ARTC

Section 2

Fixed Signals - Rules 1 to 23

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1. Fixed Signal Types

There are three types of fixed signals in use, semaphore signals, light signals and disc signals.

a. Semaphore Signals

Semaphore signals display by a coloured arm during daylight and by coloured lights at night and during reduced visibility.



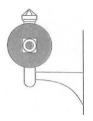
b. Light Signals

Light signals display coloured lights during day and at night.



c. Disc Signals

Disc signals display a red disc during daylight or coloured lights at night or where visibility is reduced.



2. Fixed Signal Classifications

Fixed signals are classified by the function performed and the location of the signal.

a. Fixed Signals Classifications

The following signal classifications are utilised:

- 1. distant and repeating signals,
- 2. home and starting signals (absolute signal),
- 3. automatic signals (permissive signal),
- 4. calling-on signals, and
- 5. disc and dwarf signals (absolute signal).

The signals utilising semaphore arms are further identified by the quadrant in which they operate:

- 1. Two position semaphore signals operate in the lower left quadrant of the arc.
- 2. Three position semaphore signals operate in the upper left quadrant of the arc.

The rear face of semaphore arms are painted white with a black line.



b. Normal Position of Signals

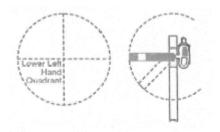
The normal positions of signals are:

- 1. Distant signals display 'Caution'.
- 2. Repeating signals display 'Warning'.
- 3. Automatic signals display 'Proceed'.
- 4. Calling-on signals display the semaphore arm horizontally and the light is obscured.
- 5. All other fixed signals must display 'Stop'.

3. Two Position Signals: General

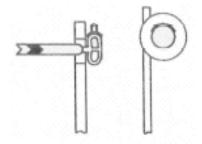
Two position signals display one of the following sets of indications:

- 1. 'Stop' or 'Proceed'.
- 2. 'Caution' or 'Proceed'.
- 3. 'Warning' or 'Proceed'.

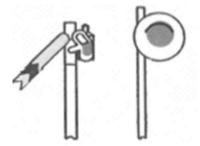


a. Distant Signals: Two Position

'Caution' is indicated by a horizontal arm or yellow light.



'Proceed' is indicated by a lowered arm at 45° or a green light.



The following Sub-Clause (b) was amended by SW 1310/99 of December 20, 1999

b. Repeating Signals for Point Banners and Switch Locked Points: Section Authority and Train Order Systems

At locations in Section Authority and Train Order Territory, Repeating Signals are provided for:

- Some Trailable Point Banners at selected locations, and
- for all points that are secured by Electric Switch Locks.

The 'Warning' signal is indicated by two yellow lights, one above the other.



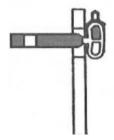
The 'Proceed' signal is indicated by a green light above a yellow light.



When the Repeating Signal is at 'Warning', the Driver must be prepared to stop at the points, ensure the points are set for the Main Line, and if a Switch Lock is provided, ensure the door is closed and locked.

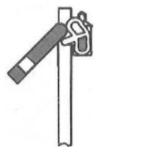
c. Home and Starting Signals: Two Position

'Stop' is indicated by a horizontal arm or red light.





'Proceed' is indicated by a lowered arm at 45° or a green light.

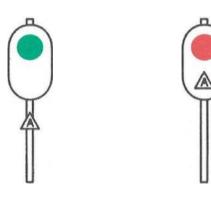




d. Automatic Signals: Two Position

Two position automatic signals have the following features:

- 1. Automatic signals use coloured lights to indicate 'Stop' or 'Proceed' ('Stop' and 'Proceed' by coloured light.)
- 2. A triangular board with the letter 'A' is attached to the signal post.
- 3. Automatic signals are located as defined by special instructions.



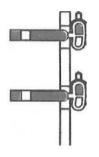


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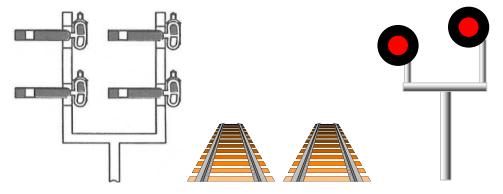
4. Multiple Signal Arms

a. Two Arms Close Together

The diagram displays two arms on the same side of a post close together. The top (first) arm signals the line on the left. The bottom (second) arm signals the next line to the right. This must not be confused with the co-acting signal which has a signal indication on arm high and a signal arm low on the post. (Refer to Paragraph 4(c).



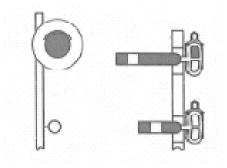
Where more than two arms are attached to one post or bracket posts, the line to which each signal applies will be defined in the signalling diagrams.



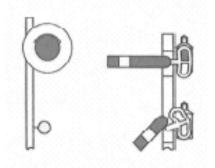
b. Calling-on Signals

The calling-on signal consists of a short arm fixed under a home signal and applies to the same line as the home signal. Lights or semaphores may be used.

In the 'Normal' position the light is obscured.



In the 'Proceed' position the yellow light is visible.



In the event that the home and calling-on signals both indicate 'Proceed', both signals must be considered to be at 'Stop'.

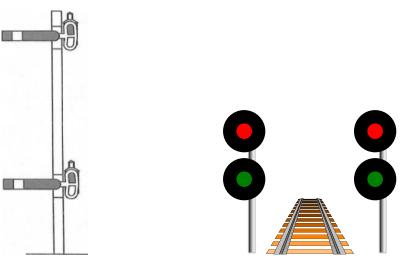
c. Co-acting Signals

Co-acting signals are used where a signal cannot readily be seen due to intervening obstructions. Both signal arms or lights are read as the one signal.

