

Glossary of Signalling Terms

Synopsis

This document defines the meaning of commonly used **terms** which are specific to **signalling** or used in a **signalling** context. The objective is to provide a common and clearly understood meaning of each term.

Signatures removed from electronic version

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Part A

A1 Issue record

Issue	Date	Comments
One	April 2004	Original document supersedes GK/RT0002 and section 1 of GH/ZC0002

This document will be updated when necessary by distribution of a complete replacement.

A2 Implementation of this document

The publication date of this document is 3 April 2004.

This document supersedes the following Railway Group Standards, either in whole or in part as indicated:

Railway Group Standards	Issue No.	Title	Sections superseded by this document	Date(s) as of which sections are superseded
GK/RT0002	1	Glossary of Signalling Terms	All sections	5 June 2004
GH/ZC0002	1	Safety Terminology	Section 1	5 June 2004

GK/RT0002 and GH/ZC0002 are both withdrawn with effect from 5 June 2004.

A3 Responsibilities

Railway Group Guidance Notes are non-mandatory documents providing helpful information relating to the control of hazards and often set out a suggested approach, which may be appropriate for Railway Group* members to follow.

* The Railway Group comprises Network Rail Infrastructure Limited, Rail Safety and Standards Board Limited, and the train and station operators who hold Railway Safety Cases for operation on or related to infrastructure controlled by Network Rail Infrastructure Limited.

Network Rail Infrastructure Limited is also known as Network Rail.

Rail Safety and Standards Board Limited is also known as RSSB.

A4 Health and safety responsibilities

Each Railway Group member is reminded of the need to consider its own responsibilities to ensure health and safety at work and its own duties under health and safety legislation. RSSB does not warrant that compliance with all or any documents published by RSSB is sufficient in itself to ensure safe systems of work or operation or to satisfy such responsibilities or duties.

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A5 Technical content

The technical content of this document has been approved by:

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A6 Supply

Controlled and uncontrolled copies of this document may be obtained from the Corporate Communications Department, Rail Safety and Standards Board, Evergreen House, 160 Euston Road, London NW1 2DX or e-mail enquiries@rssb.co.uk. Railway Group Standards can also be viewed at www.rssb.co.uk.

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Part B

B1 Purpose

This document defines the meaning of commonly used **terms** which are specific to **signalling** or used in a **signalling** context. The objective is to provide a common and clearly understood meaning of each term.

B2 Application of this document

B2.1 To whom the guidance applies

This document contains guidance that is applicable to RSSB and duty holders of the following categories of Railway Safety Case:

- a) infrastructure controller
- b) station operator
- c) train operator.

B2.2 Documents supported by this Guidance Note

This document is designed to support all Railway Group **signalling** related documents. However, each Railway Group document will still contain its own definitions for **terms** that are specific to that document.

This document is complementary to **terms** defined in the following:

- a) GE/GN8510 Railway Group Safety Performance Monitoring – Definitions and Guidance
- b) Engineering Safety Management (Yellow Book)
- c) RSPG, part 2, section E, Guidance on Level Crossings.

B3 Definitions and acronyms

Part C of this Guidance Note contains a **glossary** of **signalling terms**.

Part C Glossary of signalling terms

C1 Introduction to glossary

This **glossary** is arranged in alphabetical order. Acronyms are arranged within the alphabetical list. Certain entries cross-reference to another entry, especially where an abbreviation is shown. Title case has been used to draw attention to defined **terms**. Generally, the full definition is shown only once. Where appropriate, the use of both new and old terminology is included.

Level crossings have a large number of specific **terms** and for this reason their entries have been given a separate section (see section C3). **Signal** sighting **terms** are of a specialist nature and therefore a separate section has also been created for these (see section C4).

The following have not been included:

- a) **terms** specific to the internal component parts of electronic systems or sub-units, for example, CPU, MPM, PPM. These are generic to many system types
- b) specific relay **terms**, for example, Armature; or relay types such as Polar, Neutral, and Biased
- c) slang **terms**, such as Dummy or Feather, unless there are no alternative **terms** in common usage.

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C2 Main glossary of terms

TERM	DEFINITION
Absence Switch	A switch which, when operated, allows a Signal Box to be un-staffed for a period, by registering telephone calls to that Signal Box, usually during quiet periods.
Absolute Block	A system of controlling rail traffic, where (under normal operations) only one train is allowed in the Block Section at a time. Proof of a section clear normally involves the observation of the train tail lamp by the Signaller.
Acceptance	A Block Signalling term where a train is permitted to proceed towards the 'accepting' Signal Box. Block regulations provide for circumstances under which a Signaller may accept a train.
Active Warning	A device which warns users of the imminent arrival of a train. Such devices may be either visible or audible.
Advance	Alternative term for Beyond.
Advanced Starting Signal	In Block Signalling , a Stop Signal beyond the Starting Signal , and worked from the same Signal Box. An alternative term for Section Signal .
Advance Warning Indicator	Non-preferred term for Warning Indicator
ALARP	Abbreviated term for As Low As Reasonably Practicable
Alias Plate	A plate which indicates the radio identification number for a Signal , in cases where this differs from the Signal Number.
Alight	An alternative term for Lit.
All Signals On	A Signaller's Control Device that places or maintains all Signals in a designated area to Danger.
Alphanumeric Route Indicator	A Route Indicator that conveys its information by illuminated alphanumeric characters. The indicators are designated 'standard' and 'miniature' as a reference to the readability categorisation of the indications.
Annett's Key/Lock	A locking mechanism for releasing a Ground Frame. The key to unlock the Ground Frame is held captive in an Annett's instrument or lock which can be released remotely from the Signal Box and interlocked with the signalling .
Annunciator	An audible indicator, for example a bell or buzzer in a Signal Box or Gate Box.
Anti-Preselection	The prevention of Preselection of a Signalling Function, thus maintaining the protection of the Signalling System.

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TERM	DEFINITION
Apparatus Case (or Cupboard)	A housing which is intended for unprotected outdoor use. It is usually of metal construction (or wooden if a cupboard), smaller than a building or REB and usually capable of being transported as a made-up unit.
Application Logic	Any technology based method that configures a product so as to provide site-specific command and control instructions. This includes mechanical logic, electro-mechanical logic, electronic switching or code.
Approach Control	The restriction of the Aspect of a Signal , to ensure that the driver can comply with the Turnout Speed, or to control the speed of a train for a Warning Call-On, Shunt or POSA class route. See also Temporary Approach Control.
Approach Lighting	The lighting or illuminating of a Signal only on the approach of a train. If no train is approaching, no light is displayed.
Approach Locking	The locking of any Route from a Signal , when the driver has seen or may have seen a Proceed Aspect at the Signal or has seen an Aspect at a previous Signal that would indicate to the driver that the former Signal is displaying a proceed aspect. If the Signal is replaced to danger, the approach locking prevents the immediate release of the route because it is possible that an approaching train may be unable to stop.
Approach Release	An alternative term for Approach Control.
Approach To	In relation to equipment on or alongside the track, positioned such that a train passes the point before reaching another defined item of equipment. See also Rear.
Approval and Issues Record (AIR)	A summary sheet created at the start of a signalling alteration, for version control purposes, to track approvals, issues and modifications.
Area of Conflict	A section of line beyond the Signal at danger on which a head-on, crossing or same direction converging collision with another legitimately positioned train could occur in the event of a SPAD.
ARS	Abbreviated term for Automatic Route Setting.
As Low As Reasonably Practicable (ALARP)	Risk reduction to as low a level as possible, given the time, effort and cost of the control measures required.
Aspect	Any valid visual indication of a Signal as displayed to the driver.
Aspect Level	The level of interlocking required to be satisfied before a Signal can display a proceed aspect.
Aspect Sequence	The order of the displayed Aspects to give the driver information about the aspect of the Signal or Signals ahead.

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TERM	DEFINITION
Aspect Sequence Chart	A diagram, used during testing, showing the sequence of the Aspects displayed at successive Signals.
ATC	Abbreviated term for Automatic Train Control. See section C3 for an alternative meaning.
ATO	Abbreviated term for Automatic Train Operation.
ATP	Abbreviated term for Automatic Train Protection.
Attainable Speed	The maximum speed a train is able to achieve at the location.
ATWS	Abbreviated term for Automatic Track Warning System.
Automatic Track Warning System (ATWS)	A system that gives trackside staff audible and/or visible warning of the approach of trains independently of the Signalling System. See also Train Operated Warning System.
Auto Working (of a Controlled Signal)	See 'Controlled Signals Working Automatically'.
Automatic Function	A function that, under ordinary operation, is operated automatically by the passage of trains and is not interlocked with any other Signalling Function. The function is generally associated with a particular Signal Box from which its operation is supervised, unless some form of local monitoring is provided.
Automatic Resetting and Restoration to Service	A self-checking process where no action is required by the Signaller or engineer, which ensures correspondence between the Signalling System and the actual state of the railway.
Automatic Route Setting (ARS)	A system for setting Routes without the action of the Signaller, based upon a stored timetable, train running information, defined priority, selection criteria and operating algorithms.
Automatic Signal	A Signal controlled by the passage of trains. It does not require any action by the Signaller or ARS. Automatic Signals are usually Passable.
Automatic Train Control (ATC)	Used to describe on-board automation that contributes to or replaces the driver's judgement as to how to control the train. (ATC=ATO+ATP)
Automatic Train Operation (ATO)	A high reliability system that automatically operates the train's driving controls in accordance with information usually received from the trackside signalling equipment or traffic control system.
Automatic Train Protection (ATP)	A safety system that enforces either compliance with or observation of speed restrictions and/or Signal Aspects by trains.
Automatic Warning System (AWS)	A system that provides audible and visual warnings to the driver on the Approach To Signals, certain Level Crossings and Emergency, Temporary and certain Permanent, Speed Restrictions. A track Inductor based system linked to the aspects of fixed lineside Signals. The track mounted inductors are supplied as standard or extra strength.

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TERM	DEFINITION
Auxiliary (Optical System)	Duplicate lamp or filament on hot or cold standby.
Auxiliary Token Instrument	A supplementary Token instrument usually located at the end of a Token Section but away from the Signal Box to facilitate prompt issue/return of Tokens.
AWB	Abbreviated term for Advance Warning Board.
AWS	Abbreviated term for Automatic Warning System.
AWI	Abbreviated term for Advanced Warning Indicator.
Axle Counter	A method of Train Detection. Track mounted equipment counts the number of axles entering and leaving a Track Section at each extremity. A calculation is performed to determine whether the track section is Occupied or Clear.
Backdrive	An alternative term for Supplementary Drive.
Backlight	An aperture provided at the rear of certain lamps, usually on Semaphore Signals or Ground Position Light Signals to enable the Signaller to see that the Signal is On and Lit.
Backlocking	Prevention of completion of a lever stroke to the fully normal position until the conditions required by the interlocking are satisfied. See also Check Locking and Indication Locking.
Balise	A track mounted spot transmission unit that uses transponder technology. Its function is to transmit/receive messages to/from the train passing overhead.
Balise Encoder Programming and Test (BEPT) Tool	A test and programming tool for use with the TASS track equipment.
Banner Repeating Signal	A Signal that provides the driver with preliminary information about whether a Signal is On or Off, usually provided where Sighting of that Signal is inadequate.
Bay Line	A dead-end line adjacent to a Bay Platform at a through station.
Bay Platform	A generally shorter platform at a station that serves a dead-end line, usually at a through station.
BEPT	Abbreviated term for Balise Encoder Programming and Test tool.
Berth	A location where a Train Description may be displayed by the Train Descriptor and which is normally associated with a Signal .
Berth Track Circuit	The Track Circuit that is immediately on the Approach To a Signal .

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TERM	DEFINITION
Beyond	In relation to equipment on or alongside the track, positioned such that a train reaches it after passing another defined item of equipment. See also Advance.
Bi-Directional Line	A line on which the signalling permits trains to be signalled normally in either direction. See Bi-Directional Signalling .
Bi-Directional Signalling	Signalling which permits trains to be signalled normally in either direction on a Running Line.
Blinder	A plate that covers a Backlight to enable the Signaller to see that a Semaphore Signal has correctly cleared to the Off position.
Block Bell	A single stroke bell for communicating between Control Points by means of a code of audible Signals.
Block Indicator	The part of the Block Instrument that provides the Signaller with a continuous visual indication of the state of a line within a Block Section.
Block Instrument	The equipment in a Signal Box for the operation and indication of Block Signalling .
Block Joint	See Insulated Rail Joint.
Block Override	A feature of Absolute Block enabling a Line Clear to be normalised without requiring a train to pass through.
Block Post	A Signal Box at one end of a Block Section in Block Signalling .
Block Section	The section of line between one Section Signal and the next Home Signal . This term does not apply on a Track Circuit Block line.
Block Shelf	A shelf provided above the Lever Frame to hold equipment associated with control of the line, for example Block Instruments, Indicators and other ancillary signalling equipment.
Block Signal	A Stop Signal that controls the entrance to, or signifies the termination of, a Block or Signal Section.
Block Signalling	A system of controlling rail traffic defined by Block Sections. Normally only one train is permitted in a Block Section.
Block Switch	A switch located in a Signal Box by means of which the signalling block circuits to the Signal Boxes on either side may be connected together, enabling the Signal Box in which the switch has been so operated to close.
Blocking Back	Term used in Absolute Block and Electric Token Block, when a train or Shunting Movement is to be allowed to occupy the line within the Clearing Point or on the Approach To the Home Signal .

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TERM	DEFINITION
Bonds or Bonding	The generic term for electrical connections and cabling for Track Circuit feed and relay end connections, Cross Bonds, structure bonds and Impedance Bonds.
Braking Curve	A graphical representation of the Braking Distance of a train in relation to the Gradient, the braking characteristics and speed of the train.
Braking Distance (Emergency)	The distance in which a train is capable of stopping in an emergency. Dependent upon train speed, train type, braking characteristics, train weight and/or gradient.
Braking Distance (Service)	The distance in which a train is capable of stopping, from a given speed, at such a deceleration for a passenger train that the passengers do not suffer discomfort or alarm, or at an equivalent deceleration in the case of non-passenger trains.
Buffer Stop	A structure fixed at the termination of a Running Line or Siding to arrest slow-moving vehicles. Also known as a Stop Block.
Buffer Stop Lights	Red or white lights (usually two, one above the other) mounted on the Buffer Stop or at the start of the Sand Drag.
Cable Route	The position of the principal path of signalling and power distribution cables. Generally laid in Troughing.
Cab Display Unit (CDU) (RETB only)	A device for use in the driving cabs that enables the user to receive and return coded Electronic Tokens, and to display electronic Tokens issued to it. The CDU may be transportable.
Cab Secure Radio (CSR)	A secure radio communication system between driver and Signaller.
Cab Signal	A display in the driving cab of a train, showing Permissible Speed or extent of Movement Authority, instead of or supplementing lineside Signals.
Call-By	The authority given by a Signaller to a driver to pass a Signal at Danger.
Call-On (Route Class)	A Route that is provided to permit a train movement into a section known to be Occupied.
Calling-On Signal	A Subsidiary Signal used in Semaphore Signals for movement into an Occupied section.
Cancelling Indicator (AWS)	A lineside sign which denotes that an AWS warning does not apply to trains in that direction.
Cant	The design difference in level between rail head centres of a curved track.
Cant Deficiency	The difference between actual cant and the theoretical cant that would have to be applied to maintain the resultant of the weight of the vehicle and the effect of centrifugal force (at a nominated speed) such that it is perpendicular to the plane of the rails.

