

## Part Numbers

24V NiCad Battery	6500-001-036
120V Charger	6500-001-037
220V Charger	6500-001-038
12V Charger	6500-001-039

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Part Number 6500-001-345 Rev A  
PC/SCG 5M-0607, 07-SEM-1814  
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EMS Equipment

# Battery System

## Guidelines

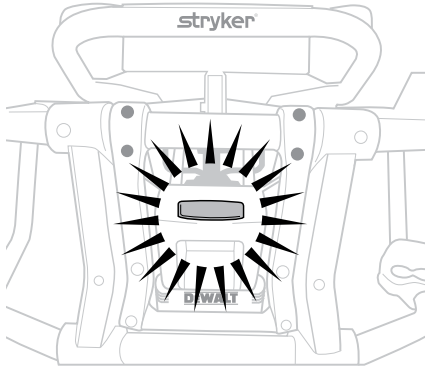
Power-PRO™/DEWALT® 24V NiCad



**Quick Start**  
Guide  
Inside

# Quick Start Guide

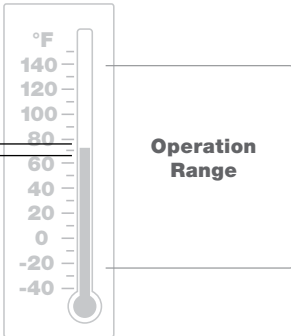
**1** Change battery when the indicator is flashing RED.



**2** Let the battery reach room temperature.

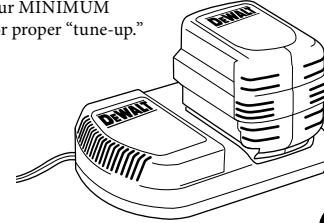


**Optimum Charge Range**  
(65°F - 75°F)



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**3** Eight-hour **MINIMUM** charge for proper “tune-up.”



**EIGHT HOURS**  
Optimum Charge Time

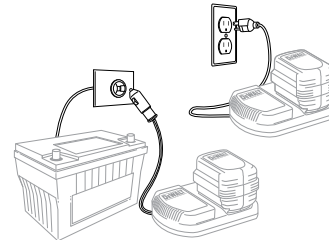
**4** ALWAYS use a *clean, uninterruptible* power source. Frequent users will benefit from using either the **12V DC** or the **120/220V AC** charger option. Infrequent users should use only the **120/220V AC** charger option. See FAQ for details.

## DAILY USE

SUN	MON	TUE	WED	THU	FRI	SAT
○	○	○	○	○	○	○
○	○	○	○	○	○	○
○	○	○	○	○	○	○
○	○	○	○	○	○	○
○	○	○	○	○	○	○

## 12V DC OR 120V AC

Use either the auxiliary or the wall outlet, if calls average more than one per day. See FAQ for details.

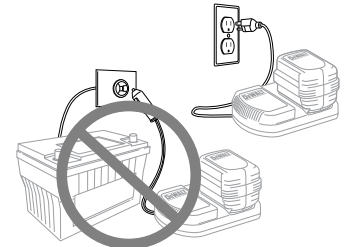


## WEEKLY USE

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	○	8	9	10
11	12	13	14	15	○	17
18	○	20	21	22	23	24
25	26	27	○	29	30	31

## 120V AC ONLY

Use wall outlet only if calls average one per day or less throughout week. See FAQ for details.



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**Congratulations on your purchase of a Stryker Power-PRO ambulance cot.**

**We are committed to our customers and the products we supply.**

**The Power-PRO powered ambulance cot and its power source system are optimized for emergency medical service operations.**

**For assistance with any questions regarding your Power-PRO equipment, please consult your Account Manager or call Stryker at 1 800 784 4336.**



