

Bachmann Rail Truck (82395) en

Conversion of a Bachmann Narrow Gauge Rail Truck (Fig. 1) with an “eMotion L” locomotive decoder.

The vehicle has a simple DCC interface on the electronics board.

Since the description of the interface is quite good here, the decoder is connected to it.

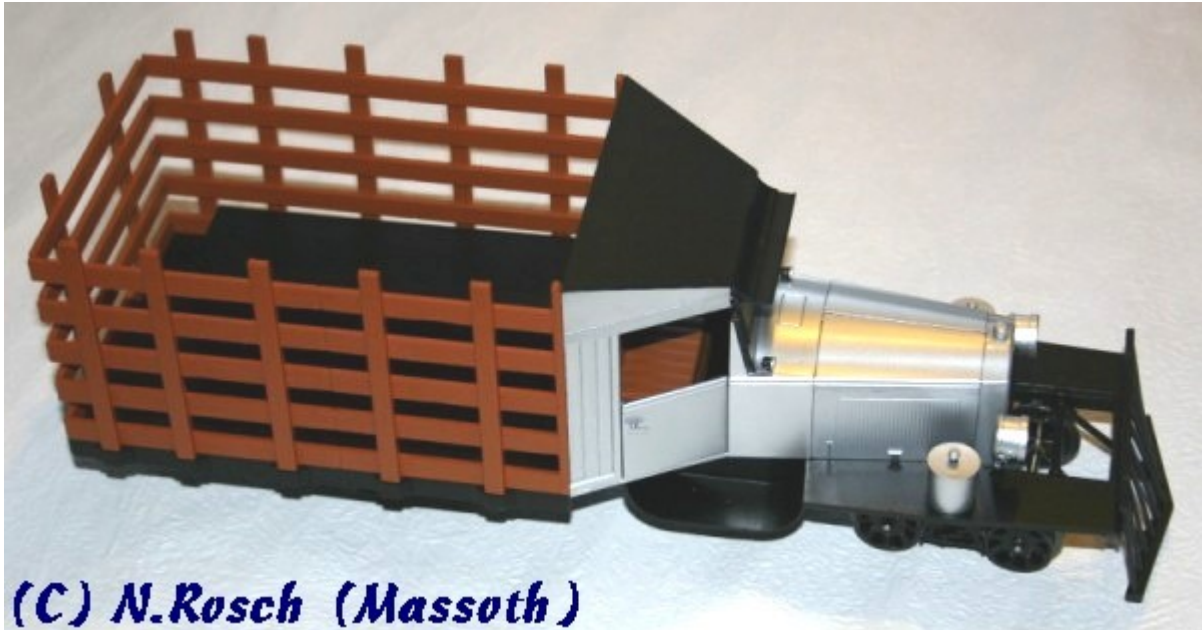


Fig. 1: Bachmann Railtruck

Needed parts:

1x eMotion L Dekoder (8154001)

Retrofit: (Fig. 2)

- Remove the electronics cover on the loading area.
- Remove the red, black and blue cable as described in the terminals 1,2 + 3.
- Unsolder “green” cable at the decoder, solder “red” from the locomotive.
- Solder the “yellow” cable at the decoder, solder the “black” from the locomotive.
- Solder the “Blue” cable from the locomotive at the decoder to “LF” (light front).
- Screw the “brown” cable from the decoder in terminal 1
- Screw “White” cable from the decoder in terminal 2

