

Paragon3 Diesel Revs and throttle control.
(Decoder Revisions 6 and Above)

CV203 = Load Sensitivity:

Decreasing this value makes the locomotives rev up/rev down more sensitive to a load (whether it be overcoming the strain on the motor incurred by increasing speed, a string of cars, a grade, or all three).

Just like a real diesel locomotive, the engine will rev up a notch or two above the desired speed during acceleration, but once the that speed is reached it will rev back down to the level necessary to maintain it and "cruise".

A locomotive by itself will probably not trip the power routine so lash some cars up to make the engine "work harder" and rev up as it would prototypically, or lower the value of CV203 if you want the engine to rev up/down more while riding along on a flat surface with no cars attached.

When getting up to speed from idle, the engine rev up is due truly to the load induced by overcoming the locomotives' inertia.

CV204 = Initial Rev Up:

User can now set this to their liking.

From a stopped condition, throttle up to throttle speed step one.

The locomotive will ramp up after a short amount of time to the rev level contained in CV204, but not move.

The locomotive will then move out at throttle speed step two, and if decreased back down to throttle speed step one, the locomotive will continue at the slow speed of throttle speed step one.

CV201:

This is the set point at which the locomotives' revs change over from "automatic" or "load dependent", to "manual" or "throttle movement dependent".

For example: Let's say CV201=12. (The 12 can be programmed by the user anywhere from 1-128).

In this scenario, UP TO speed step 12 the revs will change automatically based on load. After step 12 the throttle up/down movements control the rev level. Each throttle movement will increase the rev level, so if you scroll your throttle wheel 5 steps up - the engine will rev up one notch and hang there. If you scroll your throttle wheel 1 step up - again, the engine will rev up one notch and hang there. Each throttle movement notches up the rev level, not to be confused with each speedstep increase or decrease.

F5 revs the up engine with each press. F6 revs it back down. Once you've started using F5 and F6 to manually manipulate the sound, you will need to throttle back to 0 to restart the default automatic/load control.

CV246:

Bit1 in CV246 will enable/disable motor loading. If you would like to have the engine revs react purely on throttle movement, set CV246=130.