SDRCC News Letter Number 1 2008

Dear member, At our AGM this year we agreed to put together a new letter which can be either sent out via e-mail or downloaded from our web page. If you have anything you want to share with your fellow club racers please forward to myself and I will include it, this also includes items for sale, so without rambling anymore here is issue 1.

Some of you may have seen this article on the BRCA web page but just in case you have not I think you should read it and compare how you are treating your cells:

"No doubt you will have read or heard the stories of batteries exploding and that the Norwegian Federation has temporarily suspended all electric racing. We have been monitoring these 'incidents' but obtaining hard facts is not easy, making it difficult to draw any meaningful conclusions.

Given that there are thousands of cells in circulation, such incidents have been exceedingly rare in the past. The only serious incident that has occurred to date in UK was when a receiver pack blew, that has permanently damaged a person's eyesight. Although there will have been more injuries caused by scalpels or super glue in eyes than caused from exploding cells, you still need to take care!

The NiMh cells have a chemistry that allows the cell to 'self-discharge' over a relatively short period, (days as opposed to weeks). Lately, some of the 4200 cells seem to self-discharge more rapidly than other/previous versions. More importantly the amount each individual cell within a pack discharges varies (i.e. cell 1 might be .9v, cell 2 .8v, cell 3 .9v, cell 4 .7v, etc.)

If charged in this state, some chargers will not know when to stop the charge process, as some cells are demanding to continue with the charge, whilst others could be over charged. It is also important to control the delta peak (voltage drop-off after completed charge) to a low value when charging. Once the cell has achieved full charge, any further charging will produce gas. The cells have a pressure vent, but if that is blocked or not working, the gas pressure could cause an explosion.

High charge rates will also produce more gas and reduce the cell's useful life. It is possible that internal gas pressure may cause distortion to some internal parts that could result in a short circuit within the cell. An internal short circuit combined with gas pressure is likely to be a 'big bang'.

Drivers need to recognise that the 'matchers' recommendations are intended to achieve maximum performance. It is the recommendation from the cell manufacturer that should be used.

Best Practice for use of NiMH cells.

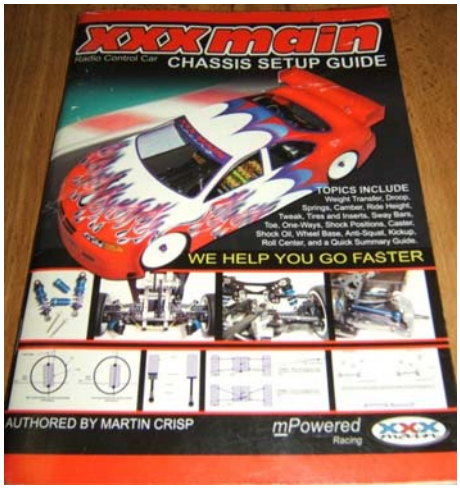
1. Equalise cells before charging if they have been stored (with charge) for more than 2/3 days. If any of the cells in the pack show that they do not need to be equalised (i.e. the light does not show or goes out straight away) then remove the pack from the equaliser and charge for a short period (approx. 5 mins. should be adequate). Then carry out the equalising process.
2. Never exceed the manufacturers recommended fast charge rate. This should be 1C max., even if the manufacturer states higher. (C being rate of charge based on capacity of the cell, e.g. a 4200 mAh cell = 4.2 amps)
3. Disregard any charge rate recommendations by the 'matcher' if it is more than 1C.
4. Use a maximum Delta-Peak setting of 3mV per cell (6-cell pack = 3mV x 6 = 0.018V).
5. Never repeak cells after main charge.
6. Use a temperature cut-out as an additional safety feature set at 42 deg. C max., located on the hottest cell (usually middle cell). If charging on a cold day then consider reducing this to around 35 deg. C.
7. Allow cells to fully cool to ambient temperature before further charges. Be aware the centre of the cell cools slower than the outer casing. Do not put them in water to cool down; in an emergency cover the cells with a damp/wet cloth if you have to quickly cool them.
8. Store cells with some charge (30/50%).

