NiMH Rapid Battery Charger C420 PAPR

P/N B-20090-001

OPERATING INSTRUCTIONS FOR CHARGING THE C420 RECHARGEABLE BATTERY

Note: Before initial battery pack use, or if battery pack has not been used for an extended period of time (several months), perform (3) 6-hour charge/4-hour discharge cycles for optimum battery performance. The discharge cycles should be completed with the blower running in a non-hazardous environment, with no breathing tube or cartridges attached to the blower.

1. Place the charger horizontally on a flat surface and in a dust-free area with a temperature range between 32°F and 100°F (0°C and 37.7°C). The ideal temperature is 70°F (21.1°C).
2. Insert the appropriate cord set (120v or 230v) into the IEC receptacle on the charger. Plug the charger AC power cord into the appropriate regulated 120v or 230v outlet. The "ORANGE" LED will illuminate when no battery is plugged in or during battery charging initialization.
3. Align the keyed charger plug with the charging receptacle in the battery pack and fully insert. The "RED" LED will illuminate, indicating that the connected battery pack is being charged in the "Fast Charge Rate" mode.

Note: In a discharged condition (approximately 4 hours of operational use), the battery pack will charge for approximately 6 hours. Charging times will vary for battery packs in a partial charge state.

⚠ WARNING

- **The positive and negative battery terminals of the battery pack are on the opposite end from the charging receptacle. DO NOT ground out the positive terminal (center metal circle) and the negative terminal (outer metal ring). Doing so could short circuit the battery pack, resulting in excessive current flow and could cause battery liquid electrolyte leakage, heat generation, bursting and fire.**
- **Use extreme caution not to ground out the metal charging leads on the battery charger plug, as doing so could result in damage to the battery charger.**

Failure to follow the above warning can result in serious personal injury or death.

4. When the "GREEN/ORANGE" LEDs illuminate, the charger has switched to a "Top-Off Charge" mode, indicating the battery is nearly fully charged.
5. The "GREEN" LED indicates the battery is fully charged and is in the "Trickle Charge" mode. The optimum charging time is 8 hours. Battery packs can be left in a "Trickle Charge" mode indefinitely.

⚠ CAUTION

New batteries, and batteries not used for months, could experience a false indication that can cause the "GREEN" LED indicator to illuminate only a few minutes into the charging cycle. Unplug and then re-plug to continue the charging cycle.

6. If the "Red/Green" LEDs illuminate, there is a fault condition. Remove the battery immediately. If the LED's illuminate with another battery connected, remove the charger from service.
7. To remove the charging plug from the battery pack, firmly grasp the charging plug housing with the fingers and pull out.

⚠ CAUTION

DO NOT remove by pulling the charging plug cord. This can damage/separate the wire connections to the charging plug housing.

Rapid Charger LED Illumination Sequence

LED Illumination	Charging Status w/AC Power Cord plugged in
Orange	No battery attached or charging cycle is initializing
Red	Fast charge
Green/Orange	Top-off charge, battery is almost fully charged
Green	Battery fully charged and ready to use
Red/Green	Fault condition – remove battery from charge

⚠ CAUTION

DO NOT allow the battery pack to fully discharge. The functional system operational time for the battery pack is approx. 4 hours. Operating the system in excess of 4 hours results in significantly reduced airflow. Refer to the instruction manual for the C420 PAPR for additional information on the system operation (PN 10072074).

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TAL 607 (L) Rev. 0

Print Spec. 10000005196 (A) Mat. 10076088
Doc. 10076088