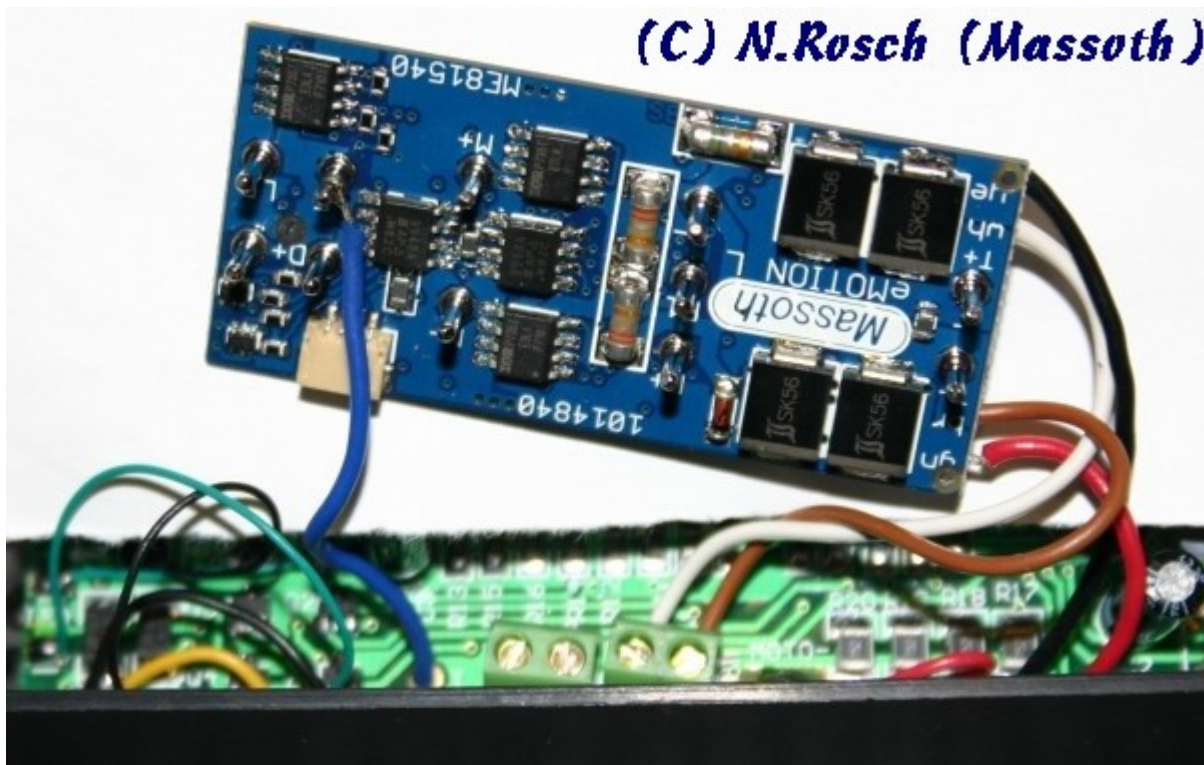


Fig. 2: decoder connector

After successful conversion, the locomotive is tested.

When the direction of travel is correct and the light is switchable, the assembly begins.

An insulation (eg several layers of paper) is placed on the main board in order to avoid a short circuit with the decoder.

The decoder is placed with the pins down on the insulation. (Fig. 3).

Finally, the lid is again snapped onto the box.

Advanced options:

Since the current consumption over the 3 axles outdoors is not convincing, the installation of a buffering elko is recommended.

I use a 1000 μ F / 35V with a 150 Ohm charge resistor and a 1N4007 discharge diode. The buffer circuit is simply connected to decoder “+” and “-“.

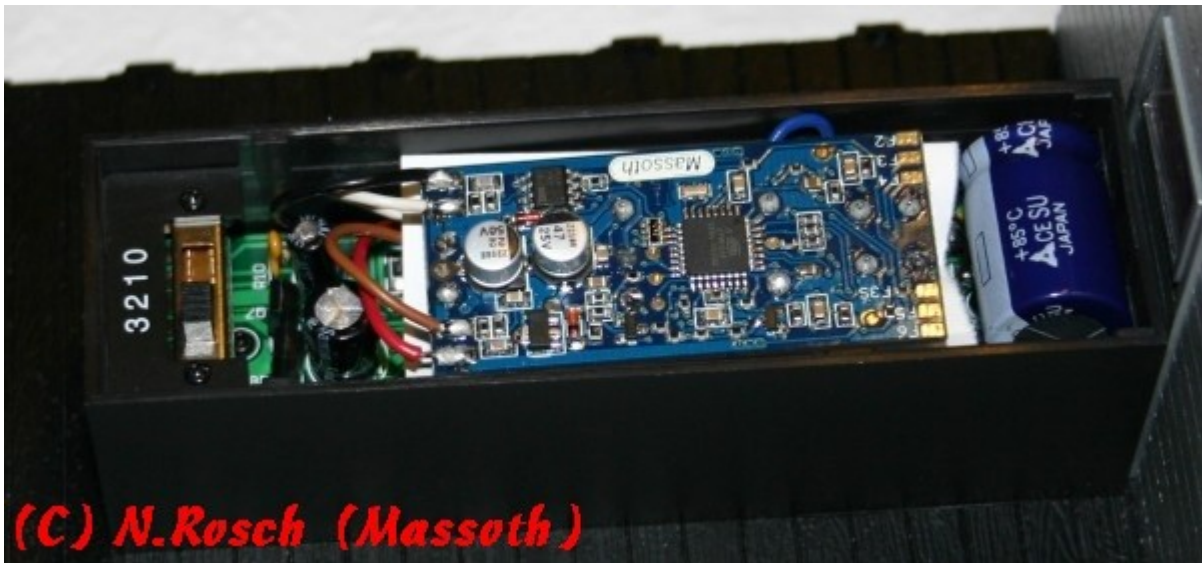


Fig. 3: Finished conversion including buffering

Here is a supplement.

