

Information for users

To access individual modules referenced within this standard, blue active links are provided from the relevant index pages where these are listed. Clicking on a specific reference will lead to the corresponding document. Please ensure to open **bookmarks** for easier navigation within the document and to access **index of modules**.

Alternatively, you may use the search facility to search for a specific document by using the complete document reference number – such as NR/L3/SIG/30082/002 – in the search field.

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Ref:	NR/L3/SIG/10064
Issue:	11
Date:	04 June 2022
Compliance date:	03 September 2022

Level 3

Work Instruction

General Instructions to Staff Working on S&T Equipment


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User information

This Network Rail document contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – no variations permitted

- Red requirements are to be complied with and achieved at all times.
- Red requirements are presented in a red box.
- Red requirements are monitored for compliance.
- Non-compliances will be investigated, and corrective actions enforced.

Amber requirements – variations permitted subject to approved risk analysis and mitigation

- Amber requirements are to be complied with unless an approved variation is in place.
- Amber requirements are presented with an amber sidebar.
- Amber requirements are monitored for compliance.
- Variations can only be approved through the national variations process.
- Non-approved variations will be investigated, and corrective actions enforced.

Green guidance – to be used unless alternative solutions are followed

- Guidance should be followed unless an alternative solution produces a better result.
- Guidance is presented with a dotted green sidebar.
- Guidance is not monitored for compliance.
- Alternative solutions should be documented to demonstrate effective control.

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Compliance

This Network Rail standard/control document is mandatory and shall be complied with by Network Rail Infrastructure Limited and its contractors if applicable from 3rd September, 2022.

Where it is considered not reasonably practicable¹ to comply with the requirements in this standard/control document, permission to comply with a specified alternative should be sought in accordance with the Network Rail standards and controls process, or with the Railway Group Standards Code if applicable.

If this standard/control document contains requirements that are designed to demonstrate compliance with legislation they shall be complied with irrespective of a project's Governance for Railway Investment Projects (GRIP) stage or Project Acceleration in a Controlled Environment (PACE) phase. In all other circumstances, projects that have formally completed GRIP Stage 3 (Option Selection) or PACE strategic development & project selection phase may continue to comply with any relevant Network Rail standards/control documents that were current when GRIP Stage 3 or PACE phase 1 was completed.

NOTE 1: Legislation includes National Technical Specification Notices (NTSNs).

NOTE 2: The relationship of this standard/control document with legislation and/or external standards is described in the purpose of this standard.

Disclaimer

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¹ This can include gross proportionate project costs with the agreement of the Network Rail Assurance Panel (NRAP).

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Issue record

Issue	Date	Comments
1	Jan 1998	Emergency issue by Railtrack
2	Apr 2006	Updated to Network Rail issue
3	Jun 2009	Updated section U004 in reference to Hardlock nuts fitted to point stretcher bars
4	Dec 2010	Updated to include new G!/B004 requiring preservation of evidence after accidents and incidents
5	Dec 2016	New module B005, E022 updated to incorporate LOI323 and module A011 withdrawn. Re-categorised as Level 3 document
6	March 2018	Module B005 update to reflect actual product installed
7	Sept 2018	Modules A003 & A013 – Minor amendments to remove out of date references to ORR documents. Module A012 withdrawn as out of date.
8	June 2019	Modules X01 to X04 withdrawn as superseded by NR/L3/SIGELP/50003 and E041 reissued to reflect modern technology
9	Dec 2020	New Modules added – B006 Damaged Signalling Equipment and R001 Remote Maintenance – EBI Track 200 Calibration Guide.
10	Sep 2021	Review and re-issue of all modules as part of a full document review.
11	June 2022	Minor corrections to B001, B002, U033, T001 Flow Chart symbols corrected and U034 full re-write.

Legislation

No legislation has been identified that is applicable to the content of this standard/control document.

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1 Purpose

This Handbook covers personal safety issues and the essential features of S&T equipment. The Handbook also includes information not covered by the Rule Book which is necessary for any S&T staff involved in lineside or technical work.

2 Scope

This Handbook applies to signal engineering staff.

