

**DEWALT**®

**XR**®

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



# BATTERIES AND CHARGERS



**WARNING:** To reduce the risk of injury, read the instruction manual for the battery operated DeWALT product.

## 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.

## Chargers

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

## Electrical Safety



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.

## Mains Plug Replacement (U.K. & Ireland Only)

If a new mains plug needs to be fitted:

- Safely dispose of the old plug.
- Connect the brown lead to the live terminal in the plug.
- Connect the blue lead to the neutral terminal.



**WARNING:** No connection is to be made to the earth terminal.

Follow the fitting instructions supplied with good quality plugs. Recommended fuse: 3 A.

## 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 (Refer to **Technical Data** in your product or charger manual). 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

**SAVE THESE INSTRUCTIONS:** This manual contains important safety and operating instructions for DEWALT battery chargers. Refer to **Technical Data** in your product or charger manual for more information. Before using the charger, read all instructions and cautionary markings on the charger, battery pack and product using the battery pack.



**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 30 mA 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.



**WARNING:** DEWALT chargers are not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.



**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 DEWALT battery with any charger other than the DEWALT charger in which the battery fits.** DEWALT chargers are not intended for any uses other than charging DEWALT rechargeable batteries. DEWALT chargers and DEWALT battery packs are specifically designed to work together. Any other uses may result in risk of fire, electric shock or electrocution.
- **Do not expose charger to rain or snow.** Water entering a product will increase the risk of electric shock.
- **Pull by plug rather than cord when disconnecting the charger.** This will reduce risk of damage to electric plug and cord.
- **Do not operate charger with damaged cord or plug—** have them replaced immediately.
- **Position units so that cables do not cross footpaths or are in the work area. This prevents the risk of tripping over the cable or damaging the cable by stepping on it.**
- **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 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.


## Charging a Battery

**NOTE:** Refer to the label near indicator light(s) on charger for on/off and blink patterns. Older chargers may have additional information and/or may not have a yellow indicator light, being equipped with only a single red indicator light.







1. Plug the charger into an appropriate outlet before inserting battery pack.
2. Insert and fully seat battery pack. The left indicator light will continuously blink red to indicate that the charging process has started. For two-stage chargers, this is indicative of Stage 1 charging during which the battery pack is charged to a majority of its capacity.
3. Charging is complete for a single-stage charger when the left indicator light remains continuously red and the right indicator light stays unlit. For a two-stage charger, the left indicator light remains continuously red and the right indicator light continuously blinks red to indicate stage 2 charging during which the battery pack is topped off to its full capacity. Stage 2 charging is complete when both indicator lights remain continuously red. After charging is complete, the battery pack may be removed and used, or left in the charger.

The charger will not charge a faulty battery pack. The charger refusing to light could indicate a problem with the charger or a faulty battery pack. Discontinue use and take both to an authorised service centre.









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

 **WARNING:** Only charge batteries in air temperature over 4 °C and below 40 °C.

### Single Stage Charger Indicators

	Charging	— — — —	
	Fully Charged	————	
	Hot/Cold Pack Delay	— — — —   — — — —	

### Two Stage Charger Indicators

	Stage 1 Charging	— — — —	
	Stage 2 Charging	— — — —   — — — —	
	Fully Charged	— — — —   — — — —	
	Hot/Cold Pack Delay	— — — —   — — — —	

### 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.

Some chargers are 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 products are designed with an Electronic Protection System that will protect the battery pack against overloading, overheating or deep discharge.

The product will automatically turn off if the Electronic Protection System engages. If this occurs, place the Li-ion battery pack in 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.

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

## Battery Packs



**WARNING:** Use only DeWALT batteries in DeWALT products, or products officially intended to be powered by DeWALT batteries.

### Important Safety Instructions for All Battery Packs

When ordering replacement battery packs, be sure only battery packs of the correct voltage recommended in the instruction manual of the end product shall be used.

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 DeWALT battery packs only in DeWALT chargers.
- **DO NOT splash or immerse in water or other liquids.**
- **Do not store or use the product and battery pack in locations where the temperature may fall below 4 °C (39.2 °F) (such as outside sheds or metal buildings in winter), or reach or exceed 40 °C (104 °F).**
- **Do not incinerate the battery pack even if it is severely damaged or is completely worn out.** The battery pack can explode in a fire. Toxic fumes and materials are created when lithium-ion battery packs are burned.
- **If battery contents come into contact with the skin, immediately wash area with mild soap and water.** If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- **Contents of opened battery cells may cause respiratory irritation.** Provide fresh air. If symptoms persist, seek medical attention.
- **Keep battery packs out of the reach of children.**



**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, product boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc.



**CAUTION:** When not in use, place product on its side on a stable surface where it will not cause a tripping or falling hazard. Some products 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 into 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).

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 Wh rating marked on the pack. Furthermore, due to regulation complexities, DeWALT does not recommend air shipping lithium-ion battery packs alone regardless of Wh rating. Shipments of products with batteries (combo kits) can be air shipped as excepted if the Wh rating of the battery pack is no greater than 100 Wh.

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.

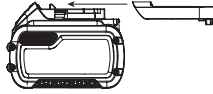
#### Transporting the FLEXVOLT™ Battery

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

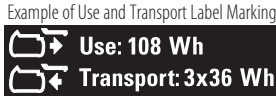
**Use Mode:** When the FLEXVOLT™ battery stands alone or is in a DeWALT 18V product, it will operate as an 18V battery. When the FLEXVOLT™ battery is in a 54V or a 108V (two 54V batteries) product, it will operate as a 54V battery.

**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 excessive 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.



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).

## Date Code

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

## MAINTENANCE

Your product has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper product care and regular cleaning.



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



**WARNING: Cleaning and user maintenance shall not be performed by children.**

The charger and battery pack are not serviceable.

## 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](http://www.2helpU.com).

## Rechargeable Battery Pack

This long-life battery pack must be recharged when it fails to produce sufficient power on jobs that 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.





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