## Quick Tips

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- For best results, use the battery pack on the Power-PRO until the indicator changes from GREEN to flashing RED.
  - NOTE: It is not imperative that the indicator flashes RED before removing and charging a battery pack, but this is considered to be a 'best practice'.
- Once a battery pack has been discharged, remove the pack from the Power-PRO cot and replace it with a fully charged battery pack from the charger.
- For optimum performance, discharged battery packs should be fully charged and 'tuned' by the DEWALT® charger (this takes eight hours). Battery packs should be tuned at least once per month, or every 10 – 20 charge cycles.
- Use the DEWALT® chargers in an area which is kept within a constant temperature range (65°F – 75°F, 18°C – 24°C).
- The DEWALT® DW0242 battery pack does not exhibit any 'memory effect' when used in the Power-PRO.
- OVERCHARGING (recharging a battery that is already charged or minimally discharged):
  - Charging the battery pack when it is already near full charge will result in an OVERCHARGE condition and will damage cells and reduce the life of your battery pack.
  - Power cycling a charger (disconnecting and then reconnecting the charger from its 12V DC or 120/220V AC power source) which is holding a fully charged battery will result in an OVERCHARGE. Power interruption will also result in OVERCHARGE.
  - Removing and then replacing a charged battery on a charger, without discharging it sufficiently (i.e., less than one full 'call' or eight Power-PRO up/down cycles, or until the battery indicator flashes RED), will result in an OVERCHARGE condition.
- OVERDISCHARGING (using the battery pack excessively, until the Power-PRO system no longer functions):
  - OVERDISCHARGING the battery pack beyond the point where the Power-PRO indicates the battery should be charged (via the battery indicator flashing RED) will reduce the life of your battery pack.

## Power Management

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These battery management guidelines will assist users of the Power-PRO/DEWALT® 24V Battery System to maximize the service life of their DEWALT® NiCad battery packs. Poor battery management practices will reduce battery pack performance and severely shorten the usable service life of the battery packs.

Stryker's warranty states that the DEWALT® products will be free of defects in materials or workmanship for a period of one year. If you have any questions concerning your 24V battery system operation or component selection, please contact your Stryker Account Manager or call us at 1 800 784 4336.

- Verify that the power source for the charger is a *clean, uninterruptible* power source. This means that the source is free of surges, spikes and sags. Have a qualified technician verify power sources for all chargers.
  - For the **DEWALT® 120/220V AC wall charger (DW0246 /DE0246)**, be diligent when using an inverter or generator and verify that the power is free of surges, spikes and sags. Power that is not clean will severely reduce battery pack life.
  - For the **DEWALT® 12V DC automotive charger (DW0249)**, the **12V supply MUST BE CONSTANT (HOT)**. Be sure that the power source is not interrupted during engine start-up, shut-down, or when shoreline connections are made or broken. Frequent cycling of the power to the charger will severely reduce battery pack life.
- For EMS crews that frequently<sup>1</sup> use their cots, enough to discharge their batteries at least twice each week during normal EMS shift operations, Stryker recommends that one battery pack be kept on the Power-PRO cot while a backup is kept on either a **12V DC automotive charger (DW0249)** or on a **120/220V AC wall charger (DW0246/DE0246)**, provided that the charger has a *clean, uninterruptible* power source.
- For crews with infrequent calls<sup>1</sup>, Stryker recommends that you maintain all Power-PRO battery packs on a **120/220V AC wall charger** with *clean, uninterruptible* power sources (not on the COT). The **120/220V AC charger** can be maintained in your ambulance so long as a **120/220V AC shoreline**, with a *clean, uninterruptible* power source, is used.

## Charging Information

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- In most cases, one full hour is required to obtain a full charge.
- DEWALT® recommends that the **DW0242** battery pack complete the **Automatic Tune-Up Mode** by keeping the battery on the charger for eight full hours. Battery packs should be tuned at least once per month, or every 10–20 charge cycles.

