

TRAIN SIM WORLD: BR CLASS 52 DRIVER'S MANUAL



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Quick Start Guide: BR Class 52



1. Enter the rear cab (the opposite end of where you'll be driving from) and check the following:
 - a. Master Key is Off.
 - b. Handbrake is Released.
 - c. Driver's Brake is in the Neutral/Shutdown position.
 - d. Reverser is Off.
 - e. Fuel Transfer Pump Isolating Switch is set to Isolated.
 - f. Engine Start Isolating Switch is set to Off.
 - g. Cab Changeover Lever is Off.
 - h. AWS Isolation Lever is Isolated.
 - i. If running light loco, set the Rear Marker Lamp to On.
 - j. All cab access doors and windows are closed when leaving the cab.
2. Enter the forward cab's vestibule (for the driving position) and set the following on the rear bulkhead:
 - a. Brake Selection Switch is set to the correct operating mode for the vehicles being pulled.
 - b. Battery Isolation Switch is set to Closed.
3. Enter the forward cab and check the following:
 - a. Master Key is Off.
 - b. Handbrake is Released.
 - c. Driver's Brake is in the Neutral/Shutdown position.
 - d. Reverser is Off.
 - e. Cab Changeover Lever is Off.
 - f. AWS Isolation Lever is Isolated.
4. Set the following
 - a. Fuel Transfer Pump Isolating Switch to Normal.
 - b. Engine Start Isolating Switch to On.

- c. Master Key is On.
 - d. Set the Reverser to the Engine Only position.
 - e. If the engines are already started, continue to step h.
 - f. Press and hold the Engine A Start button until the engine catches.
 - g. Press and hold the Engine B Start button until the engine catches.
 - h. Check that the Engine RPM gauges read above 600 RPM for both engines.
 - i. Set the Marker Lamp to On.
 - j. Set the Headcode Box Lamp to On.
5. If you want AWS:
 - a. Move the AWS Cab Changeover Lever to On.
 - b. Move the AWS Isolation Lever to Unisolated.
 6. Sit in the driver's seat
 7. If you enabled AWS:
 - a. As you move the reverser past the Reverse setting, the AWS Alarm will self-test, press the AWS Reset Switch to clear it.
 8. Move the Driver's Brake to the Full-Service position.
 9. If required, set the Instrument Lights to On.
 10. When ready to proceed, move the reverser to Forwards.
 11. Move the Driver's Brake to the Running position.
 12. Move throttle to the On position until you're rolling, then apply throttle as required.

Stopping at Stations in the BR Class 52

1. On approach to the station, you should always manage your speed appropriately. The timing of the brake application will need to be timed properly to ensure a smooth and stable stop. As such, you will need to think and act well ahead. Begin approximately 1 to 1.5 miles from the station by applying a reduction of 14.5 PSI (1 Bar) with the Driver's Brake. Note this 'braking point' distance is influenced by numerous factors, such as the current speed of the train, the weight of the consist, the current grade and the conditions of the rails – it will be necessary for you to adjust your braking point accordingly.
2. The aim is to apply sufficient brake pressure once and only adjust it once you reach the start of the platform. As a general rule, you should always aim to be at no more than 25 mph depending on the platform length. For short platforms, you should aim to be at no more than 15 mph when you reach the start of the platform. Avoid fanning (moving the handle back and forth) the Driver's Brake handle.
3. Move the Driver's Brake and reduce further to around 29 PSI (2 Bar).
4. As your speed reduces below 7 mph, move the Driver's Brake to reduce the brake pressure to 14.5 PSI (1 Bar) in preparation for the stop. This will prevent the wheels locking up and causing the train to judder.
5. Once the train has reached a full stop, move the Driver's Brake to the Full Service position to secure the train.

Passenger Door Controls

In Train Sim World, you can control the passenger entry and exit doors on each side independently i.e. either left side or right side. A simple method of control has been implemented for the included trains. Simply press the TAB key to call up the menu and select on which side of the train you wish to lock/unlock the doors.

On the included trains you cannot directly interact with the passenger car doors because this is normally controlled from the passenger cars themselves, so you must use the TAB key to cause the doors to open/close.

Reference Section

Safety Systems: Automatic Warning System (AWS)

The Automatic Warning System is used to provide indications in the cab based on the upcoming conditions on the line. Alarms sound in the cab when approaching aspects other than green or when approaching some other fixed reason for ensuring the driver is forced to acknowledge their location and situations such as changes in speed.

How to Activate/Deactivate

1. Under the driver's seat, move the AWS Isolation Lever to Unisolated.
2. Under the driver's seat, move the AWS Cab Changeover Lever to ON.
3. The AWS self-test may now be going off, press the AWS Reset Switch to clear it.

How to Use AWS

As you approach a signal you will observe you go over a yellow "ramp" in the middle of the track, this is an AWS Ramp.

If the signal aspect you are approaching is GREEN then you will hear a bell in the cab, you need take no further action.

If the signal aspect you are approaching is not green, then you will hear an alarm in the cab. You must acknowledge this by pressing the AWS Reset Switch within 3 seconds or the train brakes will apply.

