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## I Background

### 1.1 Class 455/9

The Class 455 units were built in three variants between 1982 and 1985 at BREL York works. They are of all steel construction. The body is based on the highly successful Mk3 coach design, adapted for suburban operation with the fitting of wider mid-vehicle doorways and constructed in a shorter length of 20 metres. No air conditioning or toilets are fitted.

This final batch, now classified as Class 455/9, were built in 1985. These 20 units are all allocated to South West Trains at Wimbledon depot.

### 1.2 Design & Specification

|                          |                          |
|--------------------------|--------------------------|
| <b>TOPS Number</b>       | <b>Class 455/9</b>       |
| <b>Formations</b>        | 4-car: DTSO+MSO+TSO+DTSO |
| <b>Unit Weight</b>       | 132.4 tonnes             |
| <b>Vehicle Length</b>    | 65ft (19.83m)            |
| <b>Vehicle Width</b>     | 9ft 3¼ in (2.82m)        |
| <b>Body Construction</b> | Steel Construction       |
| <b>Unit Power</b>        | 1000 HP                  |
| <b>Design Speed</b>      | 75 MPH (121km/h)         |
| <b>Coupling Type</b>     | Tightlock                |
| <b>Brake Types</b>       | Air                      |

## 2 The Class 455/9 Electric Multiple Unit

The following Class 455/9 multiple units are available in this RailWorks Add-on.

### 2.1 “SWT” Livery



## 2.2 “NSE” Livery



## 2.3 “BR” Livery



## 3 Creating a Class 455/9 train set

### 3.1 Scenario Editor

To get your Class 455 ready for selection in a scenario you will need to enable it in the object set filters, which will add it to the rolling stock list.

Follow these steps:

1. Enter the Scenario Editor. (Note: If a route is locked it will need to be unlocked first before you can enter the Scenario Editor. Unlock by clicking the padlock icon in the bottom right of the screen).
2. Click the Object Set Filter button (the small blue cube on the middle left panel).
3. In the new window which opens on the right hand side, select the following: **Thomson / Class455Pack01**
4. The Class 455 will now appear in the list of rolling stock for that route.  
Note: The DTSO and MSO vehicles are listed under “Engines” and the TSO vehicles are listed under “Rolling Stock”
5. You may need to repeat this process on other routes or scenarios where you wish the Class 455 to be displayed.

### 3.2 Assigning Destinations and Numbers

For developers wishing to make use of the units in their own scenarios and routes, it is possible to customise both the Destination and Via Displays during creation of a scenario. This allows the train to correctly display an appropriate destination and via screen.

In order to display specific destination and via screens, the correct value must be entered into the vehicle properties window. This number consists of a 13 digit value containing both letters and numbers.

The 13 digit value is arranged like so: **DVNNNNNUUUUUU**

|               |  |
|---------------|--|
| <b>D</b>      | = the <b>D</b> estination code (this is one of the destinations below which is case sensitive) |
| <b>V</b>      | = the <b>V</b> ia code (this is one of the via routes below which is case sensitive)           |
| <b>NNNNN</b>  | = the vehicle <b>N</b> umber (this is the number displayed on the side of the coach)           |
| <b>UUUUUU</b> | = the <b>U</b> nit number (this is the number displayed on the front of the driving vehicle)   |

Example: IP77818455903 (*where “I” is for Guildford and “P” is for “Via Woking 75”*)

So the above value results in unit 455903, with vehicle number 77818, displaying “Guildford Via Woking 75” as the destination.





### 3.3 Display Destination List Driver Cabin

|          | Second Mans Side | Above Driver     |
|----------|------------------|------------------|
| <b>a</b> | Not In Service   | Blank Screen     |
| <b>b</b> | Aldershot        | Direct           |
| <b>c</b> | Ascot            | Direct 14        |
| <b>d</b> | Basingstoke      | Direct 18        |
| <b>e</b> | Chessington      | Direct 19        |
| <b>f</b> | Chessington Sth  | Direct 21        |
| <b>g</b> | Clapham          | Direct 23        |
| <b>h</b> | Clapham Junction | Direct 42        |
| <b>i</b> | Dorking          | Direct 58        |
| <b>j</b> | Effingham Jct    | Direct 68        |
| <b>k</b> | Epsom            | Via Brentford 13 |
| <b>l</b> | Guildford        | Via Brentford 57 |
| <b>m</b> | Hampton Court    | Via Brentford 87 |
| <b>n</b> | Haslemere        | Via Brentford 89 |
| <b>o</b> | Horsham          | Via Brentford 99 |
| <b>p</b> | Hounslow         | Via Chertsey 14  |
| <b>q</b> | Kensington       | Via Chertsey 98  |
| <b>r</b> | Kingston         | Via Cobham 42    |
| <b>s</b> | Reading          | Via Epsom 15     |
| <b>t</b> | Shepperton       | Via Epsom 16     |
| <b>u</b> | Staines          | Via Epsom 17     |
| <b>v</b> | Strawberry Hill  | Via Hounslow 13  |
| <b>w</b> | Twickenham       | Via Hounslow 99  |
| <b>x</b> | Waterloo         | Via Kingston 21  |
| <b>y</b> | West Croydon     | Via Kingston 24  |
| <b>z</b> | Weybridge        | Via Kingston 32  |