**Upon placing the pack into any 24V DEWALT® charger (DW0246, DW0249, DE0246), the following takes place:**

- The charger checks the battery pack to ensure it is “chargeable” (Red LED flashes normally).
- The battery pack is given a primary charge, which takes up to one hour (Red LED flashes during charge).
- Once the battery pack receives the primary charge, the charger begins an Automatic Tune-Up, which lasts for up to seven additional hours (eight hours total ‘charge’ time) (Red LED is constantly on during Tune-Up).
  - The Tune-Up slowly tops off the individual cells of the pack.
- Once the Tune-Up is complete, the charger enters the **Maintenance Mode** (Red LED constantly on).
  - For the **120/220V AC wall chargers**, the **Maintenance Mode** will keep the pack at its maximum charge indefinitely, provided that the charger is supplied by a *clean, uninterruptible* power source.
  - For the **12V DC automotive charger**, the **Maintenance Mode** will keep the pack at its maximum charge **ONLY** for the next eight hours, provided that the charger is supplied by a *clean, uninterruptible* power source. Once the battery pack has been on the **12V DC charger** for a total of 16 hours, the **12V DC charger** will automatically **SWITCH OFF**, and the battery will begin to *self-discharge* as if the pack were put into storage (Red LED is OFF).

<sup>1</sup> For charging purposes, ‘frequent’ users will have at least one full patient ‘call’ per cot per day, ‘infrequent’ users will have less than one call per cot per day. In addition, ‘frequent’ users will use at least two complete battery discharge cycles per week (resulting in a discharge and recharge of both battery packs in your system at least once every week, which will improve reliability), while ‘infrequent’ users will not. Batteries not maintained on a **120/220V AC wall charger** will *self-discharge* and have reduced charge capacity when put in service.

## Charging FAQs

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- **Is it okay to store the battery for long periods of time in a 120/220V AC wall charger?**

**YES.** If the battery pack is stored in a **120/220V AC wall charger**, the charger will keep the pack fully charged, once the initial charging and tuning cycles are complete.

- **Is it okay to store the battery for long periods of time in a 12V DC automotive charger?**

**NO.** If the battery pack is stored on a **12V DC automotive charger**, the charger will automatically turn off after 16 hours of charging and the pack will begin to *self-discharge*.

- **If I am a service provider that performs only a few calls per week (less than one per day), can I use a 12V DC automotive charger?**

**NO.** Use only the **120/220V AC wall charger**. Between calls, maintain your Power-PRO battery packs on a **120/220V AC wall charger** with a *clean, uninterrupted* power source. After the cot has been used during a call, remove the battery and charge the battery pack.

- **Can I use the 120/220V AC wall charger with the ambulance inverter?**

**YES.** Verify that the power source for the charger is a *clean, uninterrupted* power source when using an inverter or generator. This means that the source is free of surges, spikes and sags. Have a qualified technician verify power sources for all chargers. Power that is not clean will severely reduce battery pack life.

- **Can I change out and charge my battery before the battery indicator light (on the cot) turns flashing RED?**

**YES.** No considerable damage will be done provided at least one complete call (eight Power-PRO up/down cycles) has been taken off of the battery pack before charging. Charging the pack without discharging at least one call will cause an overcharge condition and will reduce the life of the pack.

- **Is it best to 'condition' the batteries by fully discharging them prior to charging?**

**NO.** DO NOT 'condition' the battery packs by fully discharging them prior to charging. 'Conditioning' will result in an over-discharge and will reduce the life of the battery pack. The DEWALT® charger does not perform this type of 'conditioning' operation.

## General FAQs

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- **What is the warranty for my DEWALT® 24V NiCad battery pack (DW0242)?**

**ONE YEAR.** The DEWALT® battery pack **DW0242** is warranted to be free of defects in materials or workmanship for a period of one year.

- **Can I maximize the life of my battery pack?**

**YES.** Following the bulleted guidelines and the suggested charging practices for the **120/220V AC wall charger** (DW0246/DE0246) and the **12V DC automotive charger** (DW0249) will maximize your DEWALT® battery pack's life.

- **Does excessive water have a negative affect on the operation of the battery pack?**

**YES.** If the battery pack is sprayed or soaked with water, the battery pack should be completely dried (for a minimum of 24 hours) before reinstalling in a Power-PRO or any of the DEWALT® battery chargers.