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TERM	DEFINITION
Cantilever	A structure that incorporates an overhang, to position a Signal Head for Signal Sighting purposes.
Cascaded Cut Section (Track Circuit)	An obsolete arrangement for a Cut Section Track Circuit in which the Relay of one section is used to control the feed to the next section.
Caterham Locking	The Normal lie of Points at a suburban or rural Terminal Station that directs potential runaway trains onto an appropriate line to avoid a head-on collision.
Catch Handle	A handle on a mechanical lever attached to a latch which holds the lever in a specific position within the Lever Frame.
Catch Points	Points provided to derail vehicles running back on rising gradients. The points may only be Unworked if traffic is in one direction only.
Caution (Aspect)	An Aspect which advises the driver that the next Signal may be at Danger. It is indicated by a Single Yellow (Aspect) or a Semaphore Distant arm horizontal.
Cautionary Aspect	Any Aspect that advises a driver that the train is required to stop at a Signal ahead. See Caution (Aspect), First Caution and Preliminary Caution (Aspect).
CBI	Abbreviated term for Computer Based Interlocking.
CCTV	Abbreviated term for Closed Circuit Television.
CD	Abbreviated term for Close Doors Indicator.
Check Locking	An arrangement to prevent the full stroke of a lever in a Lever Frame until such time as the apparatus controlled by that lever has completed its movement. See also Backlocking and Indication Locking.
Check Rail	See Switches and Crossings.
Circuit Controller	A circuit switching device containing a number of contacts, each of which may be adjusted to make or break separate circuits when operated by a lever or Signal . May be combined with a Lever Lock.
Clamp Lock	A point operating mechanism which locks the Points by directly clamping the closed Switch Rail to the Stock Rail.
Clear (a Signal)	To change a Signal Aspect from its most restrictive aspect to a less restrictive aspect.
Clear (Track Section)	The Track Section is clear of any train on a Track Circuit or a section is clear of axles.
Clear (Aspect)	A Colour Light Signal that is displaying a Proceed Aspect or a Semaphore Signal in the Off position.

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Clearance Bar	A Depression (or lifting) Bar used to prove clearance usually between converging Routes.
Clearance Point	The minimum distance from Points and Crossings at which Track Section boundaries must be positioned, to prove that a vehicle on one track is in a position clear of a movement on the other.
Clearing Point	The point in Block Signalling beyond the Home Signal up to which the line must be clear before a signalled Running Movement can approach the home Signal .
Close Doors Indicator (CD)	An indication that station work is complete and power operated doors on trains may be safely closed.
Closed Circuit Television (CCTV)	Equipment that is used for remote monitoring and supervisory purposes, usually at a station platform or Level Crossing.
Closing-Up Signal	A Signal that is provided to optimise Headways and/or to provide earlier clearance of junctions on the Approach To stations. It may or may not form part of the normal Aspect Sequence.
Closure List	Final index of design details issued to the tester-in-charge by the design organisation.
Closure Rail	A rail located between Switch and Crossing components, cut to a length to fit the requirements of the Turnout.
Co-Acting Signal	An additional Signal that is provided in exceptional situations for sighting reasons. It is located in the same transverse plane as the primary signal and displays identical Main Aspects.
Collar	A facility that prevents the Signaller from operating an item of signalling infrastructure. Either a physical item preventing the pulling of a lever or operation of a button, or an electronic equivalent indicated on the signallers workstation. The formal term for collar is Reminder Appliance.
Colour Light Signal	A Signal that conveys its information by coloured lights.
Common Rail	The rail of a single rail Track Circuit that is electrically common to one or more adjacent track circuits or forms the traction return path. In non-electrified areas the common rail is bonded with track circuit bonding. In electrified areas the common rail is known as the traction return rail and carries the traction return current. It is therefore bonded with traction return bonding.
Competent Person	A person who is passed as being qualified and has the required knowledge and skills to carry out a particular rule, regulation, instruction or procedure.

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TERM	DEFINITION
Comprehensive Approach Locking	Approach Locking including controls that will allow the immediate release of Approach Locking if no train is approaching the Signal . It uses look back logic to ascertain the line occupancy between a given Signal at Danger and the sighting point of the Signal displaying the First Caution aspect for the Signal under consideration.
Computer Based Interlocking (CBI)	A generic term for a second generation processor based system for controlling the Interlocking between Points and Signals, as well as communication with lineside Signalling Functions. See also Solid State Interlocking.
Concentrator	A facility to connect several telephone circuits to one handset.
Conditional Locking	Interlocking between two signalling functions that are dependent upon the state of other Signalling Functions.
Conflicting Locking	Interlocking between two Routes that require one or more Points Set in opposite positions. See also Direct Opposing Locking.
Control Area	The area of the railway controlled or supervised by a particular Signal Box or control centre, as defined by the Signalling Plan.
Control Centre	A Signal Box covering a large area, usually incorporating other operational functions.
Control Device	A lever, switch, signalling panel button, VDU monitor target etc which is operated by the Signaller to set points and routes, Clear and replace Signals and operate other Signalling Functions.
Control Point	A Signal Box, including a Control Centre, Gate Box or Ground Frame.
Control Table	A part of the Signalling System specification that defines the detail of the Signalling Controls for each Signalling Function.
Controlled Signal	A Signal that is cleared from Red (other than by Emergency Replacement Switch or Signal Post Replacement Switch) from a Control Point by a Signaller or ARS on each occasion it is required to show a Proceed Aspect. Controlled Signals are usually plated as Non-Passable.
Controlled Signal Working Automatically	A Control Function (generally coloured blue and/or annotated 'A') that enables a Controlled Signal to work Automatically.
Converse Locking	The provision of locking between functions to ensure that conditions cannot be broken down, that is if 1 locks 2, then 2 must lock 1. This form of locking is provided automatically by Mechanical Interlocking. Also known as Reciprocal Locking.
Correlation	The comparison of the configuration and version status of a system with the design records to ensure that the two are in agreement.

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TERM	DEFINITION
Correspondence	The agreement of the Interlocking with the Detected state of a Signalling Function.
Counter Conditional Locking	Interlocking which prevents a condition (upon which other Interlocking is dependent) from being destroyed.
Counting Head	Wheel presence detection equipment that is fixed to the rail. Each counting head assembly consists of two counting heads and determines the number and direction of axles passing it.
Crank Handle	A portable handle for insertion in Point Machines to enable them to be operated manually.
Creep Signals	Alternative term for Loading / Unloading Indicators.
Cross Bond	A jumper cable cross-connecting the Common Rails or centre points of Impedance Bonds of parallel tracks to form a mesh of alternate paths for traction return current.
Crossing	A cast or fabricated portion of the track layout which enables the rails of the two tracks to cross each other, while still providing support and guidance for smooth passage of the vehicle's wheels.
Crossover	Two Turnouts connected to form a continuous passage between two parallel tracks. See Facing and Trailing.
CSR	Abbreviated term for Cab Secure Radio.
COSHH	Control of Substances Hazardous to Health. Legislation introduced in 1988.
Cut Section (Line Circuit)	The sectioning of line circuits to avoid exceeding the maximum length allowed, for instance, in a.c. electrified territory.
Cut Section (Track Circuit)	A method of reducing the continuous length of a Track Circuit by the use of individual track circuits, but indicated as a single track section on the signallers panel. Also known as Multi-Section track circuit.
Danger (Aspect)	An indication given by a Signal to stop.
Data (Signalling)	Site specific geographical and control information in an electronic form, which may be of safety-critical nature or otherwise.
Dead Locking	Locking which is not conditional on any other control.
Defective Signal	A Signal with a fault that affects its designed operation.
Degraded Mode Conditions	The state of the part of the railway system when it continues to operate in a restricted manner due to the failure of one or more components.
Delayed Yellow (Aspect)	A signal to which Approach Control has been applied where speed must be reduced before the next signal , for example Warning (Route Class).

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TERM	DEFINITION
Depression Bar	A metal bar so mounted alongside the rail that it is depressed by the wheel flanges of a vehicle.
Derailer	A safety device attached to a rail, that when passed over in the raised position, causes a derailment of a vehicle in an unauthorised movement.
Design Details	Any plans, control tables, engineering details and data that are required to sufficiently define the Signalling System.
Detected (Points)	Physically proved in the Normal or Reverse position.
Detection	The proof of the position of the Points (Normal or Reverse) to the Interlocking equipment.
Detonator	A small disc-shaped audible warning device, placed on the rail head, which explodes when a train passes over. Used for emergency or protection purposes. Also known as Railway Fog Signals.
Detonator Placer	An appliance for placing one or more Detonators on the Running Line.
Diamond Crossing	A crossing of two rail tracks.
Differential (Speed Restriction)	A speed restriction having up to three values, each of which is applicable to different types of train.
Direct Track Locking	Locking of Movable Components, for example, Points when a train is present. This is not conditional on the points being Set or Locked. See Dead Locking.
Direction Lever	A non-Token system of Single Line Working usually requiring continuous Train Detection through the Section. A form of Track Circuit Block.
Direct Opposing Locking	Interlocking between two Routes in opposite directions for which the lie of all points is the same.
Disc Signal	A Shunting Signal or Subsidiary Signal consisting of a small disc which rotates to indicate a change of Aspect.
Disconnected Signal	A Signal that has been adjusted to ensure that it shows only the most restrictive Aspect for one or more of its Routes.
Disconnection	The disconnection or restriction of use of signalling equipment agreed between maintenance and operations staff to enable work to be carried out on the equipment. See also Possession.
Disconnection Box	A small housing containing cable terminations to enable cable size changes or disconnections to be made.
Distant Board	A reflectorised sign that is equivalent to a Fixed Distant Signal.
Distant Signal	A Signal (not itself a Stop Signal) capable of displaying a Cautionary Aspect that informs the driver of the state of the Signals or Level Crossing ahead.

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TERM	DEFINITION
Disturbed (Axle Counter)	An interruption having occurred with the Axle Counter systems' ability to record the passage of axles. Although the equipment has returned to working order it cannot determine whether the Track Section is occupied. This results in the computer based interlocking system having an undefined state.
Diverging Route	In the signalling of junctions, any Route that diverges from the fastest/equal or straight route.
Dog Chart	A pictorial representation of the interlocking elements required to make-up Mechanical Locking. An alternative term for Locking Chart.
Doll	A short post on a Cantilever or Gantry, on which is mounted one or more Semaphore Signals.
Double Junction	The point of junction of two double track routes. It comprises two Turn Outs and a Diamond Crossing.
Double Slip	A combination of a Diamond Crossing with four Point Ends without the need of separate Crossings (Points).
Double Yellow (Aspect)	A Preliminary Caution displayed by a Colour Light Signal in Four Aspect Signalling informing the driver to expect the next Main Signal to be at Single Yellow.
DRA	Abbreviated term for Drivers Reminder Appliance.
DRACAS	Data Recording and Corrective Action System.
Draw Ahead (Aspect)	A Position Light Subsidiary Signal that instructs the driver to 'draw ahead', for example, sufficiently to enable a set back move over a trailing connection to take place. An alternative term for Calling-on or Shunt-Ahead Signal .
Driver Only Operation (DOO)	A method of working which permits trains to operate without the need of a guard.
Drivers Reminder Appliance (DRA)	A device in a driving cab to enable the driver to set a reminder. Whilst set it prevents the driver from taking power.
Drop Shunt	The maximum value of resistance which, when placed across the rails at the relay end of a Track Circuit will cause the Relay to de-energise (that is, just break its front contacts).
Economiser	Generally a Lever Lock contact internally wired in series with the coil such that the lock coil is not energised when the lever is in the full travel position. Alternatively the function may be controlled externally.
ECS	Empty Coaching Stock.
EIRENE	European Integrated Railways Radio Enhanced Network.

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Electric Token Block	A Signalling System used on Single Lines controlled by the use of physical Tokens, only one of which can be released from the instruments for a Section at any one time. The released Token is the prime authority to enter the Token Section.
Electric Token Instrument	The equipment in a Signal Box for the operation of Electric Token Block. Contains one or more electric Tokens.
Electronic Token	An electronic message transmitted by radio between a Signal Box and train. It performs the function of a Token but no physical Token is required. See RETB.
Emergency Alarm	A direct communication channel to alert a Signaller in an adjacent Signalling Centre to an emergency. Provided in Track Circuit Block territory as a replacement for emergency bell communication.
Emergency Indicator	A lineside sign that informs the driver of an Emergency Speed Restriction ahead.
Emergency Release	A device, usually sealed, to permit the operation of a Signalling Function in case of emergency or failure.
Emergency Replacement Switch	A switch or button located in the Signal Box that enables the Signaller to replace an Automatic Signal to Danger in an emergency. The Signal is not proved to be replaced. See also Replacement Switch and Emergency Signals On Control.
Emergency Signals On Control (ESOC)	Provided (generally in areas controlled by CBI) to replace all Signals to Danger in an area controlled by an interlocking, either: <ul style="list-style-type: none"> • in response to a traffic emergency, or • where the interlocking fails to respond to commands.
Emergency Speed Restriction	A Temporary Speed Restriction not shown in the Weekly Operating Notice, or which is more restrictive than shown, or which applies at a time not shown.
Engineering Details	Design Details from which a Signalling System is constructed.
Engineering Token	A type of Electronic Token that gives engineering staff Possession of the line.
Engineers Line Reference (ELR)	A unique Infrastructure reference for a particular section of track. Generally found in the Sectional Appendix or hazard directory.
Enhanced Permissible Speed (EPS)	The permitted speed (higher than Permissible Speed) that applies to a specific type of train over a section of line.
Entrance–Exit (NX) System	A Route Setting system for a geographic location that is controlled by sequential selection of entrance and exit buttons (or equivalent devices). This action also initiates the setting of all Points required by the Route.