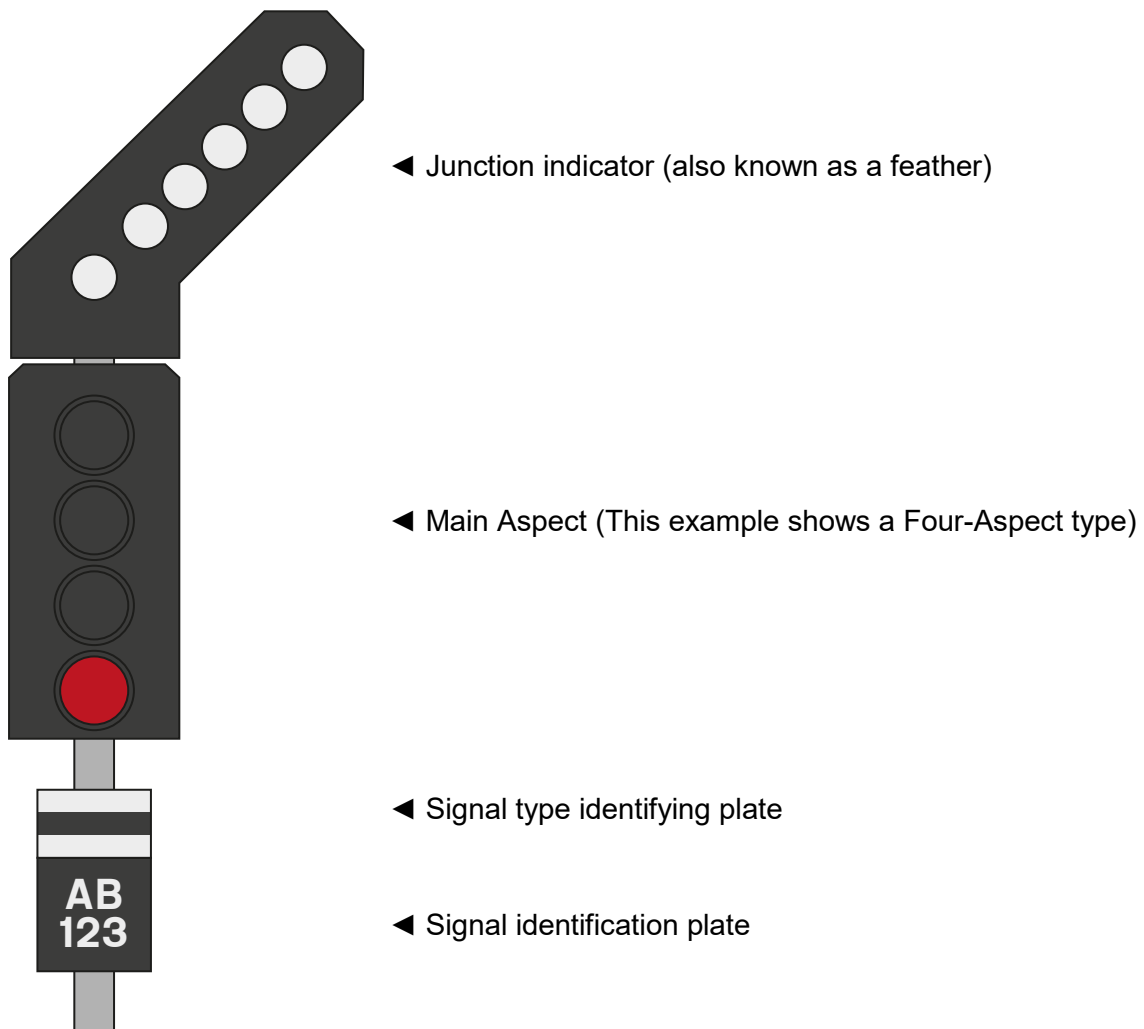
Note: Unlike some European systems there are no speed restrictions monitored with this system, it is left entirely to the driver to ensure that they will not pass a red signal and the AWS is used to provide repeated warning and driver acknowledgement of the upcoming situation on the line.

There are also fixed AWS Ramps which will always cause an alarm in the cab usually because of something nearby ahead on the line, and some AWS ramps may only trigger when the train is routed in a particular direction.

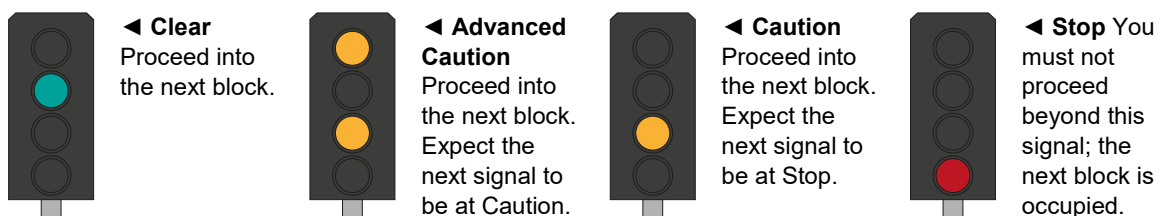
Simply put, if the alarm goes off, acknowledge it, understand why it went off and react accordingly.

