



Throughout the seasons we have all heard how important it is to handle and charge cells correctly. Indeed it is important that any racer knows the performance characteristics of each of his packs and marks them to be sure of the correct pack being used at the right time. This information though is not enough to give you a picture of what is happening on the track, for instance you may well have the best selected and computer matched cells that money can buy but it is still possible to dump well within the space of a 5 minute race! Why? Because with the best will in the world and all the information that you can gather on your cells you only really have half of the story. It is important to know exactly what your motor is doing before you can begin to know what's happening out there on the track.

Unfortunately, unlike the real thing, our cars are not yet fitted with onboard systems monitoring equipment. We can't hit a button and find out what our fuel consumption is, how our tyres are doing, or simply see if we have frightened the life out of the driver yet! We have to rely on what we can find out before the race, during practice and at the end of each heat by closely observing our car using scanners and systems monitors provided by nature - our eyes. Unfortunately our eyes won't tell us everything. One of the things that we desperately need to know is if our motor is running spot on, it is not enough to see your car going fast and say that's it, not anymore, because there just might be someone out there who is not guessing, who knows just what his motor is drawing, in every section of the track, and can gear and adjust to make the most of his knowledge, for the sake of our article we shall call him Mr Smartbottom.

Mr Smartbottom owns a car that is absolutely flying round, leaving everyone else in his wake. Mr Smartbottom also owns a car that has plenty of power left at the end of each race. Mr Smartbottom probably owns a Bud's Motor Dyno. This interesting stateside product is designed to allow the testing of a motor under varying load conditions not just free revving. Using a Digital Volt meter (provided by you) amps drawn figures under each of three simulated loads can be recorded plus RPM figures. This allows a greater degree of certainty when checking the performance level and state of tune levels of your motors.

HOW DOES IT WORK?

In order to use the Dyno you will need to provide a set of cells as close to the set you have in your car, a

spare motor in good condition which is of equal performance to the motor which you intend to test and a digital volt meter (DVM). All that you then have to do is connect them to the test rig supplied, fitting both motors into the specially made mounts. The two motors are coupled together by the shafts and the slave motor connected to the load switch wiring. The motor under test is connected to the remaining wires. Using a nicad pack for power the test motor drives the slave which can be resistively loaded under the control of the 3 position load switch. A

BUDS Motor Analyzing Dyno

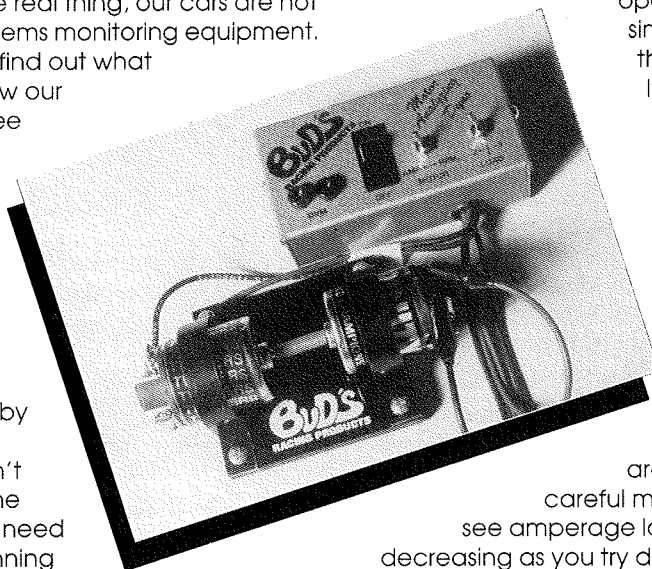
separate switch gives Amps or RPM as required (read from the DVM which plugs into sockets on the Dyno).

Load one simulates the average load during high speed running, such as long straights, **load two** simulates open corners and **load three** simulates the type of load that infield sections will incur. It is important to choose which type of load that you select for the track you are running on. For example using load three for a long fast track will not give you the correct information and vice versa.

Bud's Dyno is also useful when brushes and springs are in need of changing, by careful monitoring you can easily see amperage loading increasing and decreasing as you try different combinations of each

All in all this is a useful piece of equipment although the RPM readings are a little difficult to understand at first as they are shown as comparable voltage readings. However once our tester came to grips with it he found the information available very useful in setting up motors. We shall definitely be using ours a lot more as one or two motors we have checked were way off our original estimates and needed some drastic tweaking to bring them back to a suitable and acceptable state of tune.

TQ Evaluators comments. "A very useful addition to any racers test equipment. Takes the guesswork out of motor set up".



Bud's motor Dyno is available from:

Top Models.
Swan Lane,
Gwernymynydd,
Near Mold,
Clywd,
CH7 4AT.



Price £47.95