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TERM	DEFINITION
EPS	Abbreviated term for Enhanced Permissible Speed.
ERTMS	Abbreviated term for European Rail Traffic Management System.
ESM (Engineering Safety Management)	The activities involved in making sure that the risk associated with changes to the railway is reduced to an acceptable level. This is set out in a document known in the railway industry as the 'Yellow Book'. The document contains a comprehensive glossary of safety terms .
ETCS	Abbreviated term for European Train Control System.
European Rail Traffic Management System (ERTMS)	A system for managing rail traffic, enabling it to operate on compatible Signalling Systems across European borders.
European Train Control System (ETCS)	The train control part of ERTMS.
Evaluator Equipment	Computing equipment provided to compare the outputs from the counting heads located at the extremities of an Axle Counter Section.
Exit Signal	The Signal or Buffer Stop/Board to which a train traversing a route is directed.
Facing (Direction)	The direction of rail traffic over Points where the train meets the Toe of the Switch Rail first.
Facing Point Lock Bar	A lifting bar to prevent the unlocking of Facing Points while a train is passing over them.
Facing Point Lock (FPL)	A Mechanical means of physically locking Points so they cannot be moved, may be provided independently or incorporated in a Point Machine.
Facing Point Lock (Economical)	A Facing Point Lock mechanically operated by the same lever that operates the point switches (as distinct from a facing point lock operated by a separate lever).
Facing Points	Points which join two diverging Routes. Points are considered to be facing when they carry Running Movements in a Facing Direction.
Fail-Safe	A design philosophy which results in expected failures maintaining or placing the equipment in a safe state.
False Clear	A condition where a Train Detection section indicates the line is unoccupied when it is Occupied by a train.
FDM	Abbreviated term for Frequency Division Multiplex.
Fibre-Optic Indicator	An indicator using optical fibres to provide the required illuminated indication. Uses include Standard and Miniature Alphanumeric Route Indicators, Close Doors, Right Away and Off Indicators.

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TERM	DEFINITION
Fibre-Optic Signal	A Colour Light Signal that uses fibre-optic technology to combine the Red, Yellow and Green Aspects into one aperture to generate the appropriate aspect. Other uses include Banner and Position Light Signals.
First Caution	A Signal which gives the driver the first indication of a need to stop at a Signal ahead. See also Caution (Aspect) and Preliminary Caution (Aspect).
First Wheel Replacement	A control applied to a Signal which replaces it to its most restrictive Aspect immediately after the front of the train has passed that Signal. See also Last Wheel Replacement.
Fishplate Bond	Provided to ensure electrical continuity between two rails mechanically connected.
Fixed Distant Signal	A Distant Signal that is only capable of displaying a Caution. Also see Distant Board.
Flank Points	Points which, if traversed by an overrunning train in the facing direction, could direct that train away from a route or overlap that has been set for an authorised train movement.
Flank Protection	Protection from overrunning movements approaching on converging tracks, usually by additional Point Interlocking or Train Detection.
Flashing Double Yellow (Aspect)	Displayed by a Colour Light Signal, informs the driver to expect the next Main Signal at Flashing Single Yellow.
Flashing Single Yellow (Aspect)	A Preliminary Caution displayed by a Colour Light Signal informing the driver to expect the next Main Signal at Single Yellow with Junction Indicator set for a diverging Route.
Fog Signal	See Detonator.
Foul Track Circuit	A Track Circuit not in the direct line of a Signal route with one of its extremities within the required Clearance Point.
Fouling Bar	A mechanically operated form of Train Detection activated by the flange of a wheel.
Fouling Point	The place where a vehicle standing on a converging line would come into contact with a vehicle on the other line.
Four Aspect Signal	A Colour Light Signal capable of displaying four Aspects.
Four Aspect Signalling	A system of colour light signalling which provides Red, Yellow, Double Yellow and Green Aspects in a manner which normally provides a First Caution at least two Signals before a Signal at red.
FPL	Abbreviated term for Facing Point Lock.
Free-Wired Interlocking	A Relay interlocking that comprises individually wired relays rather than pre-wired sets.

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Frequency Division Multiplex (FDM)	A data transmission system that uses unique frequencies to separate channels over a single pair of conductors.
Fringe Box	An alternative term for Fringe Signal Box .
Fringe Signal Box	The first Signal Box located along a line beyond the boundary of a controlled area.
Full Overlap	An Overlap of at least 180 m (or 400 m where both the Stop Signal and the preceding Caution Signal are both Semaphore Signals).
Gantry	A Signal Structure spanning one or more tracks and having two or more points of support.
Geographical Interlocking	An Interlocking in which standard pre-assembled modules are provided for each Signalling Function , arranged and electrically interconnected in a geographical manner. See also Free-Wired Interlocking.
Goods Line	A Running Line that is not required to be signalled to the standard required for passenger trains.
GPL	Abbreviated term for Ground Position Light Signal .
Gradient	A measure of the rate at which the railway is inclined (rising or falling). Gradients are signed +ve (rising) or –ve (falling) in respect of the direction of travel.
Green (Aspect)	Displayed by a Colour Light Signal , indicates to the driver that, in Three or Four Aspect Signalling , the next Signal will be displaying a Proceed Aspect. See also Two Aspect Signalling .
Ground Frame	A control point containing levers or switches to permit the local operation of Points in Running Lines, Sidings and, where provided, the associated Signals. This local operation is usually dependent upon a release being given from the Signal Box .
Ground Position Light Signal (GPL)	A Position Light Signal mounted at ground level.
Ground Shunt Signal	A Shunting Signal mounted at ground level.
Ground Switch Panel	A Ground Frame which uses only switches and/or buttons as operating devices.
GSM-R	Global system for Mobile communications – Railways.
Guaranteed Power Supply	See Secure Power Supply.
HABD	Abbreviated term for Hot Axle Box Detector.
Handsignal	An indication given to the driver of a train during Shunting Movements or in other exceptional circumstances to control the movement of the train.

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TERM	DEFINITION
Hand Points	Points not interlocked and worked manually by an independent lever adjacent to the points.
Hazard Identification	A structured study to identify all the hazards inherent in a design.
Hazard and Operability Study (HAZOP)	A structured study to identify all deviations from design intent with undesirable effects on safety or operability.
HAZID	Abbreviated term for Hazard Identification.
HAZOP	Abbreviated term for Hazard and Operability Study.
Headway	The shortest distance or time interval between two following trains, so that the second train can run at its normal operating speed without being restricted by the Signal Aspects.
Heel	The end of the Switch Rail which is fixed in position.
Her Majesty's Railway Inspectorate (HMRI)	A branch of the Health and Safety Executive which accepts Safety Cases, approves new works, enforces health & safety and investigates accidents.
High Risk Failure	A Wrong Side Failure where no other part of the Signalling System provides protection. Also known as an Unprotected Wrong Side Failure.
Hit Area	The area of, and surrounding, a visual target which allows the entering of commands to a VDU based signalling control system.
HMRI	Abbreviated term for Her Majesty's Railway Inspectorate.
HNC	Abbreviated term for Home Normal Control.
Home Normal Control (HNC)	The Home Signal lever is proved Normal (and Semaphore Signal arm On where repeated) before the Signaller can give Line Clear to the Signal Box in rear. This prevents the Signaller giving permission for a second train to approach before replacing the home Signal after the previous train. Also known as home normal contact. See also Interlinking and sequential locking.
Home Signal	In Block Signalling , it is the first Stop Signal on the Approach To and worked from a Signal Box and controls the exit from the Block Section. (If no Starting Signal is provided, it also acts as the Section Signal .) Obsolete terms are; outer home, inner home or home 1, home 2.
Hood	A cover placed above individual Aspects of a Colour Light Signal or Route Indicator to reduce phantom aspects due to sunlight. Where necessary, long hoods may be used.
Hot Axlebox Detector (HABD)	Equipment for detecting an overheated axlebox on a rail vehicle.
Hot Strip	Popular name for Close Viewing Sector (see section C4).

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TERM	DEFINITION
Huddersfield Control	Interlocking between a Signal (usually a platform starting Signal) and a Call-On Class Route leading up to the Signal .
Hydro-Pneumatic Points	Alternative term for Train Operated Points.
IECC	Abbreviated term for Integrated Electronic Control Centre.
Illuminated	The internal or external illumination of signalling equipment.
Illuminated Diagram	A Signal Box Diagram on which Track Circuit and other indications are provided by means of lights on a representation of the track layout.
ILWS	Abbreviated term for Inductive Loop Warning System.
Impedance Bond	A device which presents a low impedance to traction current and a higher impedance to Track Circuit current.
In Advance	Alternative term for Beyond.
IBJ	Abbreviated term for Insulated Block Joint.
Incident (Near Miss)	Unplanned, uncontrolled event, which under different circumstances could have resulted in an Accident.
Independent Position Light Signal	A Position Light Signal not associated with a Main Signal .
Indirect Opposing Route Locking	Two complete Routes that are conflicting in that they require at least one set of Points in a different position. However, cancellation of one route with a train part way through the route releases the locking on these points which, when they become free, create the conditions for Direct Opposing Locking to be set. Indirect opposing locking is applied to prevent the setting of the route that has become opposing.
Indication Locking	A form of locking whereby the full travel of the lever is inhibited until the operation of the function (for example points) is complete and detection is obtained. The levers function is achieved when the full travel of the lever is reached (for example, NBD-R lock). See also Backlocking and Checklocking.
Indicator (Lineside)	A visual display device at or near the lineside that provides information relating to the operation of a train. An indicator may be provided in conjunction with a Signal to qualify or amplify the instruction conveyed by the Signal .
Indicator (Signal Box)	A visual device which displays the position or condition of an item of signalling equipment.
Inductive Loop Warning System (ILWS)	A staff protection warning system where information is relayed by audible tones or personal vibrators via an inductive loop.
IFS	Abbreviated term for Individual Function Switch.

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In Rear	Alternative term for Approach To.
Insells Lock	A means of holding a Signal in advance of a diverging junction at red where there is a risk of misreading or reading through.
Instruction Board	A lineside sign in accordance with Railway Group Standards, for example Stop Board containing a message for the driver.
Insulated Block Joint (IBJ)	An alternative term for Insulated Rail Joint.
Insulated Rail	The rail of a single rail track circuit that is fitted with Insulated Rail Joints to electrically separate the sections. Also known as the Signal Rail .
Insulated Rail Joint (IRJ)	A joint of two rail sections with insulation between them to maintain electrical isolation. Also known as an Insulated Block Joint.
Integrated Electronic Control Centre (IECC)	A computerised signalling control centre that usually incorporates SSI and ARS. Signalling indications, Train Descriptions and other information are displayed on VDUs, and Routes are set by Tracker Ball, keyboard or automatically by ARS.
Interlinking	Box-to-box controls to ensure enforcement of electrical Sequential Locking. Proving of Home and Distant On and Berth Clear before transmitting Line Clear and the acceptance of second train. See Home Normal Control.
Interlocking	A general term applied to the setting and releasing of Signals and Points to prevent unsafe conditions arising; also the equipment which performs this function.
Interlocking Frame	An alternative term for Lever Frame.
Intermediate Block Section	A Train Detected portion of line between the Section Signal and the Intermediate Block Home Signal , both of which are operated from the same Signal Box . The intermediate block section is situated between adjacent Signal Boxes so as to improve overall Headway.
Intermediate Block Home Signal	A Signal controlling the exit from an Intermediate Block Section.
Intermediate Token Instrument	A mid section Token instrument, usually located at a Ground Frame and associated with shutting-in facilities.
IRJ	Abbreviated term for Insulated Rail Joint.
Isolate	To remove the power supply to an item of equipment.
Joint Hopping	Where fast-moving short vehicles pass from one track circuit to the next, the difference between the pick-up and drop-away times can cause the vehicle to momentarily be undetected.
Jointless Track Circuit (JTC)	A Track Circuit which does not require Insulated Rail Joints at its extremities. The extremities are defined by the use of electrically tuned zones.

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TERM	DEFINITION
JTC	Abbreviated term for Jointless Track Circuit.
Jumper	An interconnecting cable (commonly single core) to provide electrical continuity.
Junction Indicator	An Indicator provided at a Junction Signal to inform the driver which way a junction is set, by means of a line of white lights. See Route Indicator and Position Light Junction Indicator.
Junction Signal	<p>A Signal protecting Facing Points over which more than one Main Route is available.</p> <p>In Colour Light Signalled areas, the term junction Signal also applies where there are facing points ahead of the Signal and the straight-ahead route is not a main signalled route, although it might appear to a driver to be an available route.</p>
Key Locking	The locking is transmitted from the Interlocking Frame (or equivalent) to the Signalling Function to be released by means of a key. It can be applied to Ground Frame points or level crossings.
Key Token	A type of Token normally used for Electric Token Block.
King Lever	A lever which when operated alters the Interlocking between other levers. It is usually provided for the purpose of switching out a Signal Box.
Ladder Junction	A sequence of Points on a multi-track Route arranged as a series of Crossovers.
Lamp Proving	A system that ensures the required lamp(s) are Lit, for example, by measuring the current drawn by the lamp(s).
Last Wheel Replacement	A control applied to a Signal which replaces it to its most restrictive Aspect only after the whole train has passed that Signal . See also First Wheel Replacement.
LB	Abbreviated term for Line Blocked.
LC	Abbreviated term for Line Clear.
LED Signal	Abbreviated term for Light Emitting Diode Signal .
Lever Bands	Contacts housed in a Circuit Controller that is associated with a lever.
Lever Frame	A frame in which the levers working Signals and Points in an area are mounted together and Interlocked as required by the layout.
Lever Lead	Alternative term for Lever (or Switch) Plate.
Lever Lock	An electro-mechanical mechanism fitted to hold (and release) the lever in a predetermined position. May be combined with a Circuit Controller.

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Lever (or Switch) Plate	An identification plate fixed to a lever (or adjacent to a switch), describing the lever / switch function together with the order of pulling details. Also known as Pull Plate, Lever Lead, tablet or badge.
Lever (Worked to Maintain Locking)	A lever not controlling any Signalling Function but remaining connected to the Mechanical Locking. It is not considered to be a Spare Lever.
Light Emitting Diode (LED) Signal	A Colour Light Signal that uses Light Emitting Diode technology in place of incandescent lamps and coloured filters. LED signals can be arranged to combine the Red, Yellow and Green Aspects into one aperture to generate the appropriate aspect.
Lime Street Control	The ability to allow a Permissive move to take place into an occupied platform by having suitably measured the second train and the space available. The lengths of Signal approach and platform track circuits are designed to enable these controls to be performed.
Limit of Shunt Indicator (LOS)	A special type of Position Light Signal or sign to terminate a Shunting Movement along a line in the Wrong Direction.
Line Blocked (LB)	The normal state of a Block Section when no permission has been given for a train to enter it.
Line Capacity	For a given section of line, the practical maximum number of trains per hour permitted by the Signalling System.
Line Clear (LC)	The state of the Block Section after a train has been accepted but before it has entered the block section.
Line Clear Release	The Signaller can only pull the lever for the Section Signal if Line Clear is obtained from the box ahead. The lever is released either for One Pull or One Train.
Line Speed	Obsolete term for Permissible Speed.
Lit	The internal illumination of signalling equipment.
Loading / Unloading Indicators	Indicators that relay movement instructions to drivers when controlling trains in sidings. Also known as Toton or Creep Signals.
Local Panel	A control panel provided for alternative or emergency control of signalling .
Location (Cases)	One or more signalling lineside apparatus housings at a particular site and the equipment contained therein.
Locking Bar	A Fouling Bar, provided for mechanically worked Facing Points, that acts in conjunction with the Facing Point Lock, preventing the unlocking of the points during the passage of a train. It has generally been superseded by more modern forms of Train Detection.
Locking Chart	A drawing showing in graphical form, the layout of Mechanical Locking for a Lever Frame.