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A013	Briefing of Standards	4	04/09/2021	04/12/2021
A015	Cyber Security	1	04/09/2021	04/12/2021
A016	Definition of Safety-Critical Work	3	04/09/2021	04/12/2021
A017	Working on Equipment - General	3	04/09/2021	04/12/2021
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B002	Disconnections – During Failures or to Work on S&T Equipment or the Release of Controls	4	04/06/2022	03/09/2022
B003	Releases and Restoration	3	04/09/2021	04/12/2021
B004	Preservation of Evidence After Accidents and Incidents	2	04/09/2021	04/12/2021
B005	Remote Reset of Signalling Equipment	3	04/09/2021	04/12/2021
B006	Damaged Signalling Equipment	1	05/12/2020	05/06/2021
B008	Disconnections – Additional Protection for Line Blockages by Signalling Disconnections or Technician’s Controls	1	04/09/2021	04/12/2021
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Part D				
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D013	Temporary Signalling Alterations for Emergency Trackwork	3	04/09/2021	04/12/2021
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D022	Circuit Diagrams - Colouring	3	04/09/2021	04/12/2021
D023	Circuit Diagrams - Symbols and Nomenclature	3	04/09/2021	04/12/2021
D024	Circuit Diagrams - Wiring	3	04/09/2021	04/12/2021
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D031	Site Records	3	04/09/2021	04/12/2021
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E003	Use of Mobile Telephones, Radio Transmitters and Un-Suppressed Portable Devices	3	04/09/2021	04/12/2021
E004	Safe Handling of Electrostatic Sensitive Devices	3	04/09/2021	04/12/2021
E005	Segregation of Wiring	3	04/09/2021	04/12/2021
E022	Rectification of Earth Faults	4	04/09/2021	04/12/2021
E041	Signalling Circuits in Telecommunication Systems	4	04/09/2021	04/12/2021
E052	Insulation of Unterminated Wires	3	04/09/2021	04/12/2021
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G003	Cables Terminated on RHS - Check Sheet	1	04/09/2021	04/12/2021
G004	Cable Terminated on Left Hand Side - Check Sheet	1	04/09/2021	04/12/2021
G005	Top-Nutted Cable on RHS Check Sheet	1	04/09/2021	04/12/2021
G006	Top-Nutted Cable on LHS - Check Sheet	1	04/09/2021	04/12/2021
G007	Cable on Right Hand Side Changeover - Check Sheet	1	04/09/2021	04/12/2021
G008	Cable on Left Hand Side Changeover - Check Sheet	1	04/09/2021	04/12/2021
Part M				
M002	Seasonal Precautions	3	04/09/2021	04/12/2021
M003	Alignment of Unipart Dorman Signal Heads	1	04/09/2021	04/12/2021
Part P				
P001	Painting of Signalling Equipment	3	04/09/2021	04/12/2021
P011	Labelling Internal Equipment	3	04/09/2021	04/12/2021
P015	Safety Signs for S&T Installations	3	04/09/2021	04/12/2021
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R001	Remote Maintenance – EBI Track 200 Calibration Guide	2	04/09/2021	04/12/2021

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Section	Description	Issue	Issue Date	Compliance Date
R002	Remote Signalling Busbar Monitoring (II)	1	04/09/2021	04/12/2021
R003	Track Circuit Calibration for Remote Condition Monitoring (RADAR)	1	04/09/2021	04/12/2021
Part T				
T001	Testing - General	4	04/06/2022	03/09/2022
T002	Emergency Testing	1	04/09/2021	04/12/2021
Part U				
U001	Tools, Measuring Instruments and Calibration	3	04/09/2021	04/12/2021
U002	Inspection and Safety of Tools, Plant and Protective Equipment	3	04/09/2021	04/12/2021
U003	Fixings: Nuts, Bolts, Screws, Washers, etc	3	04/09/2021	04/12/2021
U004	Hardlock Nuts	4	04/09/2021	04/12/2021
U005	Torque Wrenches	3	04/09/2021	04/12/2021
U007	Checking Gauges	3	04/09/2021	04/12/2021
U012	Extractor Tools	3	04/09/2021	04/12/2021
U017	Insulation Displacement Connectors	3	04/09/2021	04/12/2021
U019	Use of the Volt Stick	1	04/09/2021	04/12/2021
U020	Meters for Signalling Use	3	04/09/2021	04/12/2021
U021	Insulation Test Equipment	3	04/09/2021	04/12/2021
U033	Use of Monitoring and Test Equipment	4	04/06/2022	03/09/2022
U034	Management and Control of Temporary Straps	4	04/06/2022	03/09/2022
U041	Miscellaneous Test Equipment	3	04/09/2021	04/12/2021
U042	Earth Fault Test Adapters	3	04/09/2021	04/12/2021
U043	AWS Strength and Polarity Meter	3	04/09/2021	04/12/2021
Part W				
W002	Portable Plant, Tools and Materials at the Lineside	3	04/09/2021	04/12/2021
W004	Common Worksite Hazards for S&T Staff	3	04/09/2021	04/12/2021
W011	Asbestos	3	04/09/2021	04/12/2021
W012	Polychlorinated Biphenyls (PCBs)	3	04/09/2021	04/12/2021
Part X				
X011	Electrical Safety - Cathode Ray Tubes	3	04/09/2021	04/12/2021
X021	Safety in Battery Rooms	3	04/09/2021	04/12/2021

