



## NOARLUNGA MODEL AERO SPORTS Inc.

Flying field and club rooms.

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# LIPO CHARGING POLICY

## MOP NUMBER 25

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### PURPOSE

Lithium Polymer (LiPo) batteries have inherent properties different from other batteries types used by aero modellers. To ensure the safety of members the following policy will apply when charging and using LiPo batteries at the NMAS field. It is also recommended members apply similar safety procedures when using LiPo batteries at home.

### POLICY

#### Prior to Charging

1. Only charge LiPo batteries with a charger specifically designed for that purpose. A cell balancer must be used at all times when charging.
2. All chargers utilized at the NMAS Field must have the appropriate Australian C tick or European CE mark attached.
3. Prior to commencing the charge process the member shall ensure that the correct charge rate for the appropriate number of cells has been selected.
4. The battery charge rate must not exceed the manufacturers rating. Charging will only be in accordance with manufactures recommendations.
5. LiPo Batteries will not be charged inside any motor vehicle or in an area where they will be subjected to extreme heat.
6. Prior to commencing the charging process, the member will ensure that a bucket of sand or appropriate fire extinguisher or fire blanket is nearby and readily available for extinguishing any fire caused by the charging process.
7. Battery chargers should be labelled with the owner's name.
8. Any 240v extension cord (or multi adaptor being used) shall be either a commercial product of the current standard, or if non-commercial must carry a current test tag.

## **CHARGING PROCESS**

1. LiPo batteries will only be charged (using either low voltage DC or 240V AC chargers) in the Pits area. 240 volt chargers are only to be used in the designated 240 volt charging area and the Northern pits, where 240 volt outlets are installed. Charging will not take place in any area outside of the pits area. This area shall remain a well ventilated area.
2. LiPo batteries will be charged on a non-flammable and nonconductive surface e.g. ceramic tiles, bricks etc. The batteries may also be charged on the paved surface under the Pit covered area if all other safety procedures are adhered to.
3. While on charge, LiPo batteries must be in clear view at all times.
4. The member will regularly check the batteries whilst the charging is in progress to ensure the correct charging rate is still being applied, there is no swelling of the batteries, and the batteries are not hot. If any of these situations apply the charging process will be immediately stopped.
5. The LiPo Battery recovery process will not be conducted at the field. (This is a method sometimes used to recover LiPo batteries which have been discharged below their critical voltage.)
6. LiPo batteries (ie main power batteries not Rx packs) should not be charged whilst inside a model. Due to the material used to construct the model, any fire caused during the charging process will destroy the model.
7. The last member to use the charging area is to turn off the power to the compound.

## **STORING**

1. When not in use, LiPo Batteries should be stored in a suitable protective container; never in the model.
2. Damaged batteries will not be disposed of at the field. Members should only be disposing of LiPo batteries in accordance with the manufacturer's recommendations.

## **DAMAGED MODELS**

1. LiPo cells may be subjected to damage in the event of a crash. In the event of a crash the model operator will inspect the batteries for damage and remove to a safe area and check to ensure that they have not shorted, are not hot, and swelling is not evident.
2. If the above is not present the batteries should be carefully removed and stored in a fireproof container or in the open air in an area where no harm will be caused to any person, where non-flammable material is present and where they will not be subjected to extreme heat.
3. In both scenarios above, the model / batteries should be watched for a period of 30 minutes to ensure they do not deteriorate any further, and are safe to transport for disposal if damaged.

## **MISCELLANEOUS**

1. Keep lipo battery packs well out of reach of children always monitor the battery and charger.
2. To ensure that no accidental injury occurs from a mal functioning switching device, where possible the throttle fail safe should be set to Zero.

## **RESPONSIBILITY**

It is the responsibility of all members to ensure that these procedures are adhered to.