British Signalling Reference

British colour light railway signals consist of one or more physical components or modules that form the basis of advising the driver on the state of the route ahead. These components are:

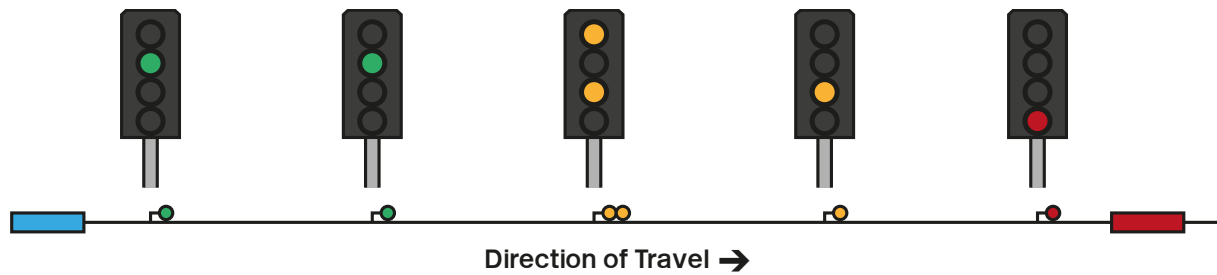


Main Aspects: Colour Light



The examples above show the appropriate aspects for four-aspect block signalling. For three-aspect signalling, these signals cannot display the Advanced Caution aspect but are able to show the other three. For two-aspect signalling, these can only display the Clear and

Stop aspects (except distant or fixed aspect signals). The sequence of displayed aspects runs from left to right as shown in the example below:



In the above diagram, if you are the blue train, the five signals spaced between you and the red train would follow the sequence as shown in this example. They also form a protection barrier between you and the red train. The empty space between each signal is called a block. Essentially, there are four empty blocks between you and the train in front. The distance between you and the train you are following is important as it provides you with enough distance in order to bring your train to a complete stop when travelling at the maximum permitted speed of the line.

For a three-aspect signalling system, the number of blocks would be reduced to three blocks. This means there is less braking distance between you and the train in front since three-aspect signals are incapable of displaying the Advanced Caution aspect. So, you can form the conclusion that the greater the number of main aspects a signal can display, the greater the distance between you and the train ahead and the greater the overall braking distance.

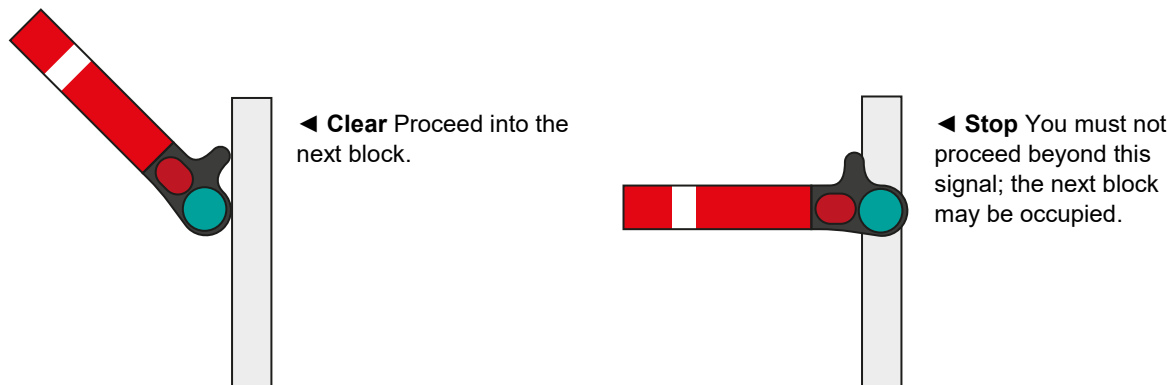
Typically, four-aspect signals are used where line speeds would be in excess of 100 mph. However, there may be instances where the line speed is lower but additional protection is required. For example, due to a junction with a preceding steep downhill section and therefore greater distance required for braking of heavier trains.

Additionally, each buffer stop (the end of the track as found at the end of sidings or at a terminus station) is regarded itself as a Stop signal and therefore signals further back up the line would display the appropriate aspects.

Co-Acting Signals

Co-acting signals are smaller versions of the main aspect signals and give both short and long-distance sighting of a signal. A co-acting signal repeats the exact same aspect of the main aspect and are always the same type (colour light or semaphore) as the main signal.

Main Aspects: Semaphore (Home)



The examples above show the appropriate aspects for Upper-Quadrant signals (UQ), i.e. the signal arm raises into the upper quadrant of an arc in order to display its Clear aspect. Lower Quadrant signals are those that drop downwards but the meaning between each type is identical. For a Clear aspect, you should regard any indication that is at a 45-degree position and, for a Stop aspect, those indications that are at a horizontal position. Note that these signals are essentially only capable of displaying two aspects and you should regard them as such when considering speed and braking effort.

Reacting to Main Aspect Signals

Clear

Continue at the maximum permitted speed for your train or for the route that has been set. If the train is fitted with AWS, a clear bell or tone will sound as you pass over the magnet that is situated on approach to the signal.