The arms or lights may be on the same post with the bottom signal low down. Alternatively the signals may be on separate posts on the same side or opposite sides of the line. This must not be confused with the multiple signal which has both signal arms on the post. (Refer to Paragraph 5(a).

If at any time conflicting indications are displayed, both signals must be considered to be at 'Stop'.

Where there are two or more signals on the one post with only one co-acting arm or light, then the top signal applies to the co-acting arm or light.



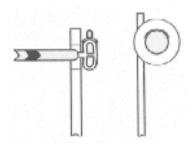
5. Distant Signals

Distant signals are fixed some distance to the rear of the home signal.

a. Distant Signals: Rear of the Home Signal

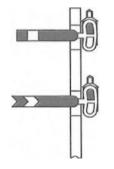
A distant semaphore signal is a yellow fishtailed arm with a black fishtailed band. The semaphore arm operates in the lower left quadrant of the arc.

A yellow light is used for light signals when at 'Caution'.



b. Distant and Home Signals on One Post

If a distant and home or starting signal are fitted to the same post, for the same line, the distant signal will be operated from the signalbox in advance and the home signal from the signalbox to the rear. The distant signal is the lower and the home or starting signal the upper on the post. In this case the distant signal will display a red light when at the 'Caution' position.



c. Distant Signals

A distant semaphore signal controlled from the signalbox in advance is a red fishtailed arm with a white fishtailed band. The semaphore arm operates in the lower left quadrant of the arc. A red light is used at night to indicate 'Caution'.

Distant signals must be placed to 'Caution':

- 1. immediately a train passes the signal,
- 2. whenever there is an obstruction on the line, or
- 3. whenever there is a danger on the line.

d. Driver Response to the Distant Signal

When the Driver observes a distant signal at the 'Caution' position, the train must be slowed to a precautionary speed to allow the train to be safely stopped at the next signal if this signal displays 'Stop'.

A distant signal at the 'Proceed' position indicates all other signals applicable to the same line as the distant signal are also at 'Proceed'.

e. Repeating Signal for a Distant Signal

A repeating signal is fitted to the rear of the distant signal and repeats the indication of the distant signal.

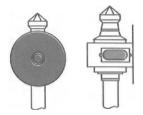
When the Driver observes a repeating signal indicating 'Warning', the speed of the train must be slowed to a precautionary speed as if the distant signal shows 'Caution'.

6. Disc Signal

Disc signals are two position signals using coloured discs and lights. They can be fitted as stand-alone units or with two or more signals on one post.

a. Disc Signal Indications

'Stop' is indicated by a red disc or a red light.



'Proceed' is indicated by the disc being turned off to either side or by the display of a green light at night.

b. Two or More Disc Signals on One Post

Where two disc signals are on the same post, the top (first) disc signal applies to the line on the left. The bottom (second) disc signal left applies to the next line to the right.

Disc signals fixed to the same post as semaphore signals are read in their relative order separate to the semaphore signals.

c. Disc Signals for Arriving Trains

When disc signals are used for an arriving train, the Signaller must check with the Competent employee in charge of the shunting operation that:

- 1. all hand points are properly set for the intended movement, and
- 2. the line is clear for the train run, and
- 3. if the line is obstructed in the path of the train, a competent employee is stationed at a position to protect the obstruction by hand signal.

These pre-conditions must be met before a disc signal can be placed to 'Proceed' for a train to enter the yard.

The disc signal is to be kept at the normal position until the train has been almost stopped.

When there is a signalbox at each end of the station:

- 1. the permission of the Signaller at the opposite end must be obtained before the disc signal is exhibited to an arriving train, and
- 2. the Signaller after giving permission must ensure that no other train movement is allowed to foul the line.



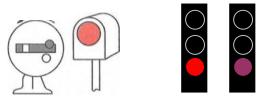
7. Dwarf Signals

Two position dwarf signals use lights or semaphore arms which revolve.

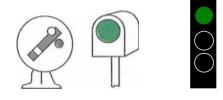
a. Dwarf Signal Indications

Semaphore arm dwarf signals are painted on a white background. The target revolves as shown in the diagram.

'Stop' is indicated by a horizontal arm or red or purple lights.



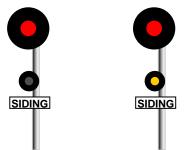
'Proceed' is indicated by the arm at 45° below the horizontal or a green light.



b. Dwarf Signals and Home Signals on One Post

A two position dwarf signal may be placed on the same post as a two position home signal, both using lights. The light in the dwarf signal is obscured when it is in the normal position.

The 'Proceed' indication will be by a yellow light.



A board showing 'Siding' will be fixed adjacent to the signal post on which the two position dwarf signal is fitted.

8. Point Indicators and Disc/Dwarf Signals

Disc signals and Dwarf signals are used to regulate the passage of trains between sidings, running lines and shunting operations. The train must not pass the disc or dwarf signals displaying 'Stop' except as described under this Code of Practice.

a. Signals and Exits from Sidings

Where a fixed signal is at the exit or entrance to a siding:

- 1. A proper signal must be displayed before a train is allowed to enter or exit the siding, and
- 2. A Driver waiting for the signal must not allow the train to foul any other line.

b. Multiple Trains in Sidings

Where a fixed signal applies to more than one siding with more than one train in the sidings:

- 1. No Driver is to move towards the signal until the Competent employee in charge of the shunting operation gives permission to do so, or
- 2. If no Competent employee is in attendance then no Driver is to move until a clear understanding has been reached between all the Drivers.

c. Point Indicators

Point indicators are connected to the points to indicate the set direction. When no fixed signals are available at the points, the Driver must receive confirmation from the Signaller or Competent employee that the points on their line are correctly set for the train to proceed.

d. Exceptions in Obeying Disc or Dwarf Signals

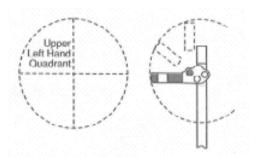
Disc and dwarf signals must not be passed at the 'Stop' position except:

- 1. When the signal is defective and the Signaller gives authority.
- 2. When authorised by the Pilot to enter the section where double line traffic is being worked over a single line during repairs or obstruction.

