

## OBJECTIVE

At the end of this session you will be able to identify and describe the following according to Railtrack Rules & Regulations: -

1. The Signal Plates associated to the following types of signals: -
  - Automatic Signals
  - Controlled Signals
  
2. The Signal Heads of the following signals and where they may be encountered on the District Line: -
  - 2 Aspect Signals
  - 3 Aspect Signals

<p><b>Introduction</b></p>	<p><b><u>WELCOME</u></b></p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Background</li> <li>• Names</li> </ul> <p><b><u>TRAINING NEEDS ANALYSIS</u></b></p> <ul style="list-style-type: none"> <li>• PAP (Personal Action Plan)</li> <li>• Questions?</li> </ul> <p><b><u>OUTLINE</u></b></p> <ul style="list-style-type: none"> <li>• In this session we're going to look at the appearance and interpretation of Railtrack signals</li> <li>• In this afternoon's session we'll be looking at the appropriate procedure under Railtrack Rules &amp; Regs for passing the signals we're going to discuss at Danger</li> <li>• For the rest of the week we'll be on the road</li> </ul> <p><b><u>OBJECTIVE</u></b></p> <p>'At the end of this session you will be able to identify and describe the following Railtrack Signals as described in Railtrack Rules &amp; Regulations: -</p> <p>The Signal Plates associated to the following types of signals: -</p> <ul style="list-style-type: none"> <li>• Automatic Signals</li> <li>• Controlled Signals</li> </ul> <p>The Signal Heads of the following signals and where they may be encountered on the District Line: -</p> <ul style="list-style-type: none"> <li>• 2 Aspect Signals</li> <li>• 3 Aspect Signals'</li> </ul> <p><b><u>IDENTIFY STAGES</u></b> two - 1) signal plates 2) signal heads</p> <p><b><u>LINK</u></b> - 'Let's have a look at signal plates to start'</p>
<p><b>Stage 1</b></p>	<p><i>(Give handout 1)</i></p> <p><b><u>OVERVIEW</u></b></p> <p>The District Line runs under Railtrack Rules &amp; Regs in the following areas: -</p> <ul style="list-style-type: none"> <li>• Between East Putney and Wimbledon</li> <li>• Gunnersbury and Richmond</li> </ul> <p>But it also runs next to Railtrack lines on the Olympia service and between Bromley-by-Bow and Upminster</p> <p><i>(Give handout 2)</i></p> <p>It's important to clearly be able to identify the types of signals from their plates - recent example of a T/op misidentifying a signal plate, applying the wrong procedure and ending up at a Disciplinary Hearing!</p> <p>Describe from diagram how to identify: -</p> <ul style="list-style-type: none"> <li>• Automatic Signal</li> </ul>

	<ul style="list-style-type: none"> <li>Controlled Signal</li> </ul> <p><b>Q! Can you briefly describe the differences in LU procedures for passing an auto and semi remaining at Danger for me?</b> (Compare answers to appropriate signals on Railtrack) <b>STAGE CHECK</b></p> <ul style="list-style-type: none"> <li>Where does the District Line run over Railtrack metals?</li> <li>Describe the signal plate for a) an Auto and b) a Controlled.</li> </ul> <p><b><u>LINK</u></b> to Signal Heads</p>
<b>Stage 2</b>	<p><i>(Give handout 3)</i></p> <p>Describe from the diagram how to identify the different kinds of Signal heads and what the different aspects displayed mean.</p> <p><b>Q! Which do you think most closely resembles a signal on LU?</b> <b>LU?</b> (Compare answer given to the diagram - usually found at the point where the line reverts to LU's signalling system and Operating Procedures) <b>STAGE CHECK</b> <b><u>RECAP</u></b> (Both sessions) <b><u>LINK</u></b> (to Summary)</p>
<b>Summary</b>	<p><b><u>OBJECTIVE TEST</u></b></p> <ul style="list-style-type: none"> <li>How would you identify from the Signal Plates for the following signals on Railtrack - a) an Auto Signal and b) a Controlled Signal?</li> <li>Describe for me the aspects that can be displayed on a Railtrack 3 Aspect Signal and the meaning of each.</li> <li>Where does the District Line run subject to Railtrack Rules &amp; Regs?</li> </ul> <p><b><u>FEEDBACK</u></b> (as appropriate) Further information can be found in the Line Supplement and there is the Railtrack Rulebook available at the LSM's office</p> <p><b><u>LINK</u></b> (next session will be the appropriate rules and procedures for passing signals remaining at Danger under Railtrack Rules &amp; Regs)</p>