Advanced Caution

For lighter trains that have good braking, you should continue at the maximum permitted speed and look out for the next signal which is likely to be at Caution. If you are in a heavy train, are travelling at or just below 125 mph or are descending a steep grade, you should begin braking as soon as you see the aspect with a 14.5 PSI (1 Bar) reduction with the Driver's or Train Brake. If the train is fitted with AWS, a warning horn or tone will sound, as you pass over the magnet, that you must acknowledge.

Caution

All trains should be braking once this signal is in sight. If your speed is such that you are unlikely to stop before the next signal, increase your braking effort to 29 PSI (2 Bar) to further reduce your speed. The aim is to reduce your speed to around 25 mph well in advance of the Stop signal ahead. If the train is fitted with AWS, a warning horn or tone will sound, as you pass over the magnet, that you must acknowledge.

Stop

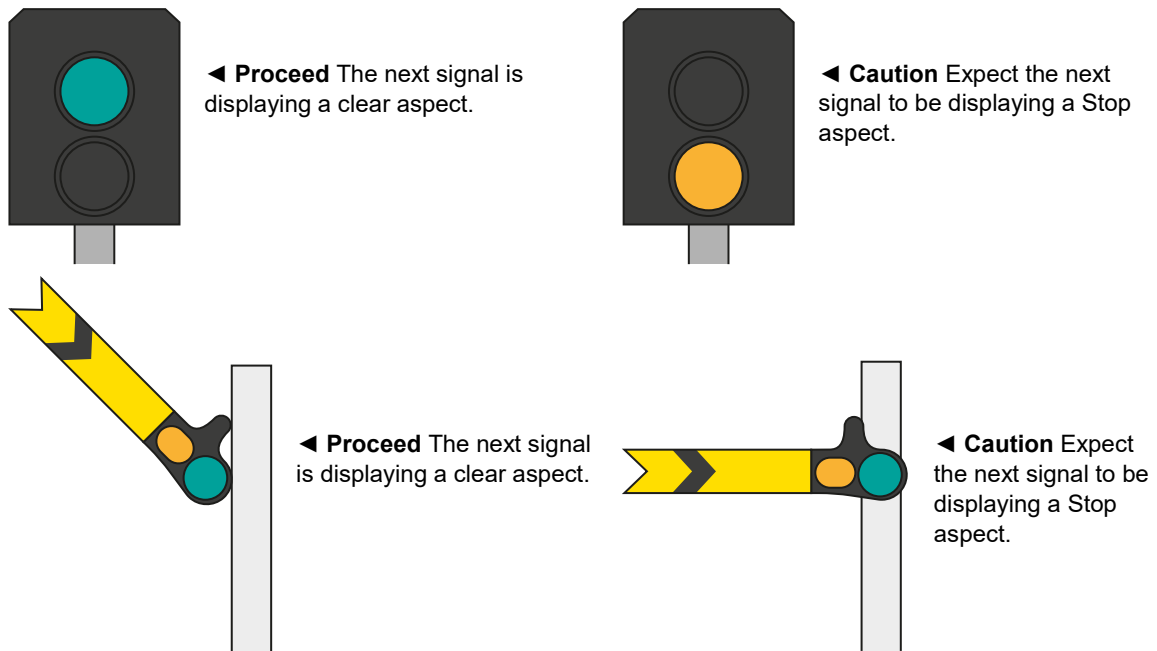
All trains must stop in advance of the signal. If the train is fitted with AWS, a warning horn or tone will sound, as you pass over the magnet, that you must acknowledge.

It is important that you bring your train to a stop as close to the signal as possible but ensure that you can safely read the displayed aspect from your seated position. Do not stop so close to the signal that you need to adjust your driving position in order to read the signal aspect. Also, do not stop so far away from the signal that there is an extended distance to cover before passing the signal, this may result in the rear of the train occupying the rear-most signal block and impacting the safe movement of trains behind you.

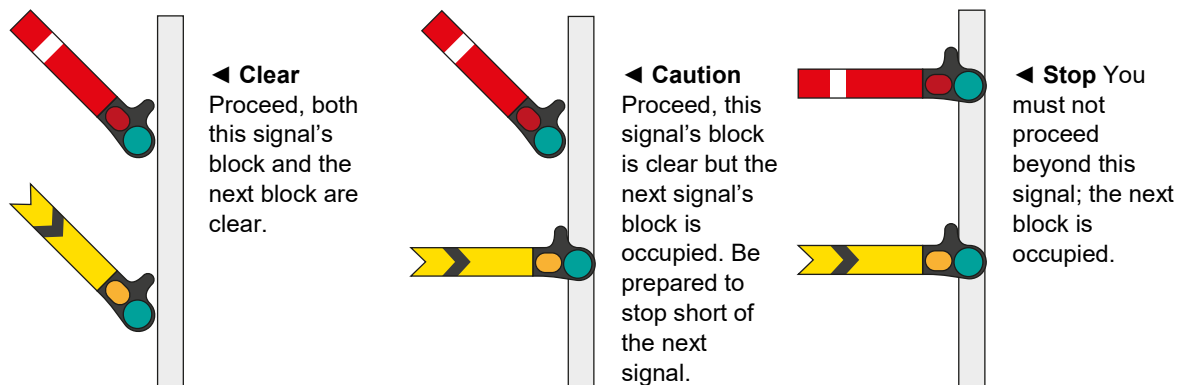
Once you have come to a complete stop, it is considered good practice to move the Driver's or Train Brake into the full-service position to secure the train.

Distant/Related Aspects

Distant signals, sometimes referred to as Related Signals, essentially provide advanced warning of the aspect being displayed on the next block signal (the signal it is related to). You are not required to take any action at distant signals, but they can be useful for providing extra braking distance when you have a heavy or fast train.



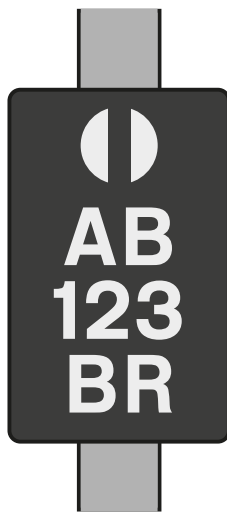
Combined Main Aspect & Distant Semaphore Signals



Identifying Signal Types

Most colour light signals carry identification plates that aid the driver in understanding how they should regard the indication the signal is displaying. Understanding how to read the identification plate can be useful in determining what type of signal is providing you with instructions or guidance.

The identification plate is typically mounted to the post that carries the main signal aspect head. However, due to placement or clearance issues such as when signals need to be placed on the ground in stations, the identification plate may be mounted on top of the signal head. The identification plate can be broken up into three dedicated sections:



- ◀ The upper part of the identification plate employs a form of code that advises the driver on what type of signal is deployed. In this instance, a three-aspect banner repeater signal.
- ◀ The alphanumeric characters **AB 123** are the signal's area code and the signal number in that area.
- ◀ The suffix characters further advise what type of signal is deployed. In this instance, the letters BR mean Banner Repeater.

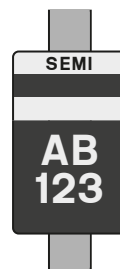
Here are some additional signal ID plates that are commonly used:



- ◀ Signals that carry no type identification are called Controlled Signals. This means the signal is directly controlled by a signaller or controller.



- ◀ The horizontal black band signifies that this is an automatic signal that sets its aspect based on the passage of trains and not by a signaller.



- ◀ With the word "SEMI" added, this advises that this signal is semi-automatic and can be controlled by a signaller if required.



- ◀ Slightly different to the three-aspect Banner Repeater shown in the example above, the solid circle and "BR" suffix signifies this is a two-aspect Banner Repeater.



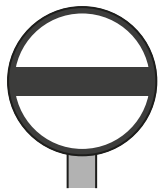
- ◀ The white triangle signifies that this is a distant signal and can sometimes be displayed with or without the triangle or the "R" (Repeater) suffix, but never both.



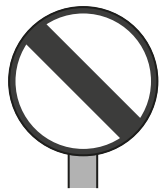
- ◀ The "CA" suffix indicates that this signal is a co-acting signal.

Banner Repeater Aspects

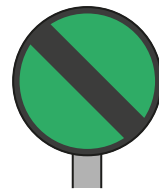
Banner Repeater signals should be treated in exactly the same way as Distant/Repeater Signals. These signals are often used where visibility of the main signal is reduced or obstructed.



◀ **Caution**
Expect the next signal to be displaying a stop aspect.

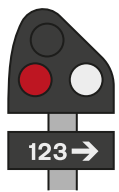


◀ **Proceed** The next signal is displaying a clear or caution aspect.

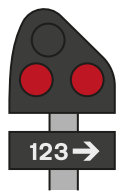


◀ **Clear** The next signal is displaying a clear aspect.

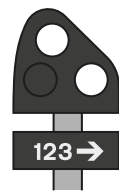
Position-Light Aspects



◀ **Stop** The line ahead may be obstructed, do not proceed beyond this signal without permission.



◀ **Stop** The line ahead may be obstructed, do not proceed beyond this signal without permission.



◀ **Proceed** at caution toward the next train, signal or buffer stop, and be prepared to stop short of any obstruction.

Semaphore Position Aspects



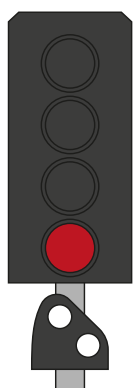
◀ **Stop** The line ahead may be obstructed, do not proceed beyond this signal.



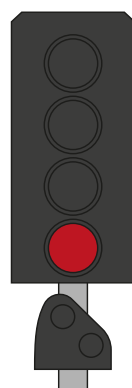
◀ **Proceed** at caution toward the next train, signal or buffer stop, and be prepared to stop short of any obstruction

Call On / Proceed on Sight

If the position-light is affixed below a main aspect signal, there may not be any indication provided as these indicators are incapable of displaying a red Stop aspect in the same way that Position-Lights do (above). If this indicator is unlit, you should always obey the main aspect. Typically, the position light below the main signal would be lit if movement authority is granted where the main aspect cannot provide an indication other than Stop (for example if the line ahead is occupied when coupling to vehicles in a station or siding). For these signals, you need to regard the signal as one indication even though there may be multiple aspects displayed:

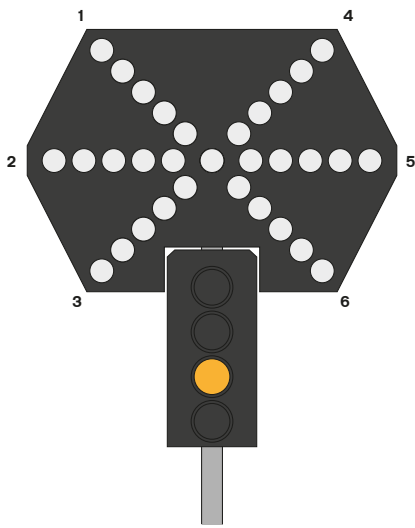


◀ **Proceed at Caution** toward the next train, signal or buffer stop, and be prepared to stop short of any obstruction.



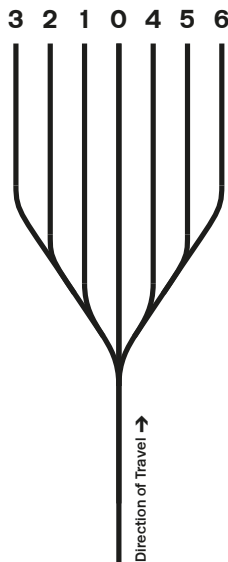
◀ **Stop** You must not proceed beyond this signal; the next block is occupied.

Junction & Route Indicators: Colour Light

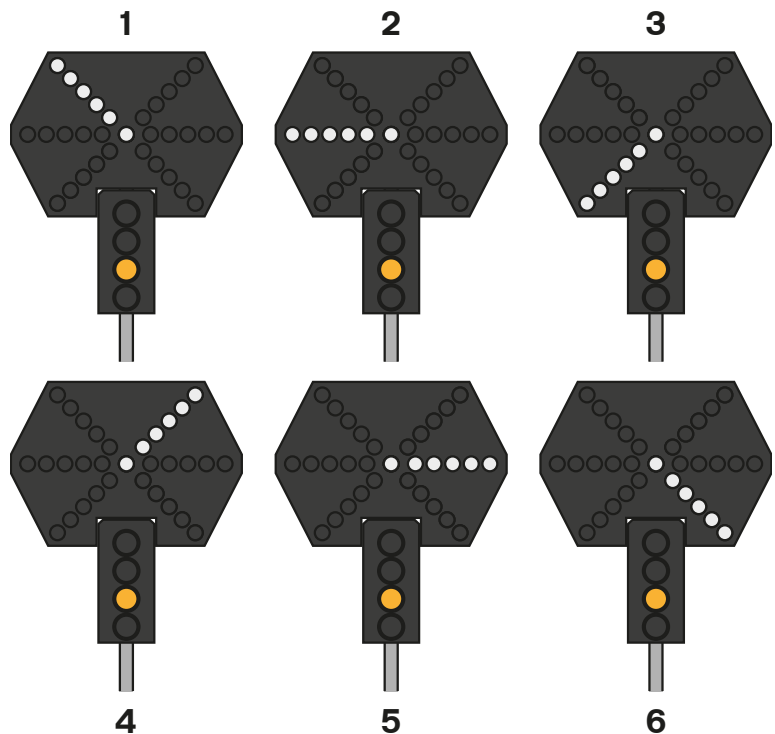


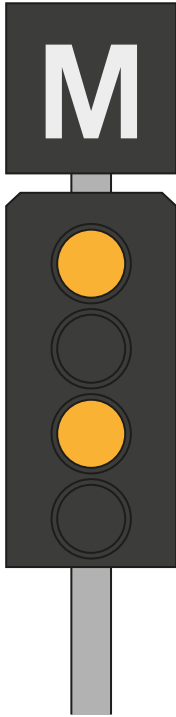
◀ The junction indicator can display up to 7 possible indications for each of the possible routes you can take. The guidance provided by this indicator is not easily understood as routes 2 and 5 seem to imply you'll be taking a sharp left and right turn with routes 3 and 6 seemingly making no sense at all and implying you will be turning completely around – something that's not possible with trains!

Instead of reading these indicators in a literal fashion, you need to regard these indicators as a form of code with each of the routes, 1 through 6, having a different meaning as shown in the image below.



