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Non Intrusive Earth Leakage Test Adapter for REED Systems (formerly RT/E/S/I0059)

This temporary front sheet facilitates change to the new Network Rail Standards referencing nomenclature.

The Ref above will be formally allocated to this standard when it is next changed in the meantime the contents, date and issue number of this Network Rail Standard are UNCHANGED and with immediate effect it should be referred to as “(new ref) formerly (old ref)”.

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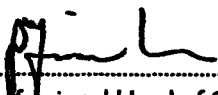


RAILTRACK LINE SPECIFICATION

NON-INTRUSIVE EARTH LEAKAGE TEST ADAPTER FOR REED FDM SYSTEMS

Approval and Authorisation

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**NON-INTRUSIVE EARTH LEAKAGE TEST ADAPTER
FOR REED FDM SYSTEMS****Summary**

This standard specifies the requirements for the Non-Intrusive FDM Earth Leakage Adapter. The adapter allows a standard multi-meter to be adapted to allow it to measure the cable resistance to earth of the FDM system. Existing instruments for measuring the resistance pose the hazard of generating an interfering signal through its power supply and can therefore not be used on a live system.

Issue/Revision Record

This Standard will be updated when necessary by the distribution of a complete document. Amendments will be marked by vertical black line in the adjacent right hand margin. The latest issue of this Standard shall be implemented immediately upon receipt.

Issue	Date	Comments
One	August 1998	

Implementation

The requirements of this specification shall apply in respect of all non-intrusive earth leakage test adapters for reed FDM systems used on Railtrack controlled infrastructure with effect from 1 August 1998.

Superseded document reference number	Issue	Date
n/a		

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**NON-INTRUSIVE EARTH LEAKAGE TEST ADAPTER
FOR REED FDM SYSTEMS**

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1 INTRODUCTION

1.1 Preface

The structure and content of this requirements specification is based on the NSE Systems and Standards Work Instruction for Preparing a Requirement Specification [1]. The requirements are defined in sections 2 to 12, section 1 not forming part of the requirements.

1.2 Purpose

This document is the Technical Specification for the Non-Intrusive Earth Leakage Test Adapter for Reed FDM systems. It presents the technical requirements for an adapter to be used within a test configuration to allow earth resistance testing of live Reed FDM Systems.

1.3 Scope

This specification states the requirements for the design, manufacture and testing of the adapter together with the compilation of associated documentation.

1.4 Background

Reed FDM systems are sensitive to traction current noise and EMI from track circuits. The FDM systems are exposed to these interference currents through earth faults on the FDM system.

Risk assessments identified the need for the FDM systems to be tested for earth faults at regular intervals to allow full implementation of the Class 373. Action following the identification of an earth fault would depend on the severity of the fault. This approach was endorsed by the EE&CS SAP.

To facilitate the rapid completion of the initial testing and to ensure minimum disruption during testing, a live system tester was developed, known as the Non-Intrusive FDM Earth Leakage Testing Adapter.

This document forms the Requirement Specification for this adapter

1.5 Overview of Requirement

The objective of this project is to develop and gain safety approval for a Non-Intrusive Earth Leakage Test Adapter for Reed FDM systems which can be used with standard multi-meters to test the resistance to Earth of Reed FDM systems.