



Technicians Service Training

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"Refining Your Game Plan"

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Editor

"G" Jerry Truglia

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"Refining Your Game Plan"

If you have been reading my articles the past 10+ years, you know that I always emphasize having a Game Plan. The New England Patriots would not have won the Super Bowl again if they did not have a plan. We're not a football team, but we are a team of professionals who keep America running. With vehicles becoming more and more complex, we need to have the proper training, tools, equipment and game plan. In this article, I will take you through a couple real life case studies that hopefully assist you in diagnosing problem vehicles.

First up - An Ailing Audi

Our first case study that came in was from a customer who had recently purchased a 2006 Audi A6 3.2L from his uncle's used car lot. However, this well detailed Audi had to be towed in due to a no crank or start condition.

Sometimes Audi models can be a real challenge to diagnose and get running if you don't have the proper training and scan tool such as Ross Tech or ODIS. After questioning the vehicle owner (who unfortunately did not yield much information), it was time to move on and use our best tools. The tools that I am referring to are the tools are the same you've heard me preach on before - the tools that God provided us with: our brain, eyes, ears, nose and hands. As a result of using

(Con't on page 3)

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- ***Keep our fellow technicians up to date with the latest technology.***
- ***Provide training seminars for a reasonable price.***
- ***Deliver information that the technician can use now.***
- ***Keep technicians informed of information affecting our industry.***
- ***Increase consumer awareness of what a good technician is.***

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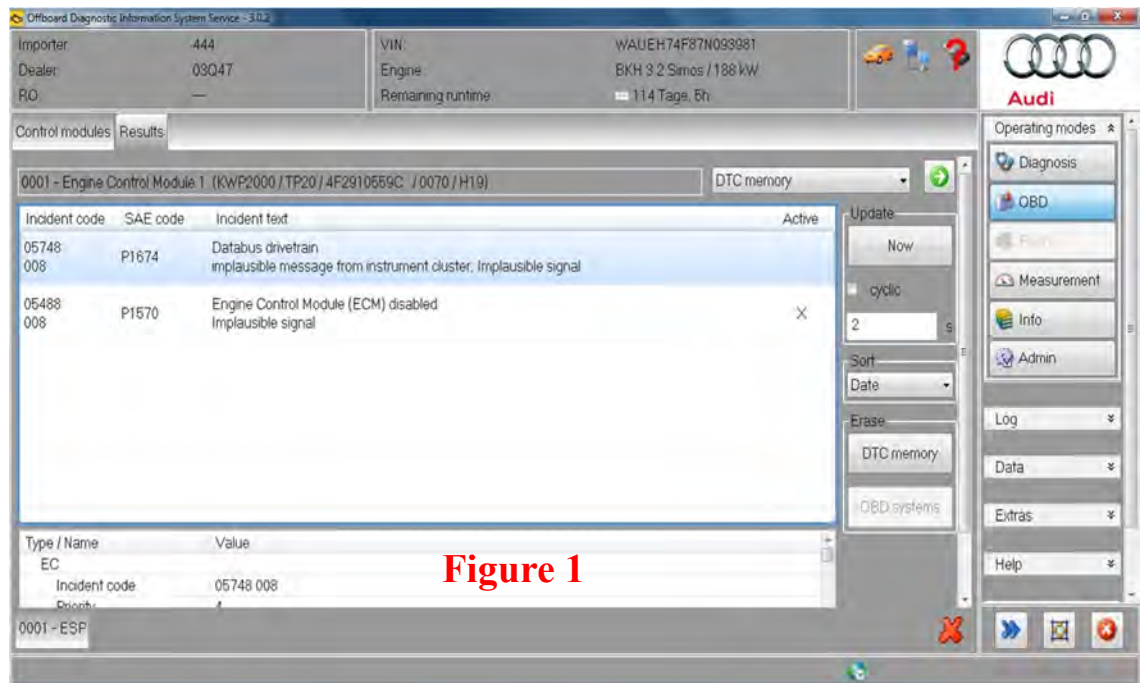
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"Refining Your Game Plan" (con't from p. 1)

The battery and starter checked out fine. Having had previous experience with a similar problem on Audi and VW, we suspected an issue with the Access / Start module. The results from the ODIS scan tool confirmed our suspicions of a problem relating to the steering column, yielding a large list of DTCs. One of the DTCs that had to be dealt with first was the 0005 Access/Start Authorization System.

