

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A		
Index		
Issue No. 08	Issue Date: 06/09/14	Compliance Date: 07/03/15

Part	Title	Issue
A01	Introduction	06
A02	Preventative & Corrective Maintenance	01
A03	Definitions	06
A04	Method Statement Summary	07
A05	Plant, Tools & Calibration	03
A06	Materials	03
A07	Security of Equipment	01
A08	Items for Renewal	02
A09	Lubrication	02
A10	Painting & Surface Treatments	02
A11	Maintenance Diagrams	01
A13	Reinstating Flooded or Water Affected Equipment	03
A14	How to Care for the Environment	02
A15	Out of Use Assets	01
A16	Reference Documents	02
A17	Signalling Definitions	01

End

This Page is Intentionally Blank

Copyright Network Rail
Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A01		
Introduction		
Issue No: 06	Issue Date: 02/03/13	Compliance Date: 07/09/13

GENERAL

This manual gives all the information needed to maintain signalling equipment to the necessary standard. The manual is divided into separate parts as follows:

Part A:

Describes the general responsibilities and conditions for maintaining equipment.

Part B:

Contains the specified tests that are referred to in the signalling maintenance specifications. These are identified in sections A, C, E, & T of this document by means of a hyperlink. For Example: [FPL TEST \(MACHINE\) \(001\)](#)



Specified tests on assets not owned by signalling are in the appropriate sections along with the maintenance specification.

Part C:

Contains the approved maintenance specifications for signalling assets. These are packaged as units of work, each unit being designed around a physical asset. If a part or all of that asset is owned by different function (e.g. SPTs on signals) the maintenance specification for that asset is in the relevant section.

Part D:

Contains the indexes and references to the level crossing annual tests (details of how the obtain the annual test documents are detailed here).

Part E:

Contains the approved maintenance specifications and specified tests for assets owned by functions other than Signalling or Telecoms that are maintained by signalling. (e.g. HABD systems).

Part R:

Contains the standard NR/SMS record cards associated with the tests and tasks in part B & C (the Filofax issue contains the index only, details of how the obtain the record cards are detailed here).

Part T:

Contains the approved maintenance specifications and specified tests for Telecom assets that are maintained by Signalling.

Part Z:

Contains listings of commonly used voltages and measurements on all assets as a ready reference guide.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A01		
Introduction		
Issue No: 06	Issue Date: 02/03/13	Compliance Date: 07/09/13

Part Appendix:

Contains information on equipment that is not direct preventative or corrective maintenance but provides background information which will assist in carrying out these tasks but is too large or detailed to fit in the generic '00' series of NR/SMS parts C, E, or T.

Each maintenance specification is divided into services, tests, and tasks that relate to the frequency of the maintenance.

The frequency for each NR/SMS service is stated in NR/L2/SIG/10661.

DAILY SERVICES:

Services and/or tasks that are performed on a daily basis.

REGULAR SERVICES:

Services, tests or checks that are performed at a frequency greater than daily but can be equal to or less than Service A.

SERVICE A:

Generally relates to the routine inspection and testing of equipment (typically four times a year).

SERVICE B:

Relates to the heavy maintenance or testing (typically once a year).

PERIODIC TASKS:

Relates to tasks that are carried out periodically (usually between two and five years) as opposed to cyclic. (e.g. periodic tasks may include memory battery replacement on PC boards or returning an item for re-servicing at an approved service centre).

The frequencies for each NR/SMS service/test/check/task are stated in NR/L2/SIG/10661.

Role Descriptions:

Role descriptions within NR/SMS refer to Network Rail post and titles. Companies other than Network Rail may use different posts and titles. It shall be the responsibility of the individual companies to map the Network Rail posts and titles within NR/SMS to the equivalent ones within their own company.

Mandating of Tasks and Tests:

Some tasks and tests within NR/SMS have the following comments as part of their description:

At a frequency set by local policy from the S&T Maintenance Engineer:

If provided:

If fitted:

If the details of a task or test having this comment are applicable to you, it will be on your work order, or if not your SM(S) will tell you. If you are in any doubt, ask.

