



dovetail
GAMES

Class 303

Electrical Multiple Unit



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1 Background

1.1 Loco

The British Rail Class 303 electric multiple units, also known as "Blue Train" units, were introduced in 1960 for the electrification of the North Clyde and the Cathcart Circle lines in Strathclyde. They were initially classified as AM3 units before the introduction of the TOPS classification system, and were the dominant EMU on the Glasgow suburban railway network for over 25 years before being progressively phased out by newer rolling stock. The final units were withdrawn from service in 2002 after a lifespan of 42 years.

The units were later used on the Inverclyde and Argyle lines of the Glasgow suburban railway network as various electrification schemes came to fruition.

Ninety-one 3-car units were built by Pressed Steel at Linwood near Paisley, from 1959–1961, although they were not introduced into service until 1960. A further 19 near-identical Class 311 units were built in 1967 following the Inverclyde electrification, although these units were built by Cravens in Sheffield.

Based on the Mark 1 body shell design, the Class 303 units utilised electrical gear made by Metropolitan-Vickers (Metrovick). The Class 303s were originally dual voltage - parts of the North Clyde Line and Cathcart Circle electrification was limited to 6.25 kV (rather than the standard 25 kV arrangement) due to limitations in insulation technology, although this feature was rendered redundant as 25 kV was eventually standardised across the entire line. Following a series of transformer explosions, caused by defects in the 6.25 kV/25 kV changeover equipment, the entire stock of Class 303s had to be hastily withdrawn from service after only a few weeks' service! The old steam-operated service was temporarily reinstated whilst urgent modifications were made. This also delayed the handing over of the Cathcart Circle service to electric operation.

1.2 Design & Specification

Builder	Pressed Steel
Locomotive Weight	124t
Vehicle Length	65ft (19.81m)
Vehicle Width	9ft (2.74m)
Seat Capacity	236 Seats
Vehicle Power	829bhp (618kW)
Top Speed	75mph (121Km/h)

