

Tech Session - TPC Racing

Porsche Suspens

Michael Levitas opened the doors to TPC Racing to allow almost fifty of our members to learn a little more about the advancements in Porsche suspension management. Elevated on lifts with their undersides exposed for our education were Cup cars, a GT4 and a monster of a 993 twin turbo race car.

Michael's primary focus was explaining how the Porsche Active Suspension Management (PASM) worked. In comparison to the single value damping rate of older style shock absorbers, PASM can vary

the damping rate to allow the chassis to provide more grip to the tire, greater stability and increased comfort for changing road conditions and driving styles.

One limitation is the processing speed of the Electronic Control Unit (ECU) that is utilized by PASM. In providing an upgrade of nearly twice the processing speed, TPC's enhancements can yield both better street riding comfort and better track handling.

Michael also explained that with the integration of the TPC system and the existing Porsche CAN data system the TPC Sport software can anticipate and act upon the inputs of lateral, longitudinal, vertical g



A pair of GT3's, but who's counting!

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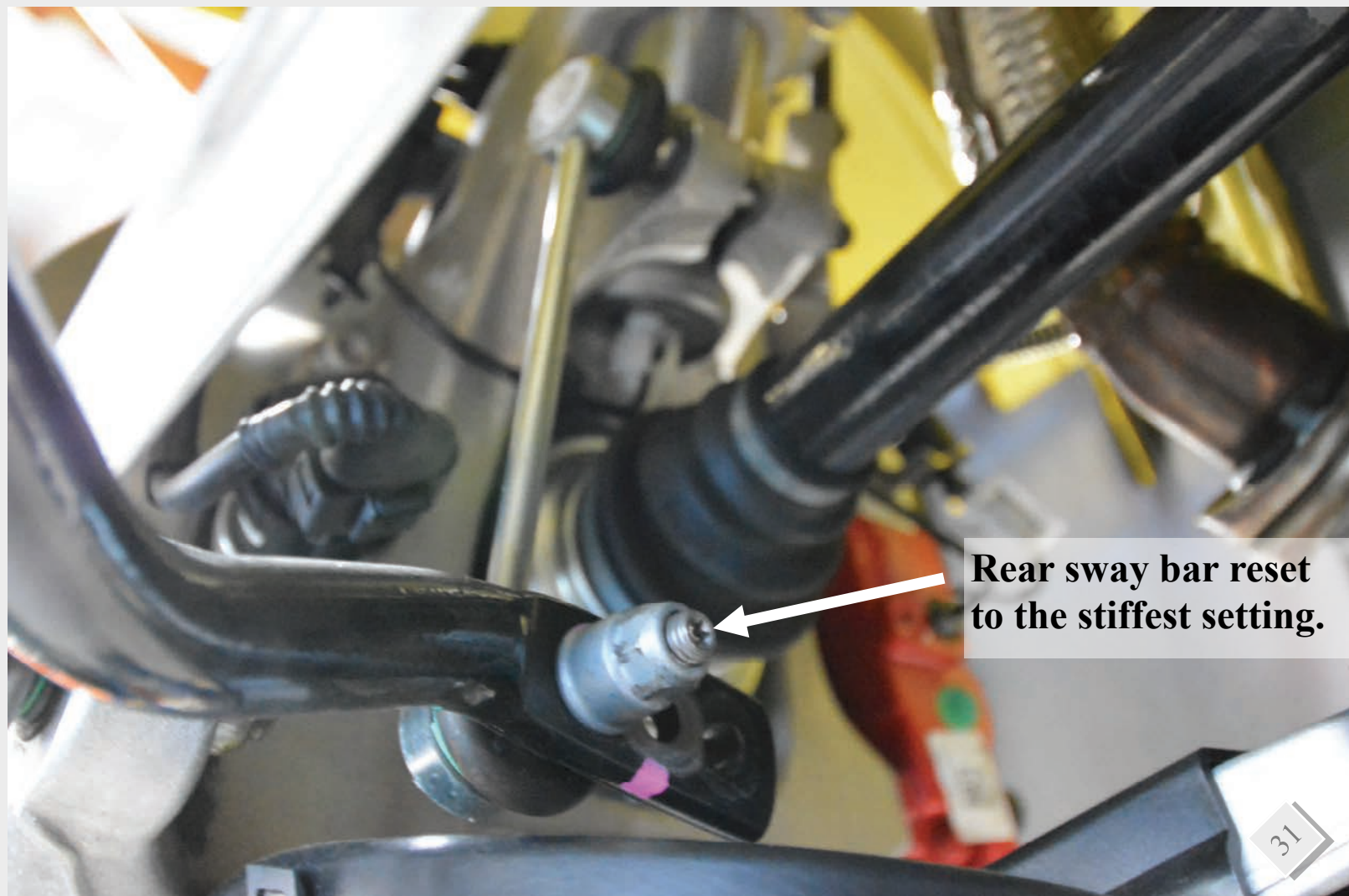
-force, vehicle speed, steering angle, braking pressure and damping value to yield the optimal damping value of each individual shock to maximize the grip at the each tire.

With the enhanced TPC controller now operating at a speed of less than 3ms, the limiting factor then becomes the rate of change of the stock shock absorber. Which is about 80 to 100ms. Fortunately, TPC Racing has been able to find a Dutch supplier of shocks that has a response time of less than 6ms.

The end result is reported to provide not only a smoother ride on the street, but also a more aggressive track ride.

In explaining the virtues of the GT4, Michael pointed out the commonalities of it and it's bigger brother the GT3. The front suspension of the GT4 comes directly from the Motorsport designed GT3. The rear of the GT4 does not have the steering ability of the GT3 system, but otherwise is equal to the task.

Michael noted that the GT4 handles a bit more to his liking with the adjustment on the rear sway bar stiffened by one setting. He educated us on the importance of always marking the factory settings so that you can return to the original factory setting in the event that you get lost in trying to find a better set



Rear sway bar reset to the stiffest setting.

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up. Truly solid advice!

Everyone ended the day with a better understanding of the existing state of part of PASM, how quickly the technology is changing and how it benefits us.

One lucky member, our Past President Gary Martinez walked out the door the winner of our famous \$250 dollar raffle for services at our host vendor of the Tech Session - TPC Racing.

Jim

Photos by: Editor



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