

Bachmann Two Truck Shay en (82197)

Backfitting of a Bachmann Two Truck Shay (Fig. 1) with a “eMotion XL” loco decoder.

This loco is equipped on the electronics board with a simple DCC interface. Best way is to connect the decoder directly.

The original PCB stays with the remaining cables in the loco, to decommission again later.

Do not let deterred by the many cables. On the PCB only 20 cables to be rewired to the decoder, and the rest remains as it is.

Following parts will be connected:

Motor, Light front and rear, Light cabin, boiler fire and fire ash box light.

The smoke generator is during these retrofit initially disregarded because the specifications are not clear.

Take the rewiring necessarily against cable for cable. Since the same colors are used more than once may otherwise be confused.

The cables for light front and rear and fire lights needs additional resistors.



Fig. 1: Bachmann Two-Truck Shay

Needed Parts:

1x eMotion XL Decoder (8150001)

6x Resistor 1W (2x 1,0k + 4x 1,5k)

Backfitting: (Fig. 2+3)

- Remove Water lid on the tender and release screw underneath.
- Remove tender from chassis frame
- Compare the cable colors to the plan in Figure 2 ! Eventuelle Unterschiede markieren

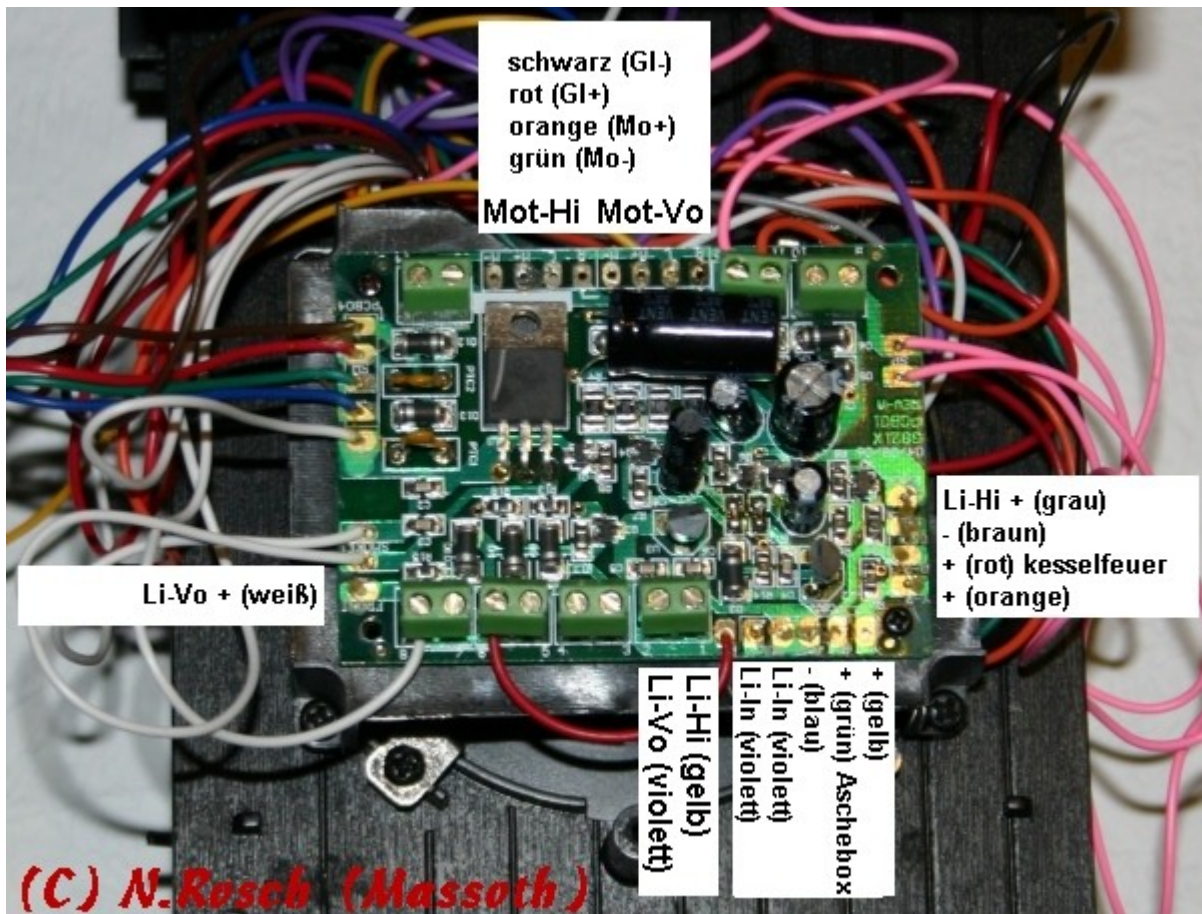