Any task that does not have these comments attached to them is mandatory.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A01		
Introduction		
Issue No: 06	Issue Date: 02/03/13	Compliance Date: 07/09/13

Imperial and Metric Measurements:

Some older signalling equipment (especially mechanical) was designed, built, and installed to imperial measurements. This also applies to new equipment built in the United States of America (USA). These do not always easily convert or make sense in metric units. If a piece of equipment is from the 'imperial' era, or from the USA the appropriate imperial measurement is used. If it is a new piece of equipment metric measurements are used. If you are unsure about any imperial or metric measurements stated in NR/SMS, ask your SM(S).

Inspection and Surveillance

Line managers shall verify the correct undertaking and quality of preventative and corrective maintenance by following the appropriate standards and procedures.

End

.....

This Page is Intentionally Blank

Copyright Network Rail
Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A02	
Preventative and Corrective Maintenance	
Issue Date: 01/12/09	Issue No: 01
Compliance Date: 01/06/10	Page 1 of 2

Safety: The safe passage of trains is the top priority, if you find any item that can or will affect this, immediate action shall be taken up to and including blocking the line. More details can be found in GE/RT8000 (rule book).

Preventative Maintenance

The scheduling of preventative maintenance is the responsibility of the maintenance function within Network Rail. This is performed by the Ellipse system which produces work orders.

For signalling, electronic handheld devices are used for scheduling and inputting in place of paper. In all cases all references to work orders or Work Arising Identification Forms (WAIFs) also mean displayed on or entered in the handheld device.

As well as filling out the appropriate NR/SMS record cards for the items you are maintaining, the work orders shall also be fully completed.

Note: Any work undertaken other than that stated on your work order including any adjustments that have to be made as a result of undertaking a task/test shall be classed as corrective maintenance and dealt with as detailed in the next section.

If you find any conflict between what is stated on your work order and the asset you have to maintain (e.g. work order states a WRSL 63 point machine but the asset is actually a HW point machine) or find an asset that should be maintained but is not on your work order (e.g. the point system has a supplementary drive but there is no job for it on the work order) or the work order states maintain an asset that has been removed or the work order states an incorrect job for the asset, inform your SM(S). If you have any problems or queries with the maintenance you are scheduled to undertake, inform your SM(S).

Corrective Maintenance

Some of the tasks/test within NR/SMS asks you to rectify any defects you find or undertake adjustments, tightening etc. This shall be classed as corrective maintenance.

Copyright Network Rail
 Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
 No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A02	
Preventative and Corrective Maintenance	
Issue Date: 01/12/09	Issue No: 01
Compliance Date: 01/06/10	Page 2 of 2

All corrective maintenance items shall be recorded in Ellipse using the WAIF process. This shall apply to:

- Work identified and completed
- Work identified but not completed
- Work identified that is undertaken by other functions (e.g. Track, E&P etc).

Corrective maintenance items that are causing a failure that will have an impact on the running of trains shall also be reported to the Integrated Control Centre or Infrastructure Fault Control (both covered by the generic acronym ICC) of the details so that it can be entered into the Fault Management System (acronym FMS) and appropriate action taken.

End

Copyright Network Rail
 Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
 No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A03		
Definitions		
Issue No: 06	Issue Date: 02/03/13	Compliance Date: 07/09/2013

GENERAL

- The following terms appear as hyperlinks in this standard to describe particular actions that shall be used when maintaining equipment.

