

Technical Note TN-623

Tait NiCd Battery Care and Maintenance

(based on charger software V2.06 or higher)

Following are the latest recommendations in the care and charging of NiCd batteries – particularly as this applies to Tait radios – for a long service life with maximum capacity.

1 Get maximum Capacity from New or Stored Batteries

New batteries or batteries stored for more than 1 or 2 months should be charged on a long condition cycle. (Press charger button before inserting battery in charger – hold for 1 second.) Why? – batteries have a self discharge and will become flat during storage. The long conditioning cycle restores capacity to a maximum after a long period of inactivity.

2 Retain maximum Battery Capacity

To maintain maximum capacity of a battery use a weekly short conditioning cycle (8 hours). (Press charger button after battery is inserted in charger.)

Why? – exercising batteries ensures maximum capacity. Note: Excessive exercising reduces the service life of a battery.

3 Charge batteries fully

To maximise charge leave the battery in the charger until the green flashing LED turns to continuous green.

Why? – this indicates completion of the full charging cycle which provides maximum charge to the battery.

4 Restoring lazy Batteries

Subject batteries that do not last as long as they should to a long condition cycle. If the battery still fails to perform, test the battery on a "battery analyser". Batteries below 80% capacity have reached their end of useful life and should be replaced.

Why? – batteries that are not exercised to a degree may prematurely loose capacity over time. All batteries will wear out in the end.

5 Maximising the Service Life of Batteries

Recharge the battery as soon as practicable after use without completely flattening the battery. Why? - so called "memory effect" is no longer applicable when battery charging is done using intelligent chargers such as the Tait Orca Portable fast charger (TOPA-CH-201). However depth of discharge does have a direct effect on the service life of the battery (number of charge and discharge cycles) it is therefore recommended that the battery be recharged as soon as practicable after use.

Tait Electronics Limited Telephone: +64–3–358–3399 PO Box 1645, Christchurch, New Zealand Facsimile: +64–3–358–3903

6 Prevent battery damage caused by deep discharging

Remove flat batteries from radio and recharge as soon as possible. Store batteries fully charged and detached from the radio.

Why? Once a battery is fully discharged, the Tait radio turns itself off. Further discharge of the battery can cause permanent damage. Even when the radio is turned off it still draws minute amounts of current from the battery and batteries are also self discharging.

7 Prevent battery damage caused by overheating

Try to keep battery temperatures within 15-25°C i.e. don't leave it in the car in full sun. Why – extreme temperatures shorten the life of the battery.

Distribution Note This document is of informative nature. Please make this information available to any Tait dealer or customer.

Issuing authority Andreas Becker

Tait Electronics Customer Support

mailto: andreas.becker@tait.co.nz

DDI: +64 3 358 0341