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Lock Slide	The part of the clamp lock point mechanism which unlocks, moves and re-locks the switches.
Locked	The state of any Signalling Function or item of equipment when it is conditionally or unconditionally prevented from changing state or position by other parts of the Signalling System.
Locking Level	The interlocking level where controls between Signalling Functions are required to be satisfied before a route can be set.
Locking Level Release	Controls that are required to be satisfied before the locking on a route or a section of a route is released. Controls on conflicting routes are released by the train clearing track sections. If required, controls on opposing routes are released by the train timed to a stand on an appropriate track section. See also Route Locking
Lockout System	A system which allows a person requiring access to the track to provide personal protection by restricting or preventing the signalling of trains.
Lock Stretcher	A Stretcher bar that is secured by a Facing Point Lock.
Long Route	A route combining one or more other routes.
Long Section Token	A type of Token covering more than one Single Line section, usually in Radio Electronic Token Block areas.
LOS	Abbreviated term for Limit of Shunt Indicator.
Lower Quadrant	A term applied to a Semaphore Signal whose Clear position is designated by the arm below horizontal.
Low Risk Failure	A Wrong Side Failure where another part of the Signalling System provides an acceptable level of protection. Also known as a Protected Wrong Side Failure.
Main Arm	An arm of a Semaphore Main Signal controlling a Running Movement.
Main Aspect	An Aspect displayed by a Colour Light or Semaphore Signal controlling a Running Movement.
Main Cable	A twin or multicore lineside cable carrying Signalling Functions or power supplies between Apparatus Cases or equipment rooms.
Main (Route Class)	Route from one Main Signal to the next that allows Running Movements. It requires the section and Overlap to be clear.
Main Signal	A Colour Light Signal capable of displaying a Main Aspect or a Semaphore Distant or Stop Signal .
Maintained Locking	An alternative to the term Route Locking.

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Maintainer's Panel	An indication panel that repeats the indications set to the Signaller and allows the maintainer to monitor the state of the interlocking. It generally contains additional fault condition indications.
Maintainers Terminal	This commonly consists of a VDU, keyboard and printer, and is used to obtain essential fault diagnostic information.
MAS	Abbreviated term for Multiple Aspect Signalling .
MARI	Abbreviated term for Miniature Alphanumeric Route Indicator.
Mechanical	Operated without any form of power assistance.
Mechanical Locking	A method of interlocking where the components are movable metal pieces which physically lock and prevent the movement of one lever against another.
Mid-Platform Signal	A Signal provided to enable two trains to be positioned at a platform by the use of Block Signalling techniques. It may or may not form part of the standard Aspect Sequence.
Miniature Arm	An arm of a Semaphore Signal which is smaller than a Main Arm controlling other than Running Movements.
Miniature Lever Frame	A Lever Frame of miniature levers for the control of power operated signalling . See also Power Frame.
Miniature Alphanumeric Route Indicator (MARI)	An alphanumeric display presented to the driver to indicate the route set. It is for short range use (category three performance). Formerly known as Stencil Indicator.
MLRI	Abbreviated term for Multi-Lamp Route Indicator.
Moorgate Control	A control by Trainstop or equivalent to enforce a low-speed approach to a Terminal Platform.
Motor Operated	Power operated by a motor or similar device connected to the Signal arm (applicable to Semaphore Signals). Can also apply to Points and Detonator Placers.
Movement Authority	Permission for a train to run to a specific location as a signalled move.
Multi-Lamp Route Indicator (MLRI)	An obsolescent term for Standard Alpha-Numerical Route Indicator. See also Theatre Indicator.
Multiple Aspect Signalling (MAS)	A system of signalling using Colour Light Signals, Track Circuit Block and usually Route Setting.
Multi-Section (Track Circuit)	See Cut-Section (Track Circuit).
National Radio Network (NRN)	A radio telephone system provided specially to facilitate railway operations.

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TERM	DEFINITION
NBDR	A series of positions provided on a lever of a mechanical or power frame for operating points. When operated, the lever can be locked in the Normal, B (normal checklock), D (reverse checklock), Reverse positions respectively. (Other nominated positions are A, C and E.)
Negligible Risk Failure	A failure which does not result in the protection provided by the Signalling System being reduced. Also known as a Right Side Failure. See Fail-Safe.
No Block	A system of operating rail traffic where the condition of the Block Section is not monitored.
No Signaller Token (NST)	A system of working trains on a Single Line using an Electric Token, in which the Signaller gives a release for each Token issued. Token instruments at one or both ends of the section may be operated by the train crew.
No Signaller Token with Remote Crossing Loops (NSTR)	A system of working trains on a Single Line with the driver or other authorised person responsible for operating the Token instruments at one or more locations remote from the Signal Box , after obtaining verbal permission from the Signaller.
Non-Block Signal	A mid-section stop Signal specifically provided for the protection of a Level Crossing or other hazard, and without block or section Signal controls.
Non-Passable	A Signal is designated Non-Passable because it protects an area of conflict or other infrastructure such that a significant hazard would arise in the event of it being passed at danger without authority. Such Signals cannot be passed at danger without specific authority from the Signaller, in accordance with the Rule Book. Non-passable Signals are usually Controlled Signals.
Non-Safety Related	A description applied to those parts of the Signalling System whose failure or non-availability does not directly endanger rail traffic or reduce the integrity of the Signalling System .
Non-Vital	An obsolete term for Non-Safety Related.
Normal (Aspect)	The most restrictive Aspect of a Controlled Signal , or the aspect of an Automatic Signal which is displayed when no trains are present and no Routes set.
Normal (Function)	Position of a lever or switch when in the un-operated or quiescent state.
Normal (Points)	The normal position of Points is defined by the Signalling Plan . By convention, points in the normal position are Set to give optimum protection to other Routes. The normal position of a Crossover is to give parallel routes.
Normal Control	The Home and Distant Signal arms and/or levers are proved at Danger and Caution respectively before the Signaller can give Line Clear. Also known as Interlinking. See also Home Normal Control.

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Normal Direction	On a line for which the signalling is provided for one direction only, Normal applies to the signalled direction. On a Bi-Directional Line, Normal applies to the direction of the predominant traffic flow.
NRN	Abbreviated term for National Radio Network.
NST	Abbreviated term for No Signaller Token.
NSTR	Abbreviated term for No Signaller Token with Remote Crossing Loops.
NX	Abbreviated term for Entrance-Exit System.
Obscuration	See definition in section C4.
OCC	Abbreviated term for Occupied.
Occupation	Alternative term for Possession.
Occupied Line	A portion of a line between two successive Signals which are capable of displaying a stop aspect, or between such a Signal and the end of the line, on which a train, or a part of a train, is already positioned.
Occupied (OCC)	A track section having any part of a train present upon it.
OCS	Abbreviated term for One Control Switch.
OCU	Abbreviated term for Operator's Control Unit.
Off (Aspect)	A Proceed Aspect in a Colour Light Signal , or the arm of a Semaphore Signal or Disc Signal inclined at 45 degrees or more, or Distant Signal other than at its most restrictive aspect.
Off Indicator	An Indicator that displays the word 'Off', to indicate that the Signal ahead is Cleared prior to starting the train, usually associated with a Platform Starting Signal .
OL	Abbreviated term for Overlap.
On (Aspect)	A Red Aspect in a Colour Light Signal , or the arm of a Semaphore Signal in the horizontal position, denoting 'stop' or 'caution', or Distant Signal at most restrictive aspect.
One Control Switch (OCS)	A type of Route Setting control panel having one switch (or other device) to control each Route.
One Pull (One Shot)	Allows the Signaller to operate the Section Signal only once, for each Line Clear. See also One Train Release.
One Train (Release)	Allows the Signaller to operate the Section Signal for one train for each Line Clear. See also One Pull.
One-Train Staff Instrument	A designated container for the safe storage of one One-Train Staff at the Signal Box or Token Control Point.

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One Train Working	Methods of signalling a Single Line, where only one train is permitted at a time: <ul style="list-style-type: none"> • with a Train Staff [OT(S)] • without a Train Staff [OT].
Operating Notice Diagram	A simplified layout plan for publication in, or with, the signalling alterations section of an operating notice, for example WON, PON.
Operational Use	The manner in which the equipment is used for the purposes of running trains.
Operator's Control Unit (OCU)	The control system for a Signaller in a Train Describer system. It normally consists of a keyboard and VDU or other digital display.
OPS	Abbreviated term for Outline Project Specification.
OSS	An Overspeed Sensor System as applied to a TPWS.
OT	Abbreviated term for One Train Working without a Train Staff.
OT(S)	Abbreviated term for One Train Working with a Train Staff
Outline Project Specification (OPS)	The requirements for a Signalling Scheme, formulated at the feasibility stage of a project.
Out of Use	Non-operational equipment that is still connected to the infrastructure.
Overlap (OL)	The distance beyond a Stop Signal that must be clear, and where necessary Locked, before the Stop Signal preceding the Stop Signal in question can display a Proceed Aspect.
Overlay Track Circuit	A Track Circuit that operates within, and additionally to, another track circuit. Normally used for detecting the passage of a train at or past a specific position.
Override	A facility provided in respect to some remote Interlockings for use during failure of the remote control equipment. It enables all Signals to be replaced to Danger or nominated Routes to be set for automatic working. Limited selective routing at junctions is sometimes provided. Also known as Through Routes.
Overrun	Passing the end of movement authority. The conventional terminology for an overrun is a signal passed at danger (SPAD).
Oversetting	The setting of a following movement before the previous movement has cleared the Route and/or Overlap. Also known as Restroking or Pumping.
Overview	A Signalling Diagram or display that shows the whole of the area being controlled, usually with reduced detail.
Parallel Bonding	A method of Bonding rail sections where Track Circuit integrity is achieved by the use of parallel paths. See also Yellow Bond.

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Passable	A Signal which is able to be passed at Danger without specific authority from the Signaller, in accordance with the rule book. Passable Signals are usually Automatic, Semi-Automatic or Intermediate Block Signals.
Passenger Line	A line signalled to the standard required for trains conveying passengers.
Patrolman	A person who patrols/inspects a section of line.
Patrolman's Lockout Device (PLOD)	A type of Lockout System that allows a Patrolman, with the permission of the Signaller, to prevent the signalled movement of traffic, for example, in one direction only on a Bi-Directional Line.
Periodical Operating Notice (PON)	An operating notice published bi-monthly. This is an official notice giving details of Weekly Operating Notice information, specified operations publications, and other publication changes, for example, of the Sectional Appendix.
Permanent Speed Restriction (PSR)	The normal speed restriction for the operation of trains over a section of line.
Permissible Speed	The maximum allowable safe speed over a section of line which applies to all trains when not operating at an EPS. Normally identified in the Sectional Appendix, and sometimes shown as a Differential Speed.
Permissive Block	A form of Permissive Working through a Block Section.
Permissive Working	A method of working that allows Running Movements into an Occupied section of track on designated lines.
Phantom Overlap (POL)	A calculated full Overlap that does not correspond to a physical Track Section joint. It is used where an overlap distance falls short of a set of Points and those points are not locked.
Phantom Restricted Overlap (PROL)	An Overlap that contains the special features of a Phantom Overlap and a Restricted Overlap.
Pilotman	A person who has been appointed to manage the passage of trains over a Single Line during the failure of equipment, during repairs or due to an obstruction.
Pivot Light	A light that is common to both On and Off Aspects of a Position Light Signal , or the common lamp of a PLJI where more than one diverging Route exists.
Platform Sharing	Permitting two passenger trains to occupy a platform line simultaneously, other than for the purposes of attaching, detaching or removing vehicles, without the existence of a mid-platform Signal .

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Platform Starting Signal	A Stop Signal located such that either: <ul style="list-style-type: none"> • the longest passenger (or empty coaching stock) train authorised to use the platform would, if stopped at the Signal, still have a portion of the passenger accommodation alongside the platform, or • the leading end of the train passes over the AWS equipment associated with the Signal before it is despatched from the platform.
PLGS	Abbreviated term for Position Light Ground Signal .
PLJI	Abbreviated term for Position Light Junction Indicator.
Plod	Abbreviated term for Patrolman's Lockout Device.
Plunger	A button that is depressed to activate signalling equipment.
Point Detector	A device for proving that Points are correctly Set before a Signal can be Cleared to authorise passage of a train over the points.
Point End	One pair of Switch Rails in a set of Points.
Point Handle	A collective term for Crank Handle and Pump Handle.
Points	Items of permanent way which may be aligned to one of two positions, Normal or Reverse, according to the direction of train movement required.
Points Indicator	An Indicator that informs the driver that the associated Points (usually Facing) are correctly Set.
Point Machine	The equipment for the powered operation of a set of Points.
Point Zone Telephone	A telephone in the vicinity of one or more Points for use by a shunter, other operating staff or maintenance staff to communicate directly with the Signaller in connection with the operation of the points.
PON	Abbreviation for Periodical Operating Notice.
POSA	Abbreviation of Proceed on Sight Authority
Position Light Ground Signal (PLGS)	An alternative term for Ground Position Light (GPL), or Independent Position Light Signal .
Position Light Junction Indicator (PLJI)	An Indicator which displays the Route at a Signal by means of a line of white lights.
Position Light Signal	A Signal , other than a Main Signal , that displays its Aspects by the position and colour of its lights.
Positive Train Identification (PTI)	A system that identifies a train directly from equipment on board the train for the purposes of Train Description, rather than from a Train Descriptor.