9. Three Position Signals: General

Three position signals display arms or coloured lights to indicate one of the following:

- 1. 'Stop'
- 2. 'Warning' or 'Caution'
- 3. 'Clear'.



a. Three Position Signals: At Night (or if a Light Signal)

Dwarf signals display one light at night.

All other three position signals display two lights at night. The position or colour of the second light determines whether the signal is a:

- 1. Home signal (shows red),
- 2. Automatic signal (shows red), or
- 3. Repeating signal (shows yellow).

b. Semaphore Signals and Speed Indication

Semaphore signals have one or two arms. For one arm semaphore signals, the second light is a fixed marker light placed below the arm.

Semaphore signals with two arms are used:

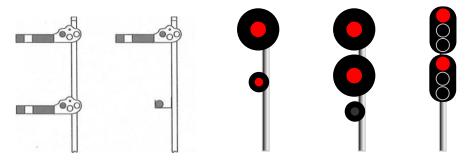
- 1. at junctions or stations of diverging running lines, and
- 2. owing to short sections, the speed of trains is to be reduced to medium speed.

Low speed signals are used to reduce the train speed below medium speed. The low speed light signal is placed vertically below the second arm or light.

10. Three Position Home Signals

Three position home signals have:

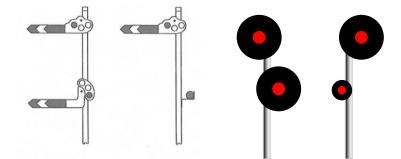
- 1. two red square ended arms with white bar, or
- 2. one red square ended arm with white bar above a red marker light, or
- 3. two vertical coloured lights.



11. Three Position Automatic Signals

Automatic signals are operated by passing trains. Three position automatic signals have:

- 1. two red pointed arms with white chevrons,
- 2. one red pointed arm with a white chevron above a red marker Light,
- 3. two staggered coloured lights by night and day.



Three position automatic signals work in the upper left quadrant and display the same aspects as a home signal except there is no low speed signal.



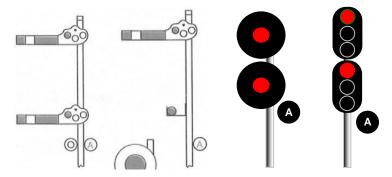
12. Three Position Home Signals Operating as Automatic Signals

a. Cross-overs and Exits from Sidings

Where the signalbox switches 'In' or 'Out', signals which protect a cross-over road or exit from a siding will be worked as either home signals or automatic signals.

When the signalbox is switched in, the fixed signals display the indications of the home signals.

At certain locations the Signaller may switch some home signals to automatic operation (fleeting). If the home signal is at the 'Stop' position it will display an illuminated 'A'. This display must be regarded as an automatic signal.



At certain locations, however, home signals which can be placed to 'fleeting' operation will not display an illuminated 'A'.

Signalbox Closed Notice:

- 1. An apparatus containing a sign is provided at the signalbox in the three position automatic area.
- 2. The sign may be illuminated and is displayed by reversal of the closing lever or by a notice board placed by the Signaller. Where a notice board is used the Signaller must obscure the board when the signalbox is opened and replace it in position when the signalbox is closed. When closed the sign will show 'SIGNALBOX CLOSED'.

b. 'A' Not Displayed at a Home Signal

If a train arrives at a Home Signal on which an illuminated 'A' is not displayed and the signal is at the `Stop' position, the following procedure must be complied with:

- 1. The Driver must sound the whistle. If no response is received from the Signaller, the Driver must inform the Train Controller using the radio.
- If the Driver is unable to contact the Train Controller via the radio, the Emergency assistance telephone can be used and the Driver may communicate with the Train Controller through the Control Room Officer.
- 3. The Train Controller must try to contact the Signaller.
- 4. If there is no response the Train Controller must check beyond all doubt that the signalbox is closed.
- 5. If the signalbox is closed the Signaller is not on duty, the Train Controller must instruct the Driver waiting at the signal to inspect the points to ensure they are in correct position for the passage of the train.
- 6. If the points are set correctly, the Train Controller may authorise the Driver by radio to pass the Home Signal which is at the `Stop' position.
- 7. The Train Controller and Driver are to exchange and record names.
- 8. The Train Controller must inform the Section Signals Maintenance Supervisor of the signal failure.

If there is a level crossing equipped with boom barriers or flashing light signals immediately ahead of a Home Signal which is to be passed at the `Stop' position:

- 1. The boom barriers or flashing lights will operate when the leading wheels of the train are in advance of the signal.
- 2. The Driver must observe the boom barriers are lowered or the flashing lights are operating before moving the train over the level crossing.

c. Failure of Communication

If the Driver is unable to establish radio communication with the Train Controller during the period of detention, the Driver must attempt to communicate with the Signaller by radio or telephone in accordance with the procedures detailed in Rule 2, clause (a), page 3.3.

