Australian STANDARD®

Signalling Detection and Interface

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

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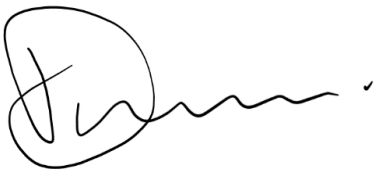
Development of this Standard was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Blue Tongue, FMG, TfNSW, V/Line, RTBU, Network Rail, JMDR, Jacobs, Aurizon, QR, BHP, FMG

The Infrastructure Standing Committee verified that RISSB's accredited process was followed in developing the product, before the RISSB Board approved the document for publication.

RISSB wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership of the Development Group through to individuals providing comments on a draft of the Standard during the open review.

I commend this Standard to the Australasian rail industry as it represents industry good practice and has been developed through a rigorous process.



Damien White
Chief Executive Officer
Rail Industry Safety and Standards Board

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Signalling Detection and Interface

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2014	29 January 2014	Revised and amalgamated in 2014

Approval

Name	Date
Rail Industry Safety and Standards Board	23 April 2024

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Preface

This standard was prepared by the Signalling Detection and Interface Development Group, overseen by the RISSB Infrastructure Standing Committee.

Objective

The objective of this Standard is to ensure the continuing harmonization of signalling systems across Australian networks. This standard seeks to ensure that all new and modified rolling stock are compatible with train detection systems including those identified for the individual networks upon which it is intended to operate.

Compliance

There are four types of provisions contained within Australian Standards developed by RISSB:

(a) Requirements.

(b) Recommendations.

(c) Permissions.

(d) Constraints.

Requirements – it is mandatory to follow all requirements to claim full compliance with the Standard. Requirements are identified within the text by the term 'shall'.

Recommendations – do not mention or exclude other possibilities but do offer the one that is preferred.
Recommendations are identified within the text by the term 'should'.

Recommendations recognize that there could be limitations to the universal application of the control, i.e. the identified control is not able to be applied or other controls are more appropriate or better.

Permissions – conveys consent by providing an allowable option. Permissions are identified within the text by the term 'may'.

Constraints – provided by an external source such as legislation. Constraints are identified within the text by the term 'must'.

For compliance purposes, where a recommended control is not applied as written in the standard it could be incumbent on the adopter of the standard to demonstrate their actual method of controlling the risk as part of their WHS or Rail Safety National Law obligations. Similarly, it could also be incumbent on an adopter of the standard to demonstrate their method of controlling the risk to contracting entities or interfacing organisations where the risk may be shared.

RISSB Standards address known hazards within the railway industry. Hazards, and clauses within this Standard that address those hazards, are listed in Appendix A.

Appendices in RISSB Standards may be designated either "normative" or "informative". A "normative" appendix is an integral part of a Standard and compliance with it is a requirement, whereas an "informative" appendix is only for information and guidance.

Commentary

Commentary *C Preface*

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by 'C' preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

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Section 1 Scope and general

1.1 Scope

This Standard applies to new and modified Locomotive, Freight, Passenger and Infrastructure Maintenance rolling stock.

The document covers the compatibility with train detection systems for new and modified Locomotive, Freight, Passenger, and Infrastructure Maintenance rolling stock. Vehicles that are not intended to be detected by the signalling system are exempt from the requirements of this standard.

Sections 4, 5, 6 and 7 apply to new, modified rolling stock and existing, unmodified rolling stock introduced to a new line. Sections 4 and 5 apply to existing rolling stock retrospectively.

Implementing suitable change management procedures will be necessary for any new or modified rolling stock or changes to existing operating conditions.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

- AS 7472, *Railway operations - Management of change*
- AS 7501, *Rolling stock compliance certification*
- AS 7514.1, *Railway Rolling Stock — Wheels, Part 1: Locomotive Rolling Stock — Locomotive Rolling Stock*
- AS 7514.2, *Railway Rolling Stock — Wheels, Part 2: Freight Rolling Stock — Freight Rolling Stock*
- AS 7514.3, *Railway Rolling Stock — Wheels, Part 3: Passenger Rolling Stock — Passenger Rolling Stock*
- AS 7514.4, *Railway Rolling Stock – Wheels, Part 4: Infrastructure Maintenance Rolling Stock*
- AS 7530.1, *Australian Railway Rolling Stock — Body Structural Requirements, Part 1: Locomotive*
- AS 7530.2, *Australian Railway Rolling Stock — Body Structural Requirements, Part 2: Freight Rolling Stock*
- AS 7530.3, *Railway Rolling Stock – Electrical Systems – Part 3: Passenger Rolling Stock*
- AS 7530.4, *Railway Rolling Stock – Electrical systems – Part 4: Infrastructure Maintenance Rolling Stock*
- EN 50121-3-1, *Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle*
- EN 50121-3-2, *Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus*
- EN 50121-4, *Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus*
- EN 50121-5, *Railway applications - Electromagnetic compatibility - Part 5: Emission and immunity of fixed power supply installations and apparatus*
- CLC/TS 50238, *Railway applications - Compatibility between rolling stock and train detection systems*