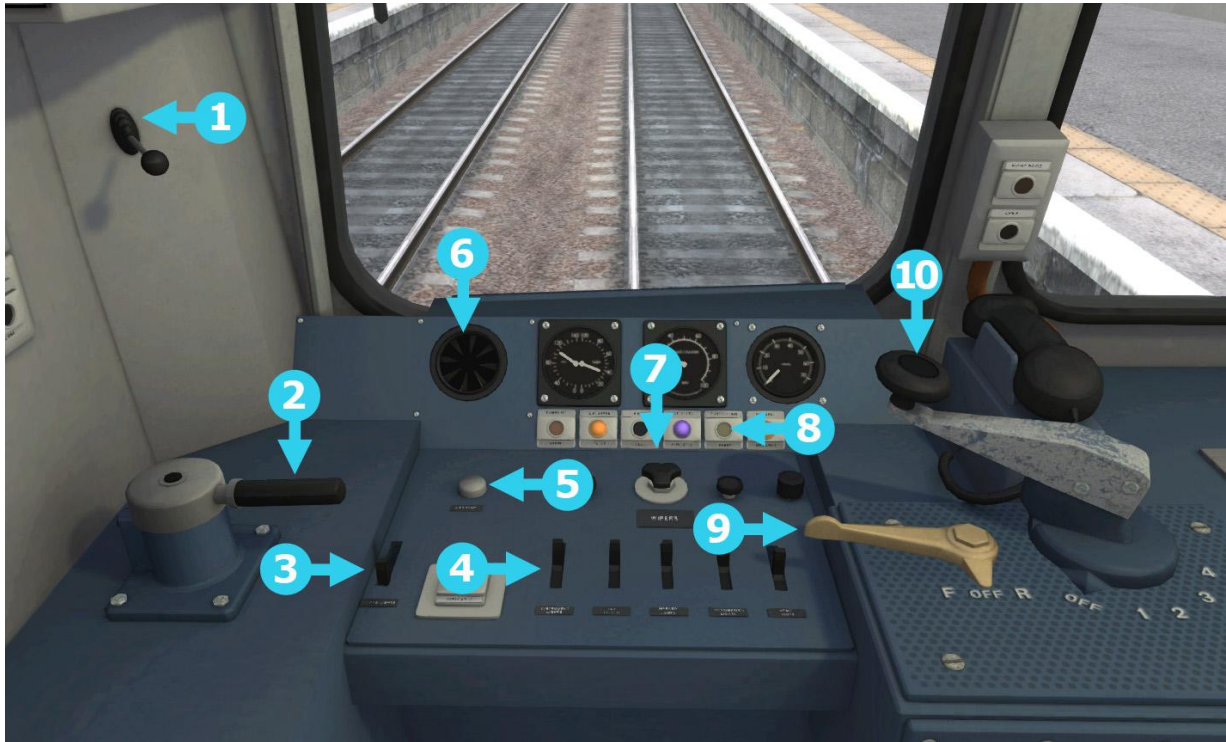
2 Rolling Stock

2.1 Class 303



3 Driving the Class 303

3.1 Cab Controls















1	Horn	6	AWS Sunflower
2	Train Brake Handle	7	Wiper Control
3	Cab Light	8	Pantograph Connected/Disconnected
4	Instrument Lights	9	Reverser
5	AWS Reset	10	Throttle Lever

3.2 Locomotive Keyboard Controls

Key Equivalent	Action
D A	Decrease or Increase Throttle.
S W	Move Reverser Control Forward or Backward.
: ;	Decrease or Increase the Train Brake.

3.3 General Keyboard Controls

Key Equivalent	Action
	Load/Unload. Passengers or Freight.
	Lights. Repeatedly pressing will cycle through headlight states where appropriate.
	Windscreen wipers. Press once to switch on and again to switch off.
	(Expert) Engine Stop/Start. By default engines will already be running at the start of a scenario. Press this button to stop and then again to restart the engine.
	(Expert) Alerter. The Alerter is a system used on some trains to ensure that the driver has seen a signal. If the alert sounds (a black/yellow striped symbol is shown on the Driver's display), this must be acknowledged by pressing the Alerter button or the emergency brakes will be applied.
	Horn. Sound the horn.
	Handbrake On/Off. This icon is displayed in the Coupling view.
  	Couple Manually. (See tutorials in the Driving section of the Academy)
	Pantograph. Raise and lower the pantograph.
	Cab Light. Press once to switch on and again to switch off.

4 Scenarios

4.1 [303] Lanark Leccy

Description: Following a night of intense storms, a revised timetable is now in place due to a masonry collapse at Dalmarnock which has resulted in the line being blocked. The majority of lower level services are cancelled, but trains from Lanark are terminating at Glasgow Central High Level. Be prepared for delays!

Briefing: Starting at Lanark Jcn, you are currently awaiting a path on to the mainline. Once given the signal to proceed, you will then drive your service to Glasgow Central, calling at several stations along the way.

Duration: 50 Mins

Difficulty: Medium

4.2 [303] Leaving Larkhall

Description: You are in charge of an early morning commuter service and will drive the section between Larkhall and Rutherglen.

Briefing: You are currently at Larkhall, awaiting your departure time of 08:36. Open the doors and allow passengers to board before departure. You will be calling at Merryton, Chatelherault, Hamilton Central, Hamilton West, Blantyre and Motherwell.

Duration: 35 Mins

Difficulty: Medium

4.3 [303] Lower Level Electric

Description: This morning you will be driving a Class 303 service from Dalmuir to Motherwell and will take charge at Glasgow Central Lower Level.

Briefing: You are currently at Glasgow Central Lower Level, awaiting your departure time of 11:18. Open the doors and allow passengers to board before departure. You will be calling at Rutherglen, Cambuslang, Uddingston, Bellshill and Motherwell.

Duration: 35 Mins

Difficulty: Easy

5 Acknowledgements

Dovetail Games would like to thank the beta testing team and QA department for their contribution to the development of the Class 303.