Term	Definition
Brush	Brush all loose dirt from apparatus and foundations using a brush which has no exposed metallic surfaces
Check	Visually inspect for alignment, obstructions, breakages, decay, obvious damage, and/or operation within its defined tolerances, and/or fulfilment of purpose.
Clean	Remove moisture, dirt, corrosion, or roughness (e.g. from contact faces).
Dust	Dust lightly with a brush with no exposed metallic surfaces or duster.
Examine	Closely inspect apparatus and connections for wear, security, corrosion, deterioration, decay, and damage.
Isolate	Electrically disconnect from working circuitry as detailed in NR/SMTH/Part-03/Check A05
Lubricate	Oil or grease parts to reduce friction or provide protection and wipe off excess.
Measure	Apply an approved, calibrated measuring instrument/gauge, then read, and record the result.
Note	Make a physical record of the visible state, the position, or displayed indications of the equipment or item and its associated controls or operating system(s).
Observe	Look at the equipment in use to make sure it is working correctly and is not faulty.
Protect	Apply an approved protecting agent.
Rectify	Make good any faults discovered and/or adjustments required as a corrective maintenance item.
Record	Enter the obtained measurement readings or observations on a suitable record card or in a site log book.
Scrape	Scrape all dirt and surplus grease off apparatus and foundations.
Test or Gauge	Examine apparatus and run it (or use the appropriate tool, gauge or instrument) to make sure it is working correctly and is adjusted within the specification.
Wash	Remove contaminated oils, greases, and dirt by applying an approved cleaning agent, or by using a detergent and water and then drying.
Wipe	Rub apparatus with a cloth to remove dirt, grease etc.

End

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A04		
Method Statement Summary		
Issue No: 07	Issue Date: 02/03/13	Compliance Date: 07/09/13

GENERAL

This single generic method statement covers preventative and corrective maintenance activities and is based on best practice. It does not supersede any mandated documents you may currently be using (this includes local method statements or national risk control sheets) or any local policies mandated by the S&T Maintenance Engineer. Your SM(S) shall explain the documents applicable to you.

The main points that shall be considered are as follows:

- a) Scope of work
- b) Competence of staff
- c) Safety of staff and briefing arrangements
- d) Communications and emergency plans
- e) Protection arrangements and equipment
- f) Railway and public 'interfaces'
- g) Dangers
- h) Tools and plant
- i) Personal protection equipment
- j) Environmental issues

The following text explains these main points.

1. Scope of Work

Before starting any activity:

- a) Consider all the work involved;
- b) Make sure that you are protected by a safe system of work;
- c) Choose the correct maintenance specification; and
- d) Get the signallers permission before starting any work that will interfere with signalling equipment.

When you communicate with the signaller, confirm that your and their messages are clearly understood.

Section G1 of the Rule Book specifies the requirements for safe communication.

Section T1A of the Rule Book (GE/RT8000) allows you to carry out certain maintenance activities without making an entry in the train register providing that:

- a) The work does not affect the safety of train working
- b) The work does not affect the normal passage of trains
- c) The work can be carried out between trains
- d) This generally equates to lubricating and cleaning equipment, taking non-intrusive meter readings.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A04		
Method Statement Summary		
Issue No: 07	Issue Date: 02/03/13	Compliance Date: 07/09/13

Carry out work that may affect these conditions according to the appropriate section in T1A of GE/RT8000.

- NR/L3/SIG/10064 (General Instructions to Staff Working on S&T Equipment) section
- NR/GI/B002 details the permissible work that can be carried out under these circumstances.



Safety:

Section T1A does not provide protection for staff. It is only concerned with the protection of trains

Consideration shall be given to systems affected by work on individual items of equipment.

- For instance, work on a piece of equipment that might affect an erroneous release on a system.

When resetting or restoring equipment back into service, consideration shall be given to other systems that will be affected by this action.

2. Competence of Staff

You shall be trained, and deemed competent / have an authorised to work endorsed by your line manager on specific equipment you shall be undertaking preventative and corrective maintenance on. These shall be listed on your individual competency records.

You shall have:

- A current or be working towards an IRSE licence, where appropriate;
- Certificates in safety activities, as appropriate (for example, PTS, COSS, Lookout, Working at Height etc);
- Training in manual handling;
- Knowledge of the Rule Book, particularly sections T1A, T2, T3, T6, T7, T12, G1, G2 and S1
- Knowledge of HASAW, the Electricity at Work Regulations and COSHH.

3. Safety of Staff and Briefing Arrangements

Always carry out preventative/corrective maintenance using a safe system of work set up by the COSS (Controller of Site Safety).

