

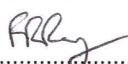
Ref:	NR/L2/TEL/30073
Issue:	2
Date:	7 th March 2009
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Level 2

Specification for the Maintenance of Driver-to-Signalbox Radio Systems (CSR and SMA)

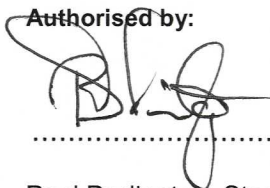
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Issue record

Issue	Date	Comments
1	June 2006	First Issue
2	March 2009	Renumbered, was NR/WI/TEL/30073. Section 4 (Responsibilities) strengthened to check that overlap coverage, where it exists, is available before maintenance commences on a Fixed station. Need to check for Forward and Reverse power levels added to FS routines A6. Timescale for submission of method statement deleted. Appendix B service B, items B5 & B6 moved after B10 and table contents renumbered accordingly. Appendix C Service A9 check of call connect facility added. Appendix E added to reinforce the need to check / clean CSR Change Area Signs.

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 05/09/2009.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

Reference documentation

NR/SP/TEL/31001	Telecommunications Maintenance Testing & Failure Investigation
NR/L2/TEL/31002	Maintenance of Telecommunications Equipment
NR/L2/TEL/30074	Maintenance of Telecoms Earth and Screening Systems
NR/L2/TEL/30081	Maintenance of Telecoms Power Plant and Batteries
NR/L2/TEL/30088	Maintenance of Antenna Systems and Feeders
NR/SP/TEL/30027	Technical Requirements for Legacy Train Radio Communications
GI/RT/7033	Lineside Operational Safety Signs
BR1845	BR Spec – Train to Signalbox Radio Systems (Fixed Equipment)

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Contents

1 Purpose	4
2 Scope	4
3 Definitions (in addition to those defined in NR/L2/TEL/31002).	4
4 Responsibilities	5
Appendix A Fixed Station	6
Appendix B Management Processor / Signallers Processor	9
Appendix C Signallers terminal	11
Appendix D - System Monitoring	12
Appendix E Change Area Signs	14

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1 Purpose

This instruction defines the maintenance requirements for Cab Secure Radio systems in use on Network Rail infrastructure.

The purpose of maintaining and testing these radio systems is to decrease the incidence of failures through deterioration and to identify potential failures before they become service affecting and that they conform to the licencing conditions for spectrum management granted by Ofcom e.g. frequency & power parameters.

2 Scope

For the purposes of this instruction, Cab Secure Radio shall include SMA radio systems installed in Scotland. This instruction applies to all persons engaged in the maintenance of Cab Secure Radio equipment.

The maintenance of Voice Recorder associated with CSR / SMA systems is detailed within NR/L2/TEL/30082 Specification for the maintenance of Voice Recorders.

3 Definitions (in addition to those defined in NR/L2/TEL/31002).

CSR

Cab Secure Radio

CTCSS

Continuous Tone Controlled Squelch System

ESD

Electrostatic Sensitive Device(s)

FS

Fixed Station

Main Earthing Terminal

The terminal or bar provided for the connection of protective conductors and connections to the master earth electrodes

MP

Management Processor

Ofcom

Office of Communications

RF

Radio Frequency

SMA

Strathclyde Manning Agreement

SP

Signallers Processor

Ref:	NR/L2/TEL/30073
Issue:	2
Date:	7 th March 2009
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ST
Signallers Terminal

TME
Telecoms Maintenance Engineer

4 Responsibilities

Maintenance work which causes the outage of any part of the radio system shall be planned in advance and agreed between the maintainer and relevant TME.

Where overlap coverage exists then the outage may be planned to be taken at any time subject to a check being made to confirm that overlap coverage is available (e.g adjacent base station(s) are operational at the commencement of the maintenance routine.

Where no overlap coverage exists, the TME will either, direct that any outage takes place during a no-train period, or substitute equipment is provided to maintain coverage during maintenance.

All defects identified during maintenance shall be reported to fault control for entry into the fault recording database for further investigation.

All actions taken to correct deficiencies identified during maintenance shall be recorded on the maintenance work return.

The maintainer shall follow the procedures and frequencies as detailed in the attached appendices.

Appendix A – Maintenance of Fixed Station

Appendix B – Maintenance of Management Processor / Signallers Processor

Appendix C – Maintenance of Signallers Terminal

Appendix D – System Monitoring

Appendix E – Maintenance of Change Area Signs

Where more than one service has been scheduled for a maintenance visit, the services shall be performed in reverse alphabetic order.