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Possession (of a Line)	The complete stoppage of all normal train movements on a Running Line or Siding for engineering purposes. Also known as an Occupation.
Possession (of Signalling Equipment)	See Disconnection.
Power Frame	A Lever Frame controlling power operated equipment. See also Miniature Lever Frame.
Power Operated Points	Points that are operated by any means apart from Mechanical.
Preliminary Caution (Aspect)	A Signal Aspect which informs the driver to expect the next Signal to be at Caution. It is indicated by a Double Yellow Aspect.
Preliminary Routing Indicator (PRI)	An Indicator associated with a junction, giving the driver prior information about which Route is set at the junction.
Preselection	The selection of a signalling function prior to the condition becoming available, so that it is automatically set when some other function is restored.
Pre-Set Shunt	Where facing shunting Signals exist in the line of route of other route classes these will be cleared (generally automatically) before the main (presetting) Signal clears.
Prevent Shunt	The prevent shunt of a Track Circuit is the value of resistance connected across the rails at which the track circuit Relay energises (that is, it just makes its front contacts).
PRI	Abbreviated term for Preliminary Routing Indicator.
Proceed Aspect	Any Signal Aspect which permits the driver to pass the Signal.
Proceed On Sight Authority (POSA)	A Signal Aspect for use during lineside signalling failures to instruct the driver to enter a Signal Section and proceed at such a speed that the train can be stopped short of any obstruction.
Propelling Movement	A movement where the driver is not driving from the leading cab of the leading vehicle.
Protected Wrong Side Failure	A Wrong Side Failure where another part of the Signalling System provides an acceptable level of protection. Also known as a Low Risk Failure.
Protecting Signal	A Signal that protects a train from Conflicting Movements and/or obstructions.
Proved	Evidence provided by electrical or other means that a function is in a specified state.
PSR	Abbreviated term for Permanent Speed Restriction.
PTI	Abbreviated term for positive train identification.

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Pull Plate	Alternative term for Lever (Or Switch) Plate, tablet or badge.
Pump Handle	A portable handle for the manual operation of a Clamp Lock or a set of Train Operated Points.
Pumping	See Oversetting.
RA	Abbreviated term for Right Away Indicator.
Radio Electronic Token Block (RETB)	A Signalling System used mainly on Single Lines, where an Electronic Token is transmitted between the controlling Signal Box and train.
Rail Circuit	Train Detection equipment using the rails in an electric circuit, which detects the presence of a train (as opposed to its absence). See Track Circuit, Overlay Track Circuit.
Railway Order	The Railways (Notice of Accidents) Order 1986.
Railway Safety Case	A Safety Case prepared pursuant to Regulations 3, 4 or 5 of the Railways (Safety Case) Regulations 1993.
Raynes Park Control	The name given to ensure that Approach Control is effective. The relay (or equivalent) that applies the approach control, or Temporary Approach Control, is proved not operated in the Signal in rear.
Ready to Start Indicator	A non-preferred term for Right Away Indicator.
Ready to Start Plunger	A non-preferred term for Right Away Plunger.
Rear	Alternative term for Approach To.
REB	Abbreviated term for Relocatable Equipment Building.
Reciprocal Locking	The provision of locking between functions to ensure that conditions cannot be broken down, that is if 1 locks 2, then 2 must lock 1. This form of locking is provided automatically by Mechanical Interlocking. Also known as Converse Locking.
Red (Aspect)	Displayed by a Colour Light Signal , indicates to the driver to stop at that Signal .
Red Bond	A traction return cable which, if disconnected, could result in either the bond itself or the equipment to which it was connected rising to a dangerously high potential. The bond is identified by red colour.
Reduced Overlap	An Overlap that is shorter than the minimum permitted length of a Full Overlap, where the permitted approach speed is below a specified level which still allows an unrestricted approach to a Signal at danger.
Relay	An electro-mechanical switching device used in many types of Signalling Systems.

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Relay Interlocking	A method of Interlocking where the safety logic is implemented by Relay technology.
Release	The removal of Locking on a function, for example, the removal of Route Locking or the unlocking of a function such as a Ground Frame.
Release Speed	The calculated speed of a train approaching a Signal at which the Signal is permitted to clear to a less restrictive Aspect.
Relocatable Equipment Building (REB)	A walk-in apparatus housing.
Reminder Appliance	A device or control used to remind the Signaller that a function such as a button, switch or lever should not be operated/should only be operated under certain conditions. See also Collar.
Repeater	An alternative term for an Indicator (Signal Box).
Repeater Signal	A Signal (not itself a Stop Signal) capable of displaying a Cautionary Aspect, that informs the driver about the state of the next stop Signal ahead. Non-preferred term for a Distant Signal .
Replacement (of Signals)	The change from a Proceed Aspect to Red when the conditions required by the Interlocking Aspect Level cease to be satisfied. Replacement upon a train entering the Route may be delayed (second track and/or last wheel) if required for Propelling Movements. Also refers to the change of aspect of a Distant Signal to Caution.
Replacement Switch	A switch or button located in the Signal Box that enables the Signaller to replace an Automatic Signal to Danger. The Signal is proved to be at red and alight. See also Emergency Replacement Switch.
Resetting	Placing equipment or systems (for example Axle Counters) into a state which is suitable for restoration to service.
Restoration to Service	Accepting Reset equipment or systems back into service.
Restricted Overlap (ROL)	An Overlap that is shorter than the minimum permitted length of a Full Overlap, which is available only when the preceding Signal is subject to Approach Control by selection of a Warning Class Route.
Restroking	See Oversetting.
RETB	Abbreviated term for Radio Electronic Token Block.
Reverse (Function)	Position of a lever (or switch) when it is pulled fully in the Lever Frame (or operated).
Reverse (Points)	The opposite position to Normal (Points).
Reversible Line	Non-preferred term for a Bi-Directional Line.

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Right Away Indicator (RA)	An Indicator that displays 'RA' to inform the driver that a train may start from a platform.
Right Away Plunger	The Plunger or other device used to initiate the operation of a Right Away Indicator.
Right Side Failure	A failure which does not result in the protection provided by the Signalling System being reduced. Also known as a Negligible Risk Failure. See also Fail-Safe.
Risk	The combination of the severity of the hazard with the likelihood of its occurrence.
ROL	Abbreviated term for Restricted Overlap.
Route	The path along a section of track between one Signal and the next, along which an authorised movement is to be made.
Route Class	A category of Route which determines the type of Signal controls to be provided. See also Call-On, Main, Shunt, Warning and POSA.
Route Holding	An alternative to the term Route Locking.
Route Indication	The information provided by a Route Indicator or Junction Indicator to the driver.
Route Indicator	An Indicator associated with a Signal which indicates which Route is set. See also Position Light Junction Indicator, Miniature Alphanumeric Route Indicator, Standard Alphanumeric Route Indicator.
Route Locking	A form of Interlocking which maintains the locking associated with a Route in use until after the train has passed clear of the equipment being Locked (for example, Points or opposing Signal). The release may be effective only after a time delay. Also known as Maintained Locking or Route Holding.
Route Relay Interlocking (RRI)	A relay based interlocking system controlled from a route setting panel. Usually refers to a Free-Wired Interlocking.
Route Releasing	The release of Route Locking. See also Sectional Route Release.
Route Setting	A system in which all Points in a Route are set to the required positions, and the Signal at the entrance to the route Cleared by the operation of one or two control functions.
Route Setting Panel	A panel which embodies the controls and displays the condition of all associated Signals for a Route in a specific geographic location. See also Route Setting.
RRI	Abbreviated term for Route Relay Interlocking.
Run Through	A movement through Trailing Points Set in the wrong position. Damage to the point mechanism and Switch Rail usually results.

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Running Line	A line that runs between two distinct locations, as shown in Table A of the appropriate Sectional Appendix.
Running Movement	A train movement on a Running Line, under the control of a Main Aspect.
Running Signal	An alternative term for Main Signal.
Safe	Secure from risk.
Safe System of Work	Formal method of work devised from taking account of all likely sources of danger to provide for the safety of those involved, affected by, or in the vicinity of the work.
Safety Case	A document by which an organisation sets out to demonstrate its ability to conduct a particular operation or activity in an acceptably Safe and proper manner. Also applies to the design and use of systems and equipment.
Safety Critical	Directly influencing safety (when applied to equipment or systems).
Safety Integrity	The probability of a system achieving its safety objectives within its stated operational conditions and stated period of time.
Safety Integrity Level (SIL)	One of four specific measures of Safety Integrity (SIL 4 having the highest integrity).
Safety Related	Having the potential to influence safety (when applied to equipment or systems).
Sand Drag	A section of line covered in sand or other retarding material on a dead-end line, provided in special instances to retard an overrunning movement. Also known as an arrestor.
SARI	Abbreviated term for Standard Alphanumeric Route Indicator.
SAS SPAD	Abbreviated term for Start Against Signal SPAD.
Scheme Plan	A longitudinal scaled or dimensioned track layout plan that is produced to depict new or altered Signalling Systems.
Scotch Block	A wedge to prevent the movement of: <ul style="list-style-type: none"> • stationary vehicles • the open Switch Rail of a set of Points.
SCT	Abbreviated term for Surface Concrete Troughing.
SCWO (Track Circuit)	Showing Clear When Occupied.
SDS	Abbreviated term for Signallers Display Sub-System.
Sealed Release	An Emergency Release which requires a seal to be broken prior to operation.

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Searchlight Signal	A Colour Light Signal that can display Red, Yellow and Green Aspects from a single optical assembly. Modern forms employ LED or Fibre Optic technology; heritage types change aspect by placing separate coloured lenses in front of a single lamp.
Section Signal	A Stop Signal controlling the entrance to a Block Section or Intermediate Block Section ahead. See also Home Signal, Starting Signal, Advanced Starting Signal.
Section Token	A type of Electronic Token for an RETB section.
Sectional Appendix	A document produced by the infrastructure controller providing route specific information relevant to train operating and trackside staff.
Sectional Route Release	Route Releasing designed to release sequentially, usually one track section at a time behind the train.
Secure Power Supply	A power supply system that can be relied upon to keep certain safety-critical signalling functions operating for a predetermined minimum time, in the event of a total incoming supply failure.
Self-Normalising Points	An alternative term for Self-Restored Points.
Self-Restored Points	Power Operated Points which are automatically returned by the interlocking to the Normal position to provide protection after a movement via the points Reverse. Normalisation occurs after the Route has been Released and the Track Section has been Clear for a predetermined time.
Semaphore Signal	A Signal which informs a driver by means of the position of a mechanical arm during daylight and coloured lights during darkness.
Semi-Automatic Signal	A Signal normally operated by the passage of trains, but which can also be controlled by a Signal Box or Ground Frame. On new projects a Controlled Signal would be provided.
Sequential Locking	Locking applied to successive running Signals to enforce the replacement of one lever (arm or aspect) before the lever controlling the Signal in rear is free to be pulled. This Locking is non-reciprocal and may be performed electrically or mechanically.
Series Bonding	The Fail Safe method of Bonding track circuits with rail sections connected in series, such that a single failure results in the track circuit showing occupied.
Set (Points)	Refers to the Interlocking function which controls the movement of the Points to their correct position. Successful completion of the setting process results in Correspondence.
Setting	The interlocking function controlling the movement of points or other moveable components to the correct position.

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Shunt (Route Class)	A Route used for low-speed non-passenger movements.
Shunt-Ahead Signal	A type of Subsidiary Signal authorising Shunting Movements ahead of a Section Signal. See also Draw Ahead (Aspect).
Shunt Token	A type of Electronic Token for Shunting Movements, usually in RETB controlled areas of the railway.
Shunting Frame	A manned control point (usually elevated) that can be released by a power Signal Box for local Shunting Movements.
Shunting Movement	The movement of trains or vehicles other than normal passage along Running Lines.
Shunting Signal	A Signal provided for Shunting Movements only.
Shut-In	Clear of, and protected from, the running line.
Side Light	A small aperture at the side of a Colour Light Signal repeating the main Aspect and giving a close-up indication.
Siding	A line for the stabling of vehicles, loading/unloading, servicing, etc clear of the Running Lines.
Sighting Distance (Signal)	The distance from a Signal to its Sighting Point.
Sighting Point (Signal)	The furthest point from a Signal at which the driver can reliably read the Aspect of a Signal and / or Route Indication.
Signal	A visual display device which conveys instructions or provides prior warning of instructions regarding the driver's authority to proceed.
Signal Box	The building in which the Signaller(s) is/are situated together with the control and indication system for the signalling. See also Signalling Centre.
Signal Box Diagram	A diagrammatic representation of the area controlled by the Signal Box exhibited in the Signal Box for the guidance of the Signaller.
Signal Head	The part of a Colour Light Signal from which the Aspects are displayed.
Signal Identification Plate	The plate attached to the Signal post for unique identification of the Signal.
Signal Number	The number associated with a Signal for identification.
Signal Off Indicator	An alternative term for Off Indicator.
Signal Post Replacement Switch	A switch on or near the post of a Colour Light Signal which enables the Signal to be turned and maintained at Red by means of a key.
Signal Post Telephone (SPT)	A telephone provided at a Signal, enabling the driver to communicate with the Signaller, to report a fault or incident or to remind the Signaller of the presence of a train detained at the Signal that is displaying a Danger Aspect.

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Signal Rail	An alternative term for Insulated Rail.
Signal Section	In a Track Circuit Block area the line between two consecutive Block Signals in the same direction of travel, whether or not these are in the same area of control.
Signal Sighting	The activity of locating a Signal for the purposes of optimum approach view by the driver.
Signal Stick	The disengaging of a Signal after it has been used by a train, to prevent the Signal from subsequently showing a Proceed Aspect until the Route has been cancelled and again Set.
Signaller	A person responsible for the operation of the Signalling System, to safely control the passage and regulation of trains, usually located in a Signal Box .
Signallers Display Sub-System (SDS)	The Signallers interface with the IECC. The Signaller is able to control Signalling Functions and receive indications through the Workstation.
Signallers Route Lists	A list of all Point Ends and releases between the Entrance-Exit Signals of a signalled route, showing the position to which each is required to be set. Used primarily in degraded mode operation.
Signalling Centre	Alternative term for Signal Box .
Signalling Controls	Signalling Functions that control, release or are released by other signalling functions for a particular layout. Signalling controls are expressed in a Control Table.
Signalling Facilities Diagram	A plan, produced at an early stage in the development of a project, showing operating requirements and infrastructure features, including the track layout, stations, Level Crossings. It is used as a basis for producing the Scheme Plan.
Signalling Diagram	Non-preferred term for Signal Box Diagram . Non-preferred term for Signalling Plan .
Signalling Function	A Signal , set of Points or other part of the train control system.
Signalling Plan	A longitudinally scaled or dimensioned track layout plan showing the Signalling Functions with their identities. It generally relates to a specific Signal Box control area and is a derivative of the Scheme Plan.
Signalling Rail	The rail of a single rail Track Circuit that is independent from the traction return path and is used only for the track circuit current.
Signalling System	A series of electrical, electronic, electro-mechanical units brought together to form a system which controls the safe movement of trains.
Signalling Workstation	The generic term used for the Signallers Display System.