Use a Safeguarded system whenever possible but other systems can be used as conditions permit.

Trackside briefing shall be given by the COSS before the work can start.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A04		
Method Statement Summary		
Issue No: 07	Issue Date: 02/03/13	Compliance Date: 07/09/13

Site briefings, the nature of the work, any possible dangers, Rule Book protection etc. shall be recorded on a Company Site Assessment Briefing Sheet at the time of the briefing.

4. Communications and Emergency Plans

You shall have a communication list for normal weekday working, weekend working, and on-call arrangements.

The list should include contacts for Network Rail, emergency services, hospitals and other contractors, as appropriate.

5. Protection Arrangements and Equipment

When working in a non safeguarded area, as well as normal protection arrangements, for certain activities equipment will need to be disconnected or an alternative protective measure used. This is to prevent the signaller from accidentally using the equipment being worked on.

Points

When working on points, there are two risks that you need to protect against.

The signaller could accidentally set a route involving (calling) the points and so cause a risk of injury to the person working on the points.

The signaller may set a route with the points set in a particular position. If you then move the points to check or test them you will disrupt the set route and this could cause a train accident.



Safety:

At all times, before moving any points manually ask the Signaller to move them and then apply one of the protection options below. Confirm the Signaller cannot obtain a proceed aspect over the affected points.

Protection options include the following:

- Disable signal routes by dropping the track circuit that locks the points. Always confirm the effectiveness of this with the signaller by requesting them to attempt to move the points.
- For electronic interlockings, apply control(s) via the technicians' terminal to prevent the signaller from setting a route over the points. If the control(s) do not prevent the signaller from moving the points individually (e.g. SSI route bar) the points shall also additionally be switched to manual operation using the crank handle cut out or manual/auto switch.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A04		
Method Statement Summary		
Issue No: 07	Issue Date: 02/03/13	Compliance Date: 07/09/13

- c) Disconnect the point detection (KR lines) by consulting the wiring diagrams and slipping the appropriate links in the equipment room or apparatus case. The points shall also be switched to manual operation using the crank handle cut out or manual/auto switch.
- d) Where all tail cables are connected to the point machine by plug coupler(s), disconnect all tail cable plug coupler(s) at the machine.
- e) Place a competent person (as a reminder) with the signaller to oversee the section T1A of the Rule Book arrangements and remind the signaller of the work whenever necessary.
- f) Apply a documented local operating arrangement that has been agreed with the Route Asset Manager (S&T).

When working on points where bolt heads may need to be accessed or debris between the open switch rail and stock rail removed, it is good practice to scotch the open switch. This will prevent any unexpected movement that may be accidentally caused.

6. Railway and Public 'Interfaces'



Caution:

Railway and public interfaces are areas where the public come into contact with our equipment

There are two main interfaces for preventative/corrective maintenance.

- a) Level crossings
- b) Equipment on platforms

Make sure that no member of the public is put at risk or injured by preventative/corrective maintenance activities (see also [NR/SMS/Part/A07](#)).

7. Dangers

The main dangers are:

- a) The risk to staff from trains
- b) Signalling equipment going wrong
- c) Electrical injury
- d) Accidents involving lifting, slipping, tripping and trapping fingers.

Information on dangers is available in Network Rail Hazard Directories, which will include red zone prohibited areas.

Information about dangers is also contained in local Health and Safety Policy Statements.

Always use official (lineside) access points.

NR/SIG/10663 Signal Maintenance Specifications		
NR/SMS/Part /A04		
Method Statement Summary		
Issue No: 07	Issue Date: 02/03/13	Compliance Date: 07/09/13

8. Tools and Plant

- See section [NR/SMS/Part/A05](#) 'Plant, tools and calibration' for details.

9. Personal Protective Equipment

- The risk of personal injury is reduced if personal protective equipment is correctly used.