|          | Second Mans Side | Above Driver     |
|----------|------------------|------------------|
| <b>A</b> | Wimbledon        | Via Richmond 14  |
| <b>B</b> | Windsor & Eton   | Via Richmond 21  |
| <b>C</b> | Windsor & Eton R | Via Richmond 32  |
| <b>D</b> | Woking           | Via Richmond 47  |
| <b>E</b> | Special          | Via Richmond 58  |
| <b>F</b> | Charter          | Via Richmond 68  |
| <b>G</b> | Sorry            | Via Richmond 89  |
| <b>H</b> | Empty To Depot   | Via Surbiton 10  |
| <b>I</b> | Race Special     | Via Surbiton 30  |
| <b>J</b> | Havant           | Via Surbiton 42  |
| <b>K</b> | Fratton          | Via Wimbledon 17 |
| <b>L</b> | Portsmouth & SS  | Via Wimbledon 18 |
| <b>M</b> | Portsmouth Hbr   | Via Wimbledon 32 |
| <b>N</b> | Blank Screen     | Via Wimbledon 19 |
| <b>O</b> | Blank Screen     | Via Woking 73    |
| <b>P</b> | Blank Screen     | Via Woking 75    |
| <b>Q</b> | Blank Screen     | Via Weybridge 14 |
| <b>R</b> | Blank Screen     | Olympia          |
| <b>S</b> | Blank Screen     | Junction         |
| <b>T</b> | Blank Screen     | Special          |
| <b>U</b> | Blank Screen     | Charter          |
| <b>V</b> | Blank Screen     | Not In Service   |
| <b>W</b> | Blank Screen     | For Cleaning     |
| <b>X</b> | Blank Screen     | For Servicing    |
| <b>Y</b> | Blank Screen     | Race Special     |
| <b>Z</b> | Blank Screen     | Rugby Special    |

### 3.4 Driver's Cabin

The image below illustrates the positions of each control and indicator within the Class 455/9 driver's cabin. There is also a glare screen above the driver and opening side windows.



|    |   | Keyboard Toggle | Keyboard Increase | Keyboard Decrease |
|----|---|-----------------|-------------------|-------------------|
| 1  | Reverser – <b>Note: When first selected the driver must acknowledge the alarm with the AWS Acknowledge Button.</b>  |                 | w                 | s                 |
| 2  | Train Brake Lever – <b>Note: To create a prototypical brake setup and pressures when using the mouse or keyboard this control does not move when driving with the on-screen HUD controls.</b> |                 | '                 | ;                 |
| 3  | Throttle Lever  |                 | a                 | D                 |
| 4  | Horn (High Tone)<br><i>The Low Tone Horn has been associated with the "Bell" control</i>  | space bar<br>b  |                   |                   |
| 5  | Speedometer   |                 |                   |                   |
| 6  | Brake Gauge for Main Reservoir and Brake Cylinder pressures (in BAR)  |                 |                   |                   |
| 7  | AWS Acknowledge Button  | q               |                   |                   |
| 8  | AWS "Sunflower" Display   |                 |                   |                   |
| 9  | DRA (Drivers Reminder Appliance)<br>– Push on (illuminated) / Pull off<br>– Throttle power is disabled when the DRA is on and illuminated   | y               |                   |                   |
| 10 | Brake Demand Lamp<br>– Illuminated during AWS and TPWS Brake Demands  |                 |                   |                   |
| 11 | Sander  | x               |                   |                   |
| 12 | Driver's Windscreen Wiper Switch  | v               |                   |                   |
| 13 | Second Man's Windscreen Wiper Switch  |                 |                   |                   |
| 14 | Headlights Switch and Proving Lights  |                 | h                 | Shift + h         |
| 15 | Passenger Doors Interlock Lamp<br>– Throttle power is disabled when this lamp is extinguished   |                 |                   |                   |
| 16 | Call Button / Signal Buzzer   | c               |                   |                   |
| 17 | Line Volts Lamp – Power Isolation Toggle  | p               |                   |                   |
| 18 | Glare Screen  |                 |                   |                   |

## 4 Scenarios

### 4.1 End of Shift

After working in from Waterloo earlier in the evening, you are tasked with taking two Class 455 sets from Woking to Guildford Carriage Sidings. It is late and traffic is light, but you should remain vigilant. Good Luck.

- **Route** Portsmouth Direct
- **Rating** Medium
- **Duration** 15 Minutes

### 4.2 Guildford Bound

Work a late afternoon stopping service from Haslemere to Guildford on a cold December day. Traffic is flowing steady so you should have a clear run back to Guildford. Good Luck.

- **Route** Portsmouth Direct
- **Rating** Medium
- **Duration** 20 Minutes

### 4.3 Pushing the Boundary

Today you shall be taking a Class 455 on the 14.30 Guildford-Haslemere stopping service. This is a lack of Class 450 units so SWT has placed a Class 455 on the diagram. Traffic should be steady. Good Luck.

- **Route** Portsmouth Direct
- **Rating** Medium
- **Duration** 30 Minutes

### 4.4 Sunday Shuffle

On a quiet Sunday morning, you are diagrammed to take a Class 455 unit from Woking to Guildford and return. Stop at Worplesdon en route. Good Luck.

- **Route** Portsmouth Direct
- **Rating** Medium
- **Duration** 25 Minutes

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