

Important!

DEWALT® Battery Management 24 Volt Battery & Charger

stryker®



EMS Equipment

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The 24 Volt DEWALT® battery pack is designed for power cordless tools throughout the world. Care and maintenance procedures for the DEWALT® battery pack may differ slightly between the power tool industry and the emergency service provider industry. This document is intended to assist with proper battery pack and charger management in order to provide longer life to the rechargeable battery.

The following facts apply to the DEWALT® 24 Volt Battery system:

All batteries have a life span. This life span is dependent on proper care and maintenance. When a battery is placed in a charger or the charger is turned on-and-off with the battery in it, this is considered a charging cycle. A typical battery has between 800-900 recharging cycles. Keeping a battery in a 110V charger on a truck that does not have a continuous power supply to the charger will start a recharge cycle every time the power is switched off and on. For example, vehicles that are connected to a shoreline, unplugging and plugging the truck back in will count as a recharge cycle.

Having a fully charged battery in a charger, while unplugging and plugging in the charger may have damaging effects on the battery that will reduce the battery life. (This also includes inverter and/or generator powered patient compartments that can be switched on and off.)

Moisture and debris in the battery may reduce the battery life. A wet battery should not be recharged until completely dry.

Water on the charger may cause an electrical shock. Keep moisture away from all battery chargers.

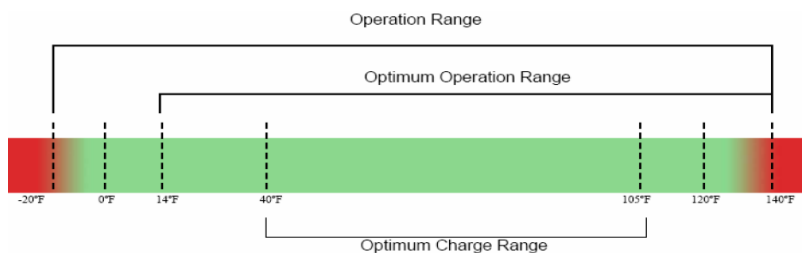
Stryker recommends the following procedures for charging the DEWALT® 24 Volt Battery:

When charging the battery in the vehicle, it is important to provide continuous-uninterrupted power to the battery charger and battery. Connect a 12V charger to a hot lead directly connected to the truck battery system (e.g. cigarette lighter adapter). Do not modify the 12V DEWALT® battery charger in any way. A full charge will take place in approximately one (1) hour, but when the battery is not in use, it is best to leave the battery in the charger for a minimum of (8) hours to take advantage of the "Tune-Up" mode which automatically conditions the battery. The 12V DEWALT® charger draws 2.8 Amps in full charge mode and is protected to not remove power from the truck battery system if the onboard charger fails.

When charging the battery at the station, connect a 110V charger into a station outlet and rotate batteries through the charger. A full charge will take place in approximately one (1) hour, but when the battery is not in use, it is best to leave batteries in the charger to take advantage of the "Tune-Up" mode which automatically conditions the batteries.

If a 110V charger is kept on a truck, do not leave the battery in the charger. Use this option as an "On-Scene" recharge system, not as a battery up-keep system.

Like any piece of rescue equipment, proper care and maintenance will provide the rescuer the best tools to perform the task at hand. Contact Stryker Technical Support with any additional questions at 1-800-784-4336.



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DEWALT® Battery Management 24 Volt Battery & Charger FAQ's

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Is it better for DEWALT® batteries to be completely discharged before charging?

When using the DEWALT® battery to power the Power-PRO ambulance cot, it is beneficial to run the cot until the battery power indicator is flashing red. When the indicator is flashing red, the battery will power the cot through approximately (3) additional service calls. It is recommended that the battery be changed at this time.

What is Memory, and do DEWALT® batteries have it?

Memory is one of many conditions which causes a loss of runtime. Memory is created from repetitive light use in the exact same application (i.e. Cordless Phones, Video Cameras, Electric Shavers, etc.) The DEWALT® batteries rarely see light use or the exact same loads, due to variability from the user, the accessory size, as well as the product. The same variability which causes different runtimes prevents our cells from developing memory. The Power-PRO is considered a high-drain application. Memory typically develops in lower-drain rate applications, such as cordless phones, laptops, etc... because the rate at which the battery is draining is continuously the same. The Power-PRO will draw a higher current and have sporadic drain rates minimizing the opportunity for the battery to develop a memory.

Does it hurt DEWALT® batteries to leave them in the charger?

No. The DEWALT® chargers have a maintenance mode which allows batteries to remain in the charger, maintaining a fully charged battery until the user is ready to use it. If the batteries are stored outside of the charger they will discharge naturally, 15-20% in the first 24 hours, 7-10% the next day, and about 1% every day thereafter. NiCd batteries lose the bulk of the capacity when outside of the charger in the first 3 days. In fact, it is better for the battery to leave it in the charger to be sure it goes through equalization and maintenance modes which takes (8) hours minimum.

What can I do to improve the runtime of my battery?

If no permanent damage has been done to your battery, you may be able to improve its runtime. The correct procedure for charging your batteries is as follows:

Discharge the battery under normal use until the battery indicator light is flashing red or you feel a loss of power. Remove the battery. Let the battery sit out of the charger until the battery is at room temperature. Place the battery in the charger for a minimum of 8 hours to allow for a full charge on each individual cell. If there is no difference in runtime, there is either permanent damage or the battery has reached the end of its usable life. In either case, the battery should be replaced.

Does the outside temperature affect batteries? How?

Yes. If the batteries are too hot or too cold, the batteries will not take a full charge. The optimum **charging** temperature range is between 40°F and 105°F. Charging batteries outside this range may result in a permanent loss of runtime. The maximum **operating** temperature range is between -20°F and 140°F with an optimum range between 14°F and 140°F. Operating batteries outside of this range may result in a permanent loss of runtime. When batteries are being charged and discharged, a chemical reaction is taking place, and if it is too hot or cold the chemical reaction is disturbed causing a loss of runtime.

Can the DEWALT® charger be used with a generator?

Yes. All DEWALT® chargers, excluding the DW9106, have been designed to handle the variations in voltage and current delivered by generators.

What should be done with batteries once they have gone bad?

RECYCLE THEM. DEWALT® is an active participant with RBRC (Recharge Battery Recycling Corporation), the organization which is the international leader in the collection, transportation, and recycling of NiCd cells. Old batteries should be disposed of at a DEWALT® Service Center. For more information call 1-800-8-BATTERY OR 1-800-8-228-8379.

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