END

Standard and control document briefing note

Ref: NR/L3/SIG/10064		Issue: 11	
Title: General Instructions to Staff Working on S&T Equipment			
Publication date: 04 June 2022		Compliance Date: 03 September 2022	
Standard/Control Document Owner: Network Technical Head Signalling			
Technical lead/contact for briefings: Pardip Basran, Senior Engineer (CCS)		Tel: 07801 903854	
Purpose: This Handbook covers personal safety issues and the essential features of S&T equipment. The Handbook also includes information not covered by the Rule Book which is necessary for any S&T staff involved in lineside or technical work.		Scope: This Handbook applies to signal engineering staff.	
Overview of change This is the continuing update to the General Instructions to ensure the most update to date is provided and updates from user feedback.			
Detail of change			
Section(s)/clause(s)		Summary of changes	
NR/L3/SIG/10064		Index updated	
NR/GI/B001		Clause 1.6 amended to say "does not need to be carried out"	
NR/GI/B002		10 f) amended to say section 11	
NR/GI/T001		Flowchart symbols updated	
NR/GI/U033		Clause j) corrected to direct to SMTH/Part01/14 (prev 13)	
NR/GI/U034		Was previously written for NR maintenance only, now applies to all signalling disciplines. The module sets out the requirements of managing and controlling straps including unattended temporary straps. The module also included the test strap record card.	
Reasons for change This is the continuing update to the General Instructions to ensure the most update to date is provided and updates from user feedback.			
Affected documents:			
<i>Reference</i>		<i>Impact</i>	
NR/L3/SIG/10064 ISSUE 10		Superseded	
NR/GI/B001 ISSUE 3		Superseded	
NR/GI/B002 ISSUE 3		Superseded	
NR/GI/T001 ISSUE 3		Superseded	
NR/GI/U033 ISSUE 3		Superseded	
NR/GI/U034 ISSUE 3		Superseded	
Briefing requirements:			
Will Briefing Management System be used to deliver the briefing to posts listed below? No			
<i>Technical briefings are given to those who have specific responsibilities within this standard/control document.</i>			
<i>Awareness briefings are given to those who might be affected by the content but have no specific responsibilities within the standard/control document.</i>			
<i>Details of the briefing arrangements are included in the associated briefing programme.</i>			
<i>All posts identified for briefing must be as described in OrgPlus.</i>			
<i>Roles are directly briefed and do not cascade briefings.</i>			
Briefing <i>(A-Awareness/ T-Technical)</i>	Post	Function	Responsible for cascade briefing? Y/N
T	Signal & Telecoms Maintenance Engineer	Regions	Y
T	Section Manager [Signalling]	Regions	Y
T	Systems Support Manager	Regions	N
T	Works Delivery Manager [Signalling]	Regions	Y
A	Infrastructure Maintenance Engineer	Regions	N
T	Workforce Development Specialist	Route Services	Y
T	Senior Testing Engineer	Route Services	Y
Role		Function	

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(A-Awareness/ T-Technical)		
T	Regional Engineer [Signalling]	Regions
T	Signal Technicians	Route Businesses
T	Signalling Technical Support Staff	Route Businesses

NOTE: Contractors are responsible for arranging and undertaking their own Technical and Awareness Briefings in accordance with their own processes and procedures.