



Diagnostics: Jaguar, Land Rover Models



With JLR models a regular fixture in his workshop, Darren Cotton of AVC UK in Surrey was only too happy to put a new, specialist diagnostic servicing tool through its paces.

When it comes to identifying the right diagnostic tool for your business, there are many choices available to workshops. Some may be 'all-makes' or 'universal' in their coverage, while others are specifically designed for the more specialist user.

Either way, with most tools making pretty bold claims in terms of their capability, it always helps to be able to try them out first. I was happy, therefore, to take the DA-ST512 Service Tool from Diagnostic Associates for a test drive this month, and to let PMM's readers know my thoughts.

This unit certainly falls into the 'specialist' diagnostic category and has been derived from the popular range of service 'dongles' that Diagnostic Associates launched to market in recent times. Specifically designed (and approved) for Jaguar/Land Rover vehicles, it is a dedicated servicing tool that also doubles up as a 'Pass-Thru' unit to work with SDD (Symptom Driven Diagnostics).

Tool basics

The DA-ST512 comes as a handheld unit that connects directly to the OBD2 diagnostic connector and, using its simple menu structure displayed on the back-lit LCD screen, it will perform a vast amount of applications on JLR models (2005 onwards).

The device is very easy to use, extremely quick and has a high quality feel to it. It also benefits from a long lead that is attached to the diagnostic socket to make manoeuvring light work.

The unit will power up instantly when connected to the OBD2

socket and, with the ignition on, it identifies the vehicle within seconds, displaying the vehicle details and VIN. Using its dynamic menu system, it is able to identify which of the installed applications are suitable for the vehicle it is connected to, meaning you can go straight into the function you desire.





Available functions

The basic operation package consists of six applications:

1. Service Interval Reset (SIR)
2. DPF Dynamic Regeneration (DPFDR)
3. DPF Adaption Reset (DPFAR)
4. Electronic Park Brake Release (EPBR)
5. Tight Tolerance Mode Toggle (TTMT)
6. VCI Gateway Module (J2534)

It also features another 17 applications that are available for a small fee, however all can be used on a 'trial' basis for a maximum of three times before the function is made unavailable (until you pay for it that is!). This is a great feature because if you were looking to add an application you can 'try before you buy' – something I've not seen on many tools before.

Putting it to the test

So what sort of use did I get out of the applications? The short (and honest) answer is 'plenty'. Here's a quick overview of the types of task I was able to undertake during the test period:

Electronic Park Brake Release (EBPR)

This function will force the brake to move back to its mount mode and release the brake pads from the disc, enabling you to replace the brake pads safely. In the case of Land Rover vehicles it can also perform the 'un-jam' function before moving to the mount position. The device again made a rapid connection and readers will no doubt agree that functions like this save a lot of time in the workshop.

Diesel Particulate Filter Dynamic Regeneration (DPFDR)

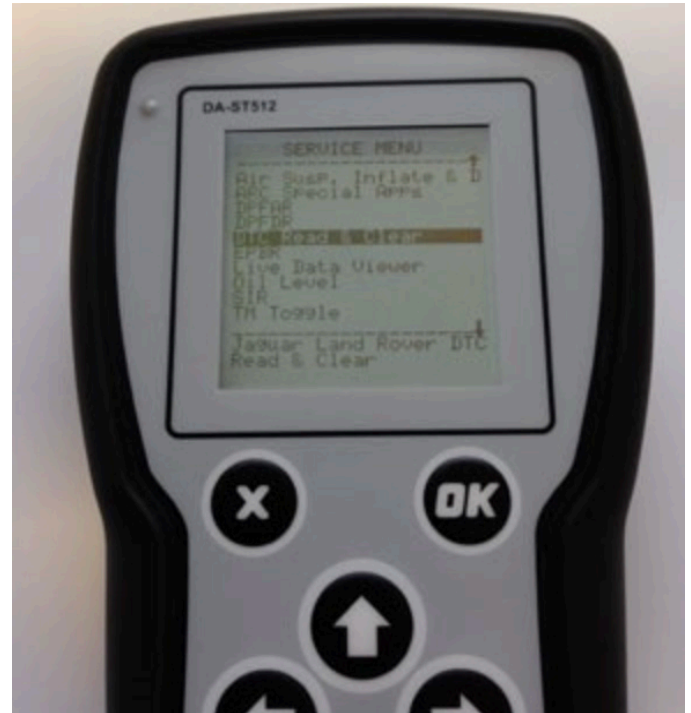
Having this on the tool is very handy, as it negates the need to tie up SDD or any other device you would use for this operation. Like all the applications on this device, it only takes around 30 seconds to start the procedure. Once the vehicle has reached target temperature, and if the soot content is higher than 60 grams, the unit will emit an audible sound for three seconds at 10 second intervals. This now means the vehicle must be driven above 40kph for 15 minutes before a short, high-pitched sound confirms the process is performing correctly.

