

# Independent thinking

Every OEM will have its own diagnostics laptop offering, which may be an essential buy for franchised dealers. But third-party systems that cover multiple engine and system brands are also available. Peter Shakespeare considers what they offer, and how do vehicle engineers best choose between them?

We live in complicated times. The technologies running through commercial vehicles are becoming more complex and the computers relied on to control each mechanical component are more powerful than ever before, shaming the processor that put man on the moon. Effective diagnostics are crucial for the success of any modern workshop. Once seen as the reserve of niche specialists or dealers who could afford the often prohibitively expensive hardware and software required to read to codes and precisely pinpoint issues, diagnostics are now commonplace.

Independent commercial vehicle workshops faced with the challenge of choosing an aftermarket multi-brand, multi-application diagnostic tool, could be forgiven for finding that choice a daunting one. But the alternative solution of sourcing OEM tools to cover most eventualities will still be a very costly one.

Before purchasing any piece of

diagnostic equipment, a fleet or workshop should assess its needs. They may need to decide if they want a tool that reads engine codes only or one that can read the rest of the controllers on a vehicle, such as for ABS, battery power monitors or body controllers. Once a fleet has determined what it wants to do with the tool, it can then begin researching various options.

First, there is the decision of which vehicles does the tool need to be compatible with? Some CV diagnostics packages can cover trucks, buses, coaches, trailers, off-highway, agricultural and light CVs. Then there is the level of OEM compatibility to consider. At the budget end, small handheld code readers will read basic fault codes, but not OEM codes. Fully-supported professional multi-brand tools will do most of what OEM software will do, across hundreds of vehicle types.

And then there is the question of which provider to choose? The companies who supply control systems

to the OEMs such as Bosch, Delphi and WABCO all offer aftermarket diagnostics equipment, which is compatible with vehicles fitted with their systems and other OEM systems and components. Fully-independent third-party suppliers offer solutions up to all marques and models. Unsurprisingly in this market, there are also import tools. While functional, they may not come with the levels of technical and software support required. Inevitably, cost is another key factor. Basic handheld tools are available for a few hundred pounds. A full professional-level system could set a workshop back several thousands.

## SUPPORT

When choosing a provider, workshops also need to look beyond the hardware and software. They need to be able to readily access technical support.



***“Mastering diagnostics is a highly nuanced skill, but with the DS450E we have tried to make enhancing advanced skills as straightforward as possible”***

Julian Goulding



more than 70 brands, 675 models and 16,000 unique system selections.

“The DS450E provides independent or in-house fleet workshops with the same accessibility and functionality as main dealers,” claims Goulding. “This vastly reduces the guesswork associated with restricted access diagnostics, incomplete codes or main dealer costs. It can also provide trailer diagnostics, which is an area that a lot of traditional options cannot access. This can include ABS, EBS and air suspension compatibility for units by Haldex, Knorr-Bremse and WABCO.”

The DS hardware is available with two different packs providing one or three-year software licences, and comes with a range of cables. Customers can buy the ones they need from a full range of vehicle manufacturer-specific truck, trailer and bus cables, if they need to specialise beyond the pack’s standard set.

“Mastering diagnostics is a highly nuanced skill, but with the DS450E we have tried to make enhancing advanced skills as straightforward as possible,” says Goulding. “Built-in features such as intelligent system scan, intelligent system identification and ‘flight recorder’ help users to navigate whichever vehicle system they are working on, trace their steps back and, over time, find the most efficient way of working.”

As the complexity of vehicle platforms and technology rapidly increases, so do the challenges faced by the workshops that must maintain them. And as is clear, for non-franchised workshops, the challenge of procuring the right diagnostics tool and provider can only be met after some detailed analysis of its use and research into the support offered. [IE](#)

#### FURTHER INFORMATION

‘Health scan’ - [www.is.gd/awebac](http://www.is.gd/awebac)

Proprietary vs third-party systems - [www.is.gd/ababud](http://www.is.gd/ababud)

Examples where this will apply could be knowing where to start with multiple fault codes; if they can’t get the tool to connect to the vehicle, or if a technician is on a roadside recovery away from base and needs guidance.

Training provision is also key, as it’s all very well having a sophisticated professional tool that will do everything, but it’s not much use if the technician does not know how to use it properly. Technicians need to be trained on the tool the workshop selects; ensuring the provider will do this to a high standard is vital.

While there are some very good multi-brand tools available from independent providers, sourcing one from an original fit solution developer can have its advantages too, according to Julian Goulding, UK marketing manager, Delphi Technologies

aftermarket. He says: “A healthy fleet is a profitable one, and diagnostics play an increasingly crucial role for maintenance best practice. In 2020, a growing proportion of breakdowns are electronics-related. The days of being able to turn your back on diagnostics or leaving it to one often-reluctantly appointed specialist are over. Fortunately, we’ve made this expertise as accessible as possible. Utilising our experience of working closely with vehicle manufacturers to develop their original-fit solutions, we are able to apply this OE experience to the provision of advanced diagnostics support that complements physical solutions such as our DS450E.”

The DS450E (pictured) is Delphi’s latest commercial diagnostics solution. The hardware provides diagnostic functionality on a par with manufacturer-direct options and supports all the main European truck manufacturers such as DAF, IVECO, MAN, Mercedes, Renault, Scania and Volvo, plus the leading makers of light commercials. In total, it covers