Due to customer feedback, there seem to be different versions of the interface.

On some boards, an elko is located at the motor output of the interface.

This does not allow a slow drive in the case of high-frequency control.

The engine then runs fast in almost every drive stage.

If you also have the problem with the conversion, the following additional change must be made.

- Remove red + black interface cable from base or isolate.
- Unsolder the two thin red motor cables (Moto +, Moto-) on the base plate. (See red circles)
- Connect the motor cable to the decoder (green)
- Connect Moto + with the motor cable to the decoder (yellow)

Thus, the motor is connected directly to the decoder.

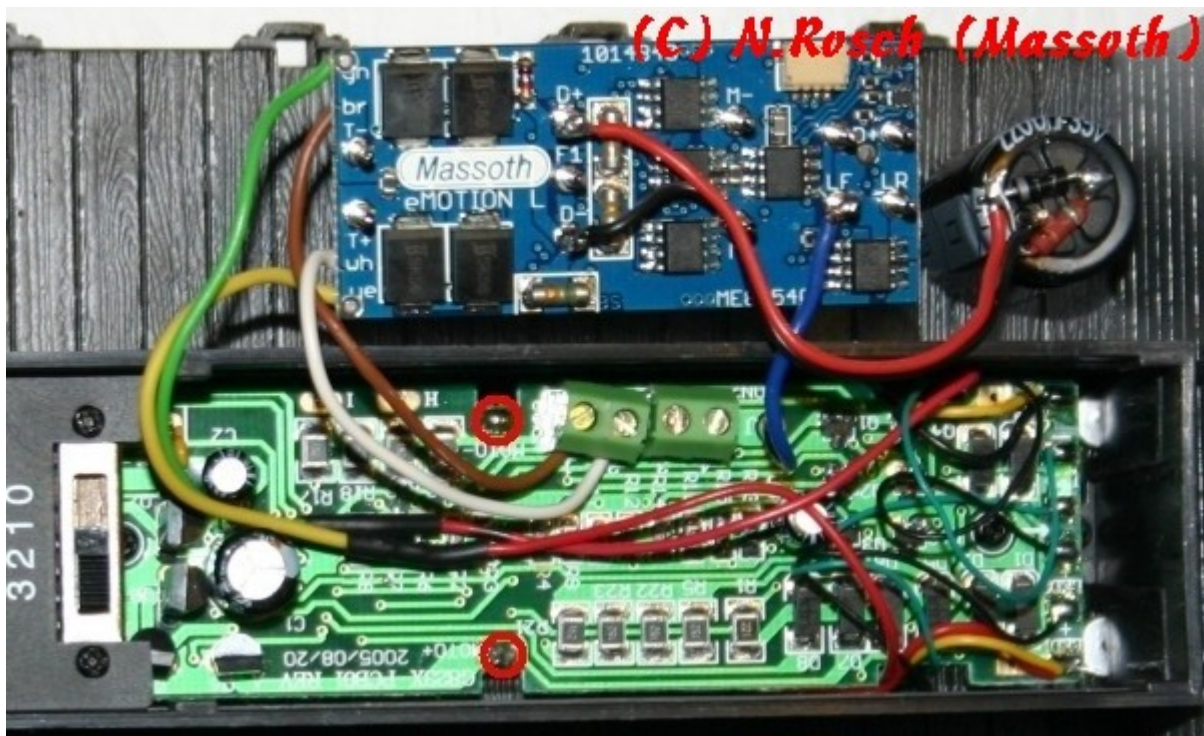


Fig. 4: Direct motor connection

And again a little supplement.

Since I don't like the electronics box on the open loading area, I have simply made a change attachment.

Nach entfernen der Bordwände kann der Personenaufbau einfach aufgeschoben werden.

It consists of an old Playmobil car.

A new flat roof, elevation of seats, new paint and a set of massoth figures.

In addition, an indoor lighting was connected to the F1 output of the decoder.

The vehicle is ready for the company tour.



(C) N. Roseh (Massoth)

Fig. 5: Railtruck after conversion to the "Goose"