BRCA Electric Board"

Next month I'll see if we can dig something out about the new Lipo cells which some of us will be racing next year.

SDRCC 2008 AGM: For those of you which have not read the minutes from this meeting please follow the link on the web page and download a copy.

Regular Monthly spot on touring car suspension set up.



Over the next few months I am going to talk you through some things which you may already adjust to help you round the track. My reference will be the "**XXX main"** book which if you ask me at a race meeting I can show you however I would recommend you get a copy and start reading yourself. Books can be purchased from **Lesro Models 01202 499 354** (see the add below)

First off then you need to understand what you car is doing wrong to that extent the book refers to 6 scenarios, if your lucky your car will only be suffering from one otherwise it may become a complex problem requiring several adjustments. Remember if you can not see what your car is doing ask someone track side and hopefully they can help you. It's strange when driving from the rostrum sometimes it is not always apparent what is wrong with your car as opposed to standing track side. Anyway here are the scenarios:

PS I am assuming you all now about push / understeer & loose / oversteer ? If not I can cover this another time. If you have any questions please send them to me via e-mail and I will answer via this news letter unless you state otherwise e-mail george_haining@dril-quip.com

Scenario A: Car is too loose while entering a corner (off-power)

When a car is entering a corner you are typically off power and thus the car is slowing down. As the car is off power and slowing down the front of the car will dip towards the ground and the rear of the car will rise up causing more weight to transfer to the front tires and thus give the front tires more traction. If the car is oversteering then too much weight is being transferred to the front tires relative to the rear tires.

Scenario B: Car is too loose while exiting a corner (on-power)

When a car is exiting a corner you are typically on power and thus the car is accelerating. As the car is accelerating the rear of the car will dip towards the ground and the front of the car will rise causing more weight to transfer to the rear tires and thus give the rear tires more traction. If the car is oversteering then not enough weight is being transferred to the rear tires relative to the front tires.

Scenario C: Car pushes while exiting a corner (on-power)

Like scenario A the car is slowing while entering a corner and the front end is dipping towards the ground and the rear of the car is rising higher. In this scenario the car is not transferring enough weight to the front tires.

Scenario D: Car pushes while exiting a corner (on-power)

Like scenario B the car is accelerating while exiting a corner and the rear end is dipping towards the ground while the front end is raised higher. In this scenario the car is transferring to much weight to the rear tires.

Scenario E: Car pushes mid-corner while maintaining neutral power

This scenario you are not accelerating or slowing down. Since the throttle is typically in a neutral position in this scenario the car should not be really accelerating or decelerating. If the car is setup properly it should carve the corner at this point instead of the front or the rear of the car sliding. This is known as being "neutral". If the car is pushing then too much weight has been transferred to the rear tires.

Scenario F: Car is too loose in mid-corner while maintaining neutral power

Like scenario E in this scenario you are not accelerating or slowing down. If the car is loose then too much weight has been transferred to the front tires.

Please note our 2008 membership (SDRCC) form is now ready for you to down load on the web site. Please fill in a return ASAP bearing in mind you can pay early for next years membership (November 2007) and you will have membership and BRCA licence if required up to the end on December 2008!

Right that covers the 6 scenarios so try and understand these and the weight transfer concept. Over the next few months I will cover each of the following steps to help correct your car. Remember first thing is to understand a pick out the one scenario your car is suffering from then choice one of the following actions

First step:

Adjust Tweak, Tires and inserts, Springs, Camber & ride height.

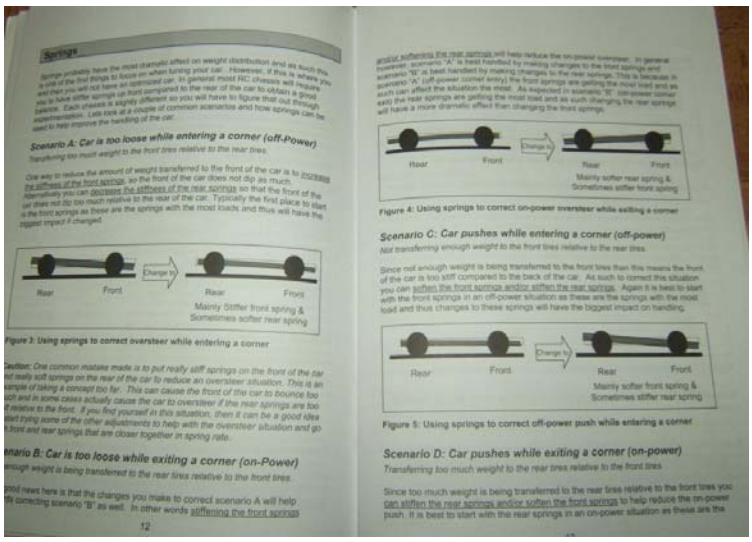
Second step:

