

Back-up Battery Performance

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All jr series and all 24+ series

All Versions using internal back-up batteries

Proper back-up battery useThe PowerSonic PS-1220 battery used for internal back-up is meant to power the monitors for approximately 4 hours when fully charged. The internal charger found in the ProTeks is meant to maintain a charge on a battery under normal operation, but will not fully charge a moderately to severely depleted battery. The following discusses the issue in greater detail and offers recommendations for optimum performance.

- ·All batteries shipped by PageTek have been fully charged no more than 2 weeks before shipment and should be installed within 2 months to avoid the need for charging before installation.
- ·Any battery stored for more than 6 months will self-discharge and must be fully charged before installation. Such storage can permanently degrade long-term performance.
- ·All batteries should be stored in as cool a location as possible to prolong shelf life.
- ·Batteries should not be stored in a discharged state.
- ·If a battery has been depleted, it may not readily take a charge. It may be necessary to charge the battery for a prolonged period of time before the battery begins to accept a charge.
- ·After as little as 4 months of storage at 104°F, a battery's capacity can be permanently damaged.
- ·After 2 to 6 months, aggressive charging may be needed to restore full capacity.

Generally, if the battery has been discharged, it is best to charge as follows:

1. Connect a bench supply whose open circuit voltage has been limited to 14.7VDC to the battery terminals.
2. Limit the initial current to 0.2 times the battery capacity. This is about 440 ma for a single PS-1220.
3. Continue charging until the current drops to about 22ma.

The above procedure is best for bringing back to life a moderately to severely discharged battery. Lacking a current limiting supply, charge the battery at a constant 13.8VDC. The battery should be observed for overheating since currents of over one amp may occur. The battery is being relied upon for current limiting and may sometimes exceed safe levels if the battery is damaged.