



APPLICATION NOTE

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Train manufacturers have a requirement to supply test systems to their customers/operators.

The test system should connect to the coupling connectors on one or both ends of the “rail-car”, make continuity resistance measurements, switch power into the car to turn on lamps/actuators etc, and measure voltage on output channels.

In effect the test system is simulating another powered rail-car connected to the rail-car under test.

WHAT THEY DO NOW

We have seen from our customers that their project delivery teams are delivering custom made manual switching boxes to carry out these tests. They consist of a large number of switches that allow the operator to manually switch power onto specific channels, and a series of banana sockets that allow the operator to plug in a meter to make measurements on those channels.



This is a totally manual process, subject to error, takes a long time, and requires a specific design for every train. The operator has to read through a paper instruction manual to run the test, and write down results of measurements.

NOTE

If the power/current requirement is low enough the E1500P model might be suitable. However, most applications that we have been involved in indicate that 2A would not be high enough, so the 12A capable M2500 is the generic solution.

MK SOLUTION & BENEFITS

The solution for this application is MK's Automeg model M2500 with a 150VDC 0-5A PSU.

The system is able to make all the usual M2500 measurements, and switch power onto any channel, under automatic test program control.

Automatic. The engineer creates the test sequence and that sequence runs automatically. The operator simply turns the system on, selects the test, and follows the instructions. Pass and Fail is automatically judged. Test results can be logged and uploaded to HQ for analysis and through life monitoring.

Common standard. The customer doesn't need to design a new switch box for every project. Simply choose the number of test points, and (if required) make a new couple interface.

Simple. Use operator instructions, inputs, built in hookup tests etc to make it really simple for operators. Easier to use than the manual system.

Robust. The M2500 can be delivered in a robust (Hardigg style) housing with a rugged tablet / notebook.



www.mktest.com/case-studies
sales@mktest.com