Adjust droop, Sway bars & Toe

Third step / fine tuning:

Adjust One-ways, shock mount position, shock oil, wheelbase, caster, anti-squat, kick-up & roll centre.

So first topic next month is tweak, to help you prepair for this you will need a flat set-up board (I use 15” x 15” x ¾” thick MDF) and a method of measuring your shock length.



Typical page from the XXX Main chassis setup guide

You to can have a car that’s dialled.

Why not call us for

Expert Freindly Advise

LESRO MODELS FOR ALL YOUR RACING NEEDS

HOME OF TEAM INFINITY FOR MOTORS BATTERIES & ACCESSORIES
SOLE UK DISTRIBUTORS FOR TEAM TRINITY AND X FACTORY

STOCKIST FOR:- TAMIYA, ASSOCIATED, YOKOMO, HUDY, HOT BODIES, MUCH MORE, LRP, NOVAK, RPM, SCHUMACHER, KYOSHO, CORALLY, OBITRONICS, XTM, HPI, HOBAO, THUNDER TIGER, TRAXXAS SIRIO, RB, SPEKTRUM, KO, SANWA, FUTABA, HI TEK, PRO LINE PITSHIMIZU, RP, POWERS, INFINITY, RW, MTRONIKS, GRAUPNER, FORCE, NOVAROSSI , RP, TAKE OFF, MRT, NOSRAM

WE ARE LOCATED IN CHRISTCHURCH DORSET
AND OFFER A FAST AND EFFICIENT MAIL ORDER SERVICE
(usually next day and you'll be told if it's not in stock!)

10% discount for all SDRCC club members

Extra Xmas Present form Lesro: Spend over £50 and receive a £5 discount, Spend over £100 and receive a £10 discount, both on top of your 10% club discount.

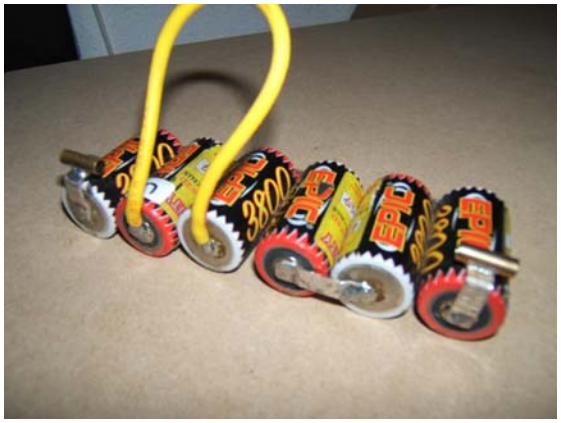
Merry Xmas and a Happy new year!

Contact either: Daryl Ross Paul and Sandra

TEL:- 01202 499354 / 477292 EMAIL:- lesroinf@aol.com

WEB:- WWW.LESROMODELS.CO.UK

Items for Sale



IB3800 (5 packs for sale) 2006 used by myself and still taking over 4,000 mah. Bruce Noble is still using these cells to good effect this year.

Bargain at £5.00 a pack contact: George Haining 07771914997

IB4300 SHV & WC (5 packs for sale)
These cells were new this year (2007) and have been used by me to win the SDRCC 19T championship and come 7th in the SRCA 19T championship also, you need to be able to balance these cells prior to each days racing. Once charged these cells give a voltage output which is almost like having another cell!

Bargain at £10.00 a pack contact: George Haining 07771914997