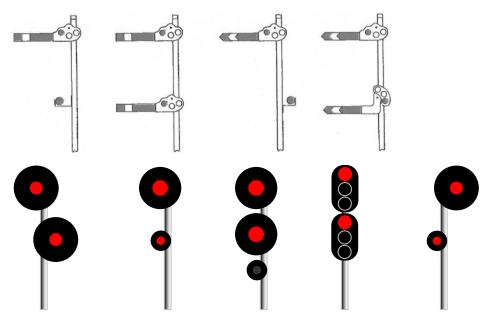
When the provisions of Rule 2, clause (a), (b) and (c), (page 3-3) have been followed and the Driver is unable to contact the Signaller via the radio or post telephone, the following procedures must be adopted:

- 1. The Driver must proceed to the signalbox and ascertain if the sign is showing `Signalbox Closed', or whether the Signaller is in attendance.
- 2. If the signalbox is closed, and no employee who has been certified as competent to work the signalbox, is on duty, the Driver must return to the train.
- 3. When returning to the train, the Driver must ensure all points protected by the Home Signal are in the correct position for the passage of the train, and if set correctly, pass the Signal at the stop position and proceed in accordance with Rule 1, Section 3 of the Rules and Operating procedures.
- 4. The Driver must communicate with and inform the Train Controller at the first available opportunity

13. Home And Automatic Signal Indications

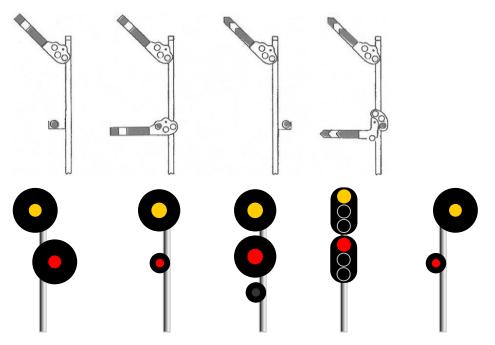
a. Stop Signal

'Stop' is indicated by arms being horizontal or by two red lights one above the other.



b. Normal Speed Warning Signal

'Normal Speed Warning' signal is indicated by the top arm being at 45 degrees above horizontal or by a yellow light above a red light. The lower arm if fitted will be horizontal.

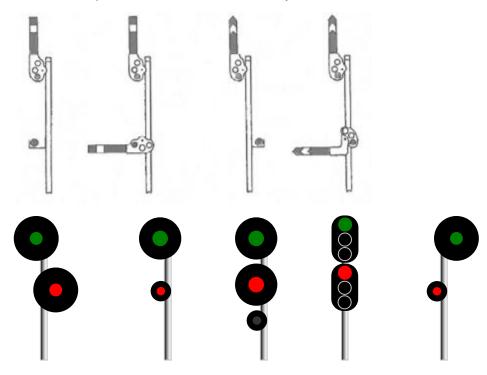


When the 'Normal Speed Warning' signal is displayed the Driver must be ready to stop at the next fixed signal.

c. Clear Normal Speed Signal

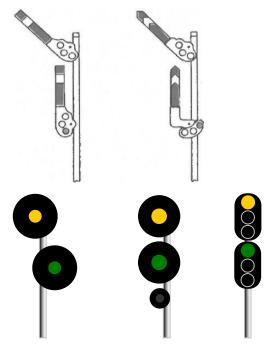
'Clear Normal Speed' is indicated by the upper arm being vertical or by a green light above a red light. If the lower arm is fitted then it will be horizontal.

When the 'Clear Normal Speed' signal is displayed the train may proceed at the maximum speed allowed for the locality.



d. Reduce to Medium Speed Signal

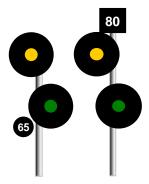
'Reduce to Medium Speed' is indicated by the upper arm being at 45 degrees and the lower arm vertical, or by a yellow light above a green light.



When the 'Reduce to Medium Speed' signal is displayed the train may proceed at the normal speed but must reduce to medium speed before the next signal.

The figures '65' or '80' displayed with a 'Reduce to Medium Speed' signal indicates the next signal in advance is showing a medium speed indication and the figures '65' or '80'.

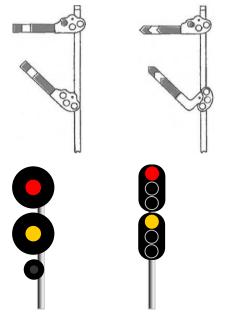
If after passing a 'Reduce to Medium Speed' signal the Driver observes the next signal is displaying an improved aspect such as normal speed, the Driver may regulate the speed to the aspect of that signal.



e. Medium Speed Warning Signal

'Medium Speed Warning' is indicated by the upper arm being horizontal and the lower arm at 45 degrees, or by a yellow light below a red light.

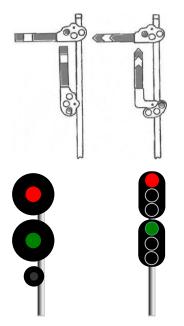
When the 'Medium Speed Warning' signal is displayed the Driver may proceed at medium speed and must be prepared to stop at the next signal.



When the medium speed signal is displayed, the speed restriction applies to the whole section up to the next fixed signal.

f. Clear Medium Speed Signal

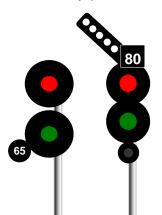
'Clear Medium Speed' signal is indicated by the upper arm being horizontal and the lower arm vertical, or by a green light below a red light.



When the 'Clear Medium Speed' signal is displayed the train must not exceed 40 km/h.

When '65' is displayed in conjunction with the medium speed indication, the Driver may proceed at a maximum speed of 65 km/h.

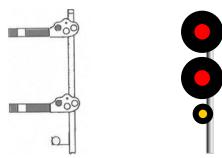
When '80' is displayed in conjunction with the medium speed indication, the Driver may proceed at a maximum speed of 80 km/h.



g. Low Speed Caution Signal

'Low Speed Caution' signal is indicated by a yellow light below two horizontal arms or below two red lights.

When the 'Low Speed Caution' signal is displayed it indicates the points are set in the correct position for the Driver to proceed. It does not indicate the line is unoccupied.



The Driver must be prepared to stop short of any obstruction. When a vehicle is pushed, the Competent employee must be prepared to signal to the Driver to stop. The speed of the train must not exceed 15 km/h.

h. Clear Low Speed Signal: Dwarf Signal

When the 'Clear Low Speed' signal is displayed it indicates the following:

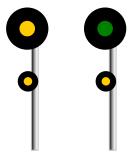
- 1. The points are set for the movement.
- 2. The line is clear to the next fixed signal.
- 3. The next fixed signal is at `Proceed'.
- 4. The speed of the train must not exceed 15 km/h.

