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## MULTIFUNCTION TESTER ENSURES STANDARDS COMPLIANCE FOR ENGINE SYSTEM CONTROL PANELS

**Photo caption:** The Seaward HAL performing an earth bond test on a de-energised CMR panel system

Advanced technology electrical testing equipment is helping a specialist manufacturer of electrical wiring harnesses and control panels for diesel engine applications demonstrate compliance with rigorous industry standards.

The North East manufacturing operations of CMR UK has extended its electronic control panel test capability with the purchase of a new Seaward HAL 104 multi-function electrical safety tester.

The HAL 104 combines the performance of a multi-function production line safety tester with load and power factor measurement for component and assembly energy consumption and ratings assessments.

Incorporating AC/DC Hipot (flash/dielectric strength), the tester can perform load and power functional tests, insulation, ground/earth bond testing to 40A, load testing to 16A with leakage measurement to 20mA.

For CMR UK the new tester is primarily being used to provide HV dielectric testing and insulation resistance measurement on panel assemblies to endure electrical safety standards compliance with both BIS and IEC requirements, as well as Marine Classification Society regulations.

To do this, the new tester incorporates special 'SwitchSmart' technology that combines conventional testing with a dedicated switching matrix to cater for 3-phase circuits.

At CMR this enables the HAL 104 to connect to pairs of conductors successively in a 3 phase system (L1, L2, L3 and Earth). The software then follows an automatic procedure of testing for both dielectric withstand and insulation resistance using the switchsmart to channel the test voltage between different conductors to ensure good insulation between all phases and earth.

The complete HAL package is driven by specialist Safety e-Base Pro software, that enables fully customisable test sequences to be set up and operated via a PC from any safe and convenient location.

The intuitive user-interface provides user prompts in both text and graphical format, saving time and reducing the risk of human error. Traceability is made possible by storing all results on a network drive.

Rick Charles, Technical Projects Manager at CMR said: "The new test instrumentation and expanded test capability provides exceptional levels of flexibility and functionality, which has dramatically

improved the quality and efficiency of the panel assembly testing undertaken by the CMR technical team.”

CMR UK is part of the global CMR Group that employs 700 staff across eight global manufacturing sites providing a range of instrumentation, sensors and control systems for diesel engine power generation systems used in the marine, defence, oil and gas and transportation sectors.

The HAL 104 forms part of a range of specialist electrical safety testing, compliance testing and precision measurement equipment from Seaward. Details at [www.seaward.co.uk/](http://www.seaward.co.uk/)

**ENDS**

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