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Signalman	Obsolete term for Signaller.
SIL	Abbreviated term for Safety Integrity Level.
SIMBIDS	Abbreviated term for Simplified Bi-Directional Signalling .
Simplified Bi-Directional Signalling (SIMBIDS)	Bi-Directional Signalling where the signalling in the opposite direction to normal traffic provides for a lower speed and/or capacity than that in the normal direction, and bi-directional operation is only required in connection with Possessions or emergencies affecting the other line(s).
Single Aspect	A Colour Light Signal capable of displaying only one Aspect. This may be Red (fixed red) or Yellow (Fixed Distant Signal).
Single Line	A generally Bi-Directional Line which is the only line that carries Running Movements.
Single Line Working	Methods of operation introduced so that the traffic of a double line can pass over one line (which is not Bi-Directional) because of engineering work, equipment failure or an obstruction.
Single Slip	A combination of a Diamond Crossing with two Point Ends without the need of separate Crossings (Points).
Single Yellow (Aspect)	Displayed by a Colour Light Signal , informs the driver to expect the next Main Signal to be at Danger.
Slip Connection	The connection which permits movement from one line to another at a Diamond Crossing. See also Single Slip and Double Slip.
Slotting	The control of a Signalling Function that requires co-operation between two Signal Boxes or other controlling points.
Snubbing Device	Diode or mechanically operated contacts within the POINTS circuitry that are employed to steer the high inductive load currents (snubbing) away from the point motor. This is in addition to the clutch mechanism.
Solid State Interlocking (SSI)	A first generation processor based system for controlling the Interlocking between Points and Signals, as well as communication with lineside Signalling Functions. See also Computer Based Interlocking.
SOY SPAD	Abbreviated term for Start On Yellow SPAD.
Space (Lever Frame)	The term used on a mechanical Lever Frame where a lever is removed and the function is no longer in use.
SPAD	Signal Passed At Danger (without authority).
SPAD I	Abbreviated term for SPAD Indicator.

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SPAD Indicator	A Colour Light Signal head that displays flashing Red over steady Red over flashing Red in the event of an associated Signal being passed at danger without authority.
Spare Lever	In a Lever Frame, a lever which is not used for the operation of any signalling equipment. See also Lever (Worked To Maintain Locking).
Spate Indicator	A trackside sign which informs the driver that a Temporary Speed Restriction has been withdrawn earlier than published or not applied at all.
Speed Indicator	A trackside sign which marks the beginning of a speed restriction and indicates the permissible speed. See also Temporary Speed Restriction and Emergency Speed Restriction.
Speed of Divergence	The speed permitted through the Diverging Route. Also known as Turnout Speed.
Speed Supervision	An electronic system that restricts over speeding when TASS is in operation and trains are able to run at Enhanced Permissible Speed.
Split Detection	The proof and indication of the position of multiple ended sets of Points, individually for each Point End.
Splitting Banner Repeating Signal	A combination of two Banner Repeating Signals provided on the Approach To a Junction Signal due to Sighting restrictions.
Splitting Distant Signals	Two adjacent Colour Light Signal heads providing the driver with information about the state of a junction Beyond the next Signal . The two heads are referred to as the 'main' and 'offset' heads and can incorporate a Stop Signal .
Spring Points	Unworked Trailing Points which return under spring load to the NORMAL position after the passage of a train in the Trailing Direction. They may be used as Catch Points.
SPT	Abbreviated term for Signal Post Telephone.
Spur (Track Circuit)	A section of running rail required to be electrically common to a series bonded rail, but which is not itself series bonded.
SRG	Abbreviated term for Safety Review Group.
SRP	Abbreviated term for System Review Panel.
SSI	Abbreviated term for Solid State Interlocking.
Staff and Ticket Working	A Signalling System used on a Single Line and employing a single Token (Train Staff). If the driver does not take the train staff through the section, a written ticket is issued to authorise the movement.

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Stageworks	The phased installation and commissioning of signalling equipment, as part of a large resignalling scheme, often of a temporary nature as alterations proceed.
Standard	An authorised document, including specification, procedure, instruction, directive, rule or regulation, which may set mandatory requirements.
Standard Alphanumeric Route Indicator (SARI)	An alphanumeric Route Indicator having medium range (category two) performance. (Formally known as a Theatre or Multi-Lamp type Route Indicator.)
Start Against Signal SPAD (SASSPAD)	A Signal Passed at Danger (without authority) upon a train starting from rest, for example from a station platform.
Starting Signal	In Block Signalling, a Stop Signal Beyond, and worked from, a Signal Box. If no Advanced Starting Signal is provided, it is the Section Signal.
Start On Yellow SPAD (SOYSPAD)	A Signal Passed at Danger (without authority) subsequent upon a train starting from rest, for example from a station platform, on a Yellow Aspect.
Station Limits	The portion of line between the Home Signal and the Section Signal for the same line, worked from the same Signal Box. This term does not apply on a Track Circuit Block line.
Stencil Indicator	A type of Miniature Alphanumeric Route Indicator (formerly used in conjunction with Shunting Signals or for Off Indicators), employing a stencil to form the character(s) to be displayed. Obsolete term.
Stick	A term often used to describe a function which stores or remembers specific conditions of the signalling equipment. Also known as a latch in electronic systems.
Stock Rail	The fixed rail on each side of the Points against which the Switch Rail must fit closely.
Stop Block	A structure fixed at the termination of a Running Line or Siding to arrest slow-moving vehicles. See also Buffer Stop.
Stop Board	A sign where a driver must stop the train.
Stop Indicator	An Indicator showing the word 'stop', where the driver must stop the train.
Stop Signal	Any Signal capable of showing a Danger Aspect.
Straight-Ahead Route	The non-diverging (and usually the fastest) route from a Junction Signal.
Stretcher	A bar connecting the two Switch Rails in a Point End, keeping them in the correct position relative to each other. See also Lock Stretcher.
Subsidiary Signal	An additional Semaphore Signal controlling Shunting Movements and movements onto Occupied tracks.

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Sub-Surface Railway Station	A railway station to which members of the public have access and of which more than 50% of any one platform is within a tunnel or under a building.
Supplementary Detector	An additional device for Detection of Points in association with Supplementary Drives.
Supplementary Drive	An additional drive connected to the Switch Rails of a set of Points at a position closer to the Crossing than the switch tips.
Suppression (AWS) Suppression (TPWS)	Inhibition of the operation of AWS or TPWS track equipment for movements to which it does not apply.
Surface Concrete Troughing (SCT)	A series of lidded troughs, usually laid in the cess, comprising a Cable Route.
Swing Nose Crossing	A Crossing (Points) with movable parts to facilitate a high Turnout Speed.
Swinging Overlaps	The ability to maintain the Overlap free of locking where there are Facing Points and a choice of overlap exists, thus enabling late selection of the overlap while the train is approaching. Usually associated with Time Of Operation Locking and Conditional Locking requirements.
Switch Diamond	A type of Diamond Crossing with movable switches in place of fixed Crossings (Points). Also known as moveable angles or moveable elbows.
Switch Rail	The moving portion of rail on each side of a set of Points.
Switches & Crossings	The generic term used (sometimes points and crossings) to represent all the ironwork associated with a set of Points. It covers Switch Toes, Switch Rails, Heels of switch rails, Closure Rails, Stock Rails, Crossings and Check Rails.
Table of Signal Routes	A comprehensive list of Signal routes. They can either be shown on, or accompany Signalling / Scheme Plans.
Tail Cable	A cable between trackside or on-track signalling equipment and the apparatus case / REB.
Tail Lamp	The red light(s) or blind at the rear of a train to furnish evidence that the train is complete.
TASS	Tilt Authorisation and Speed Supervision system.
TC	Abbreviated term for Track Circuit.
TCA	Abbreviated term for Track Circuit Assister or Actuator.
TCAID	Abbreviated term for Track Circuit Actuator Interference Detector.
TCI	Abbreviated term for Track Circuit Interrupter. (May also be used in connection with axle counters.)

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TERM	DEFINITION
TD	Abbreviated term for Train Description or Train Describer.
TDM	Abbreviated term for Time Division Multiplex.
Technician's Terminal	See also Maintainer's Terminal.
Tell Tale	A breakable wire or plunger arrangement that when broken or operated gives an indication to the Signaller and/or replace Signals. Also known as a trip wire or hazard detector.
Temporary Approach Control	A Signalling Control built into the Signalling System and applied when it is necessary for drivers to control the speed of their trains due to engineering works or other operational requirements.
Temporary Block Working	A system of controlling rail traffic on a Track Circuit Block line during a failure or in exceptional circumstances. Not applicable to single lines.
Temporary Speed Restriction (TSR)	A speed restriction imposed for a short period that has been published in the Weekly Operating Notice.
Terminal Platform	A platform that serves a dead-end line. See also Bay Platform.
Terminal Single Line	A dead-end single line terminating at a stop block, stop board or exceptionally at a Signal .
Terminal Station	A station at the end of a line.
Termination Indicator	A trackside sign denoting the end of a Temporary Speed Restriction.
Test Magnet	A permanent AWS magnet mounted at the exit from a rolling stock depot.
TFM	Abbreviated term for Trackside Functional Module.
Theatre Indicator	An obsolescent term for Standard Alpha-Numerical Route Indicator. See also Multi-Lamp Route Indicator.
Throw Bar	The part of the point mechanism which provides the thrust for the operation of the Switch Rails.
Three Aspect Signal	A Colour Light Signal capable of displaying three Aspects.
Three Aspect Signalling	A system of colour light signalling which normally provides only Red, Yellow and Green Aspects. The Signals may be Two Aspect Signals, Three Aspect Signals or a mixture of both types.
Through Routes	Alternative term for Override.
Through Station	A station for mainly non-terminal lines.
Tilt Authorised	The tilt supervision system provided to authorise the train to tilt within a Tilt Permitted area. A tilt authority output is generated by TASS. As trains leave tilt permitted areas this authorisation is removed.

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TERM	DEFINITION
Tilt Permitted	The defined areas of the network where tilting by particular train types is permitted.
Time Division Multiplex	An electronic system used for transmitting a number of data channels over a single pair of wires.
Time of Operation Locking	The locking of Facing Points immediately Beyond an exit Signal , when a train is approaching the Signal . It is generally the time required to open the detection contacts, unlock, move and lock the points, and close the detection contacts.
Time Release	A device or control used to prevent the operation of a Signalling Function until after the lapse of a specified time.
Toe	The front end of a Switch Rail.
Token	Any Single Line Token, Staff or Tablet.
Token Control Point	A location other than a Signal Box where a Token may be obtained, returned or exchanged.
Token Exchange Point	A passing loop, station area, Siding or portion of Running Line where trains are authorised to receive or return electronic Tokens.
Token Section	A Block Section or designated section of running line controlled by Token.
Token Transfer Magazine	A magazine that can be temporarily attached to an Electric Token Instrument to permit Tokens to be transferred from one token instrument to another. This enables the transfer of Tokens between instruments without affecting the operational use of the token system.
Tokenless Block	A method of working Single Lines without a continuous Train Detection System or a physical Token.
TOL	Abbreviated term for Train On Line.
Tolerable Risk	A term used to indicate the point of maximum tolerability that society is prepared to live with. RISKS above this level must be reduced or the activity/project abandoned.
Tollerton Control	A timing delay incorporated into the operation of Track Circuits where there is a transition between SSI and RRI track circuited areas, and an incorrect track sequence of circuit clearance could give rise to a hazardous locking release.
TORR	Abbreviated term for Train Operated Route Release.
TOPS	Total Operating and Processing System.
Toton Signals	Alternative term for Loading / Unloading Indicators.
TOWS	Abbreviated term for Train Operated Warning System.

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TERM	DEFINITION
TPWS	Abbreviation for Train Protection and Warning System.
Track Circuit (TC)	An electrical device using the rails in an electric circuit, which detects the absence of trains on a defined section of line.
Track Circuit Actuator	A non-preferred alternative term for Track Circuit Assister.
Track Circuit Assister (TCA)	A train-mounted device provided to improve the operation of Track Circuits.
Track Circuit Assister Interference Detector (TCAID)	Train Detection equipment mounted on the track which detects the presence of a working Track Circuit Assister.
Track Circuit Block	A method of working trains in a section of line where safety is ensured by the use of continuous Track Circuits or other means of automatic train absence detection and without the requirement to visually confirm that trains are complete.
Track Circuit Interrupter (TCI)	Track-mounted device normally positioned at Catch or Trap Points which maintains a Track Circuit in its Occupied state after the passage of a vehicle which may have been derailed.
Track Circuit Minimum Length	The minimum length of a Track Circuit, which has to be greater than the longest wheelbase of the vehicle required to be detected. Axle Counters also require a minimum length of track section for train detection.
Track Locking	The locking of a Signalling Function when a track section over the moveable infrastructure concerned is occupied.
Track Section	A portion of railway track having fixed boundaries and for which the Train Detection System provides information on its state of occupancy to the Signalling System.
Tracker Ball	A device that enables a Signaller to enter data and control Points and Signals in an IECC.
Trackside Functional Module (TFM)	An electronic module that connects the SSI data link to conventional lineside signalling equipment.
Trailable (Points)	Point Machine made trailable so that a movement in the trailing direction with the points set in the opposite position does not cause damage. (Trailable point machines are more complex than non-trailable and therefore require more maintenance.)
Trailing (Direction)	The direction of rail traffic over Points where the train meets the Heel of the Switch Rail first.
Trailing Points	Points which join two converging Routes.
Train Descriptor (TD)	A system that identifies trains (Train Description) and displays their location to the Signaller.
Train Description (TD)	A multiple character identifier for each train. See Train Descriptor.

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TERM	DEFINITION
Train Detection System	Equipment and systems forming part of, or providing input to, the Signalling Systems to detect, either: <ul style="list-style-type: none"> • the presence or absence of vehicles within the limits of a track section, or • that a train has reached, is passing or has passed a specific position. Where required, a train detection system may additionally detect the direction in which a train is travelling.
Train On Line (TOL)	The state of a Block Section when a train or other obstruction is between the Section Signal of one Signal Box and the Clearing Point of the next Signal Box .
Train Operated Points	Trailable Points which are continuously driven to one position such that Facing movements will always pass through them in the same direction. Also known as Hydro-Pneumatic Points.
Train Operated Route Release (TORR)	A method of releasing a Route after the passage of a train without further action from the Signaller.
Train Operated Warning System (TOWS)	A system that gives trackside staff audible warning of the approach of trains by means of 'safe' and 'warning' tones, activated by the Signalling System to enable them to reach a place of safety. Obsolescent system – see also Automatic Track Warning System.
Train Protection and Warning System (TPWS)	A system to provide protection against the consequences of Signals being passed at Danger and overspeed protection at certain speed restrictions. Loops are laid in the track which emit specific frequencies such as to limit the speed of a train (Overspeed Sensor System – OSS) and stop a train (Trainstop System – TSS).
Train Ready to Start (TRTS) Indicator	An Indicator in the Signal Box , to indicate to the Signaller to Clear the Platform Starting Signal .
Train Ready to Start (TRTS) Plunger	The means by which station staff inform the Signaller that a train is ready to depart.
Train Staff	A particular type of Token.
Trainstop	A trackside device which may be controlled to initiate an emergency brake application on any train passing it.
Train Wheel Detector	Items of equipment that provide the necessary functions to indicate the passage of a train wheel past a particular position on the track.
Transponder	Equipment normally fixed on or near the track which passes information electronically to a passing train.
Transportable Token Unit (TTU)	A Cab Display Unit for RETB that is designed for use on road or engineers' vehicles or at the trackside.

