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| Ref:             | NR/SIG/10665/Mod 010 |
| Issue:           | 2                    |
| Date:            | 12/09/2014           |
| Compliance date: | 06/12/2014           |

## Module 010

# Reliability Centred Maintenance of Signalling Equipment (ROSE) – NR/ROSE/AX15 Axle Counter Thales AzLM

### Endorsement and Authorisation

For endorsement and authorisation, please refer  
to NR/L3/SIG/10665

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## Issue record

| Issue | Date       | Comments                                              |
|-------|------------|-------------------------------------------------------|
| 1     | 03/09/2011 | Transfer from NR/L3/SIG/10665 (6) into modular format |
| 2     | 12/09/2014 | Minor change to task and frequency                    |

## Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 06 December 2014.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

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## NR/ROSE/AX15 Axle Counter Thales AzLM

|                  |                                                               |
|------------------|---------------------------------------------------------------|
| <b>Includes:</b> | AzLM with EAK30H Lineside Junction Box and PC Based Evaluator |
|------------------|---------------------------------------------------------------|

**Caution:** Metallic objects shall be kept away from the counting heads as they can cause incorrect operation.

**Always take possession of the axle counter sections before adjusting the associated count heads.**

**Before carrying out any work on the EAK. Check Traction Bonding is correct to the bonding plan**

### General

These were formally known as Alcatel axle counters.

One Axle Counter Evaluator (ACE) may have up to 32 detection points, one or more of these detection points may be shared with another section and so two ACEs may be affected by tests on one rail contact.

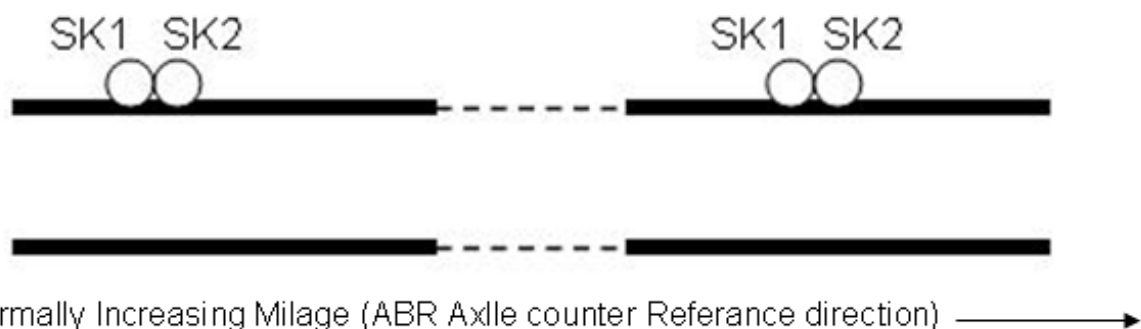
Always check the configuration of the rail contacts before undertaking any preventative or corrective maintenance and arrange the necessary possession with the signaller .

If you cannot make these arrangements, certain tasks and tests (disruptive) will not be possible. Inform your SM(S) of the situation.

The Signaller is responsible for resetting the axle counter.

Any adjustments or replacements shall be classed as corrective maintenance .

### Typical Layout of Rail Contacts (Type SK30H)



There are four typo's in this diagram's text

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## REGULAR SERVICES

### 1 System Diagnostics

#### 1.1

Perform a diagnostic download from the system. Do this at a frequency set by local policy from the S&T Maintenance Engineer .

*This can be done either at the ACE or remotely using a dial up/LAN connection.*

*See Appendix B for details of how to connect a suitable computer to the diagnostic interface, either directly or via a modem.*

*A download of the last 24 hours will indicate if any other tests are necessary, particularly any data line quality tests.*

#### 1.2

Report any fault messages or alarms as corrective maintenance items, as detailed in [NR/SMS/Part/A01](#).

*Drift warnings recorded by diagnostics may indicate movement. Appendix C contains details of how to set up and adjust the count heads if drift warnings are received.*

#### 1.3

Store the downloaded data separately from the computer.

*This can be a memory stick, CD or a DVD.. The files and device shall be suitably tagged/labelled and kept for a minimum of five years.*

### **SERVICE B1**

#### **Not required if Section 7 of B2 service carried out**

### 2 Rail Contacts

#### 2.1

Examine the rail contacts, rail insulations, mounting brackets, bolts and flux plates, if fitted, for security and damage.

*The TX head should not touch the railhead. If a head or fixing is loose, check alignment and tighten/renew bolts as necessary.*

#### 2.2

Examine all tail cables, connections, clamps and brackets for security and damage. Check that the cables are clear of any heavy obstructions and that protection arrangements are sufficient.

*Protective hose shall be used to protect the cable from the rail contacts to the EAK.*

#### 2.3

Check that the labelling on the cables is legible, secure and intact.

#### 2.4

Check that the protection plates, if fitted, are tight.

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## 2.5

Check that pads and clips are not damaged or missing for three sleepers on either side of the rail contacts.

*Damaged or missing items may cause incorrect operation.*

## 2.6

Check the area around the rail contacts (within 2m), *make sure* it is free of the following items:

- p/way defects
- new/scrap rails in the four/six foot or cess
- metallic debris
- rail embossments behind rail contacts
- traction bonds
- excessive ballast

*Any problems that cannot be rectified shall be classed as corrective maintenance.*

## 2.7

Measure the resistance between the Rx rail contacts and the running rail/M12 bolts. The reading should be  $>2M\Omega$ .

*If the reading obtained is  $<2M\Omega$ , the rail insulations require cleaning or replacing as necessary.*

## 3 Lineside Junction Box (EAK)

### 3.1 Examine the following items:

- security of the cover
- earth bonding
- *if necessary, check against the signalling bonding plan*
- cable entries, glands, and ties
- unused cable entry points should have blanking plates fitted
- cables connections, clamps and brackets
- *protective hose and security clamp protecting the cable from the EAK to the rail contacts*
- EAK identification.

### 3.2

Check that all cables to and from the EAK are undamaged and clear of any heavy obstructions, *such as new/scrap rails lying across the cable.*

### 3.3

Remove the EAK cover and *Examine* the following items: