

TECHNICAL INSTRUCTION

TI 141
Issue 1
May 2009
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NETWORK RAIL - SIGNAL ENGINEERING SSI Interlocking MPM Mod States

Relevant Standards: NR/GN/SIG/17901

Purpose

This TI is to give notification of recently issued MPM Mod States that amend those listed in NR/GN/SIG/17901 Issue 3, noting the requirement that all three Interlocking MPMs within a Central Interlocking are of the same type and modification state, and running the same version of main, trackside communications, and internal communications software. This is to avoid possible timing issues that may otherwise develop in the timing critical triplicated system.

This TI supersedes NB 077 which is withdrawn.

Scope

Category Mk2B, AL3A and WS3A SSI schemes.

Background

Two separate MPM upgrades have recently been issued that alter the SSI Configuration Guide documented in NR/GN/SIG/17901. Identification of these upgrades requires special care, since lack of a suitable Mod State panel on the MPMs has meant that special identification measures have had to be adopted.

Abbreviations & Definitions

MPM Multi-Processor Module
SSI Solid State Interlocking.

Recent MPM Modifications

Two recent MPM modifications and their associated means of identification are:-

- SSI4304 C4 Communications Software (applicable to WRSL and ALSTOM MPMs)
- Power Supply Upgrade (applicable to ALSTOM MPMs only).

SSI-4304-C4 Communications Software This software version improves the trackside communications diagnostics, but requires special identification measures due to the lack of a suitable Mod State panel.

ALSTOM MPMs have revised product numbers SS1002B (Mk2B schemes) and SS1003B (AL3A schemes) to denote fitment of SSI-4304-C4, and SS1002 MPMs (older Mk2B schemes) carry a small label near the manufacturers label with the legend "SSI-4304-C4 CONV".

WRSL MPMs with this software carry a small label on or near the manufacturers label with the legend "SSI-4304-C4 Fitted".

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Where no label is present, any WRSL MPM or ALSTOM SS1002 MPM shall be assumed to have SSI-4304-C3 software.

ALSTOM MPM Power Supply Upgrade This hardware upgrade provides resilience to very short (around 10ms) power outages that could otherwise cause MPM security fuse rupture, and makes the MPM compatible with the standard ESOC timer.

For each ALSTOM MPM type the hardware Mod State having the power supply upgrade is as follows:-

SS1002A – Mod State 3

SS1002B – Mod State 2

SS1003 – Mod State 3

SS1003B – Mod State 2

Compliance Requirements

Immediate compliance is required, noting that the requirement that all three Interlocking MPMs within a Central Interlocking are of the same type and modification state, and running the same version of main, trackside communications, and internal communications software remains unaltered.

Action Required

Servicing Agents, Stores Managers and Technicians that handle SSI MPMs shall note that when checking an MPM for correct or matching type, this must include a full check of hardware and installed software versions. This check shall include inspection for the Mod State identifiers included in this TI.

Staff to be Briefed

Role	Responsible for Briefing
National Maintenance Engineer (S&T)	Author
Principal Maintenance Support Engineers (S&T)	National Maintenance Engineer (S&T)
Signal & Telecoms Maintenance Engineer	Principal Maintenance Support Engineers (S&T)
Section Manager (Signals)	Signal & Telecoms Maintenance Engineer
Signal Technicians Signalling Technical Support Staff Stores & Logistics Co-Ordinators Infrastructure Maintenance Services Manager	Section Manager (Signals)
Testing and Commissioning Engineers	
Servicing Agents that handle SSI Equipment	

End