.7毫米)的PEX管。
8. 擦去PEX管内多余的润滑脂。
9. 将PEX管滑过接头,直到与接头肩齐平。连接可能会很紧。如果无法将PEX管滑过接头,请将接头从PEX管上取下,然后重新扩管,直到可以准确接入。

**注意:** PEX管应紧贴接头肩部。PEX管与接头肩之间的间隙不应该超过1.6毫米。如果间隙大于1.6毫米:

- 对于25毫米及以下的管材, 将PEX管的末端剪去50毫米, 然后换一个新的PEX卡环重新开始操作。
- 对于25毫米以上的管材, 将PEX管的末端剪去70毫米, 然后换一个新的PEX卡环重新开始操作。

## 用于寒冷天气

在较低温度(4°C)下使用PEX扩管机, 需要较长的收缩时间和较少的扩管次数。不建议在极端温度(-15°C)下尝试进行PEX连接。

## 扩管标记(图H)

**小心:** 扩管操作不当会在管子内壁形成深的槽痕, 从而造成连接缺陷, 引发财产损失风险。

图H显示了PEX管内侧的正确和不正确槽痕示例。不正确槽痕可能表明机头没有正确旋转, 或者管与机头一起旋转。

## 维护

您的DeWALT电动工具设计精良, 可以长期使用, 仅需极少维护。若要持续令人满意的工作效果, 则需对工具进行适当的保养和定期清洁。

**警告:** 为降低严重的人身伤害风险, 在进行任何调整或取出/安装附件或配件之前, 请关闭工具并断开电池包连接。意外启动工具可能会造成伤害。

充电器和电池包无法维修。

## 润滑

要润滑机头, 只能使用DeWALT PEX扩管机润滑脂。

## 清洁

**警告:** 一旦看到通风口及其周围积聚了尘屑, 请用干燥的空气将灰尘和尘屑从主机外壳内吹出。执行此过程时, 需戴上经认可的护目装备和防尘面具。

**警告:** 不得使用溶剂或其它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。不得让任何液体渗入工具, 不得让工具的任何部件浸在液体中。

## 清洁扩管机头和扩管锥(图A)

1. 卸下扩管机头 2, 浸泡在脱脂剂中, 清除扩管机段之间的油脂。
2. 用干净、干燥、不起毛的布擦拭扩管锥 1。
3. 使用DeWALT润滑脂重新润滑。

## 可选配件

**警告:** 由于除DeWALT提供的配件外, 其他配件没有经过本产品的测试, 因此将这些配件与本工具一起使用可能会有危险。为了减少受伤的风险, 本产品仅可使用DeWALT推荐的配件。

您可以联系当地的经销商或授权的服务中心购买推荐的产品。如果您在查找任何附件时需要帮助, 请联系DeWALT。请致电1-800-4-DeWALT(1-800-433-9258), 或访问我们的网站: [www.dewalt.com](http://www.dewalt.com)。

## DCE410

兼容的PEX扩管机头	DCE40016, 16 mm PEX扩管机头
	DCE40020, 20 mm PEX扩管机头
	DCE40025, 25 mm PEX扩管机头
	DCE40032, 32 mm PEX扩管机头
	NA607040, 32 mm 快速PEX扩管机头
	NA597978, 40 mm PEX扩管机头

## 润滑剂

DCE400GR, 扩管机润滑脂

请向您的经销商咨询更多关于合适配件的信息。

## 保护环境



分类回收。由此符号标记的产品和电池包不得与普通家庭垃圾一起处理。

产品和电池含有可回收或再循环材料, 可减少原材料用量。请根据当地规定回收电子产品和电池包。如要获得更多信息, 请参看[www.2helpU.com](http://www.2helpU.com)。

## 充电式电池包

本电池包使用寿命长, 不能提供顺利完成工作所需的电力时, 必须进行充电。电池包技术寿命结束时, 请妥善处理以保护环境:

- 耗尽电池包的电力, 然后将其从工具上拆下。
- 锂离子电池可回收。请将它们送往您的经销商处或当地的回收站。回收的电池包将被妥善循环使用或处理。

## 售后服务和维修

DeWALT维修中心拥有经过培训的人员, 能够为顾客提供高效、可靠的产品服务。如果您通过未获授权的维修中心进行维修, 我们不会承担任何责任。您可以参见产品包装中的“联系中心定位器”宣传单页, 通过热线电话、网站或社交媒体联系我们, 找到距离您最近的DeWALT服务中心。

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