

CHAPTER VIII

THE ABSOLUTE BLOCK SYSTEM

A. Essentials

8.01. Essentials of the Absolute Block System.-

(1) Where trains are worked on the Absolute Block System.-

(a) no train shall be allowed to leave a block station unless Line Clear has been received from the block station in advance, and

(b) on double lines such Line Clear shall not be given unless the line is clear, not only upto the first stop signal at the block station at which such Line Clear is given but also for an adequate distance beyond it;

(c) on single lines such Line Clear shall not be given unless the line is clear of trains running in the same direction, not only upto the first stop signal at the block station at which such Line Clear is given, but also for an adequate distance beyond it, and is clear of trains running in the direction towards the block station to which such Line Clear is given.

(2) Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses (b) and (c) of sub-rule (1) shall not be less than-

(a) 400 metres in case of two-aspect lower quadrant signalling or two-aspect colour light signalling and

(b) 180 metres in case of multiple-aspect signalling or modified lower quadrant signalling.

B. Conditions for granting Line Clear

8.02. Conditions for granting Line Clear at class 'A' station.- At class 'A' station on single line or double line, the line shall not be considered clear and Line Clear shall not be given, unless -

(a) the whole of the last preceding train has arrived complete;

(b) all signals have been put back to 'on' behind the said train;

(c) the line on which it is intended to receive the incoming train is clear upto the Starter; and

(d) all points have been correctly set and all facing points have been locked for the admission of the train on the said line.

8.03. Conditions for granting line Clear at class 'B' station.-

(1) At class 'B' station on double line, the line shall not be considered clear and Line Clear shall not be given, unless-

(a) the whole of the last preceding train has arrived complete inside the outermost facing points or the Block Section Limit Board, if any

(b) all necessary signals have been put back to 'on' behind the said train; and

(c) the line is clear-

(i) at stations equipped with two aspect signalling - upto the Home signal, or

(ii) at stations equipped with multiple-aspect signalling or modified lower quadrant signalling-upto the outermost facing points or the Block Section Limit Board (if any).

(2) At class'B'station on single line, the line shall not be considered clear and Line Clear shall not be given, unless-

(a) the whole of the last preceding train has arrived complete;

(b) all necessary signals have been put back to 'on' behind the said train; and

(c) the line is clear-

(i) at stations equipped with two-aspect signalling- upto the Shunting Limit Board or Advanced Starter (if any) at that end of the station nearest to the expected train.

or

upto the Home signal if there is no Shunting Limit Board or Advanced Starter,

or

upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter or Home signal;

(ii) at stations equipped with multiple-aspect signalling or modified lower quadrant signalling-

upto the Shunting Limit Board or Advanced Starter (if any) at the end of the station nearest to the expected train,

or

upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter.

Note.- At a class 'B' single line station, this rule does not forbid direct reception of a train from one side, when Line Clear has

been given to the block station on the other side provided the distance between the Home signal and outermost facing points in multiple-aspect signalling, or modified lower quadrant signalling is not less than the sum-total of the adequate distances prescribed in Rule 3.01 in regard to conditions for granting line clear and Rule 3.40 in regard to conditions for taking 'off' Home signal for the admission of a train even where Shunting Limit Boards or Advanced Starters have not been provided as prescribed in sub-rule (1) of Rule 3.32.

See illustrative diagrams at pages 312 to 325

8.04. Conditions for granting line Clear at class 'C' station.- At class 'C' station on single line or double line in two-aspect, multiple-aspect or modified lower quadrant signalling the line shall not be considered clear and Line clear shall not be given, unless-

(a) The whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is continuing its journey; and

(b) All signals taken 'off' for the preceding train have been put back to 'on' behind the said train:

Provided that on a single line the line is also clear of trains running in the opposite direction towards the block hut from the block station at the other end.

C. Obstruction-Double Line

8.05. Obstruction on double line at a block station when a train is approaching.-

(1) Class 'A' station-When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, upto the Starter pertaining to the said line.

(2) Class 'B' station-When Line Clear has been given, no obstruction shall be permitted outside the station section but

shunting within the station section may go on continuously, provided the necessary signals are kept at 'on'.

(3) When signals have been taken 'off' for an incoming train on to a line which is not isolated no shunting movement shall be carried on towards the points over which the incoming train will pass.

SR 8.05.01.-Shunting at a station after taking off signals for an incoming train on to a line which is isolated in accordance with GR 4.11 may be prohibited or restricted in the Station Working Rules, keeping in view the local conditions.

8.06. Obstruction on double line in the block section.-

(1) When Line Clear has been given, no obstruction shall be permitted in the block section in rear.

(2) Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and is blocked back.

(3) Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and is blocked forward:

Provided that when the block section in advance is occupied by a train travelling away from the station, shunting or obstruction may be permitted behind the train under special instructions taking into consideration the speed, weight and brake power of trains and the gradients on the section, and as soon as intimation has been received that the train has arrived at the block station in advance, the line shall be blocked forward if it is still obstructed.

NOTE - See Rule 8.14 also.

SR 8.06.01.- Special instructions referred to in GR 8.06(3) shall be incorporated in the Station Working Rules.

D. Obstruction-Single Line

D. 1. Class ‘A’ Stations

8.07. Obstruction on single line at class ‘A’ station when a train is approaching.- When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or, on the line on which it is intended to admit the train, upto the Starter which controls the train.

8.08. Obstructing the block section at class ‘A’ station on single line.- The block section shall not be obstructed for shunting purposes, unless-

(a) the Station Master has received Line Clear from the Station Master at the other end of the block section, or

(b) the block section is blocked back, or

(c) is occupied by a train travelling away from the block station at which the shunting is to be performed which shunting may be permitted under special instructions taking into consideration the speed, weight and brake power of trains and the gradients on the section. As soon as intimation has been received that the train has arrived, the block section shall be blocked back, and

(d) the Loco Pilot or other person in charge of the shunting operations has received distinct orders from the Station Master to shunt in a manner directed by special instructions.

SR 8.08.01.- Special instructions shall be incorporated in the Station Working Rules.

D. 2. Class 'B' Stations

8.09. Obstruction in the face of an approaching train at class 'B' station on single line.- The line outside the Home signal in two-aspect signalling territory or outermost facing points in multiple-aspect or modified lower quadrant signalling territory in the direction of a train for which Line Clear has been given, shall only be obstructed when a Shunting Limit Board or an Advanced Starter is provided and under special instructions which take into consideration the speed, weight and brake power of trains, the gradients, the position of the first stop signal and the distance from which that signal can be seen by the Loco Pilot of an approaching train.

SR 8.09.01.- Special instructions shall be incorporated in the Station Working Rules.

SR 8.09.02.- (a) At 'B' class stations where shunting Limit Boards or Advanced Starters are provided, shunting in face of an approaching train is permitted under the three following conditions namely :-

(i) That at such station shunting has been authorised by the Divisional Operations Manager.

(ii) The shunting can be completed within the period of time fixed by the Divisional Operations Manager, as the limit upto which shunting may be performed after "Line Clear" has been given for a train. Once this limit of time is reached shunting shall be stopped whether the train due to arrive is in sight or not.

(iii) That shunting is performed between the limits of the Shunting Limit Board or Advanced Starters.

(b) (i) Before commencing such shunting, Station Masters and Guards must consider whether the shunting can be performed in such a way as to avoid doing it in the face of an approaching train.

(ii) Provisions in the Station Working Rules permitting such shunting operation shall take into consideration the gradient within station limits, and leading out of station limits, but under no circumstances shall such permission be granted where the following conditions exist :-

(a) If a falling grade within a station yard is steeper than 1 in 400 and is followed upto and beyond the station limit by a falling gradient steeper than 1 in 400.

(b) If a gradient in a station yard (whether falling or rising) is flatter than 1 in 400 and is followed by a falling grade steeper than 1 in 260 starting from a point at a distance less than 240 metres from the limit of the Station Yard.

NOTE :- For purpose of this rule a motor trolley shall not be treated as a train.

8.10. Obstruction within station section at a class 'B' station on single line.-

(1) If the necessary signals are kept at 'on', shunting may be carried on within the station section, provided the provisions of Rule 8.09 are complied with for shunting upto Shunting Limit Board or Advanced Starter, where provided.

(2) When signals have been taken 'off' for an incoming train on to line which is not isolated, no shunting movement shall be carried on towards the points over which the incoming train will pass.

8.11. Obstruction outside station section at class 'B' single line station equipped with two-aspect signals.- The line outside the station section and upto the Outer signal shall not be obstructed unless a railway servant specially appointed in this behalf by the Station Master is in charge of the operations, and unless-

(a) The block section into which the shunting is to take place is clear of an approaching train and all relevant and necessary signals are at 'on' position, or

(b) If an approaching train has arrived at the Outer signal, the Station Master has personally satisfied himself that the train has been brought to a dead stand at the signal:

Provided that the line shall not be obstructed under clause (b) in thick, foggy or, tempestuous weather impairing visibility, or in any case unless authorised by special instructions.

SR 8.11.01.- Special instructions shall be incorporated in the Station Working Rules.

8.12. Obstruction outside station section at class 'B' single line station equipped with manually operated multiple aspect signals.- The line outside the station section and upto the first stop signal shall not be obstructed unless a railway servant specially appointed in this behalf by the Station Master in charge of the operations, and unless the block section into which the shunting is to take place is clear of an approaching train.

8.13. Obstruction outside the first Stop signal at class 'B' station on single line.- The line outside the first stop signal shall not be obstructed unless the line has been blocked back.

E. General Provisions

8.14. Block back or Block forward.- Block back or block forward shall be done only in accordance with the procedure prescribed by special instructions.

SR 8.14.01.- The procedure of Block back and Block forward are prescribed in the Block Working Manual.

8.15. Authority for shunting or obstruction in block section.- While permitting shunting or obstruction in the block section, the Loco Pilot shall be given authority for shunting in the block section as prescribed under special instructions which authority may be-

(a) either a shunting arm of prescribed size and design on the same post as under the last stop signal, or

(b) a token of prescribed design, or

(c) a written permission to shunt.

SR 8.15.01.- (a) The authority for shunting in block section shall be in the prescribed form T-806 except as mentioned in sub-rule (b).

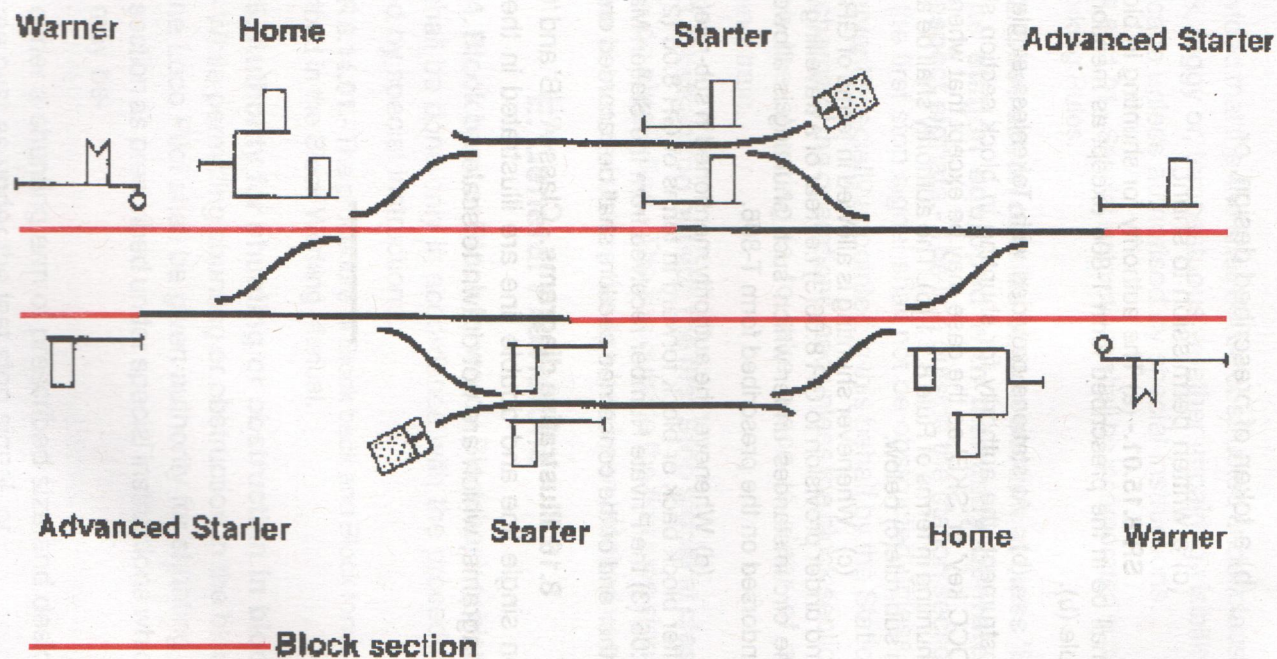
(b) At stations provided with Tokenless single line Block Instrument, the authority for shunting in block section shall be the 'OCC key' or 'SKB' as the case may be except that when permitting shunting in terms of Rule 8.1 1 (b). The authority shall be as indicated in sub-rule(c) below.

(c) Whenever shunting is allowed in terms of GR 8. 11, 8.12 and under provision to GR 8.06(3) i.e, rear of a travelling away train, the circumstances under which such shunting is allowed shall be endorsed on the prescribed form T-806.

(d) Whenever the authority mentioned in sub-rule(a) is issued after block back or block forward in terms of GR 8.06 (2), 8.13 and 8.06 (3) the Private Number received from the Station Master at the other end of the concerned section, shall be recorded on it.

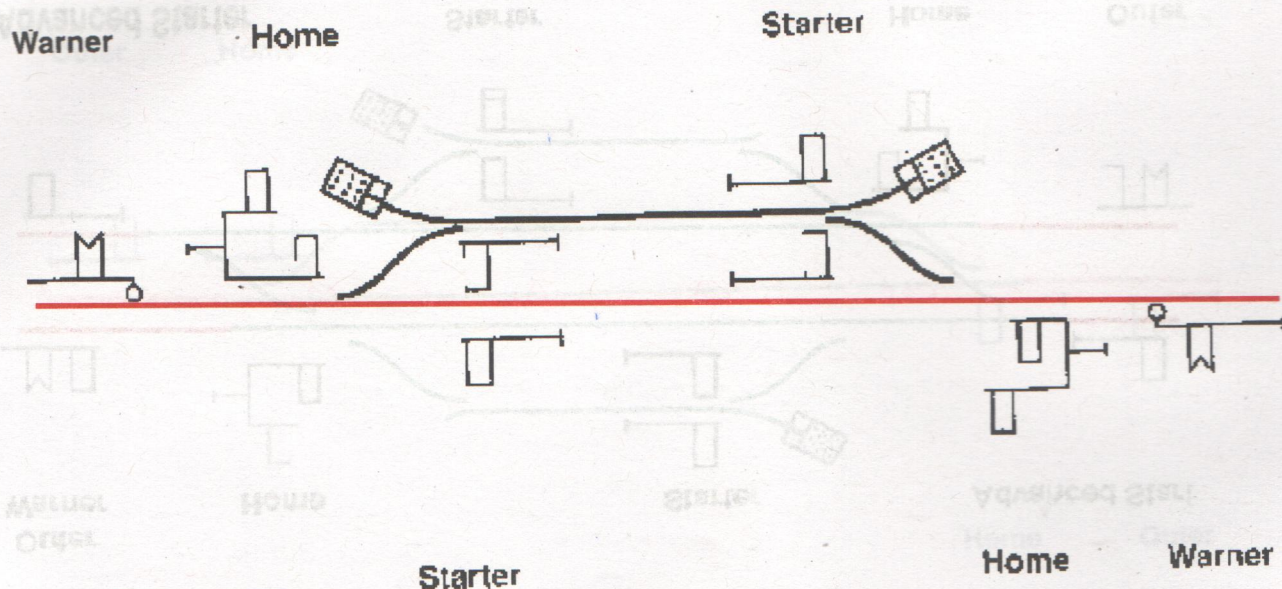
8.16. Illustrative diagrams.- Class 'A', 'B' and 'C' stations on single line and double line are illustrated in the following diagrams, which are not drawn to scale.

Class 'A' Double line station in two-aspect signalling territory with Warner, Home, Starter and Advanced Starter signals



Class 'A' Single line station in two-aspect signalling territory with Warner, Home and Starter signals

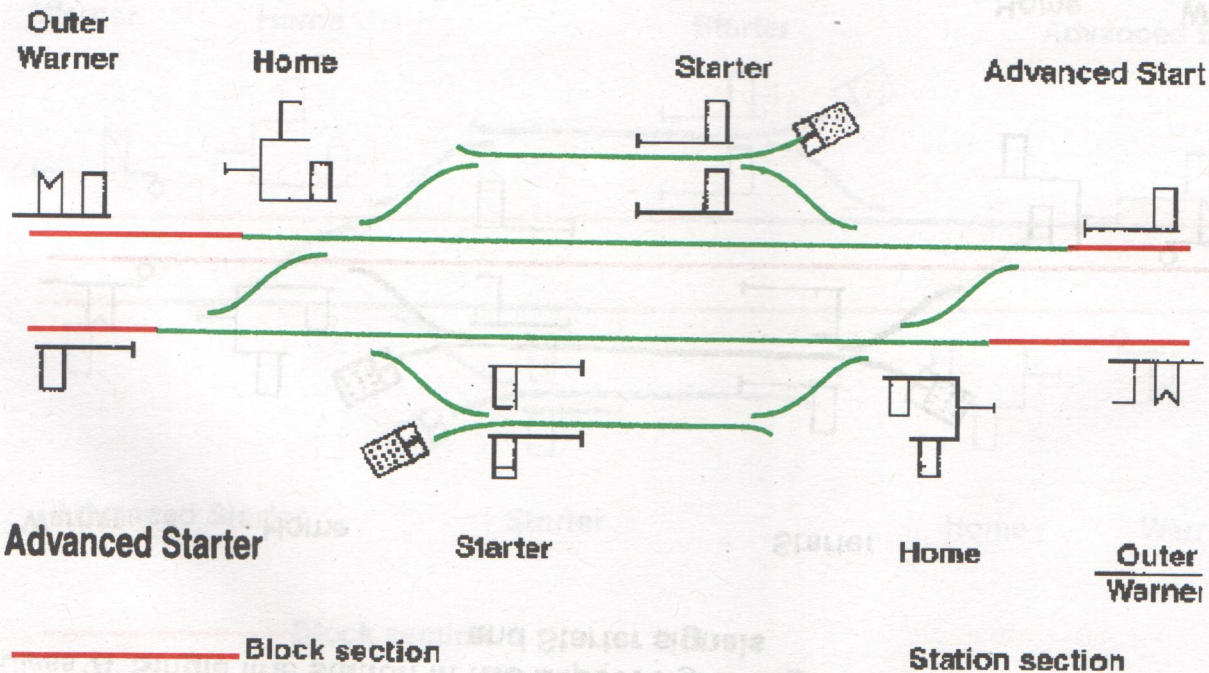
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THE ABSOLUTE BLOCK SYSTEM

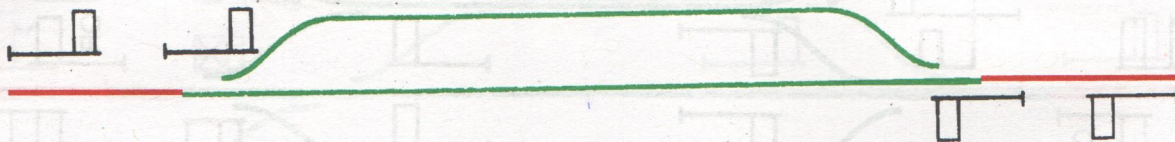
Block section

Class 'B' Double line station in two-aspect signalling territory with Warner, Outer, Home, Starter and Advanced Starter signals



Class 'B' Single line station in two-aspect signalling territory with Outer and Home signals

Outer Home



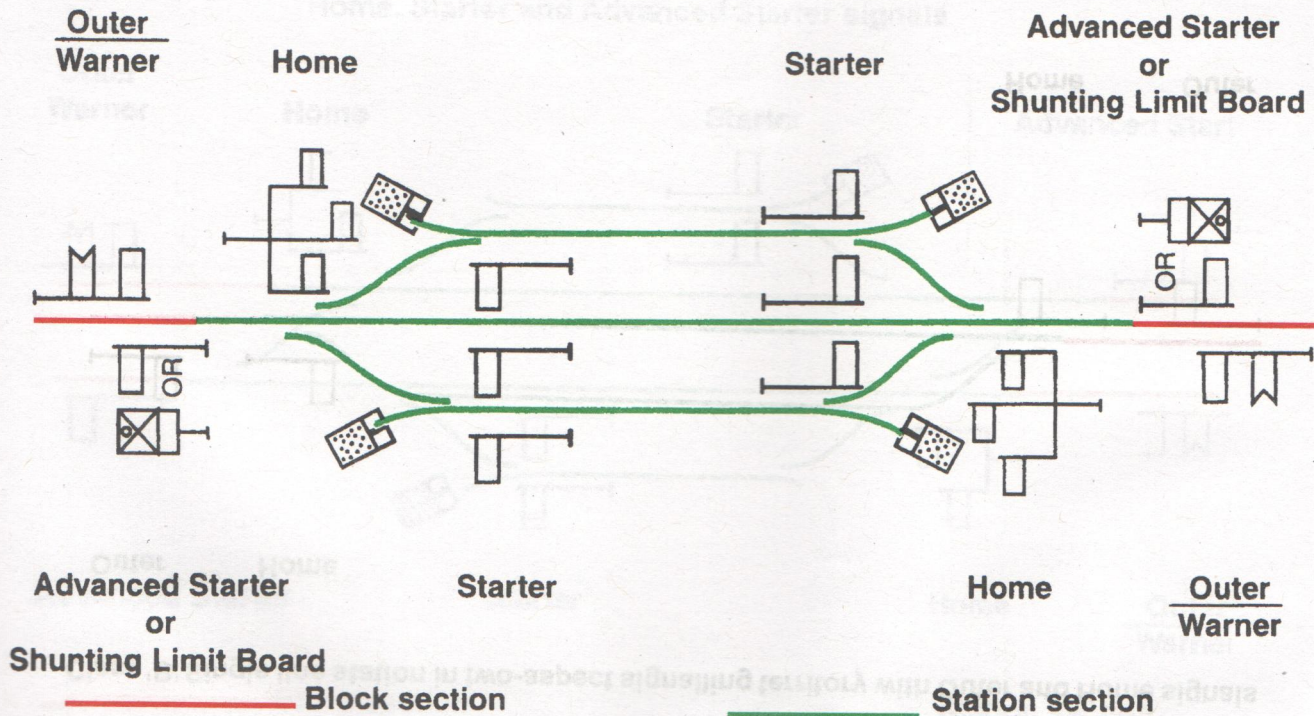
Home

Outer

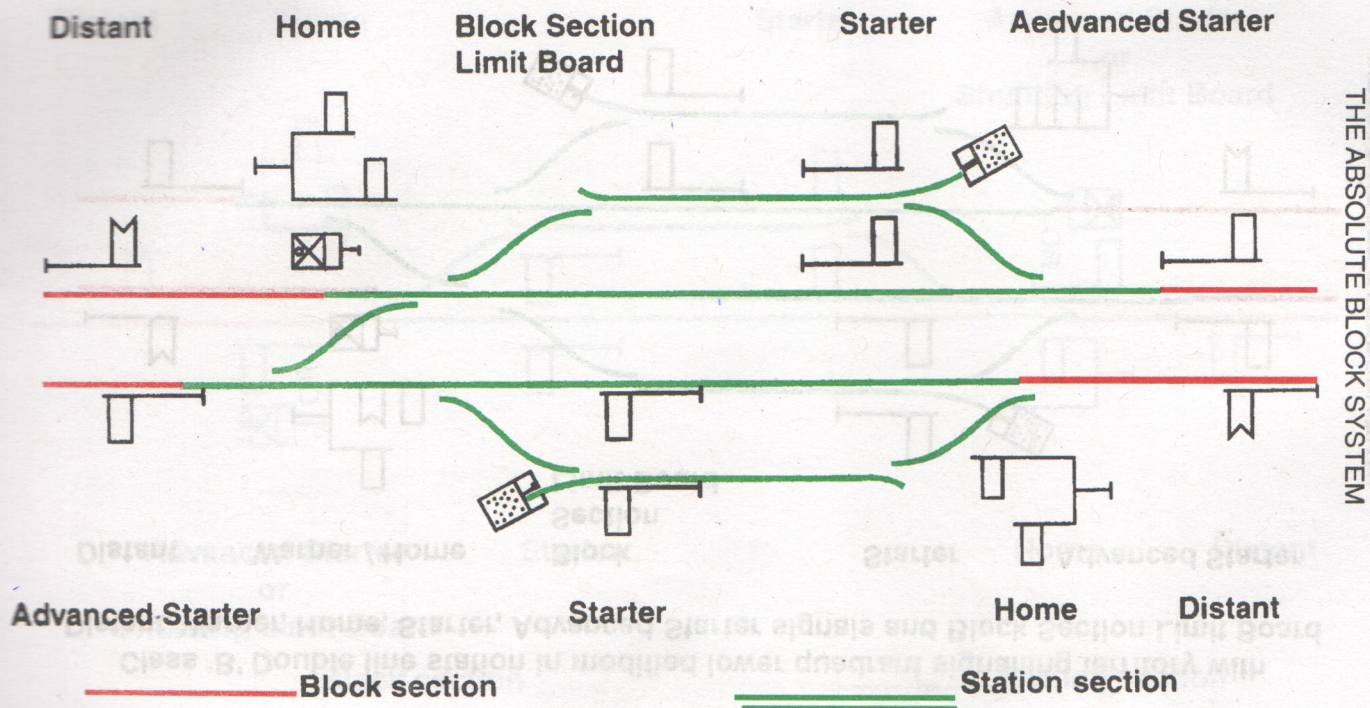
Block section

Station section

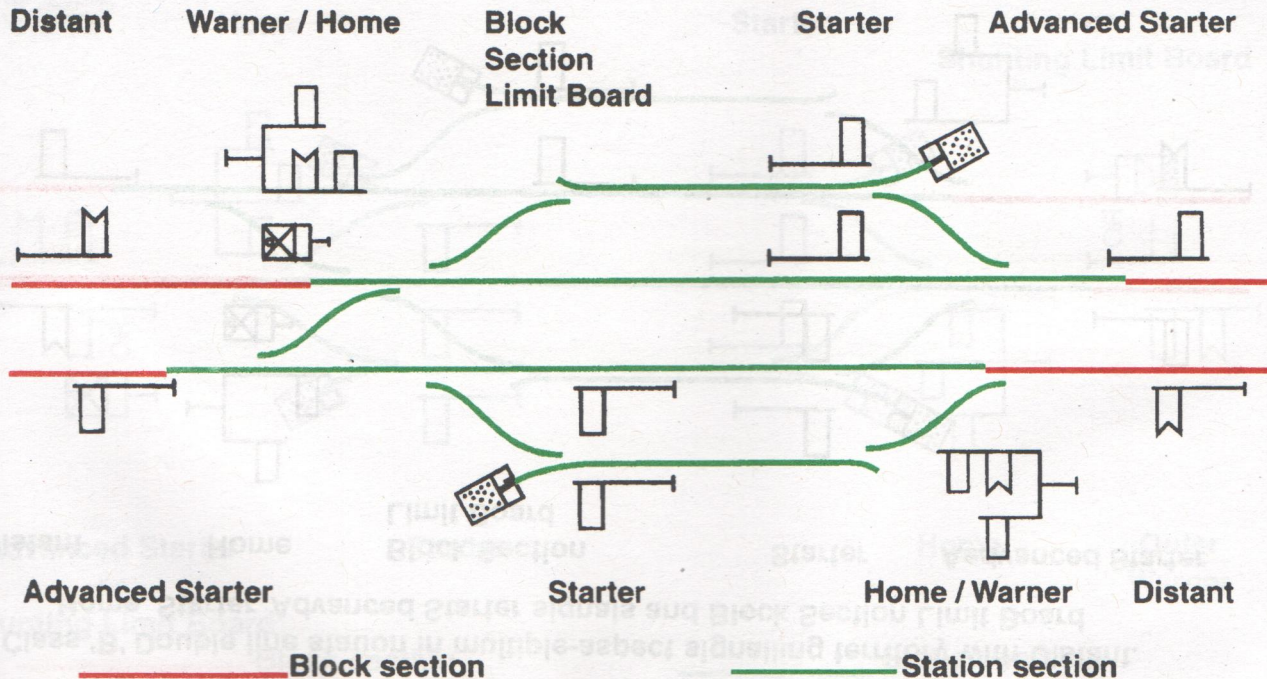
Class 'B' Single line station in two-aspect signalling territory with Warner, Outer, Home, Starter and Advanced Starter signals/Shunting Limit Boards



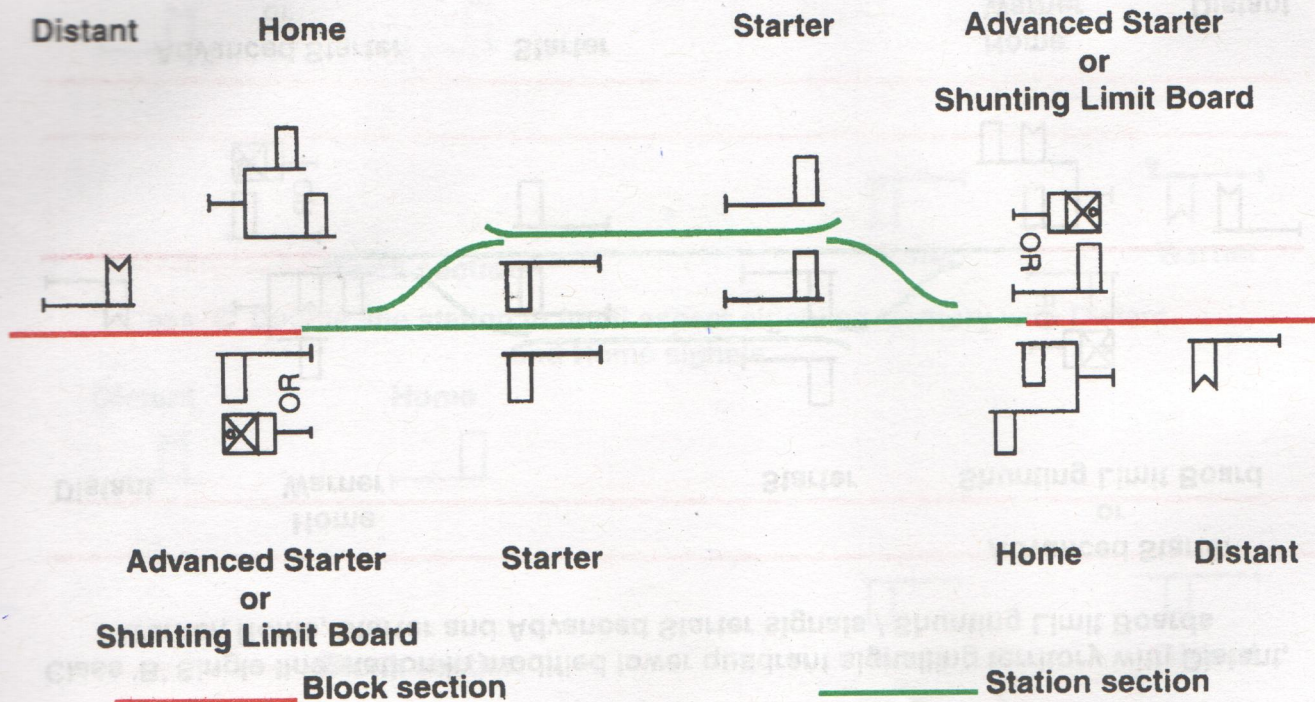
**Class 'B' Double line station in multiple-aspect signalling territory with Distant.
Home, Starter, Advanced Starter signals and Block Section Limit Board**



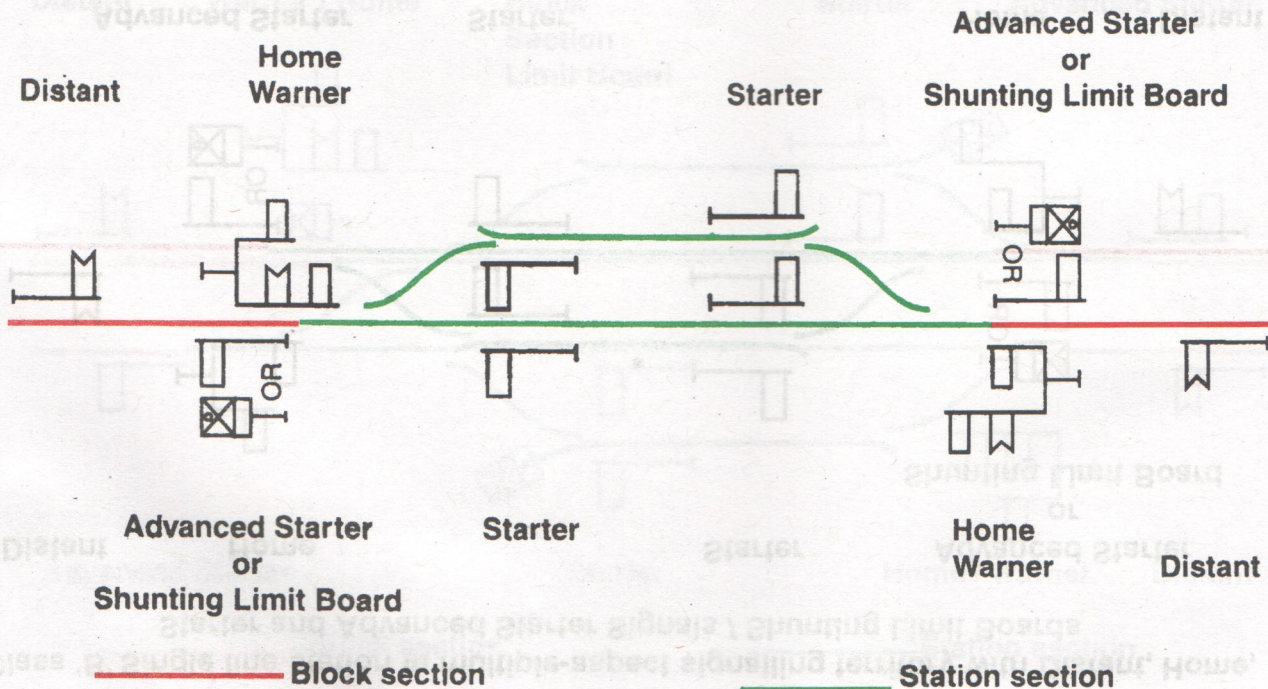
Class 'B' Double line station in modified lower quadrant signalling territory with Distant, Warner, Home, Starter, Advanced Starter signals and Block Section Limit Board



Class 'B' Single line station in multiple-aspect signalling territory with Distant, Home, Starter and Advanced Starter Signals / Shunting Limit Boards

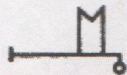


Class 'B' Single line station in modified lower quadrant signalling territory with Distant, Warner, Home, Starter and Advanced Starter signals / Shunting Limit Boards



Class 'C' Double line station in two-aspect signalling territory with Warner and Home signals

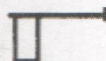
Warner



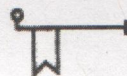
Home



Block section



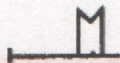
Home



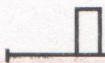
Warner

Class 'C' Double line station in multi aspect signaling territory with Distant and Home signals.

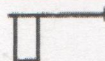
Distant



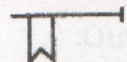
Home



Block section



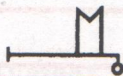
Home



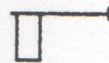
Distant

Class 'C' Single line station in two aspect signaling territory with Warner and Home signals.

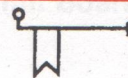
Warner



Home



Home

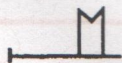


Warner

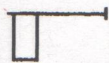
Block section

Class 'C' Single line station in multiple-aspect signalling territory with Distant and Home signals.

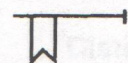
Distant



Home



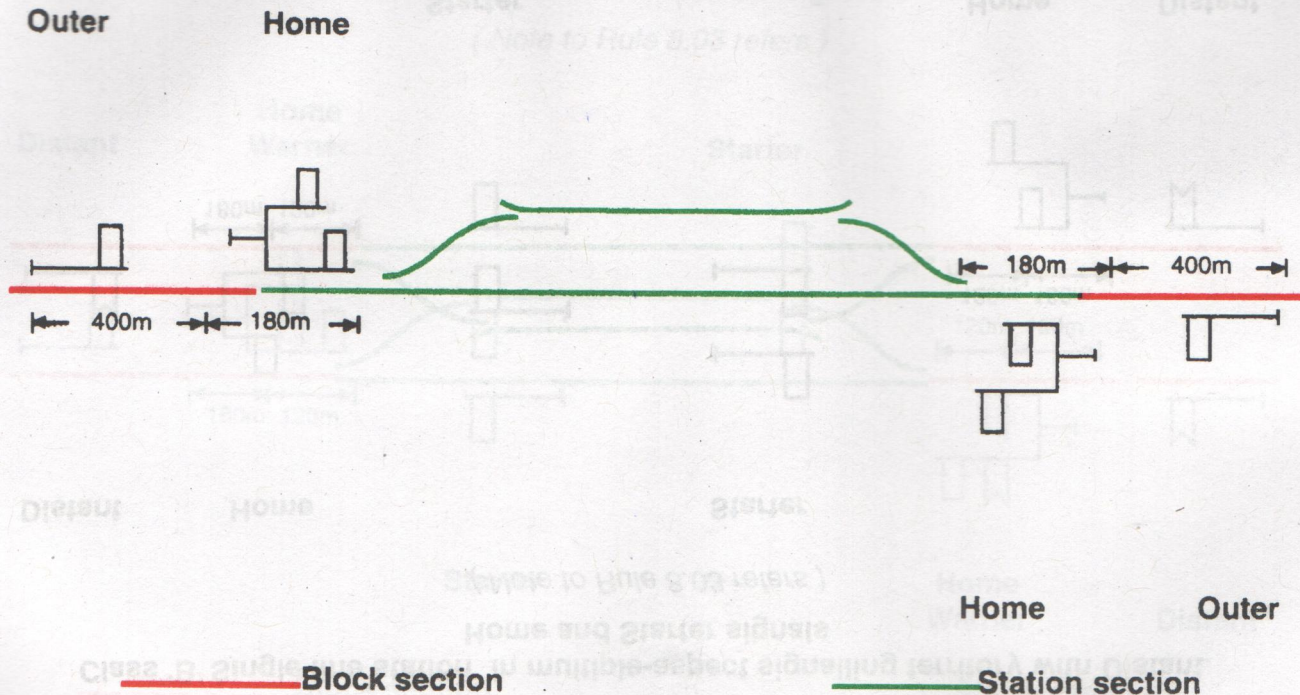
Home



Distant

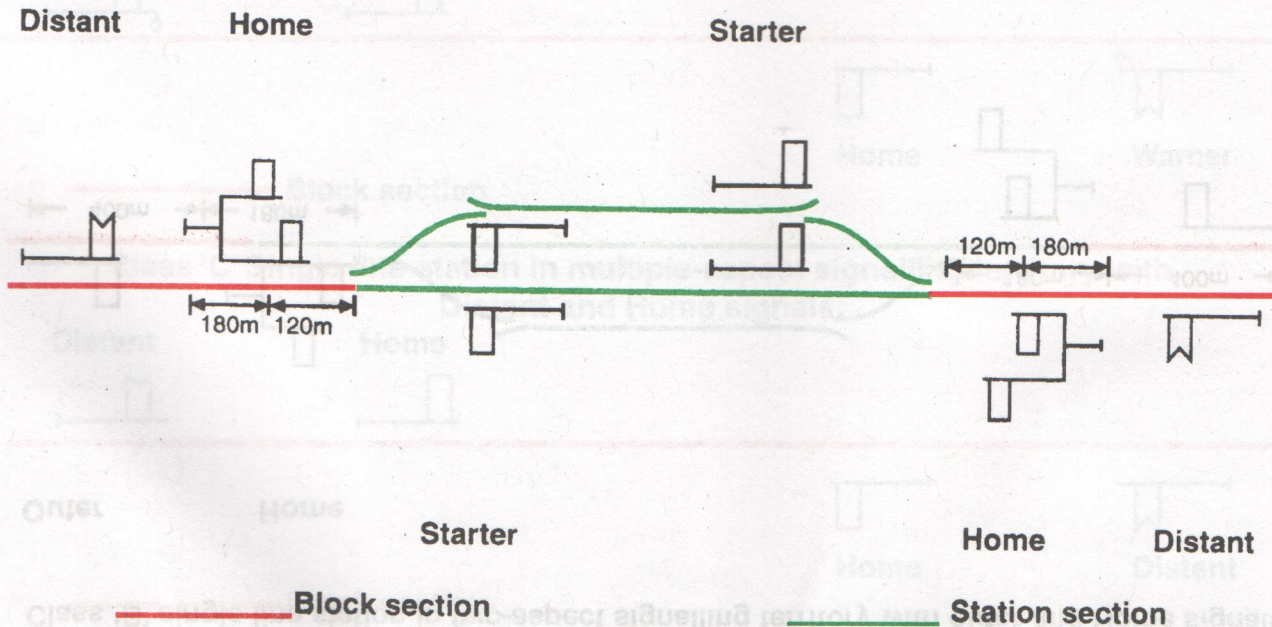
Block section

Class 'B' single line station in two-aspect signalling territory with outer and Home signals



Class 'B' Single line station in multiple-aspect signalling territory with Distant. **Home and Starter signals**

(Note to Rule 8.03 refers)



Class 'B' Single line station in modified lower quadrant signalling territory with Distant, Warner, Home and Starter signals

(Note to Rule 8.03 refers)