General preventative/corrective maintenance activities for which personal protective equipment would be needed, along with associated equipment, are listed below:

- Trackside – high-visibility clothing (all orange), safety footwear, safety glasses, gloves, and a hard hat.
- Battery maintenance, topping-up cells – gloves, apron, goggles
- Third-rail areas – conductor rail shield, 1kV gloves
- Mechanical signal boxes, underfloor balance weights and levers – a hard hat
- Transporting heavy or large equipment – gloves

Your SM(S) will supply the correct PPE for the situation and the circumstances that you will be working in.

10. Environmental Issues

- Follow the relevant procedures to dispose of waste material or scrap.
- [NR/SMS/Part/A14](#) provides information on how to dispose of the different types of waste.

End

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A05	
Plant, Tools, and Calibration	
Issue Date: 01/12/09	Issue No: 03
Compliance Date: 01/06/10	Page 1 of 2

General

You shall use the correct tools to carry out preventative and corrective maintenance.

When using a test or a measuring instrument (gauge, meter, insulation tester, and so on), it shall be calibrated, within date and is fit for the purpose.

All calibrated instruments shall have a calibration label detailing the instruments unique ID and its next calibration date. If this label is not present, it is out of date, any seal is broken or the instrument is found to be faulty then the test will not be valid. You shall return faulty or un-calibrated equipment to your SM(S).

Details of test instruments and calibration requirements for S&T measuring equipment can be obtained via your SM(S). A detailed list of test instruments can also be found via your SM(S).

If you are in any doubt about a gauge or test instrument, ask your SM(S) before use.

List of Approved Tools, Gauges and Test Instruments

The listing of these items is constantly changing with the removal of certain items and new items gaining product approval. Any listing of these items in this section would be out of date in a short time and could lead to an incorrect item seemingly being approved.

Your SM(S) will be able to give you details of the currently available and approved items.

Plant

Typically includes:

- Bonding machine (powered)
- Drilling machine (powered)
- Disc cutters
- Angle grinders

This equipment shall be formally inspected and maintained and is identified by an inspection label. You shall check before you use that the equipment is within the serviceable date.

End

Copyright Network Rail

Provided by IHS under license with Network Rail

No reproduction or networking permitted without license from IHS

Licensee=Weston Williamson/5989497001, User=sam, albett

Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A06	
Materials	
Issue Date: 01/12/09	Issue No: 03
Compliance Date: 01/06/10	Page 1 of 1

General

You shall make sure that you use the correct, approved materials when maintaining equipment.

If you use alternative materials, these shall be authorised for use in line with GI/RT 7002.

Shelf life of materials must also be considered, do not use items that are outside their service date or use before date.

Inform your SM(S) if you come across any of these items.

If you are in any doubt about an item, ask your SM(S) before use.

Common Approved Materials

The listing of these items is constantly changing with the removal of certain items and new items gaining product approval. Any listing of these items in this section would be out of date in a short time and could lead to an incorrect item seemingly being approved.

Your SM(S) will be able to give you details of the current available and approved items.

End

Copyright Network Rail

Copyright Network Rail

Provided by IHS under license with Network Rail

No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

Licensee=Weston Williamson/5989497001, User=sam, albett

This Page is Intentionally Blank

Copyright Network Rail
Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A07	
Security of Equipment	
Issue Date: 01/04/02	Issue No: 01
Compliance Date: 31/08/02	Page 1 of 1

Primary Requirement

You shall always make sure that access points to the railway are closed and secured at all times when they are not in use.

You shall also make sure that S&T equipment is secured against unauthorised access. This will normally be achieved through fitting and maintaining an approved locking device such as a padlock.

You shall refit and secure all locking devices, access doors, and plates before leaving the site.

If locks are missing or ineffective, make arrangements to correct this.

Extra Security

Your SM(S) will consider the need for extra security measures in the following circumstances:

- Areas, which are being vandalised.
- Places which the public see (stations, level crossings, and urban areas).