## Locations where the District Line is subject to Railtrack Rules and Regulations

The District Line runs on Railtrack lines and is subject to their Rules and Regulations in the following locations: -

- Between Gunnersbury and Richmond
- Between Putney Bridge and Wimbledon

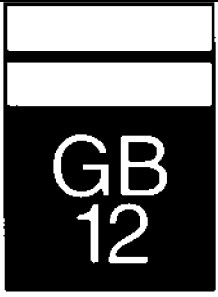
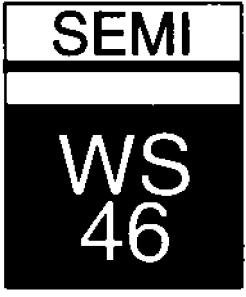

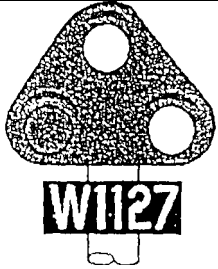
On the Richmond route the first signal which is subject to Railtrack's Rules and Regulations when travelling westbound is signal GB1 - the first signal after leaving Turnham Green.

When returning eastbound from Richmond the last Railtrack signal is signal GB8 - the Station Starter at Gunnersbury.




On the Wimbledon route the first signal subject to Railtrack's Rules and Regulations when travelling westbound is signal W355 - the home signal to East Putney.

When returning eastbound from Wimbledon the last Railtrack signal is signal W356 - the Station Starter at East Putney.

## Railtrack Signal Identification

	TYPE	PLATE	PASSING AT DANGER
	AUTOMATIC	Black Plate with White script.  Black & White striped board on top of plate	May be passed at Danger without authority under Railtrack Rules
	SEMI-AUTOMATIC	As above, but with the word 'SEMI' overlaid on the striped plate	May be passed at Danger without authority under Railtrack rules <u>HOWEVER</u> The only SEMI on the District Line <u>MUST ONLY</u> Be passed with the Signal Operator's authority
	CONTROLLED SIGNAL	Black Plate with white letters (Note - colours may be reversed)	Cannot be passed at Danger without the Signal Operator's authority
	POSITION LIGHT SHUNT SIGNAL	Ground level with Black plate & white script	Cannot be passed at Danger without the Signal Operator's authority

## Railtrack Multi Aspect Signals

	<p><u>2 Aspect Signal</u> <b>RED</b> - Signal at Danger <b>GREEN</b> - 1 Section Clear</p>
	<p><u>3 Aspect Signal</u> <b>RED</b> - Signal at Danger <b>YELLOW</b> - 1 Section Ahead Clear - next signal is at Danger <b>GREEN</b> - at least 2 Sections Ahead Clear</p>
	<p><u>4 Aspect Signal</u> <b>RED</b> - Signal at Danger <b>1 YELLOW</b> - 1 Section Ahead Clear <b>2 YELLOWS</b> - 2 Sections Ahead Clear, third signal will be at Danger <b>GREEN</b> - Three or more Sections Ahead are Clear</p>

### Notes

1. The most common type of Railtrack signal that you will see on the District Line is the 3 Aspect Signal - there are no 4 Aspect Signals that affect our running.
2. However you will see 4 Aspect Signals frequently, particularly between Bromley-by-Bow and Upminster where the District Line runs adjacent to the c2c lines from Fenchurch Street.
3. 4 Aspect signals are also in use in the Olympia area, adjacent to the District Line track between Lillie Bridge and Olympia.