

BRITISH RAILWAY BOARD

SPECIFICATION No 1926

FOR

SOLID STATE INTERLOCKING TRACKSIDE FUNCTIONAL MODULE TESTER

FOREWORD

The information contained in this document is confidential, and must not be used other than for the purpose for which this specification was released.

This specification supersedes all previous issues. It is issued by:-

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REFERENCES

Reference is made within this specification to: -

British Railways Specifications

967 Environmental conditions for railway signalling apparatus

1900 General specification for Solid State Interlocking Equipment.

1. GENERAL

- 1.1 The main requirement is to ensure that a spare trackside functional module (TFM) is serviceable before being taken out to site to replace a faulty module.
- 1.2 The unit shall be simple to operate, and produce a "pass" or "reject" indication.
- 1.3 It is anticipated that one unit will be provided for each scheme. The unit shall normally be located in the signalbox, with the spare TFMs.
- 1.4 The unit shall take the form of a free standing rack with spaces for one signal module (BR 1902A) and one points module (BR 1901A). Fly leads with suitable connectors shall be provided to connect to each type of TFM.
- 1.5 The unit shall be capable of being supplied at either 240V a.c. or 110V a.c. One inlet socket shall be available for each supply voltage. Filtering on the unit's internal power supply shall be comparable with that used on the TFMs. No filtering shall be provided for the TFM under test.
- 1.6 The unit shall be constructed to fulfil the requirements of BR Specification 967 for category C equipment. The electrical environment is defined in BR Specification 1900 Section 2.

2. FUNCTIONAL REQUIREMENTS

- 2.1 No connections shall be made to the TFM under test other than through the 75 way connector on the front panel. It shall not be necessary to open the TFM under test.
- 2.2 The unit shall communicate with the TFM under test using the duplicated full duplex serial data links. This function shall be accomplished using as much of the existing SSI hardware and software as possible.
- 2.3 The unit shall provide dummy loads for each of the TFM outputs. Each output must be capable of being tested for completeness (ie: both halves of the a.c. cycle present), and voltage drop across the driver stage to within acceptable limits whilst connected to the dummy load. Separate dummy loads shall be provided to test the current sensing inputs above and below their respective limits.
- 2.4 On a signal module, the protected source and red retaining feeds must also be tested.
- 2.5 The unit will test the signal module's suitability for use as follows: -
 - a) Correct operation of address and modifier lines