◀ The straight-ahead route (0) would normally have no indication displayed on the junction indicator and only the main aspect would be shown. Where a route is set to the first diverging route (1), the indicator for this route would be lit forming an upper-left diagonal line. Each of the routes would always be formed of a single white line to indicate the set route ▼

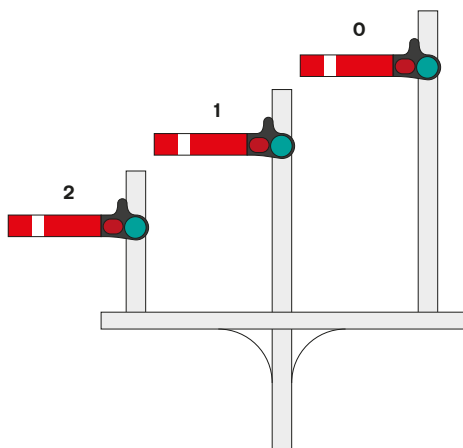




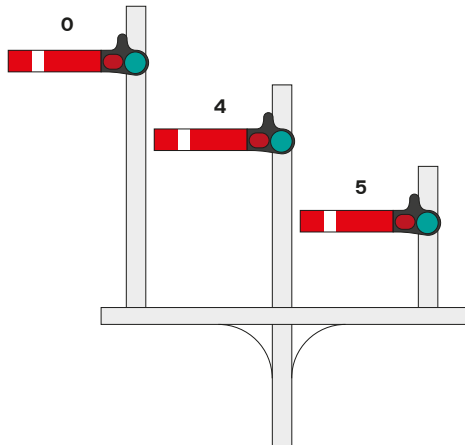
◀ The theatre route indicator style works in exactly the same way as a junction indicator but provides the routing notification via alphanumeric characters. The example shown here shows an 'M' indication, usually relating to Main or, that your train is being routed via the main line. Some other possible indications are provided below:

#	Numbers usually relate to platform or siding numbers.
M	Usually relates to Main Line, combinations can also include DM for Down Main and UM for Up Main.
R	Usually relates to Relief Line (a line that runs alongside or near to main running lines and provides additional capacity). Combinations can also apply.
G	Usually relates to Goods Line (a line that runs alongside or near to main running lines that's exclusively used by freight trains). Combinations can also apply.
A	All alphabetic characters can be displayed and usually relate to a station, town or area that the routing is heading toward. For example, an 'S' indication would imply a routing toward Swindon or could be advising of a Slow Line routing. Route knowledge of these indications is essential as different indications can imply different meanings.
S	Usually relates to Slow Line (a line that has a lower permanent speed limit than that of the main lines). Combinations can also apply.
F	Usually relates to Fast Line (a line that has a higher permanent speed limit than that of the main lines). Combinations can also apply.
X	Usually relates to a route that requires a reversing manoeuvre such as accessing a goods unloading point in a siding. Combinations can also apply.

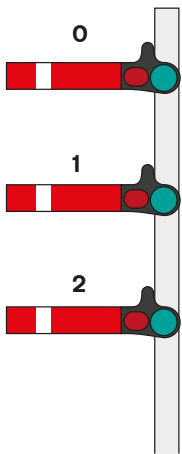
Junction & Route Indicators: Semaphore



◀ Unlike colour light junction indicators, the semaphore signal uses a cascaded or "stepped" style to aid in readability. The taller signal relates to the straight-ahead route (or primary route) with the lower signals relating to the diverging routes as shown in the previous diagram.



◀ For routes 4 and 5, a mirrored stepped style signal is used to aid in readability.



◀ Junction semaphore signals can also be “stacked”. These are read in exactly the same way as the “stepped” type.

Railway Signs

Maximum Permitted Speed



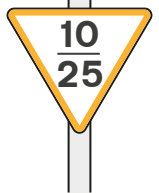
◀ The modern style of maximum permitted speed sign which, in this instance, requires you to not exceed 25 mph.



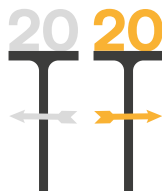
◀ The signs can also be stacked to show differential limits. The bottom limit is always the higher limit and applies to passenger and mail/parcel trains and light locomotives. All other trains must obey the top limit.



◀ The "Morpeth Board" advises the driver that the maximum permitted speed will decrease ahead. You should begin to slow to match this new speed before you reach the new limit ahead.



◀ Warnings about reductions in differential speed limits can also be provided in the Morpeth Board.



◀ The older "cut-out" style of maximum permitted speed sign, can either be in white or yellow and essentially should be regarded in exactly the same way as modern signs.



◀ Cut-out style signs also follow the same convention as their modern counterparts.



◀ The cut-out style signs are a little hard to read but can also advise of similar reductions in speed. However, they were not widely used, and you should not rely on sighting such a sign and instead rely on route knowledge to navigate speed limits.



◀ This also applies to cut-out style signs.

◀ All speed-related signs can also display an arrow that advises to which line this sign applies to.

Whistle Boards



◀ The modern variant of the whistle board at which the driver must make a clear single loud tone on the horn if between the hours of 7:30 am and 11:30 pm. At some sites, particularly at crossings it will be necessary to use a loud two-tone horn. Between the hours of 11:30 pm and 7:30 am, drivers must use discretion in use of the horn and should use a low tone except when required to warn other users of the railway of your approach, loud tones can therefore be used for this purpose.

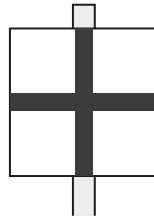


◀ Cut-out signs also follow similar rules but can be of varying type and can simply be a board with the word "Whistle" on it. The driver must use a sustained blast of the horn/whistle to be clearly heard. For both these signs, and the modern counterparts, you should always confirm those on the railway ahead have seen and heard your approach. When in doubt, you should make consecutive sustained blasts of the horn/whistle.

