
Do you need to make
the connection?

Amphenol

The Inter-Connection

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Armoured Vehicle Electrical Connector Damage Eliminated by the Amphenol Universal Break out Box

During introduction of the Challenger 2 Main Battle Tank into service with the UK M.o.D. Army Technical Support Agency (ATSA) technicians identified a potential servicing problem whilst fault finding on the electrical cable harness and equipment connectors. Historically test probes are used on the contacts of the connectors to check for electrical supply or cable continuity. With the advent of the high density Mil C 38999 S III connectors to interconnect the vetronic systems there is a danger of damaging the small size 22 connector contacts if test probes are used in the conventional manner.

Amphenol proposed a Universal Break out Box (UBoB) which consists of a box containing all 9 sizes of high density

connectors on two sides, internally connected to 130 2mm diameter test probe sockets on the top. The box is connected to the vehicle hues or electronic / electrical equipment by interconnecting cables a combination of which ensures the UBoB can interface with connector free plugs or fixed receptacles containing either pin or socket contacts.

When the UBoB is in M.o.D. Army service later this year technicians working on the complex Challenger 2 Vetronic systems will carry out tests in relative comfort on the test box rather than on the vehicle cables or equipment. In addition the use of the UBoB will prevent inadvertent damage to the connector contacts which would result in costly equipment repair and vehicle down time.

Amphenol in Mainland Europe

Closer collaboration between national ministries of defence requires closer partnerships at OEM and supplier levels. With its range of interconnect solutions for the mil-aero market being second to none, Amphenol leads the way in international co-operation. From data -bus systems for both airborne and land-based platforms through missile launch interconnections to complete fibre and hybrid interconnections for tactical deployment, the interaction between Amphenol and multinational consortia is critical from design through to installation.

It is not only the development of new connectors, cable and complete systems which is important but also the ability to

design what is needed for integrated Logistical Support. Using information from our four manufacturing sites for military connectors in Europe and from our colleagues across the Atlantic, we know at first hand what is needed by our customers. Because companies in the defence industry work together to cut development costs, they need interconnection systems which are at the forefront of technology and represent the best value in use.

We hold regular project discussions with international participants to ensure each voice is heard. We are able to go beyond connector design to incorporate panels, various cable constructions and overmoulded assemblies to ensure we meet or exceed the exacting needs of combating nuclear, biological and chemical contaminants.

It can be seen from our involvement in existing international projects and projects with international participation, that our expertise is sought as being the company ready to commit resources from different sites and disciplines to form working relationships in all countries. With the extended support of our distribution network alongside our applications specialists we are able to supply the optimum package of existing proven technology and innovative systems design.