This DTC prevents an engine crank/start condition because it brings down the CAN BUS (**Figure 1**) and shuts down other modules. The Authorization

Module is integrated with the immobilizer and steering wheel lock mechanism that is mounted to the steering column. Our experience with this is-



issue has shown us that the module is a common problem that causes no response from the ignition key or start button. The module's job is to look for the key or transponder that manages unlocking and locking the steering wheel. It also activates the relay's terminal 15 that supplies power to the other modules in the vehicle. If an issue is detected with any of the module components, such as the actuator motor, sensing micro switches, relay, or other electrical connections, the system will throw a DTC and not operate.

The Audi dealers only sell the complete steering column *(Con't on page 5)*

"Refining Your Game Plan" (con't from p. 4)

to repair this problem, but that's not the only way to fix this problem. For one, the module can be removed without completely taking down the steering column. Now it was time to contact the vehicle owner and explain the repair options so he could choose the path of repair that works best for him. This was followed by providing the Audi owner with pictures and other printed information (**Figure 2**) on his no crank/start condition. In this case we explained that the engine no crank/start condition was due to a "no

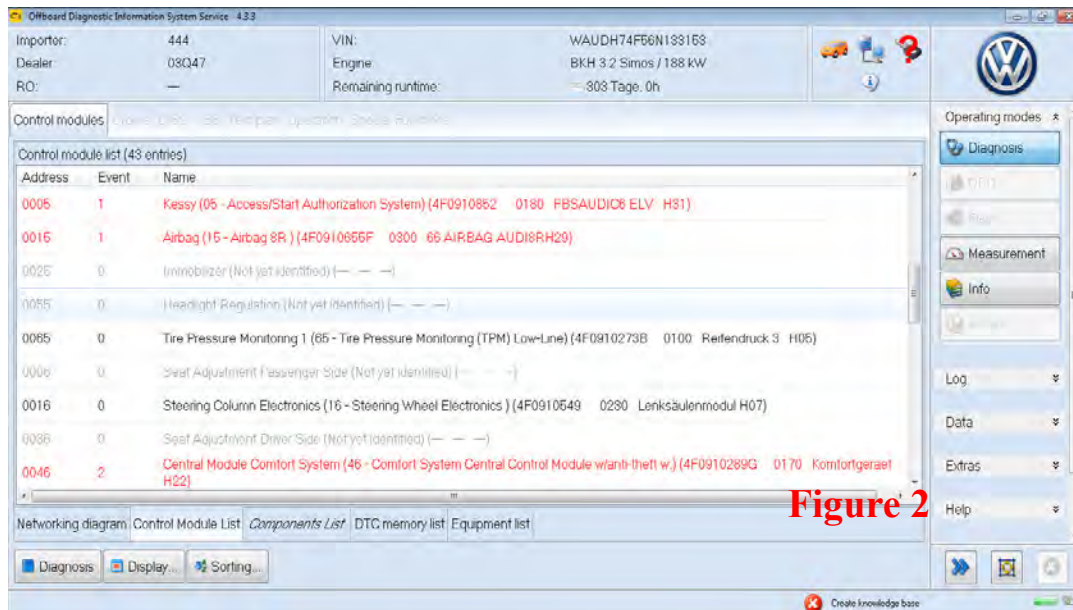


Figure 2

com" (communication) problem on the CAN BUS. We continued with an explanation of the different repair options: either replacing the complete steering column or just removing the Access/Start module and sending it out for repair.

The difference in pricing is significant. A new steering column from Audi goes for \$1,700, while the other option is about half the price. After our explanation to the vehicle owner and the used car lot uncle, they decided that cheaper was better. However, their choice came with one big surprise! They decided to tow the Audi back to the used car lot shop. So, they used us to diagnose the problem and chose a cheaper alternative by performing the physical repair at the used car lot.

