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**Suspension & Shock Diagnostics: money to be made!**

Today's tyre and wheel specialists must think outside the box to maximise profit, particularly with the credit crunch hitting all areas of the marketplace. Regardless of ailing finances, road safety is an issue that remains constant in the vehicle owner's mind. With many households prolonging their ownership of vehicles, drivers do not want to compromise their passenger and family's safety, whatever the cost. With an ageing vehicle parc, recent surveys have shown that in excess of 50% of vehicles (of varying ages) had defective or worn shocks! Considering the shock absorber's role in braking distances, cornering and traction, there are significant profit opportunities for garages looking to future-proof their business, by investing in new diagnostic equipment, whilst providing the customer with the safety they demand.

While there are several equipment suppliers offering suspension testing, only Actia Muller's Expert Shock Absorber Tester (ESAT) is capable of diagnosing the shock absorber itself. It is for this reason, that ESAT is the only vehicle manufacturer approved test unit. All other suppliers test the suspension as a whole unit – i.e. shock absorber, coil spring, bushes, bearings, tyres etc. – and cannot discern between components. These testers give varying results dependent on tyre pressure, tyre wall condition, vehicle load etc., thus not providing any tangible benefit to the garage or customer.

Actia Group, who have a 90+ year association with high quality innovative garage equipment and diagnostics, have taken this concept and revolutionised suspension measurement. Utilising the unique, patented 'response to resonance frequency' method, ESAT diagnoses the condition of the shock absorber accurately, with repeatability, and unaffected by the variable conditions listed above.

ESAT combines either a recessed or low profile test bed with PC software to analyse the shock absorber's response to its resonance frequency. The vehicles' front and rear axles are driven onto the test bed in turn, allowing suspension frequencies to be electronically measured under simulated road movement and analysing the effectiveness of the shock absorber. Diagnosis takes less than 3 minutes, and results are displayed graphically both onscreen, and on a printed customer report. Shocks to be replaced are shown clearly in red. Those performing acceptably but for review at next service are shown in amber – thus tying the customer in to booking in the vehicle in the future. Those still performing well appear in green.

"In test surveys carried out with ESAT, both with vehicle manufacturers and in aftermarket workshops, results have produced a 25-100% increase in sales of shock absorbers," explains Simon Stone, General Manager of Actia Muller (UK). "Although shock testing using electronic equipment does not yet form part of the MOT test, it is clear that by offering customers an additional shock absorber test at MOT, service, or other fast-fit work, workshops can not only improve customer

confidence and road safety, but also increase their own profitability, even in today's financial climate."

For further details, go to [www.actiamuller.co.uk](http://www.actiamuller.co.uk)