

Module 015

Reliability Centred Maintenance of Signalling Equipment (ROSE) – Colour Light Index

Endorsement and Authorisation

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

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User information

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

Red requirements – *No variations, could stop the railway*

- **Red requirements shall** always be complied with and achieved.
- Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.
- Red requirements are monitored for compliance.
- Corrective actions shall be enforced if deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – *Controlled variations, approved risk analysis and mitigation*

- **Amber requirements shall** be complied with unless variation has been approved in advance.
- Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.
- Amber requirements are monitored for compliance.
- Variations **may** be permitted. Variations are approved by the Standard Owner or through existing Delegated Authority arrangements.
- Corrective actions shall be enforced if **non-approved** variations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – *Guidance*

- Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.
- Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.
- Guidance is **not mandatory** and is not monitored for compliance.
- Alternative solutions may be used. Alternative solutions do not need to be formally approved.
- Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

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Colour Light Index
Issue Date: 05/09/15
Compliance Date: 05/12/15
Issue No: 02

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NR/ROSE/SG-A1/1	
Signal Structures	

Signal ID Plate



Check

For damage, fading and security

For correct alignment

Sign is displaying correct signal number & type



Wipe

All signs

Signal Structure

Including - post, brackets, fittings, supports, ladders, anti vandal ladder guards, staging, handrails, protective meshing, hoods, (etc).



Check

For signs of serious corrosion before us

For loose or damaged fittings

For obvious hazards

For the security of traction bonding (where fitted)

Effectiveness of Signal & indicator door locking mechanisms

Signal head, len hoods, backgrounds, & if provided anti-vandal guards

For Crown Post type or similar

mounting arrangement***Check***

When moving signal head / post
that signal head cable is not trapped
by the mechanism

***Report***

Serious damage, corrosion or
hazards as corrective maintenance

Affix 'Structure Unsafe' notices as
appropriate

***Lubricate***

All hinges, catches and locks

Signal Sighting***Check***

For correct alignment using

integrated devices (if fitted)



More Info on the 'Signal Sighting' on
page 28 of this document

For signal aspect is clearly visible &
not obscured at sighting distance

***Report***

Immediately to ICC & line manager
for rectification of any problems
with signal sighting

Signal Cables***Check***

Condition of visible cables for
damage

All Disconnection Boxes (if fitted)



Check

For signs of wet or dry wire degradation

Terminations are secure & free from corrosion

Cables are labelled correctly

Cable glands are effective

Lid fits securely & padlocked

**NR/SIG/10665 Reliability Centred
Maintenance of Signalling
Equipment(RoSE)**

NR/ROSE/SG-A1/1

Signal Structure

Issue Date: 03/12/11

Compliance Date: 03/12/11

Issue No: 01

The End

NR/ROSE/SG-A2/1



Signals with 8000 hr SL35 Lamps

Residual Voltage Test**Warning**

Doors on filament lamp heads shall not be opened if there is a train approaching, also care must be taken when working at night with the use of hand / head torches as either may lead to the driver getting a phantom aspect

**Check**

Exterior lenses for damage, distortion or obstructed

Exterior lenses are correctly aligned



'Hot Strip'

Interior of signal head for deterioration, water ingress or contamination

Any signal head ventilation is effective

Door seals are effective

[More Info on the 'Colour light Signal lens orientation' on page 31 of this document](#)

**Clean**

Exterior lenses if required

Polycarbonate lenses with suitable cleaner

Interior of signal head including lenses

**Examine**

All internal lenses

All internal electrical components & terminations for security & corrosion

Condition of lamp contact springs

for pitting (using dentist mirror)

Cable enteries, glands & clamps



Protect

Terminations as necessary

**Where practicable to carry out tests
- contact the signaller for
permission before starting tests**



Test

**By removing the currently lit lamp
from it's holder**

**It is suggested to reduce lamp
failures, that the normally lit lamp is
replaced with a new lamp at this
time**

For non SSI areas



Check

**GECR or similarly named lamp
proving relay de-energises**

**GECR relay re-picks when lamp
replaced**

For SSI areas



Check

**With signaller that a lamp out alarm
was received**

For all areas



Check

Main filament voltage for all aspects

For 0v on auxiliary filaments with main filament illuminated

Auxiliary filaments voltage for all aspects by disconnecting each aspect main filament in turn using 'Faston' connection if fitted

That the main filament is extinguished & auxiliary filament illuminated when the main filaments are disconnected

When the signaller is contact when work is completed, that a filament failure alarm was received



Adjust

Lamp voltage if necessary to comply with the following values

Main filament - 11.0v to 12.1v

Aux filament - 10.5v to 12.1v



Record

Results as detailed on record card (should be kept in a suitable location)



Report

Any damage or discolouration of lenses as corrective maintenance

Any problems that cannot be immediately rectified

Note:

When informing the signaller that you have completed the work on a Signal, care must be taken to ensure the signal is displaying the correct aspect and that it corresponds to the signal box indications. This is especially important when any signalling equipment has been operated by means other than a train.

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