(Con't on page 6)

"Refining Your Game Plan" (con't from p. 5)

We invoiced the Audi owner for the diagnosis while they prepared to have the vehicle towed. After seeing the damage they previously inflicted to the steering column, we suspected that they would encounter problems and be back again. The used car lot apparently proceeded to remove the module and, as we suggested, sent it to Speedosolutions.com. When a module is at Speedosolutions.com they check the circuits, cleared out data and format the module so it mimics a new one. After the used car lot shop received the re-conditioned module, they installed it but encountered the same no crank/start condition. They decided that they were in over their head and called us, asking if they could tow the vehicle back to our shop and get it running. Bill explained that there would be another diagnostic fee along with a programming fee to get the Audi running. Once the vehicle arrived, we looked it over, paying special attention to the steering column area. Bill noticed that the used car lot did not follow directions of only removing the module. Instead, they totally removed the steering column. As a result of their removal process of the steering column, there was more noticeable damage - including a "click" noise from the steering wheel that was due to a damaged clock spring.

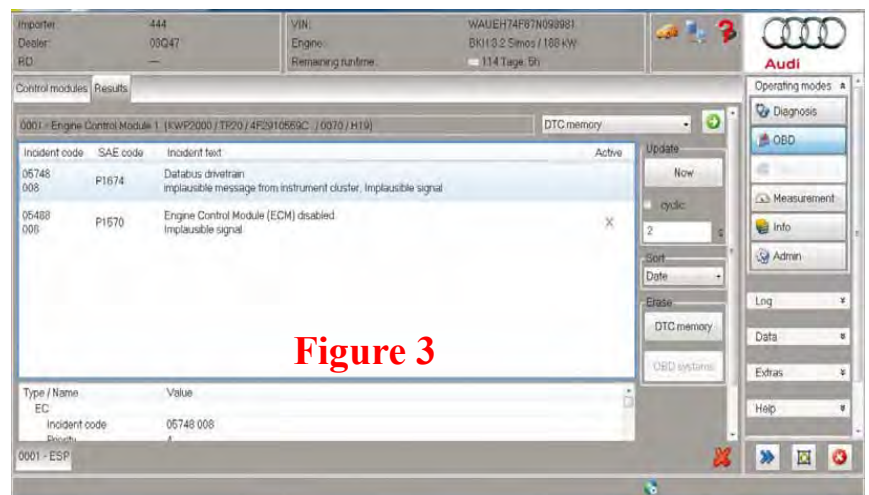


Figure 3

Bill called the used car lot to inform them what we uncovered before proceeding to do anything on the Audi. Their response was don't worry about the damage - just get the Audi running. Since they gave us our marching orders, we proceeded first with a full vehicle scan. The results of the scan uncovered (**Figure 3**) the following DTCs: P1674 Databus Drivetrain Implausible Message from Instrumental Cluster and FAZ1225E (*Con't on page 13*)

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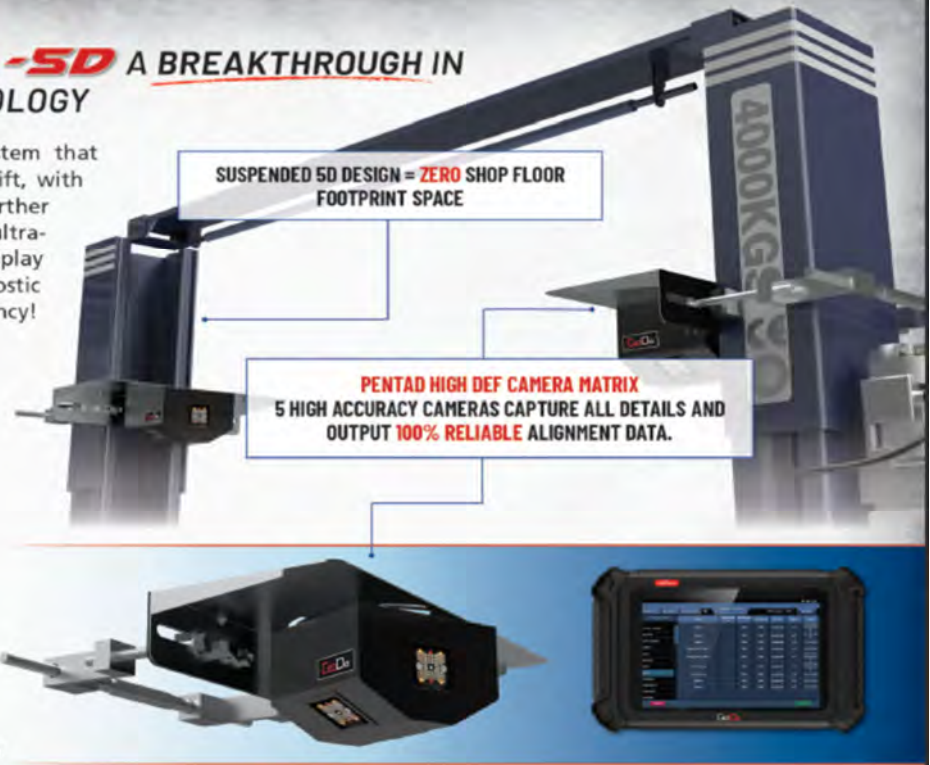
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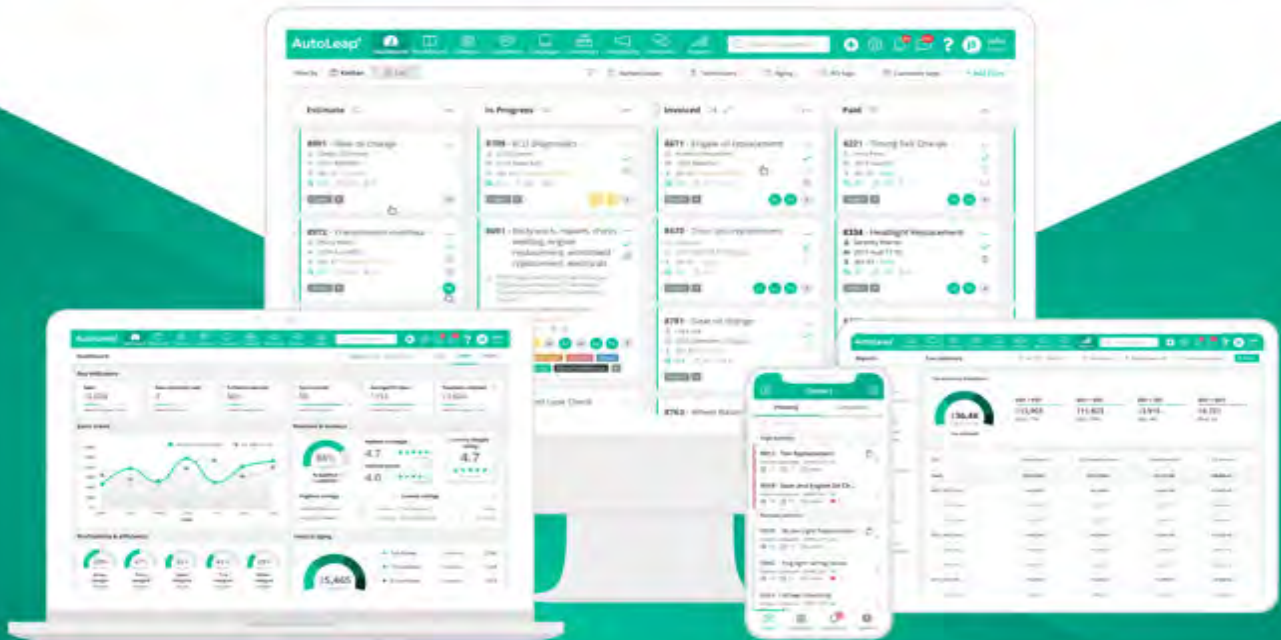
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"Refining Your Game Plan" (con't from p. 12)

error with serial number (Figure 4), Error: MSG serial no. is not associated with VIN.

