



# G.W.R. signals and their installation on your layout

The Ratio scale signals are miniature replicas of those introduced by the G.W.R. from 1892, and could still be found in use as late as 1960.

The post and arm (with correct colour spectacle lenses fitted) are pre-painted. The operating wire and special spring-return mechanism are assembled, and it is only necessary to fit the ladder, platforms and balance weights to complete this authentic signal.

To instal on your layout, drill two 1/2" diameter holes through the baseboard, one for the post, one for the lever, and fit small brass eyes (about every 12") for the cord to pass through.

To assist those unfamiliar with the signalling systems employed by the railways, and to show how important they are, we describe below the main principles.

The movements of all trains are controlled by signals, the primary purpose of which is to secure an adequate distance between following trains, or those which cross or approach one another's path.

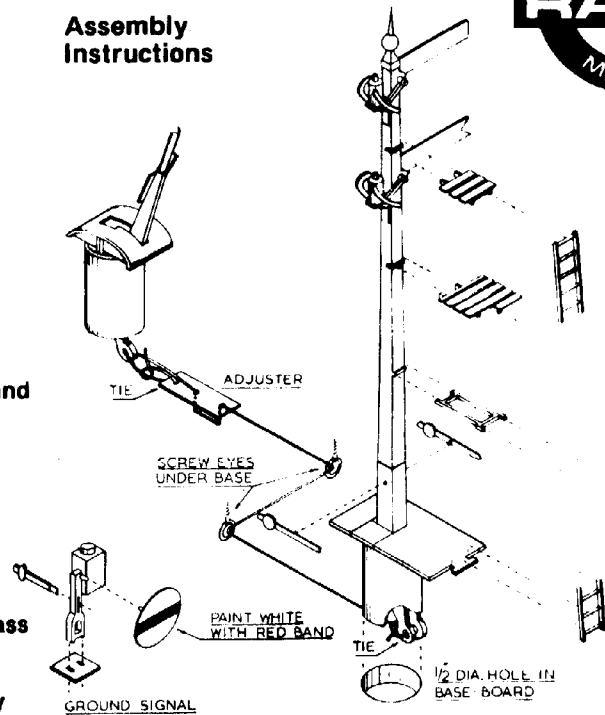
Broadly speaking signals are classified into three groups: Distant, Home and Starting. The signal is 'on' when it is at danger and 'off' when it shows 'all clear'.

Every railway line is divided into running sections or 'blocks', which ensures that no more than one train can be on the same line at the same time. The distance between two signal boxes is known as the 'Block Section', and the boxes referred to as 'Block Posts'.

The distant signal is a warning signal only and is the first one to be reached in the block section. It informs the driver of the way ahead, and is the only signal that can be passed in the 'on' position, however the driver must immediately reduce the speed of his train expecting the next signal to be at danger.

When the distant signal is 'off' the driver knows he can continue at his usual speed. At terminii or approaching a bay or junction where a speed restriction is in force the distant signal is permanently fixed at caution. These 'fixed distants' are also to be found on single branch lines owing to the 15 m.p.h. restriction for token exchanging at stations, etc.

## Assembly Instructions



Remove parts carefully, using a scalpel or sharp craft knife, taking extra care with the ladder.

We recommend a liquid glue for assembly. Assembly as in exploded drawing.

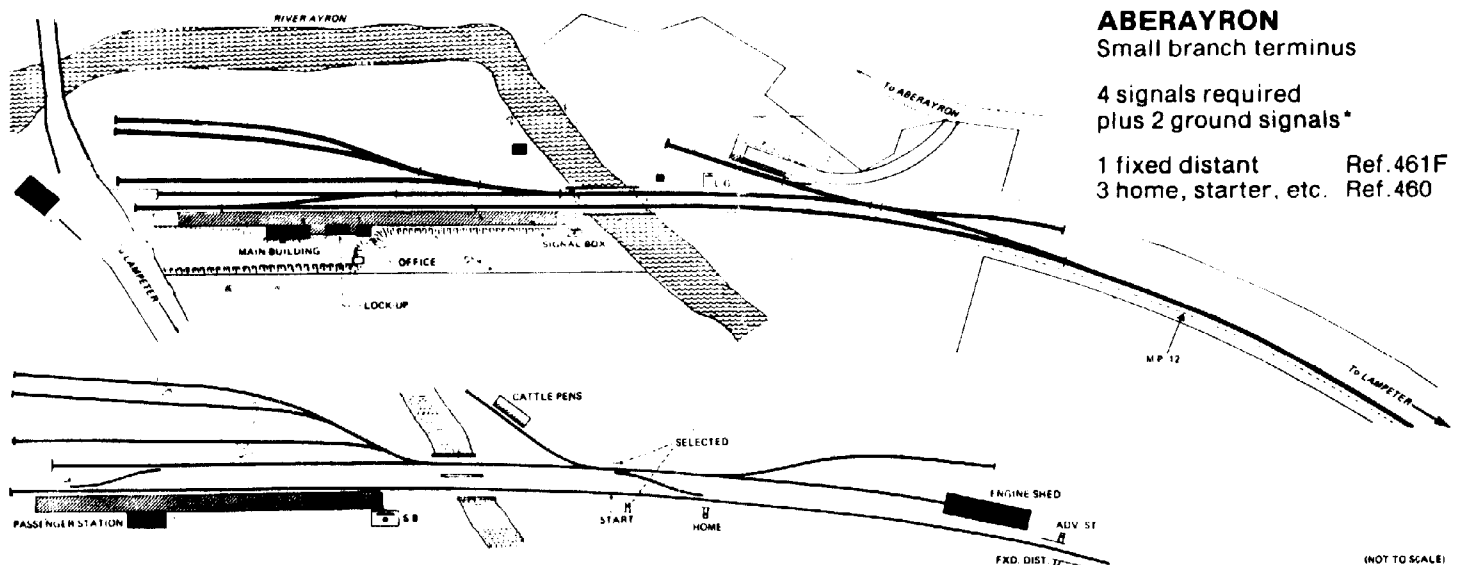
Note: For one arm signal omit larger platform.

The Home Signal is the second signal reached, and its function is to stop trains clear of junctions, level crossings, or of the next section ahead.

The Starting Signal is the third signal reached and controls the entry of a train into the next block section. It is so placed that any train movements to sidings etc. can be carried out without passing this signal. In some instances advanced starting signals are provided, normally where there is a crossover or other points ahead of the starting signal.

On certain sections of line where the signal boxes are close together there is insufficient distance for a separate distant signal post, so the distant signal is placed on the same post as the starting signal of the previous block section hence the Home and Distant.

To illustrate the above points we show below and overleaf four prototype signalling layouts by courtesy of The Oxford Publishing Co. book 'Great Western Stations' and the Signalling Record Society.



### ABERAYRON

Small branch terminus

4 signals required plus 2 ground signals\*

1 fixed distant Ref. 461F  
3 home, starter, etc. Ref. 460