When the medium speed or low speed signal is displayed, the speed restriction applies to the whole section up to the next fixed signal.



i. Repeating Signal

The indications of home or automatic signals may be backed-up by a repeating signal. Coloured lights repeat the home or automatic signal's aspect as 'Warning' or 'Proceed'.



The 'Warning' signal is indicated by two yellow lights one above the other.

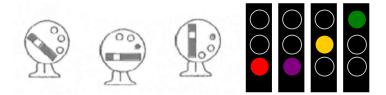
The 'Proceed' signal is indicated by a green light above a yellow light.

When a Driver observes a 'Warning' signal the train speed must be slowed to enable the train to be stopped at the next signal should it be at 'Stop'.

At some locations a 'Reduce to Medium Speed' signal may be displayed at a repeating signal in addition to the 'Warning' or 'Proceed' signals.

j. Dwarf Signal

Three position dwarf signals use lights or semaphore arms. Semaphore arm dwarf signals are painted on a white background. The target revolves as shown in the diagram.



'Stop' is indicated by a horizontal arm or red/purple light.

'Low Speed Caution' is indicated by the arm at 45° above the horizontal or a yellow light.

'Clear Low Speed' is indicated by a vertical arm or green light.

k. Two Position Signal at the Entrance to an Automatic Signalling Section

Where a two position signal controls the entrance to an automatic signalling section, the 'Proceed' signal indicates the section is clear to the first automatic signal.

If the two position signal fails, and the train is required to pass the 'Stop' signal where no calling-on signal is provided:

- 1. The train must be brought to a stop.
- 2. The Signaller must instruct the Driver to proceed with caution to allow the train to stop before any possible obstruction up to the next fixed signal.

14. Home Signals

a. Position of Home Signals

Home signals are fixed at:

- 1. stations,
- 2. junctions,
- 3. sidings,
- 4. signalboxes,
- 5. level crossings,

and are so placed to indicate the lines to which they apply.

b. Exceptions in Obeying Home Signals

No train must pass a home signal showing 'Stop' or obstruct the crossings or points applicable to the signal except when:

- 1. the signal is defective and the Signaller gives authority,
- 2. the home signal is controlled by track circuit and a calling-on or low speed signal is not provided and a train needs to enter a part of the line that is occupied by another train, or
- 3. authorised by the Pilot to enter the section where the traffic of a double line is being worked over a single line during repairs or obstruction.



15. Home Signals And Limited Train Movements

a. Approach to a Home Signal

When the starting signal is at 'Stop', the 'Proceed' signal for an approaching train must not be shown until the train is close to the home signal and is nearly at a standstill.

b. Limited Train Movement

If the Signaller wishes to move the train to within the home signal before the section ahead is clear, the Signaller must:

- 1. ensure the train is stopped or nearly stopped at the home signal,
- 2. ensure the line is clear to the starting signal,
- 3. ensure the starting signal is at 'Stop', and
- 4. exhibit the 'Proceed' signal at the home signal.

c. Driver Response and the Home Signal

The Driver of a train that has been stopped or nearly stopped at a home signal must drive the train slowly towards the next fixed signal when the home signal shows 'Proceed'.

The Driver must be prepared to stop at the signalbox if required to do so.

d. Section Clear but Station or Junction Blocked Signal

When trains are allowed to go forward under the 'Section clear but station or junction blocked' bell code signal, the Signaller must:

- 1. bring the train to a stand at the home signal if the train has not already passed this signal,
- 2. verbally instruct the Driver that the section is clear to the home signal at the forward block signalbox but that station or junction is blocked,
- 3. ensure that a green flag by day and a green light by night, held steadily in the hand, is displayed to the Driver and the necessary fixed signals exhibited to permit the train to proceed.

e. Home Signal Some Distance from Signalbox

When the train is at the home signal and is too far away from the signalbox for the Signaller to communicate verbally with the Driver, the Signaller must:

- 1. place the signal at the 'proceed' position after bringing the train to a standstill,
- 2. stop the train at the signalbox by exhibiting a red flag by day and a red light by night,
- 3. verbally instruct the Driver that the section is clear to the home signal at the forward block signalbox but that station or junction is blocked,
- 4. then display a green flag by day and a green light by night, held steadily in the hand to the Driver and the necessary fixed signals exhibited to allow the train to proceed when the line is clear.
- 5. Drivers must not go forward unless they clearly understand the verbal communication received from the Signaller.

16. Train Stopped at a Home Signal With No Starting Signal

a. No Starting Signal Provided at Home Signal

When a train has been stopped at a home signal where starting signals are not provided, and it is necessary to draw it within this signal before the section ahead is clear.

The Signaller must:

- 1. verbally instruct the Driver to bring the train under the protection of the signal, and
- 2. place the home signal to the 'proceed' position.

17. Use of Home and Distant Signals

If the distant signal is at 'Caution', the 'Stop' signal must be exhibited at the home signal until the approaching train has passed the distant signal. Provided the line is clear, the 'Proceed' signal is then to be displayed at the home signal for the passage of the train.

18. Calling-On and Low Speed Signals

a. Use of Calling-on Signals

When a calling-on signal is placed to the 'Proceed' position, the Driver must advance cautiously past the home signal and be prepared to stop short of any obstruction.

b. Position of Calling-on Signals

Unless otherwise instructed, the calling-on signal must remain in the 'Normal' position until the train has been brought to a stand at the home signal on which the calling-on signal is fixed.

c. Calling-on Signals and Low Speed Signals

Low speed signals apply to sidings only, except where otherwise defined.