- **Does rain have a negative affect on the operation of the Power-PRO during normal use?**

**NO.** When installed onto a Power-PRO, the pack is designed to withstand rainfall. Any direct water contact besides rain (power washing, soaking, etc.) should be avoided.

- **Will any other battery work with the Power-PRO?**

**NO.** ONLY use DEWALT® **24V** (DW0242) batteries.

- **Do the DEWALT® 24V NiCad batteries self-discharge (lose charge during storage)?**

**YES.** A fully charged NiCad battery pack, that is in good condition, will *self-discharge* at a rate of approximately 15 percent for each of the first two days, and then only one percent each day after that. After a week of non-use (storage), a pack that was fully charged will have lost 30 percent or more of its available power for the user.

- **Is it okay to store the battery in the cot?**

**YES.** For crews that use their Power-PRO cots frequently (at least one full patient 'call' per day, per cot), it is acceptable for battery packs to remain in the Power-PRO cot. To prevent an over-discharge of battery packs on cots which are not in frequent use (less than one call per day, per cot), store the battery packs in a **120/220V AC wall charger** with a *clean, uninterrupted* power source.

## Battery Pack Performance Information

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- The DEWALT® battery packs and chargers are warranted to be free of defects in materials or workmanship for a period of one year.
- The 24V Power-PRO system is rated for 2.4 amp-hours of electric energy. A battery pack that is in good working condition and is fully charged can provide up to 20 EMS 'calls' with a 250 lb patient (actual results may vary).
- Running the battery pack repeatedly can raise the temperature of the cells and reduce life (e.g., lifting a heavy patient up and down several times in rapid succession).
- Charging the battery pack outside of the recommended temperature range (65°F – 75°F, 18°C – 24°C) will reduce battery life.
- Extraordinary impact stresses can damage cells and reduce battery pack life (e.g., dropping a battery from greater than four feet).

## The RBRC™ Seal

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The RBRC (Rechargeable Battery Recycling Corporation) Seal on the nickel-cadmium battery (or battery pack) indicates that the costs to recycle the battery (or battery pack) at the end of its useful life have already been paid by DEWALT®. In some areas, it is illegal to place spent nickel-cadmium batteries in the trash or municipal solid waste stream and the RBRC program provides an environmentally conscious alternative.



RBRC in cooperation with DeWALT® and other battery users, has established programs in the United States to facilitate the collection of spent nickel-cadmium batteries. Help protect our environment and conserve natural resources by returning the spent nickel-cadmium battery to an authorized DEWALT® service center or to your local retailer for recycling. You may also contact your local recycling center for information on where to drop off the spent battery.

For more information visit [www.rbrc.org](http://www.rbrc.org).

## Safety Information

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- **ALWAYS** use DEWALT® batteries with DEWALT® chargers.
- **ALWAYS** maintain the charger in an area free of moisture and dust, and especially metallic or conductive materials including, but not limited to, steel wool, aluminum foil, grinding dust and salt spray. Water on the charger may cause an electrical shock.
- **ALWAYS** place and maintain the power cord such that it will not be damaged or cause a hazard.
- **NEVER** use a charger with a damaged power cord or case.
- **NEVER** attempt to open the battery pack for any reason.
- **NEVER** attempt to disassemble the charger.
- **NEVER** cover the ventilation holes of the battery pack or charger.
- **NEVER** attempt to charge a battery pack if the case is cracked or damaged (remove the pack from service).
- **NEVER** incinerate the battery pack, even if it is severely damaged, because the battery pack can explode in a fire.
- **NEVER** short-circuit the battery by connecting the terminals with a conductive material.
- **NEVER** clean the charger when it's connected to the electrical power source (12V DC or 120/220V AC).

**For assistance with any questions regarding your Power-PRO equipment, please consult your Account Manager or call Stryker at 1 800 784 4336.**



Because lives depend on it.™