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TERM	DEFINITION
Trap Points	Facing Points provided at an exit from a Siding or converging line to de-rail an unauthorised movement, thus protecting the adjacent Running Line.
Treadle	A Mechanical or electrically operated device to detect the presence or passage of a train at a specific position.
TRTS	Abbreviated term for Train Ready To Start.
TRUST	Train Running System using TOPS.
TSDB	Train Services Database.
TSS	Trainstop System as applied by TPWS.
TSR	Abbreviated term for Temporary Speed Restriction.
Tunnel Signal	A Signal which, if at Danger, would cause a train to stop wholly or partially within a tunnel.
Turnout	A point end (excluding Switch Diamonds).
Turnout Speed	The speed permitted through the Facing Points when Set for the Diverging Route.
Two Aspect Signal	A Colour Light Signal capable of displaying two Aspects.
Two Aspect Signalling	A system of colour light signalling normally employing Red/Green Two Aspect Stop Signals only (as commonly used on London Underground). Yellow/green Repeater Signals are only provided when required by inadequate sighting of the stop Signals.
Under Road Crossing (URX)	A buried service route passing underneath the road carriageway, for example at a Level Crossing.
Undertrack Crossing (UTX)	A buried service route passing under the tracks below the level of the underside of the sleepers or track slab. This excludes services laid through a bridge span or roadway.
Unprotected Wrong Side Failure	A Wrong Side Failure where no other part of the Signalling System provides protection. Also known as a High Risk Failure.
Unworked Points	Points (usually Hand Points) not controlled from a Signal Box or Ground Frame.
Upper Quadrant	A term applied to a Semaphore Signal , whose clear position is designated by the arm above the horizontal.
URX	Abbreviated term for Under Road Crossing.
UTX	Abbreviated term for Undertrack Crossing.

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TERM	DEFINITION
Validation	The activity that determines that a system meets its specified requirements in all respects. It involves consideration of whether the specification of the system sufficiently and accurately represents the needs of the intended user.
Verification	The activity that establishes the correctness of a statement or claim by examination or demonstration. It determines that the output of each phase of the design, installation and testing life cycle fulfils the requirements of the previous phase and the output is as intended.
VDU	Abbreviated term for Visual Display Unit.
Vehicle Overhang	The distance measured parallel to the rail from the centre of the outermost wheel on a vehicle to the nearest extreme end of the vehicle.
Visual Display Unit (VDU)	A screen on which various types of information is displayed.
Vital	Equipment whose correct operation is essential to the integrity of the Signalling System. Most vital equipment is designed to Fail-Safe principles – a Wrong Side Failure of vital equipment could directly endanger rail traffic. See Safety Critical.
Warning Board	A board on the Approach To a Temporary or Emergency Speed Restriction ahead, placed at a distance before commencement to provide adequate Braking Distance.
Warning (Route Class)	A Route from one Main Signal to the next main Signal with a Restricted Overlap, where the full or reduced overlap is not available or not required. The entrance Signal is Approach Controlled.
Warning Indicator (WI)	A board on the Approach To a Permanent Speed Restriction ahead, placed at a distance before commencement to provide adequate Braking Distances. See also Advanced Warning Indicator.
Weekly Operating Notice (WON)	The official printed notice which includes advice to drivers of alterations to Permissible Speeds and Temporary Speed Restrictions, engineering arrangements and signalling and permanent way alterations
Welwyn Control	In Absolute Block, it prevents the Signaller from accepting a second train without the first having occupied and cleared the Home Signal Berth Track Circuit. See also Home Normal Control and Interlinking.
Whistle Board	A sign to inform the driver to sound the horn.
WI	Abbreviated term for Warning Indicator.

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TERM	DEFINITION
Wide to Gauge Points	<p>A Point End where the two Switch Rails are not connected by Stretchers. There are two ways in which this can be applied:</p> <ul style="list-style-type: none"> • Trap Points where the two switch rails move in opposite directions – both open in the Normal position; both closed in the Reverse position. Used where it is required that a derailed train keeps closely to the track alignment. • A Point End forming part of two Crossovers, where each switch rail is operated by a separate Point Machine.
WILD	Wheel Impact Load Detector.
WON	Abbreviated term for Weekly Operating Notice.
Workstation	See Signalling Workstation .
Wrong Direction	Opposite to the Normal Direction of rail traffic on a particular line. Also known as Contra-Flow when applied to a Bi-Directional Line.
Wrong Side Failure	A failure that results in the protection provided by the Signalling System being reduced or removed. See Protected Wrong Side Failure and Unprotected Wrong Side Failure.
Yellow (Aspect)	See Single Yellow (Aspect).
Yellow Bond	A jumper cable that is necessary to ensure the electrical integrity of a Track Circuit that is fully or partially parallel bonded.
Yellow Shunt Signal	A type of Shunting Signal which applies only to movements in the direction(s) to which the Signal can be Cleared, other movements being able to pass the Signal without it being cleared. Can also be a Ground Position Light Signal using yellow lights.

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C3 Level crossing terms

TERM	DEFINITION
ABCL	Abbreviated term for Automatic Barrier Crossing Locally Monitored.
Accommodation Level Crossing	A private vehicular Level Crossing connecting land in the same ownership separated by a railway line.
Advance Warning Board (AWB)	A sign incorporating a St. George's Cross provided on the Approach To certain Automatic Level Crossings to inform the driver to regulate the speed of his train in order to observe the restriction of speed which applies from the subsequent Special Speed Restriction Board. Also referred to as a Level Crossing Warning Sign.
AHB	Obsolete abbreviation for Automatic Half-Barrier Crossing.
AHBC	Abbreviated term for Automatic Half-Barrier Crossing.
Another Train Coming Sign (ATC Sign)	A sign, provided at AOCL on double lines, which is illuminated after the passage of a train to warn road users of the imminent approach of a second train.
AOCL	Abbreviated term for Automatic Open Crossing Locally Monitored.
AOCR	Abbreviated term for Automatic Open Crossing Remotely Monitored.
Audible Warning	An audible tone or bell that is sounded when the Level Crossing protection system is activated. See also Yodalarm.
Automatic Barrier Crossing Locally Monitored (ABCL)	An Automatic Level Crossing equipped with Half-Barriers and Road Traffic Signals at which the correct operation of the crossing equipment is monitored by the train driver.
Automatic Half Barrier Crossing (AHBC)	An Automatic Level Crossing equipped with Half-Barriers, Road Traffic Signals and telephones communicating with the supervising Signal Box. The correct operation of the crossing equipment is monitored by the Signaller.
Automatic Level Crossing	A Level Crossing which is operated by approaching trains and not Interlocked with protecting Signals. Road Traffic Signals (or Red/Green Stop Lights are provided). Additional pedestrian Signals may be provided at road crossings depending upon the number of pedestrian users. Half-Barriers may be provided, depending upon the type of crossing. See AHBC, ABCL, AOCL, AOCR, MSL.
Automatic lower	A facility provided at some Level Crossings equipped with Full Barriers, whereby an approaching train automatically initiates the Level Crossing Protection System. For a CCTV monitored crossing, the picture will be automatically switched on.
Automatic Raise	A facility provided at some Level Crossings equipped with Full Barriers, whereby the passage of a train clear of the crossing automatically raises the barriers and extinguishes the road traffic signals.

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TERM	DEFINITION
Automatic Open Crossing Locally Monitored (AOCL)	An Automatic Level Crossing equipped with Road Traffic Signals at which the correct operation of the crossing equipment is monitored by the train driver. Barriers are not provided.
Automatic Open Crossing Remotely Monitored (AOCR)	An obsolescent type of Automatic Level Crossing, similar to an AHBC but without Barriers.
AWB	Abbreviated term for Advance Warning Board.
Barrier (Level Crossing)	A device pivoted at the side of the road, which is lowered when required to close the road to enable trains to pass.
Barrier Control Pedestal	A separate operating console located in view of the Level Crossing under operation.
Barrier Pedestal	A structure supporting the boom and containing the motor and hydraulics equipment.
Barrier Skirt	The lattice (metal or plastic) attached to the barrier boom at some full barrier crossings, designed to reach the floor when the barriers are in the 'Down' position. It enables the railway to be fenced off when using full barriers.
Barriers Up Indicator	An indicator provided beyond a TMO crossing to indicate that the barriers have raised after the passage of a train.
Barrow Crossing	A crossing (often at the end of a platform) for staff use. Protection, if provided, is by means of white lights that are Lit when it is safe to cross.
Blocking Back (Level Crossings)	The formation of a stationary or slow-moving queue of road traffic over a Level Crossing due to road traffic conditions causing obstruction of the railway line.
Boom	Alternative term for Barrier.
Boom Lights	Small red lights that are provided along the length of a Barrier.
Bridleway	A path designated for horse riders and pedestrians.
Cattle-Cum-Trespass Guard	A device provided adjacent to the Level Crossing surface to deter animals and/or pedestrians from straying onto the railway.
Controlled Level Crossing	A Level Crossing equipped with Gates or full Barriers that is Interlocked with protecting Signals. Road Traffic Signals may be provided. Additional Barriers or Wicket Gates for pedestrians may be provided.
Crossing Attendant	A person appointed, where required, to provide site supervision or control at a Level Crossing when it is necessary to place the crossing in local control, or to operate a temporary vehicular level crossing. This person is required to work under the instruction of the Crossing Keeper or Signaller.
Crossing Box	An alternative term for Gate Box.

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TERM	DEFINITION
Crossing Keeper	A person appointed at a permanent Gate Box to carry out the normal operating procedure of a Level Crossing.
Crossing Time	Time taken for a user to traverse the crossing from the decision point to a position of safety on the other side of the railway. Crossing time includes time taken for the user to make the decision to cross.
Driver's Level Crossing Indicator	A Signal provided at certain types of Level Crossing to indicate to the train driver the state of the crossing equipment. See Driver's White Light and Driver's Red Light.
Driver's White Light (DWL)	A Signal that is displayed to a train driver approaching an ABCL or AOCL to indicate that the Level Crossing protection system has activated.
Driver's Red Light	A Signal that is displayed to a train driver approaching an ABCL or AOCL whenever the DWL is not Lit.
DWL	Abbreviated term for Driver's White Light.
Footpath Level Crossing (FP)	A Level Crossing that is designated only for pedestrians.
FP	Abbreviated term for Footpath Level Crossing.
Full Barriers	Single or double Barriers, provided at Controlled Level Crossings, which extend across the whole width of a road. Barrier Skirts may be provided.
Gate Box	A control point provided for the supervision of one or more Level Crossings which is not controlled directly by a Signal Box. A Gate Box is not a Block Post.
Gate (Level Crossing)	A device pivoted at the side of the road (or Footpath/Bridleway) which is closed when required to enable trains to pass. The Gate may close across the railway when the road is open.
Gate Stop Lever	Lever that, when placed from reverse to the backlock ('B') position, lowers the rail stops and prepares the rising of the road stops. When placed fully normal, it locks the road stops in the raised position. Interlocked with the signalling .
Gate Stop (Road)	A device that is normally flush with the road surface and rises as the gate approaches to hold the Gate locked across the roadway.
Gate Stop (Rail)	A device that holds the Gate locked across the railway. Part of this device may be fixed.
Gate Wheel	A wheel provided in a Signal Box or Gate Box with which the Signaller or Crossing Keeper operates the Gates.
Half-Barrier	A Barrier for closing the entrance to a Level Crossing to the oncoming road traffic, whilst maintaining open the exit from the crossing.
LCU	Abbreviated term for Local Control Unit.

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TERM	DEFINITION
Level Crossing	An intersection at the same elevation of a road and one or more rail tracks. See Manned Level Crossing, Automatic Level Crossing and Open Crossing.
Level Crossing Order	A legal document, made by the Secretary of State, which details the controls to be provided and the circumstances in which a Level Crossing may be brought into use.
Level Crossing Predictor	A control system by which the position and speed of an approaching train may be determined, to activate the Level Crossing Protection System.
Level Crossing Protection System	The operation of Road Traffic Signals and/or Barriers/Gates manually or by an approaching train.
Level Crossing Warning Sign	Alternative term for an Advance Warning Board.
Local Control Unit (LCU)	Equipment provided at an Automatic Level Crossing, CCTV, Remotely Controlled Level Crossing or other crossing to enable it to be manually operated locally.
Manned Level Crossing	A Level Crossing that is operated or supervised by a railway employee. See CCTV, LC, MCB, RC and TMO.
Manually Controlled Barriers (MCB)	A Controlled Level Crossing with full Barriers, operated by a Control Centre, Signal Box or Gate Box.
MCB	Abbreviated term for Manually Controlled Barriers.
MCB With CCTV	Manually Controlled Barriers operated remotely via Closed Circuit Television.
Miniature Red/Green Lights (R/G)	Alternative term for Miniature Stop Lights.
Miniature Stop Lights (MSL)	Red/green indications for the crossing user at User-Worked Crossings, Footpath Crossings and Bridleway Crossings.
Miniature Warning Lights (MWL)	Obsolete term for Miniature Stop Lights.
Miniature Stop Light Crossing (MSL)	An Automatic Level Crossing equipped with red/green lights operated by approaching trains. See User Worked Crossing.
MSL	Abbreviated term for Miniature Stop Lights.
MWL	Abbreviated term for Miniature Warning Lights.
OC	Abbreviated term for Open Crossing.
Occupation Level Crossing	A private Level Crossing which gives access between premises and a public highway.
Open Crossing (OC)	A Level Crossing that has no Barriers, Gates or Road Traffic Signals and is protected only by road traffic signs.
PETS	Abbreviated term for Public Emergency Telephone System.