Service Interval Reset (SIR)

This was the most popular application that I made use of. Other tools on the market seem to struggle with resetting JLR service lights after servicing but the DA-ST512 had no such problems. Within 30 seconds of connecting the device, the application will remove the service warning from the instrument cluster and reset the counters (including oil counter reset, where applicable) and this worked every time...

Read/Clear Diagnostic Trouble Codes (DTCs)

This function allows you to read and clear the DTCs for all the ECUs on the vehicle or you can select an individual network such as: H Can, Low Can and MOST. It's very quick and displays the codes correctly, along with manufacture code and description. Adding the live data viewer to the device will also give you some quick assistance and information to aid your diagnosis.



Tight Tolerance Mode Toggle (TTMT)

If you carry out wheel alignment in your workshop then this application is vital. The vehicle's suspension (on some associated models) will need to be locked at a known level to allow geometry checks and adjustments – this is where you will need to use TTMT.

Headlamp levelling

Which is a typical task for body repair shops – can't be done correctly if the conditions are not met, so the tool again proved very proficient in this area. The process can take up to two minutes to enter or, if you walk away and leave it in TTMT, a "PROCEDURE COMPLETE" message will be displayed.

J2534 Symptom Driven Diagnostics

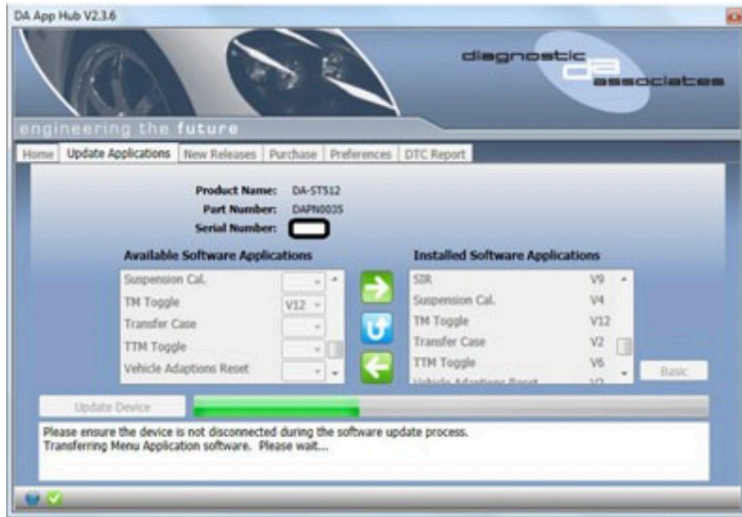
This function is one of the tool's hidden gems: one minute it's a quick service unit, carrying out all of the aforementioned functions, and the next it will double up as a Pass-Thru device which can work in conjunction with SDD to give you main dealer capabilities.

For the function to work you just download the driver from the Diagnostic Associates website. This is very simple to do and works very well, however the instructions for installing and connecting must be followed precisely. Again, this is all featured on DA's website.



Device registration and updating

This process couldn't be any simpler and only takes a few minutes. Once registered, you can download the DA App Hub (a PC-based application) from the Diagnostic Associates website and this will allow you to update the current applications you have on the device (for FREE). It's very easy to navigate and will instantly display the updates that are available on the home screen. Furthermore, you can purchase a raft of additional applications (such as suspension height calibration) as you see fit. All of these cost between £15 and £55 and represent excellent value-for-money.



VERDICT: A cracking, cost-effective unit that I'd recommend to any workshops that want to improve their JLR servicing capabilities!