



Bulletin: CP Class 1400

Decoder type LokSound 5
Address 3
Manufacturer Sudexpress
Project number 14492
Project version V3-R1



The Série 1400 are a series of 67 diesel-electric locomotives built for the Portuguese Railways (CP) between 1967 and 1969. They have a top speed of 105 km/h. They were ordered primarily to replace steam locomotives then still in use on CP. Designed and engineered by English Electric, they are closely modelled mechanically on the British Rail Class 20 locomotives but using a more powerful 8CSVT 1330 bhp engine. The locomotives were designed for the 1668mm (5' 5") Iberian track gauge and larger loading gauge than possible in Great Britain. The first ten were built in England at the Vulcan Foundry in Newton-le-Willows, but the remaining locomotives were assembled in Portugal by Sorefame. The locomotives share many components with the larger and more powerful Série 1800. During the early years of 21st century some have been sold for further service in Argentina, but as of 2012 many remain in service with CP. Different starting processes can be selected with

F1: 1x press button = warm start / press button 2x = false start / press button 3x = cold start

F5 enables the heavy load mode: The diesel notch is always one up compared with normal operation. If you want to jump two notches, simply set CV 104 to 150 (instead of 130).

F8 turns on the manual notching. Once F8 is on, you can use F7 to notch up and F6 to notch down. F8, F6, and F7 must be turned off to return to normal mode. If F8 is off and you press F7, the prime mover will run to full speed.

F9 can increase the speed of the spirax valve by double-clicking it. The speed levels are slow, medium and fast.

F12 slows down the locomotive slowly.

F17 will bring the locomotive to full stop.

F21 and CV 168 = value 0 or 1, can switch between a "normal" or a "squeaking" wiper.

F23 and CV 169 = value 0 or 1, can switch between the "Automatic Warning System (AWS)" or the "Train Protection and Warning System (TPWS)".

F27 and CV 164 = Value 0, 1, 2 or 3, can switch between different rail joints (three coupler can be activated with CV 165 = value 1).

Key	Function	Sound slots	Volume CVs	Volume values
F0	front light	29	483	25
F1	sound on/off	1, 22	259, 427	140, 18

F2	air horn (high)	4	283	230
F3	horn (low)	3	275	235
F4	radiator fan	5	291	100
F5	heavy load	32	507	90
F6	acceleration/brake time, shunting mode/shunting speed			
F7	curve squeal	15	371	115
F8	air let off	9	323	100
F9	spirax valve	26	459	200
F10	conductor's signal	10	331	85
F11	coupling/buffering	8	315	165
F12	brake function 1 (with brake valve sound)	25	451	125
F13	Cablight			
F14	rear red light			
F15	station announcement #1	7	307	150
F16	open/close cab door	12	347	140
F17	brake function 2 (emergency brake)	24	443	70
F18	station announcement #2	14	363	150
F19	apply/release hand brake	30	491	35
F20	apply locomotive brake/locomotive brake release (automatically)	13	355	60
F21	station announcement #3	16	379	230
F22	station announcement #4	20	411	150
F23	automatic warning system (aws) / train protection and warning system (tpws)	31	499	70
F24	compressor	6	299	255
F25	sanding valve	11	339	55
F26	sound fader			
F27	manual notching down			
F28	manual notching up			
F29	manual notching logic on/off	27	467	0
F30	rail clank	17	387	95
F31	disable brake squeal sound			