A low speed signal is positioned on the post of a home signal and is indicated by a light signal, but is not visible except when a low speed signal is required.

d. Failure of Signalling

In case of failure of signalling apparatus, a- low speed 'Caution' signal may be displayed for any of the running lines to which the home signals apply, if:

- 1. a second train has to enter the section to render assistance to a failed train, or
- 2. the home signal has failed.

When the low speed signal is used for a train movement to any line other than a siding, the details must be recorded.

e. Procedure for Low Speed Caution Signal

Under the circumstances previously listed, if the Signaller needs to display the low speed indication for train movements other than to a siding line, the Signaller:

- 1. needs to set the correct points and operate the lever which governs the home signal, and
- 2. press the pushbutton firmly home.

Provided all signals on the post are in the 'Stop' position, the low speed 'Caution' signal will be displayed.

f. Low Speed Signals not Returned to Stop

At certain locations, low speed signals may not be returned to the normal position after the passage of the train. When the train has passed, the Signaller must promptly return the signal lever to the normal position which will restore the pushbutton to its normal position.

g. Driver's Responsibility Regarding Low Speed Caution

It must not be assumed that when the low speed 'caution' signal is displayed at a home or dwarf signal, that the line is unoccupied. It is the Driver's responsibility to ensure safe running of the train.

h. Train Permitted to Enter an Occupied Line

When the Signaller receives permission from the Competent employee for a train to proceed to a platform which is already occupied, the Competent employee must ensure that the line is kept clear up to the point where the incoming train is to stand.

Before the train is allowed to enter the station, the Signaller must:

- 1. adhere to any special instructions,
- 2. ensure the line is clear up to the point where the incoming train is to stand,
- 3. stop the incoming train,
- 4. verbally caution the Driver, and
- 5. caution the Driver by a green hand signal held steadily in the hand.

i. Home Signal Some Distance from Signalbox

When the train is at the home signal and is too far away from the signalbox for the Signaller to communicate verbally with the Driver, the Signaller must:

- 1. place the signal at the 'proceed' position after bringing the train to a standstill,
- 2. stop the train at the signalbox by exhibiting a red flag by day and a red light by night,
- 3. verbally instruct the Driver to proceed cautiously to the rear of the stationary train, and
- 4. ensure that a green flag by day or a green light by night, held steadily in the hand, be displayed to the Driver.

j. Obstruction Between the Home Signal and the Signalbox

If an obstruction is between the home signal and the Signalbox and a calling-on or low speed signal is not provided, the Signaller must:

- 1. keep the signals at the 'Stop' position until the train is at a standstill, and
- 2. verbally instruct the Driver as described above or be informed by the Competent employee that the Driver has been clearly instructed.

It is the responsibility of the Competent employee in that case to arrange for the Driver to be piloted to the obstruction.

k. Provision of Low Speed or Calling-on Signal

If a Calling-on or Low Speed is provided, it is not necessary to verbally caution the Driver. Before the Calling-on Low Speed signal is exhibited, the train must be stopped at the Home Signal unless otherwise instructed.

Where the second train is signalled onto an occupied platform track on a Low Speed Caution aspect, it will not be necessary for a competent employee to take up a position on the platform to control the movement.

Where a train or locomotive arriving into a track already occupied is required to attach to the train occupying that track, a competent employee must be in attendance to control the movement.

I. Signals Controlled by Track Circuit

Where a home signal at a station is electrically controlled by a train or vehicle ahead of the signal, and a calling-on or low speed signal is not provided, a train, which has to be brought into the obstructed line, must be brought to a stand. The Driver must be piloted by a Competent employee to where the train is required to draw up.

m. Advice to Driver of Second Train

Before giving directions for the train movement, the Competent employee must:

- 1. obtain permission from the Signaller to commence the movement,
- 2. personally inspect the setting of the points,
- 3. take up a suitable position to control the operation by hand signal.

The Signaller must use the applicable signal lever to ensure security of the interlocking. However, if the line is track-circuited, the signal itself will remain at 'Stop'.

The competent employee in charge of the platform directing the movement, must take up a position convenient for controlling the operation by hand signal

n. Second Train on the Same Line

When a train is allowed to proceed towards the rear of a train, and the front train is started and then has to be stopped, the Driver of the second train must be advised before the Driver of the front train is allowed to stop.

When a train is shown a 'Proceed' signal to run on a line at a station or siding or leave a station or siding, and a second train is behind, the Driver of the second train must proceed at a suitable distance to allow for sudden stopping.

The Driver of the second train must stop at the signal and not proceed until it has been replaced to the 'Stop' position and the 'Proceed' signal is again exhibited.

o. Speed of Second Train on Line

When the necessary fixed signal is exhibited to allow a second train to leave a station or siding to run towards a train ahead of the signal, the Driver of the second train must proceed at a suitable speed to be able to stop before reaching the first train.

19. Starting Signals

Starting signals control the entrance of trains into the section ahead, and must not be passed when at the 'Stop' position, except as provided in the following:

- 1. the signal is defective and the Signaller gives authority,
- 2. the points of sidings or cross-over road are so close to the signal that it is necessary for the signal to be passed for station work, to perform the work Drivers may pass the signal if directed by the Signaller, either verbally or by a green hand signal held steadily in the hand. Drivers must not proceed until the 'Proceed' signal is exhibited by the starting signal.
- 3. authorised by the Pilot to enter a section where the traffic of a double line is being worked over a single line during repairs or obstruction,
- 4. the starting signal is controlled by a track circuit on lines where the double line block system is in force and a second train is required to enter the section to assist a disabled train.

