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John Parry

Shock of the **new**

Vehicle maintenance technician qualification irtec has a new module, a qualification to work safely on large electric vehicles – both HGVs and PSVs over 3.5t

Electric vehicles are fitted with high-capacity batteries, which transfer power to and from motors and other components at voltages up to 50 times higher than the 12/24V electrical systems of standard internal combustion engine-powered vehicles. These components pose a risk to unprepared technicians.

The initial steps were small, says irtec chairman John Parry. "At first, we wanted to make sure that people who had an irtec licence knew what not to do. That's how it started. Now it's moved on to having a separate module, in conjunction with OEMs, operators and electric vehicle specialists, and HSE."

For example, the UK's Health and Safety Executive guidance for electric vehicle technicians recommends that before any maintenance work is carried out to other parts of the vehicle, high-voltage cabling and electrical components should be checked for damage, and the high-voltage battery isolated or disconnected (see *www.is.gd/azuzol*).

That very action is the sole qualification in the new irtec module being launched – to safely isolate and reinstate the high-voltage drive system on a vehicle, according to IMI awarding product specialist Dave Skelly, who was involved in setting up an expert working group on the subject.

The thinking is, once the high-voltage system has been isolated, other workers will be able to come along and do other kinds of vehicle repair work, whether related to the body, or located in close proximity.

This is just the start of irtec qualification modules for high-voltage systems. At least two more are currently envisaged, according to Skelly: the first to remove high-voltage components, such as the power steering unit or the compressor to carry out repairs, and then replace them. A third could be diagnosing high-voltage system faults.

He explains that the work on the module began in October, and included input from OEMs (Scania GB, Electra Trucks); operators (Arriva, First Bus, Stagecoach, Veolia); trainers (Woldsway Training) and associations (FTA, SOE).

Trials and testing were scheduled to be carried out in March by Scania GB and First Bus. Assessments are expected to last about 90 minutes.

As the skills covered here are seen as specialised, the unit will be included in the irtec service and maintenance technician qualification.

Parry admits that the module may not be immediately relevant to many irtec-licensed technicians. He says: "When this module comes out, it will be one of the first. The average heavy vehicle dealership probably won't see EVs coming in for some time yet."

Despite the fact that EVs aren't in general circulation, apart from some bus fleets in major urban centres, he insists that it is important that irtec, as an independent qualification, should be ready for the need. He concludes: "We might be ahead of the game here a little bit. But what we want is that anyone who considers irtec will have the option to take an EV module. If you don't feel that you will have that demand in a normal workday, you can refer to the safety instructions on the internet. But if you are physically involved in the repair and maintenance of electric vehicles, you should make use of the irtec EV module." TE