



## Wickness Models Soundscape EM2 Class 77

**Manufacturer:** -

Wickness Models **Project number:** - WMEM2-1

**Project version:** - SSV1-Grand Station

### British Rail Class EM2 Class 77

Power type	Electric
Builder	BR Gorton Works
Build date	1953–1954
Total produced	7



Seven locomotives of this type were constructed. They represented the first Co-Co type of overhead electric locomotive built for use in the United Kingdom. The design was based on that of the smaller Class EM1, which dated from 1941. Initially, 27 locomotives of this type had been planned, but by the early 1950s, the benefits of using the 25 kV AC system had been demonstrated, which meant that the Woodhead Line would be an isolated electric system. Consequently, the order was cut to just seven locomotives.

The locomotives were initially numbered 27000-27006 and were painted in BR black livery. Construction took place at Gorton Works, Manchester with electrical equipment supplied by Metropolitan-Vickers. All seven were named after characters from Greek mythology in 1959-1960. They were primarily used for express passenger trains between Manchester Piccadilly and Sheffield Victoria. In 1957, the class was renumbered with the addition of an "E" prefix to the number. In the early 1960s, the class started to receive the standard BR green livery. At least one of the class, E27002, received the electric blue livery carried by the AC electric locomotives.

The class was withdrawn en masse in September 1968. They were stored at Bury by BR in the hope of sale to a foreign railway. The passenger service for which the Class 77s were built continued to be operated by Class 76s, until its withdrawal on 5 January 1970. The Woodhead Line was closed as a through route in 1981, leaving just stubs between Manchester Piccadilly and Hadfield in the West and Sheffield Victoria and Deepcar in the East.

Forty more powerful class 46 electric locomotives were built by Metropolitan-Vickers in the mid-1950s for the New South Wales Government Railways. The class 46 was based on the EM1 and EM2.

In September 1969 the entire class was sold to the Dutch national railway operator Nederlandse Spoorwegen, where they became NS 1500 Class. They were renumbered in the 1500 series in the order they left their workshops, where they received various modifications, including new headlight clusters. The locomotives also retained their names. One locomotive, no. E27005 Minerva was broken up and used for spares. The remaining six locomotives were employed until final withdrawal in 1986. Their main work was on The Hague—Cologne express trains as far as the border at Venlo although they travelled to their home depot at Maastricht either with a train or light engine on Sunday for their weekly examination before returning to traffic the following day. They were sometimes to be found on freight trains bound for the German border originating in the Rotterdam area.

**Decoder Type:** - V4, V4 Micro, V4XL Speed Steps: 128

**CV63 Main Volume:** - 128(Max 192) Speaker: (4-8 Ohm)

**Volume CV's Column:** - Relevant CV's to adjust individual sound volume

Key	Function	Volume CVs	Volume values
F0	Directional Headlight		
F1	Startup/Shutdown	259	96
F2	Air Horn	275	128
F3	Station Announcement	283	128
F4	Engine Fan	291	128
F5	Compressor	299	128
F6	Shunting Mode		
F7	Curve Squeal	371	100
F8	Aux 1		
F9	Valve	323	128
F10	Conductors Signal	331	128
F11	Coupler	315	128
F12	Sand	339	128
F13	Brake Release	355	128
F14	Panto Up-Down	395	96
F15	Short Airhorn	379	128
F16	Door Open-Close	387	96
F17	Oil Cooler Fan	411	128
F18	Station Announcement	363	128
F19	Sound Fader		
F20	Disable Brake Sound		
F21	Main Soundscape	443	128
F22	Acceleration		

**Acceleration** - assigning this option disables momentum effects

**Shunting mode** – this option halves speed, useful in yard operations

**Fade out sound** – when enabled fades the sound to the volume setting for “Fade sound” (CV133) in the “sound settings” section; allows simulating going into tunnels, buildings, etc.

**Disable brake sound** – when engaged turns off automatic brake sound (CV459 (CV32=1))

**Volume control** – when set, allows setting volume in 6 steps by toggling the function key on and off, once per step. Changes the master volume in 6 steps (CV 62)