20. Starting Signals Placed At 'Stop'

a. Starting Signal to be Placed at `Stop' Position

When a train has moved forward into the section in advance, the starting signal controlling the trains into the section must be kept at the 'Stop' position until it is necessary to place it to the 'Proceed' position to allow a following train to pass, in accordance with the Rules and Operating Procedures.

b. Use of Signal Lever Sleeves

If the Signaller does not have permission for a train to enter the section, a train is not to enter the section in advance. The Signaller must place and maintain the signal controlling the entrance into the section in advance to the 'Stop' position and secure the signal lever by means of a lever sleeve, or any other appliance provided.

c. Home and Distant Signals with Starting Signal at 'Stop'

When the starting signal is at 'Stop', the home signal and distant signal must be kept at the 'Normal' position.

When a following train is near the home signal and is nearly at a standstill, the home signal may be placed to the 'Proceed' position if the line for the approaching train is clear.

d. Train Brought to a Stand at Starting Signal

When a train has passed the Signalbox, and is brought to a stand at the starting signal, the Driver must understand that the 'Proceed' signal, when exhibited at the starting signal, indicates that the line is clear only to the home signal at the forward block Signalbox.

e. Use of Starting Signal During Inclement Weather

During inclement weather or if visibility is limited, trains waiting 'Line Clear' must be kept within the sight of the Signaller and must not be sent towards the starting signal in advance position, unless specifically authorised.

During inclement weather or for any reason the Signaller cannot see if the last vehicle of a train has passed the signal controlling the entrance of trains to the block section, the signal lever must not be put back until the Signaller is satisfied that the train has passed the signal.

The exception to this rule being it there has been an accident or there is an obstruction.

21. Hand Signals

These signals are made with flags by day and with lamps by night or during inclement weather.

A red flag or red light denotes 'Stop'. In the absence of a red light any light waved violently denotes 'Stop'.

a. Hand Signals and Fixed Signals

The fixed signal must always be used where one is provided; hand signals must not be used or accepted instead of an operational fixed signal, except in case of danger.

When a hand signal is necessary, it must be given from a clear position so there cannot be any misunderstanding by the Driver or others of the intention of the signal and to which train it refers.

Where a hand signal is to be given from the Signalbox, the Signaller must always exhibit a hand signal from outside the Signalbox, either by flag or lamp.

The following Sub-Clause (b) was amended by SW 1166/99 of July 21, 1999

b. Hand Signal Lamps and Flags

Signallers must always have hand signal lamps ready for use from dusk to clear daylight and during inclement weather, and Flags (Red & Green) from clear daylight to dusk.

If the Signalbox is under a bridge or tunnel or where there is a tunnel within 400 metres of the Signalbox, the hand lamps must be ready for use while the Signalbox is open, except where instructions are issued to the contrary.

Hand lamps and flags, when used as signals, must always be held in the hand and not put on or stuck into the ground, or fixed elsewhere, except where they are used for the purpose of marking the actual point of obstruction.

c. Description of White or Green Hand Signals

Shunting	
Move forward in shunting	White light slowly waved up and down
Move back in shunting	White light slowly waved from side to side
Move forward slowly in shunting	Green light slowly waved up and down
Move back slowly in shunting	Green light slowly waved from side to side
To indicate to Signallers at night when points may be moved for shunting	Green light held steadily in hand
To indicate to the Driver and competent employee assisting a shunting movement that interlocked points are properly positioned for shunting, when not controlled by a fixed signal	Green light or flag held steadily in the hand by the Signaller
To authorise Driver to proceed, where there is no starting signal	The Signaller steadily holds a green light or flag and verbally instructs the Driver that the section is clear
To authorise Driver to pass starting signal at the 'Stop' position for station work	The Signaller steadily holds a green light or flag

Permanent Way Operations	
In clear weather to tell Driver to reduce speed for permanent way operations	The Ganger to slowly wave a green light or flag from side to side
In inclement weather or during bad visibility (after explosion of the audible track warners and exhibition of the red hand signal) to tell Driver to reduce speed for permanent way operations	A green light or flag slowly waved from side to side and the Driver verbally warned, after the train has been brought to a stand.
To authorise Driver to proceed when a fixed signal is out of order	Green light or flag held steadily by hand Signaller at the signal after the Driver has been verbally advised
To indicate to Driver that section is clear but station or junction is blocked	Green light or flag held steadily by Signaller after bringing train to a stand and giving a verbal warning
To caution Driver entering an occupied line and a calling-on or low speed signal is not provided	Green light or flag held steadily by Signaller after bringing train to a stand and giving a verbal warning
To indicate to the Driver that the train is divided	Green light or flag moved in a vertical circle by Signaller

Hand Signals		
'Stop' signal	By day, both arms raised above the head	
'Stop' signal	By night, a red light or any light waved violently	
'Caution' signal	One arm raised above the head	
'All Right' signal	One arm held in a horizontal position. By night a white light held steadily in the hand	لَا لَبُ اللهُ ال

In shunting operations by day and night or during inclement weather, the following hand signals must be used:

To move backward (towards the person giving the signal)	By day, one arm moved inwardly across the body. By night, a white light slowly waved from side to side across the body	
To move backward slowly (towards the person giving the signal	By day, one arm raised above the head and the other waved inwardly across the body By night-a green light slowly waved from side to side across the body	Ŷ
To move forward (go away from the person giving the signal)	By day, one arm waved in a circular motion away from the body By night, a white light slowly waved up and down	Ŷî ÎÎ
To move forward slowly (go away from the person giving the signal)	By day, one arm raised above the head and the other moved in a circular motion away from the body By night, a green light slowly waved up & down	
To uncouple -ease up (move slowly towards the person giving the signal)	By day, both arms raised above the head forming an arch then separating By night, a green light slowly waved from side to side across the body	Ĩ

To kick	By day, one or both arms held level with the shoulder, elbow bent, and the forearm swiftly waved in an out towards the head.		
	By night, a white light quickly waved, the light visible only above the shoulder and below the waist of the person giving the signal	J.	
	At night the kick signal must be preceded by a `Move back' signal and must not be displayed until the locomotive is moving back.		