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TERM	DEFINITION
Public Emergency Telephone System (PETS)	A special telephone system for use at Level Crossings. It includes provision for proving handset connection.
RC	Abbreviated term for Remotely Controlled Level Crossing.
Red/Green Lights (R/G)	Alternative term for Miniature Stop Lights.
Remotely Controlled Level Crossing (RC)	A Level Crossing equipped with full Barriers that is remotely controlled within normal visual range of the Signaller or Crossing Keeper.
R/G	Abbreviated term for Red/Green Lights.
Road Traffic Signal	A mandatory Stop Signal for road traffic, comprising an amber and two flashing red lights.
Rural Barriers	A type of Barrier equipment that is designed to be operated locally by the user, typically provided at a User Worked Crossing.
SIP	Abbreviated term for Strike-In Point.
Skew Crossing	A Level Crossing where the road crosses the railway at an acute/obtuse angle.
Special Speed Restriction Board (SSRB)	A sign incorporating a St. Andrew's Cross provided on the Approach To certain open Level Crossings, indicating a maximum permitted speed over the crossing.
SSRB	Abbreviated term for Special Speed Restriction Board.
St. Andrew's Cross	Signs provided on the road approaches to a Level Crossing for the information of road users and on Special Speed Restriction Boards.
St. George's Cross	Incorporated in a sign provided on the Approach To certain Automatic Level Crossings to inform the driver to regulate the speed of his train in order to observe the restriction of speed which applies from the subsequent Special Speed Restriction Board. Also referred to as a Level Crossing Warning Sign.
Strike-In Point (SIP)	The position on the Approach To an Automatic Level Crossing or other installation at which a train initiates the Level Crossing Protection System.
TMO	Abbreviated term for Traincrew Operated Crossing.
TMO(B)	Abbreviated term for Traincrew Operated Barriers.
Traincrew Operated Crossing (TMO)	A crossing equipped with Barriers or Gates (with or without Road Traffic Signals) and operated by the guard or nominated person.
Traincrew Operated Barriers [TMO(B)]	A crossing equipped with Barriers (with or without Road Traffic Signals) and operated by the guard or nominated person.
User Worked Crossing (UWC)	Level Crossing protected by Gates or Barriers, operated by the user. It may be equipped with a telephone and/or Red/Green lights.

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TERM	DEFINITION
UWC	Abbreviated term for User Worked Crossing.
Wicket Gate (Level Crossing)	A small Gate, which may be controlled from a Signal Box or Gate Box, used to regulate the passage of pedestrians over a railway line.
Wicket Gate Lever	A lever which, when pulled, locks the wicket gate(s) closed. Not interlocked with the signalling .
Wig-Wag	Colloquial term for Road Traffic Signals.
Yodalarm	Proprietary term for a Level Crossing Audible Alarm.

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C4 Signal sighting terms

TERM	DEFINITION
Achievable Reading Distance	The maximum reading distance that can be reasonably practicably achieved.
Aligning (a Signal or Element)	The process of re-directing the Beam Centre-Line of the device to pass through the Alignment Point.
Alignment (of Signal or Element)	The line (in three-dimensional space) of the beam Centre-Line.
Alignment Point	A spatial reference point, through which the Centre-Line of the Beam emitted by a Signal or Element should be directed, so as to achieve satisfactory Visibility. The Alignment Point is specified in terms of its height above rail level and its offset relative to the Left-Hand Rail, at a particular distance from the Signal .
Alignment Target	A physical object used during the Aligning process to mark the Alignment Point.
Angle of Depression (of Signal or Element)	The angle between the Centre-Line and the horizontal plane, in a situation where the Beam is inclined downwards away from the Signal .
Angle of Elevation (of Signal or Element)	The angle between the Centre-Line and the horizontal plane, in a situation where the beam is inclined upwards away from the Signal .
Assessed Minimum Reading Time	The sum of the times assessed to be essential for a driver approaching a Signal to: <ul style="list-style-type: none"> • detect the presence of the Signal • identify the Signal as being applicable to him/her • observe the information presented by the Signal • interpret the information to determine what action, if any, is required.
Axis (of Signal Element)	An imaginary straight line extending out from the centre of the Display, perpendicular to the plane of the surface of the Display.
Beam (of light emitted from Signal Element)	An envelope of space within which the light Intensity is at least 50% of the intensity on the Centre-Line at the same distance from the Signal .
Brightness	An individual's perception or sense of the strength of light entering the eye. The perceived brightness of a given region mainly depends on the Luminance contrast between the region and its surroundings.
Centre-Line (of beam)	The line (usually extending out perpendicular from the face of a Signal) along which the Intensity of light is greatest at a given distance from the Signal . For practical purposes this corresponds to the Axis of the Signal Element.

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TERM	DEFINITION
Chord	A straight line drawn between two points on a curve. Used in calculations relating to cant and curvature.
Chromacity (of a source of emitted light)	The co-ordinates of a colour which may be plotted on the 1931 CIE (Commission Internationale de l'Eclairage) chromacity diagram to graphically represent the colour in question.
Clear Weather Conditions	Daylight visibility of 1000 m or better, where visibility is measured in accordance with recognised guidelines, such as those contained in the British Meteorological Office Observer's Handbook.
Close Viewing Sector (CVS)	A specially moulded sector (of nominal angle 56°) in the front lens of a long-range Colour Light Signal , that acts to deflect a proportion of the light away from the Axis by a significant angle. The effect of the CVS is to render the aspect visible from the cab of a train when very close to the Signal (typically within 20 m).
Cross-Read (from one Signal to another)	A type of Misread error made when driving a train. To mistakenly Read A Parallel Signal as being applicable to the train, instead of Reading the applicable Signal .
Display (In relation to the output from a Signal)	The Signal or Element actually exhibited by the device, as determined by the Signalling interlocking and controls.
Disregard	Obsolete term for a SPAD error category, Group 2.
Driver's Eye Level (DEL)	The vertical distance between the driver's eyes when in the normal, seated position, and the crown of the Left-Hand Rail. (This may be a nominal value, representative of several types of driving cab and/or the variation in the population of drivers. Alternatively, for a particular scenario, it may be a specific, measured value. Unless special circumstances dictate, driving seats are assumed to be adjusted vertically to their mid-position.)
Driver's Line of Sight (to an Aspect or Element)	The straight line between the mid-point of the driver's eyes and the aspect or Element. (The length of this line could, in principle, be measured with a rangefinder.)
Element (of a Signal)	A single aspect of a Main Signal ; or, a Position Light Junction Indicator; or, the character displayed by an Alphanumeric Route Indicator; or, a single Semaphore arm or disc; or, a single aspect (lamp) of a Position Light Signal .
Expectation	The driver's pre-conditioning, based on factors such as route knowledge and previous experience of the way that the Signalling System behaves. Expectation can influence a situation prior to the train reaching a point where the Signal can be seen, or with a Signal Visible, before a less restrictive aspect is displayed
Fixate	To look at an object directly, so that the image of the object falls on the fovea of the retina of the eye, an area covering about 2° visual angle.

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Form (of a Signal)	The particular combination of Elements used to create a Signal , and their positions relative to each other.
Half Beam Spread	See Horizontal Half-Beam Angle and Vertical Half-Beam Angle.
Height (of Signal or Element)	The vertical distance between the centre of the Signal or Element and the crown of the Left-Hand Rail.
Horizontal half-beam angle (of light emitted from Signal or Element)	The angle between the Beam Centre-Line and the line that represents 50% of the peak Intensity, measured at the surface of the Element in the horizontal plane.
Horizontal line-of-sight distance (to Signal or Element)	The straight-line distance, measured in a horizontal plane, from the driver's eyes to the Signal or Element.
Hot Strip	Popular name for Close Viewing Sector.
Identification	The act of identifying.
Identify (a Signal or Element)	When viewing a Signal or Element, recognise it as being applicable to a particular line; correctly associate a Signal or Element with a particular line.
Illuminance	Illumination. The quantity of light or Luminous Flux falling on unit area of a surface. Illuminance is inversely proportional to the square of the distance of the surface from the source of light, and proportional to the cosine of the angle made by the normal to the surface with the direction of the light rays. Illuminance is measured in lux. One lux is equivalent to one lumen per square metre.
Illumination	See Illuminance.
Intensity	See Luminous Intensity.
Lateral Position (of Signal or Element)	The horizontal distance of a Signal or Element from the running rails at a specific location on the track and the vertical position of a Signal above railhead level. A combination of Height and Offset of the Signal or Element. The lateral position of an Element is the position of the centre of its front surface.
Left-Hand Rail (LHR)	The left-hand rail of the track to which a Signal or Element relates, as viewed from a train approaching the Signal .
Line-Of-Sight Distance (to Signal or Element)	The straight-line distance from the driver's eyes to the Signal or Element. From the driver's perspective, this is the distance along the Driver's Line of Sight.
Locate	See Identify.
Longitudinal Position (of Signal or Element)	The position of a Signal along the track, usually specified in terms of miles, kilometres or yards.

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Luminance	Measure of the brightness of a surface of a source of light. Expressed in candela per square metre of the surface radiating normally.
Luminosity	The density of Luminous Intensity in a particular direction. Luminosity is measured in lux. One lux is equivalent to one lumen per square metre.
Luminous Flux	Unit Luminous Flux is that flux emitted within unit solid angle of one steradian by a point source of uniform intensity of one candela. Unit of measurement is the lumen (lm).
Luminous Intensity	A measure of the strength of a source of light. Luminous Intensity is measured in candela (cd). If in a given direction a source of light emits monochromatic radiation of frequency 540 x 10 ¹² Hz and the radiant intensity in that direction is 1/683 watt per steradian, then the Luminous Intensity of the source is 1 candela. One candela is equivalent to one lumen per steradian.
Miscommunication	Obsolete term for a SPAD error category, Group 1.
Misjudgement	Obsolete term for a SPAD error category, Group 4.
Misread	Obsolete term for a SPAD error category, Group 3.
Obscuration	A situation where there is an interruption of the Driver's Line of Sight to an Element. Total Obscuration occurs when the entire surface area of the Element is hidden from the driver's view. Partial obscuration occurs when part of the surface area is hidden from view.
Occlusion	See Obscuration.
Offset (of driver's eye)	The horizontal distance between the running edge of the Left-Hand Rail and the centre of the top surface of the driver's seat. (This may be a nominal value, representative of several types of driving cab, or an exact value for a particular class of traction unit.)
Offset (of Signal or Element)	The horizontal distance between the running edge of the Left-Hand Rail and the centre of the Signal or Element.
Orientation (of Close Viewing Sector)	The angle between the 12:00 (o'clock) position (the direction vertically upward) and a radial line drawn through the centre of the CVS. The angle is measured clockwise from the 12:00 position.
Parallel Signals	Signals applying to parallel lines signalled in the same direction, that have been placed in the same Longitudinal Position.
Performance Category	An equipment performance specification based on the distance at which a device is considered readable. Performance categories are defined in GK/RT0031, Table 4. (An objective parameter based on a consensus subjective judgement.)

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Phantom Aspect	Light emitted from a Signal lens assembly that has originated from an external source (usually the sun) and has been internally reflected within the Signal Head in such a way that the lens assembly gives the appearance of being lit.
Positioning	The process of establishing the optimum Position of a proposed Signal or Element.
Radius	The radius of curvature of the track.
Rail Datum Mark	A temporary reference line inscribed across the crown of the left-hand rail in exactly the same longitudinal position as the display. Used to assist measurement during Positioning or Sighting a Signal .
Reaction	The process of the driver taking action in response to seeing the Signal .
Read (a Signal)	The cognitive process involved in the driver's correct interpretation of the Display in the context of its surroundings. To correctly identify any possible Displayed aspects and indications, when observing the Signal under the conditions in which a train driver will view it. A Signal can only be read if all the aspects and indications in a particular Performance Category can be Fixated simultaneously.
Read (a situation)	The cognitive process involved in the driver's correct interpretation of a situation where more than one Signal may be visible. To read a situation the driver must be able to identify and read the applicable Signal , whilst being in a suitable position to confidently discount information displayed by any other Signals.
Readability (of a Signal Element)	The degree to which a Signal or Element is considered Readable.
Readable (Signal or Element)	A qualitative statement indicating that drivers can Read the Signal . A Signal is considered readable if a person just meeting the eyesight requirements for train driving, is able to consistently and reliably identify displayed aspects and indications, when observing the Signal under the conditions in which a train driver will view it, in Clear Weather Conditions, by day and by night.
Read-Through (from one Signal to another)	A type of Misread error made when driving a train. To mistakenly Read and React to a Signal further away from the train than the next applicable Signal .
Required Reading Distance	The distance on the approach to the Signal determined by the signal sighting committee that is to be provided and maintained for sighting a Signal by the driver of an approaching train.
Sighting	The process of evaluating the effectiveness of an installed Signal or Element by means of on-site observation of Visibility and Readability.
SPAD Error Category Group 1	A type of error resulting in a SPAD involving miscommunication between railway staff.

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SPAD Error Category Group 2	A type of error resulting in a SPAD involving the driver failing to locate a Signal or failing to react correctly to the observed Signal .
SPAD Error Category Group 3	A type of error resulting in a SPAD involving a driver reading an incorrect Signal or an incorrect aspect.
SPAD Error Category Group 4	A type of error resulting in a SPAD involving the driver misjudging the train behaviour or environmental conditions.
SPAD Error Category Group 5	A type of error resulting in a SPAD involving other factors.
Swamping	Swamping is the effect by which bright sunlight reduces the perceived brightness of a Signal 's aspects by reducing the contrast between the aspects and the immediate surroundings. This includes the effect of reflections from the exterior surface of the lens assembly.
Unreadable (Signal or Element)	A Signal or Element not considered Readable. A Signal or Element may become Unreadable in specific circumstances, for example at a particular Distance from the Signal , or in certain ambient lighting conditions.
Versine	Mathematically: $\text{Versine}(\theta) = (1 - \text{Cos } \theta).$ <p>In colloquial use the 'versine' on a curved portion of track is the extent to which the track turns sideways through the curve – the transverse displacement (offset).</p> $v = r \text{ Versine}(\theta),$ <p>where 'r' is the radius of curvature and 'θ' the change in direction. 'v' is used in the calculation of the additional structural clearance on curves.</p>
Vertical Half-Beam Angle (of light emitted from Signal or Element)	The angle between the beam Centre-Line and the line that represents 50% of the peak Intensity, measured at the surface of the Element in the vertical plane containing the Centre-Line.
View (of a Signal or Element)	The extent to which the Signal or Element is Visible.
Viewing (a Signal, Signal or Element)	To Fixate a Signal or Element, but without necessarily being in a position at which all or any of the Display is Visible or Readable.
Viewing Angle (of an Aspect or Element)	The angle, in three-dimensional space, between the Centre-Line of the Beam and the Driver's Line of Sight.

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Visibility (of Signal or Element)	The quality of the driver's approach view of the Signal as determined by measurable, physical factors: <ul style="list-style-type: none">• relative Intensity• colour contrast• colour accuracy• susceptibility to high incident light• spatial positioning of Signal• alignment and beam width; degree of obscuration• time to view• distance from next Signal.
Visible (of Signal or Element)	A Signal or Element, which when viewed from a particular point meets the minimum criteria for Visibility.
Visual Acuity	The ability to resolve fine detail. Normally tested by recording the smallest size letters at a defined distance.

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References

Railway Group Standards and other Railway Group Documents

- GE/GN8510** Railway Group Safety Performance Monitoring – Definitions and Guidance
- GI/RT7011** Provision, Risk Assessment and Review of Level Crossings
- GI/RT7012** Requirements for Level Crossings. (Expected to be published in June 2004)

The Catalogue of Railway Group Standards and the Railway Group Standards CD-ROM give the current issue number and status of documents published by RSSB. This information is also available from www.rssb.co.uk.

Other References

Engineering Safety Management (Yellow Book)

RSPG part 2, section E, Guidance on Level Crossings