Protection measures will be taken as appropriate. This may include:

- Mesh cages
- Poly-carbonate signal lenses
- Anti-vandal guards
- Fencing
- Using lid fixing systems on cable troughs (bands, glue, channel rodding and so on)
- Alarm systems
- Re-routing or burying cables

End

This Page is Intentionally Blank

Copyright Network Rail
Provided by IHS under license with Network Rail
No reproduction or networking permitted without license from IHS

Licensee=Weston Williamson/5989497001, User=sam, albett
Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A08	
Items for Renewal	
Issue Date: 01/12/09	Issue No: 02
Compliance Date: 01/06/10	Page 1 of 2

Maintenance of S&T equipment shall be planned at the required intervals using Ellipse. These intervals are set to make sure equipment is maintained in a safe condition and always remains fit for purpose.

Similar equipment may be maintained at different intervals depending on the regime being applied and this may alter from time to time with the application of the ROSE initiative.

You shall make sure that you give enough attention to equipment during each visit so it meets the required standard of maintenance.

As equipment ages, normal maintenance activities may not be able to maintain it to the necessary standard.

Similarly, equipment may be damaged or fail due to vandalism or interference by others.

You are responsible for making repairs of a temporary or permanent nature as appropriate (this is classed as corrective maintenance) to make sure that the equipment remains safe and reliable.

If it is not possible to maintain equipment to the necessary standard, or a temporary repair has been made, you shall report this on a WAIF (on your handheld device or by a paper form) to your SM(S). You shall identify the failed equipment and the reason for your request.

More details on corrective maintenance can be found in NR/SMS/Part/A02.

Your SM(S) is responsible for assessing each request, and prioritising any action needed.

Examples of Problems You Shall Provide a Report For:

- Wire Degradation
- Corroded Supports or Structures
- Rotten Bases or Boards
- Damaged Cable Routes
- Illegible or Missing Labels and Equipment Number Plates
- Equipment Seals or Gaskets
- Relay Bases
- Equipment Needing Reservicing
- Overgrowth or Infestation

Copyright Network Rail

Provided by IHS under license with Network Rail

No reproduction or networking permitted without license from IHS

Licensee=Weston Williamson/5989497001, User=sam, albert

Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A08	
Items for Renewal	
Issue Date: 01/12/09	Issue No: 02
Compliance Date: 01/06/10	Page 2 of 2

- Worn Fittings
- Vandalism

End

Copyright Network Rail
 Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
 No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

NR/L3/SIG/10663 Signal Maintenance Specifications	
NR/SMS/Part/A09	
Lubrication	
Issue Date: 01/02/05	Issue No: 02
Compliance Date: 30/06/05	Page 1 of 1

Approved Lubricants

You shall only use approved lubricants on signalling equipment (see NR/SMS/Part/A06 'Materials').
The following is a guide to the various types of lubricant.

Mineral Oil

This is used for lubricating mechanical connections (unless grease points are provided) in order to reduce wear and make the connection work smoothly.
Apply oil sparingly and wipe away any excess or spillage.

Caution: Do not allow oil to come into contact with electrical equipment or wiring.

Lithium-Based Grease

This is generally used for greasing mechanical bearings (cranks, pivots, bushes, and so on) via grease nipples.
Remove excess grease to prevent the build up of dirt.

Adhesive-Type Grease

This is used to protect exposed mechanical parts (for example lock and detector slides) from the environment.

PTFE Grease

Nulon QH90 grease contains Teflon and is suitable for use on clamp locks instead of Rocol. It is also suitable for use on other mechanical parts including cranks and slide chairs.

It is important to follow the manufacturer's instructions, particularly those relating to preparing parts before applying the grease.

Graphite Powder

This shall be used on locks and padlocks.

Caution: Do not use Mineral oil as it can allow dust/dirt to adhere inside the lock.

End

Copyright Network Rail

Provided by IHS under license with Network Rail

No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT

Licensee=Weston Williamson/5989497001, User=sam, albett

This Page is Intentionally Blank

Copyright Network Rail
Provided by IHS under license with Network Rail Licensee=Weston Williamson/5989497001, User=sam, albett
No reproduction or networking permitted without license from IHS Not for Resale, 03/27/2016 19:15:51 MDT