Class 20 Diesel Locomotive
SOUND FITTED Information

Important: Please read this sheet before running your locomotive.

Many thanks for purchasing one of our **Bachmann Branchline** Class 20 SOUND FITTED Locomotives. Please take the time to read through this sheet carefully before running your locomotive to ensure you get the most out of your model.

Decoder Info.

Decoder & Speaker Spec.
Decoder: Zimo MX645P22
CV1 Address: 03
Speed Steps: 28/128
Speaker: 0.7/1 Watt / 8 Ohm 11 x 15mm

For Best Results.
Please make sure your DCC system is set to run on 128 speed steps to obtain the very best results from this decoder.

Keeping the track, wheels and pick-ups clean are essential to ensure good electrical contact and will also contribute to the decoder working to it's best ability.

Loco Decoder Address.
This model is set with a default decoder address of 3.

Running on DC.
Your model is equipped with a Zimo MX645P22 sound decoder, this will still operate on DC powered track with directional lights and basic Prime Mover (engine) sounds, which vary with speed, plus any other automated sounds.

Please note: If this model is to be controlled with an analogue (DC) output controller Bachmann Europe PLC recommend the use of a controller with a smoothed output. If you intend to use a feedback type controller, or one with PWM (pulse width modulation) please consult the controller manufacturer before using it with this model.
Do not use with Electronic Track Cleaners.

Please note: This model should be removed from the track if you are changing the address of another model with an E-Z Command Control Centre.

Useful Notes

F7. Speed Lock *(Latch)*
F7 On - Fixes the speed of the locomotive and allows the throttle contol to be used to control the engine power sounds without effecting the speed.

F8. Cold Start / Failed Start *(Latch)*
F8 On - F8 On before engaging F1 will play the Priming Pump sounds before the engine starts to crank. There are several variations to this feature.

F8 On, F1 On, F8 Off (within 15 secs.) - Priming Pump sounds for 15 secs. before engine cranking begins.

F8 On, F1 On - Priming Pump plays for 15 secs., Off for 10 secs, On for 5 secs, Off for 10 secs. Continues until F8 turned off and then engine cranking begins.

F1 Off During Engine Cranking - Failed Start! Disengage F1 & F8 before starting again.

Please Note! During the Cold Start Sequence the engine will settle into a Cold Idling Speed once the Engine cranking has come to an end. **You must** Re-engage F8 for the engine to spool down and transition into a Warm Idle, then dis-engage F8.

YOUR LOCOMOTIVE WILL NOT MOVE UNTIL THE SIMULATION IS COMPLETE AND F8 IS TURNED OFF.

F25. Spirax Valves *(Latch)*
F25 On engages the spirax valves, these will only play after the engine has been running at a warm idle for some time.

Turning **F25 Off** will cause the sounds to slow, fade and eventually stop. If re-engaged after a few seconds the sprax valve sounds will settle at a slower rate until turned off.

Function List - Class 20

No.	Function/Sound	F Button Suggested Setting	Sound Type
0	Directional Lights - On/Off	Latch	Switch Sound
1	Warm Engine Start-up / Shut-down	Latch	Fixed Length
	F8 On* - Cold Engine Start-up	Latch	Variable Length
2	Brake	Trigger	Brake Sounds
3	Single Horn (Speed Related)	Trigger	Fixed Length
4	Two Tone Horn (Speed Related)	Trigger	Fixed Length
5	**On** - Light Train	Latch	-
	Off - Heavy Train		
6	Engine Idle / Coasting	Latch	Continuous Play
7*	Speed Lock	Latch	Continuous Play
8*	Cold Start	Latch	Variable Length
9	Flange Squeel (Speed Related)	Latch	Variable
10	Guard's Whistle	Trigger	Fixed Length
11	Buffer Up	Trigger	Fixed Length
12	Coupling	Latch	Fixed Length
13	Cab End High Intensity Light (if fitted)	Latch	-
14	**On** - Night Mode Directional Lights (if fitted)	Latch	-
	Off - Day Mode Directional Lights (if fitted)		
15	Detonators (Speed Related)	Latch	Variable
16	Priming Pump	Latch	Continuous Play
17	Wagon Snatching & Buffering (F5 off only)	Latch	Continuous Play
18	**On** - Driver's Door Open	Latch	Fixed Length
	Off - Driver's Door Closed		
19	Fade All Sounds	Latch	-
20	Nose End Directional Lights - Off	Latch	-
21	Cab End Directional Lights - Off	Latch	-
22	Cab Light On (Only when stationary)	Latch	-
23	Window Wipers	Latch	Continuous Play
24	Compressor	Latch	Continuous Play
25	Spirax Valves	Latch	Continuous Play
26	Shunting Mode	Latch	-
27	Volume Down	Trigger	-
28	Volume Up	Trigger	-