Coasting & Crossing Boards



◀ The coasting board advises that the driver may coast (travelling along without power applied) to a stopping point or significant speed reduction beyond the board.



◀ The crossing warning board means that there is an automatic open/barrier crossing ahead that is locally monitored or an open crossing ahead. On crossings that are fitted with barriers, a signal is sometimes provided to advise the driver whether the crossing barriers are closed which consists of a single white light. The light will remain steady if the crossing gates are raised/open and begin to flash once the gates are lowered/closed.

Default English Keyboard & Other Controls

Name	Keyboard		Controller	
	Increase / Press	Decrease	Increase / Press	Decrease
Throttle	A	D	Right Trigger	Right Bumper
Reverser	W	S	Left Stick Up	Left Stick Down
Auto Brake	Apostrophe	Semi-Colon	Left Trigger	Left Bumper
Headlights	H	Shift + H	Hold D-Pad Right Also: Tap D-Pad Right to cycle headlight settings	Hold D-Pad Right
High Horn	Space		Left Stick Click	
Low Horn	N			
Master Switch	CTRL + W			
AWS Reset	Q		B Button	
Sander	X			
Cab Light	L	Shift + L		
Handbrake	\	Shift + \		
Emergency Brake	Backspace			
Wipers	V	Shift + V	D-Pad Up	
Toggle AWS	Shift + Enter			
Torch (When Walking)	L			

Note: the above keys can be redefined in the in-game settings menu.

Controlling the Camera & Camera Modes

Train Sim World includes several cameras for you to control, here's an outline of those cameras and some examples of use:

- 1 Key - First Person Camera or Cab Camera**
Use this camera to operate your locomotive, flip switches and handle all your cab controls.

- 2 Key - Boom Camera**
Just like the camera from Train Simulator, your camera extends outward on an invisible pole, you can rotate it around your focussed vehicle. Use Ctrl and the left & right cursor keys to switch between vehicles or press the 2 key again to switch between the front and rear of your consist.

- 3 Key - Floating Camera**
A new camera that allows you to freely look in all directions, useful for coupling and changing switches. Press it once to view the front of your consist and again to view the rear. Freely move your view using the cursor keys.

- 8 Key - Free Camera**
Freely move around without limits using this camera. Use this camera to navigate your way around a busy yard, change switches or position it to get the perfect screenshot.

Customising the HUD

Train Sim World includes many options for you to customise the Head Up Display (HUD):

- CTRL+1 Toggles the in-world objective marker.
- CTRL+2 Toggles the in-world next speed limit marker.
- CTRL+3 Toggles the in-world next signal marker.
- CTRL+4 Cycles the next speed limit / signal information panel in top right.
- CTRL+5 Toggles the speedometer panel (or clock/compass while walking).
- CTRL+6 Toggles the score display.
- CTRL+7 Toggles the passenger stop marker on the track.
- CTRL+8 Cycles the centre dot transparency (off, 50/50, white).

Dovetail Live Account

The Dovetail Forums are your one-stop destination for everything Train Simulator and Train Sim World related. We have an ever-growing and vibrant community of train enthusiasts from all over the world, ranging from experienced railroad veterans to new players getting into the world of train simulation. So, if you haven't already, why not sign up for an account today and join our community – we'd love to have you on board!

See more at: [**https://forums.dovetailgames.com**](https://forums.dovetailgames.com)

Dovetail Live is an online destination which enables players to interact with Dovetail's products and each other in an environment tailored specifically to fans of simulation entertainment. Dovetail Live will evolve to become central to Train Sim World®, enriching the player experience in every way from offering rewards, building a community of like-minded players and helping every player find the right content to create their own perfect personal experience.

Signing up for Dovetail Live is completely voluntary. However, users that do sign up for it will receive exclusive benefits in the future.

See more at: [**https://live.dovetailgames.com**](https://live.dovetailgames.com)

Troubleshooting Guide & How to Get Support

I have a problem downloading the Steam client, how do I contact them?

You can contact Steam Support by opening a customer service ticket at support.steampowered.com/newticket.php. You will need to create a unique support account to submit a ticket (your Steam account will not work on this page) and this will enable you to track and respond to any tickets you open with Steam.

How do I install any secondary programs that the game may need?

Train Simulator World requires certain secondary programs to operate properly. These are standard programs that most up-to-date computers already have installed on them, such as DirectX. These programs can be found at the following location: Local Disk (C:) > Program Files (x86) > Steam > SteamApps > common > TSW > _CommonRedist

How do I change the language of TSW?

This is an easy process and will allow you to play Train Sim World in English, French, German, Spanish, Russian and Simplified Chinese. To change the language of Train Sim World, double-click on the Steam icon on your PC desktop, left click on 'Library', right click on 'Train Sim World', left click on 'Properties', and finally left click on the Language tab and select your preferred language.

How do I reset my display screen size settings?

It is possible to change the display screen size settings for Train Sim World from within the game. Changing display screen size settings is done from the Settings menu in the Display tab.

For any questions not covered here, visit our knowledgebase at <https://dovetailgames.kayako.com>