

### **Chassis Dyno Measurement System for four post rigs offers increased accuracy for vehicle set up and analysis**

*BERU F1 Systems' low deflection corner weight measurement system accurately and repeatedly provides suspension adjustment or vertical wheel force data on four post rigs*

Chassis and vehicle dynamic engineers who struggle to achieve sufficient accuracy for measuring suspension setting and wheel displacement can benefit from BERU F1 Systems' new Chassis Dyno Measurement System.

Race teams and engineers using current off-the-shelf scales found they were only really effective for static analysis and therefore have a limited weight range of up to 1000kg. In addition, existing systems rely on a single loadcell per corner, reducing accuracy and preventing engineers from analysing lateral loads. As restrictions on testing in motor sports grow, coupled with research into new areas of untapped development, the use of chassis dynos is growing. Obtaining high quality data from this analysis is vital to offset the investment.

BERU F1 Systems' solution is to create a highly rigid pad with four loadcells per wheel. With an expectation that an active chassis dyno could see loads up to 3000kg, the product has been designed to suit forces encountered in F1, NASCAR and other high load applications.

"The four high accuracy loadcells design provides linear and consistent results," says BERU F1 Systems' strain gauge system manager Simon Roberts. "And with the ability to provide excellent immunity from contact patch changes both for vehicle positioning, tyre size differences and camber changes during suspension movements, we are expecting that the benefits for users will be significant."

To improve analysis, outputs options are available for logging systems, either differential mV/V or single ended amplified 0 – 5V. BERU F1 Systems can provide a single averaged output for the scale pad and/or individual output of the four loadcells in each scale pad if required.

The bespoke nature of this testing allows BERU F1 Systems to design scale pads with specific dimensional or fixing requirements. For accurate and reliable data trackside, BERU F1 Systems is also able to provide lightweight corner scales applications with optional local or overhead display modules and tailored wireless systems.

### **About BERU F1 Systems**

Founded in 1993 and since 2001, a specialist division of BERU AG, BERU F1 Systems offers advanced design and manufacturing facilities for vehicle wiring harness systems, tyre pressure monitoring, stress measurement and composites. Supplied to world championship winning cars in every major formula and every Formula 1 team, components from BERU F1 Systems are now available in military, road car, aerospace and nautical applications. In January 2007, BERU F1 Systems won the prestigious Autosport International Innovation of the show for its Wire in Composite technology.

## Photographs

Available from Nick Bailey by email (see below) or [www.Autopresspoint.com](http://www.Autopresspoint.com)



*(Race Car Wheel) Specifically designed for four post rig applications, the BERU F1 Systems Low Deflection Corner Scale offers improved accuracy and repeatable results for chassis set up and analysis.*



*(Road Car Wheel) With the ability to provide excellent immunity from contact patch changes both for vehicle positioning, tyre size differences and camber changes during suspension movements BERU F1 Systems expects that the benefits for users will be significant*

## Press Enquiries

Nick Bailey

Market Engineering Ltd. 43-44 North Bar, Banbury, Oxon, OX16 0TH, UK.

Tel: +44 (0) 1295 277050

Fax: +44 (0) 1295 277030

Email: [nick.bailey@m-eng.com](mailto:nick.bailey@m-eng.com)

BER5192 1.0app Prepared by Market Engineering. Europe's leading media relations agency for the automotive technology industry.