

DO'S AND DO NOT'S

1.DO'S:

All maintenance activities have to be carried out by trained technicians familiar with handling Nickel Cadmium batteries and electrical power systems.

Always wear appropriate personal protection equipment while working on the battery system.

1. Keep the battery always dry and clean. This will prevent leakage of current and protect the nickel- plating on the external battery components.
2. Check inter-cell connectors for proper tightness. This will prevent heat generation at the point of loose contact, which causes damage to the components and can be a fire hazard. Loose contact can also cause battery failure due to creation of an open circuit.
3. Ensure that the cell connections have been made as per the wiring diagram provided. Normally Red washer on cell terminal indicates positive polarity and blue washer indicates negative polarity.
4. Ensure that the battery cable lugs are electro plated. This will prevent the copper from reacting with the electrolyte.
5. Ensure that the transport seal (plastic strip in vent cap) is removed before charging. This will permit escape of the oxygen and hydrogen gases generated during charging.
6. Keep vent caps always closed during charging and discharging. This will prevent the carbon dioxide from the air from combining with the alkaline electrolyte and producing potassium carbonate, thereby reducing the electrical conductivity of the electrolyte.
7. Check the electrolyte level and ensure that it does not fall below the minimum level, which is indicated, on the cell-marking label. This active material contained in the portion of the plates, which are exposed above the electrolyte, will be permanently damaged if the battery remains in service.
8. Use only DM/DI water to top up the cells. (During initial Commissioning use only electrolyte to make up for loss of electrolyte during transportation). Only DM/DI water is to be used to compensate for the loss of water during charging, and maintain the required electrolyte level and specific gravity.
9. Ensure proper functioning of charger and proper connections to the battery. Correct voltage and current settings are important for keeping the battery in charged, ready to use condition.
10. Use insulated tools while working on the battery to prevent accidental short circuit and consequent damage.
11. Use alkaline electrolyte only since this is an alkaline battery. Handling and moving of the cells to be done only with the cell lifting puller supplied as part our standard battery accessories.

2. DO NOT'S:

1. Do not use apparatus, like hydrometers, capillary tubes, and thermometers etc, used in lead acid batteries in order to prevent contamination of electrolyte.
2. Do not use petrol, kerosene, or any strong chemicals for cleaning batteries.
3. Do not use wire or any hard brush to clean deposits on the inter-cell connectors and terminals since this will damage the nickel plating.
4. Do not use aluminium cables for making connections to the battery terminals since aluminium reacts with the alkaline electrolyte.
5. Do not keep vent caps open and expose electrolyte to air, since this will cause some of the electrolyte to be converted to potassium carbonate and thereby reduce the conductivity of the electrolyte.
6. Do not spill water or electrolyte on and around the battery since this will create conductive paths leading to leakage of current.
7. Do not measure specific gravity immediately after adding DM/DI water since this will indicate a lower specific gravity due to inadequate mixing of the water with electrolyte in the cell. Specific gravity can be measured after one hour.
8. Do not install the Battery in places where it is exposed to sunlight, since this will cause accelerated ageing of plastic components due to ultra violet radiation.
9. Do not remove vent caps (in case of flip type vent caps) for topping up since frequent removal can damage the vent cap and the cell lid. In case of flip type vent caps, gently press the cap to open the spring loaded vent lid and in case of threaded type vent cap, gently unscrew the vent cap lid.
10. Do not use acid since the battery requires alkaline electrolyte. Addition of acid will cause it to react with the alkaline electrolyte, and cause permanent battery damage.
11. Do not charge the battery without removing the transport seal from the vent, or while the battery is covered, since it is important to ventilate the battery and permit the gases produced towards the end of charge to escape.
12. Do not adjust terminal connections during usage to prevent sparking. Spark can ignite oxygen and hydrogen gases which are evolved by the battery towards completion of charge, and cause a fire / explosion.
13. Do not smoke in the battery room since it is a fire hazard.
14. Do not keep Batteries in the same room where acid batteries are kept.
15. Ensure that battery is adequately ventilated to prevent build-up of oxygen and hydrogen gases.
16. Do not place any tools on the battery. Be careful not to drop any metal objects on top of the battery. Avoid wearing metallic objects on hands and fingers while working on the battery. Avoid tilting of the cells to prevent electrolyte spillage. Always wear face and eye protection since electrolyte can cause severe burns.
17. Do not use tap water to top up the cells.
18. Do not charge the battery with transport seal on the vent cap as this can cause permanent damage.