Our next step was to try and clear the DTCs then insert the correct VIN in the module. After the programming process was

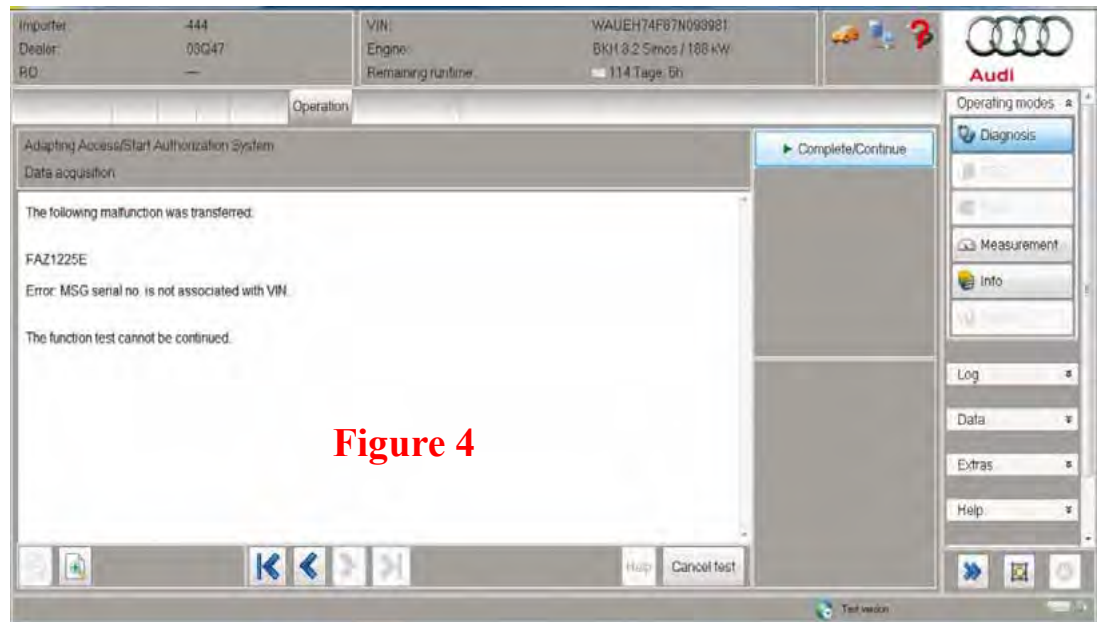
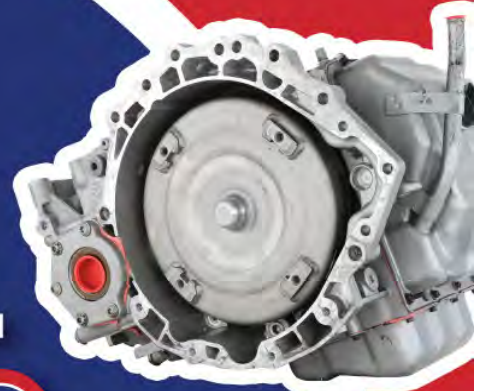


Figure 4

completed the engine came to life and ran well. We followed that up with another complete scan of all the vehicle system making sure there were no other issues. It is always good practice to make sure all vehicle modules are clear of DTCs before returning the vehicle back to the owner. With the Audi now starting and running it was time to collect our diagnostic and programming fees and return the vehicle to the customer.

*Article By
"G" Jerry Truglia
TST Founder and President
ASE World Class Triple Master
Auto, Truck, School Bus L1, L3, F1, X1, C1, Technician*