Fig. 2: Original base PCB (removed cables are marked)

- unsolder the 8 motor cable from the motherboard and connect it color-correct in the 4 decoder terminals.
- unsolder or unscrew the 4 cable from the front light and rear light.

(Screw +cable white + grey direct to Dec+)

(Screw -cable violet + yellow each with 1kOhm to LV eg. LH)

- Connect the 2 cables of light cabin (violet) to Dek+ and F2
- Unsolder the 6 cable of firebox simulation and connect it with decoder.

(+Cable green, orange, yellow + red each with 1,5kOhm to Dek+)

(-Cable brown to F3 (firebox) and blue to F4 (ash box light))



Fig. 3: eMotion XL with all needed cables

Additional a better photo for reconnecting the cables.

Unsolder the cable which is provided with a number or letter and screw it in place on the decoder at the same number (or letter).

The additional “w” means, that between the cable and the decoder above named resistor must be switched.

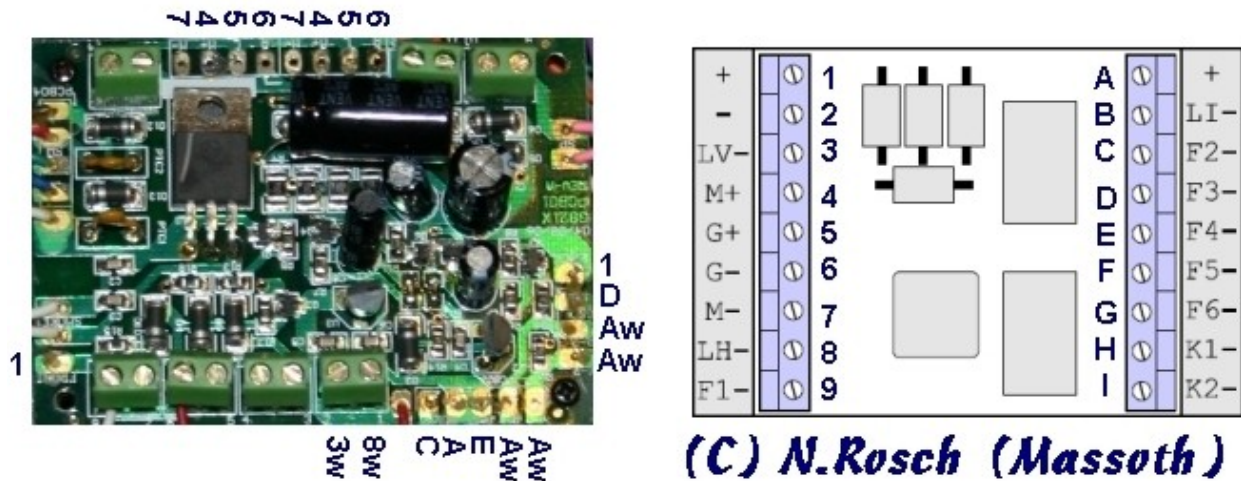


Fig. 4: Rewiring plan

After a successful backfitting, the locomotive should be tested. Special programming is not necessary.

If the direction is right and the light functions are switchable the locomotive can be reassembled. (F2 = Light cabin , F3 = Firebox , F4 Ash box light)

Additional possibilities:

Output F1 is reserved for smoke unit.