22. Radio Signals

a. Radio's and Shunting Operations

Where radios are used for shunting operations the competent employee in charge of the shunt must be ready to give any necessary hand signals and the driver must be ready to receive hand signals.

When a shunting operation is commenced using radio it should be completed using radio. Except in an emergency the method of shunting must not change from hand signals to radio, or from radio to hand signals, without first stopping the shunt, informing the driver of the changed procedure and receiving confirmation from the driver of the change.

b. Use of Radios

The competent employee in charge of the shunt must frequently speak to the Driver during shunting operations using the radio.

If the Locomotive Driver does not receive a regular transmission in accordance with the requirements of the shunt, the movement must be stopped until a clear understanding is reached with the competent employee controlling the movement.

If in any doubt regarding the safety of the movement, the Driver must stop the movement and assess the situation.

c. Failure of Radios

If the radio being used by the driver or competent employee fails, hand signals are to be adopted until replacement/s are available.

d. Direction of Movement

i. Wagons Attached

The direction of movement of locomotives/wagons is related exclusively to which end of the wagons the locomotive is attached and has no relationship:

- to which direction the front or back of the locomotive is facing.
- to which end of the locomotive the driver is positioned.
- to which direction `up' or `down' the train is being worked.

ii. Light Engine

The direction of movement of a light engine is given in relation to a designated point (which may be a landmark or feature). Light Engine movements must not take place until a clear understanding is reached between the driver and competent employee in charge of the shunt regarding the designated point.

e. Commands for Shunting Using Radio

'Move Forward'	Pull (haul) the wagons that are attached to the
	locomotive.
'Move Back'	Push (propel) the wagons that are attached to the locomotive.
'Move Forward Slowly'	Slowly pull (haul) the wagons that are attached to the locomotive.
'Move Back Slowly' Slowly push (propel) the wagons that are attached locomotive.	
'Red Light'	Stop all movements.
'Ease Up'	To bunch up vehicles to uncouple. When about to couple a vehicle to another.
'Reduce Speed'	Approaching a signal in a propelling movement and signal at 'STOP' position.
	Approaching level crossing protected by flashing lights and bells.
	Approaching stationary vehicles or Buffer Stop in propelling movement.
'Kick'	When loose shunting, to propel the rake rapidly prior to uncoupling wagons. (Loose shunting is permitted at authorised locations.
Note: For light engine movements:	'Forward' means move towards a designated point.
	'Back' means move away from a designated point.
	The word 'Slowly' is to be used when required.

f. Placing or 'Spotting' Vehicles

When placing or 'spotting' vehicles at a particular location, the command 'Move Forward Slowly' or 'Move Back Slowly' (whichever is relevant) is used, together with advice regarding the distance the vehicles still have to travel.

The distance may be expressed as the length of a four wheeled vehicle, or in metres.

Prior to any move where a distance count-down is required, the driver and competent employee in charge of the movement are to come to a clear understanding as to which unit of measure will be used.

Example:

Move Ahead	Slowly	2 lengths
Move Ahead	Slowly	1 length
Move Ahead	Slowly	15 metres
Move Ahead	Slowly	10 metres
Move Ahead	Slowly	5 metres

This will give the Driver a good indication of the distance the vehicles still have to travel and allow the Driver to control the movement accordingly.



23. Signalling When Shunting Train or Trains Running In The Wrong Direction

a. Signals Applicable to the Direction of Travel

The following signals apply only to trains travelling in the proper direction on the running lines:

- 1. Home,
- 2. Calling-on,
- 3. Distant,
- 4. Starting,
- 5. Automatic, and
- 6. Repeating.

These signals must not be used for any other purpose.

The following signals apply to trains traveling in the wrong direction on any running line:

- 1. Hand lamp, or
- 2. Flag.

Trains shunting from one running line to another, or shunting into or out of sidings connected with running lines, must be signalled either verbally or by hand lamp or flag as appropriate, unless fixed signals are available for shunting.

b. Signals for Exits from Sidings

When a signal which controls the exit from a siding is placed to the 'Proceed' position, or when the 'Proceed' indication is exhibited by a calling-on signal, two or three position dwarf signal or disc signal, the Driver or Competent Employee must not assume that the line is clear ahead.

The turning off of these signals indicates that the points are set in the proper position for the Driver to proceed; it does not imply that the line is unoccupied.

The Driver must be prepared to stop short of any obstruction, and when a train is being pushed, the Competent Employee must be ready to signal to the Driver to stop.

The same precautions apply when the low speed caution signal is displayed.

The following Sub-Clause (c) was amended by SW 011/2000 of January 27, 2000

c. Defined Station Limits

'Station Limits' within the various Safeworking systems is defined as follows:

Electric Staff System - Train Staff and Ticket System - Automatic Electric Staff System - Section Authority System - Train Order System - Centralised Traffic Control System - Automatic and Track Control System

The portion of line extending between opposing Home Signals

Double Line Block System - Track Block System

The portion of line extending between the Home Signal and the Starting or departing Home Signal.

Automatic Block Signalling System

The portion of line extending between the Home Arrival Signal and the first Automatic Signal in advance of the Home Departure Signal, or where a Home Departure Signal is not provided, the first Automatic Signal ahead of the Home Arrival Signal.

Wrong Direction movements within Station Limits

The following procedures must be observed when a wrong line movement is to be made within an area classified as `Station Limits':

- The Signaller must ensure all fixed signals protecting the line over which the wrong direction movement is to be made are secured at the `Stop' position.
- All facing and trailing points which the train will traverse during the wrong direction movement must be set in the correct position and the point lever then sleeved, or the appropriate point sleeve command applied.
- The Driver must then be given Verbal Authority from the Signaller for the wrong direction movement to commence. This authority may be given via the Radio, post telephone or in person.
- The Train Register Book must be endorsed with the details of the wrong direction movement.