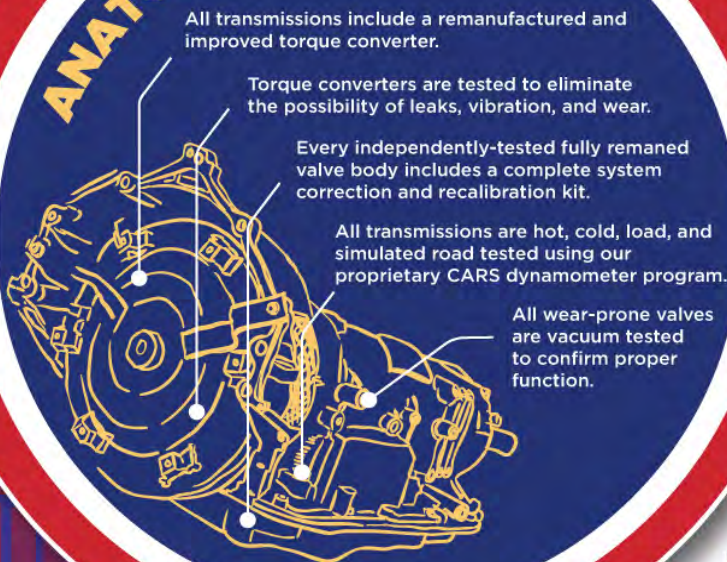
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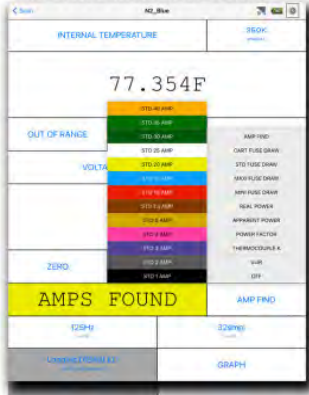
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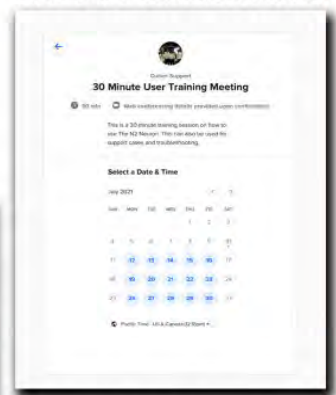
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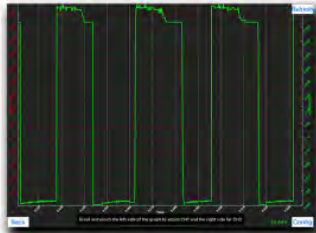
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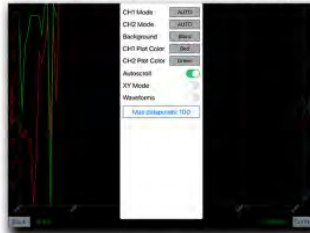
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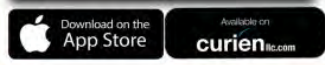
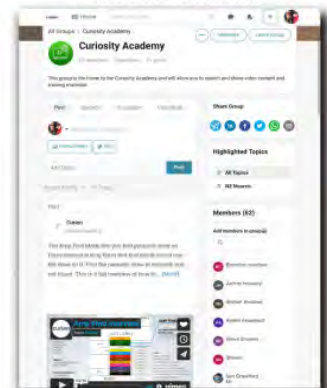
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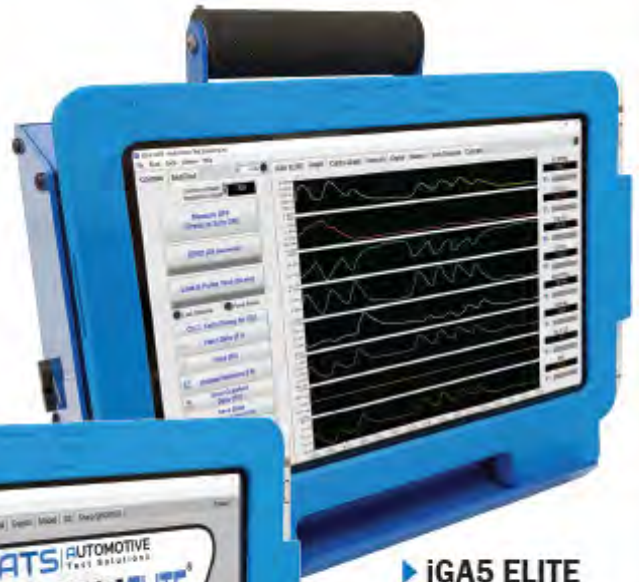
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12	13 10:00 am - 12:00 pm ET 2023 Regional A & J 2nd Day Event - Virtual	14	15 8:00 am - 11:00 am 2023 Regional A & J 2nd Day Event - Virtual	16	17	18 10:00 am - 12:00 pm ET 2023 Regional A & J 2nd Day Event - Virtual
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