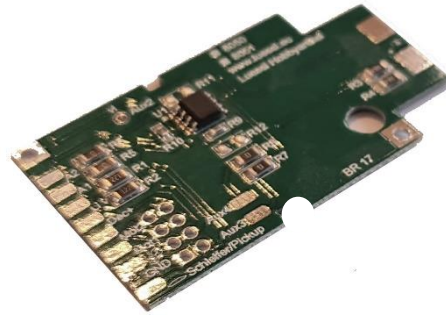


PCB for decoder installation in Märklin BR17, item no. 8050/8051

The circuit board has been developed for the Märklin locomotives of the series BR 17 and BR 18.1 with long tender and fits exactly in place of the original decoder.

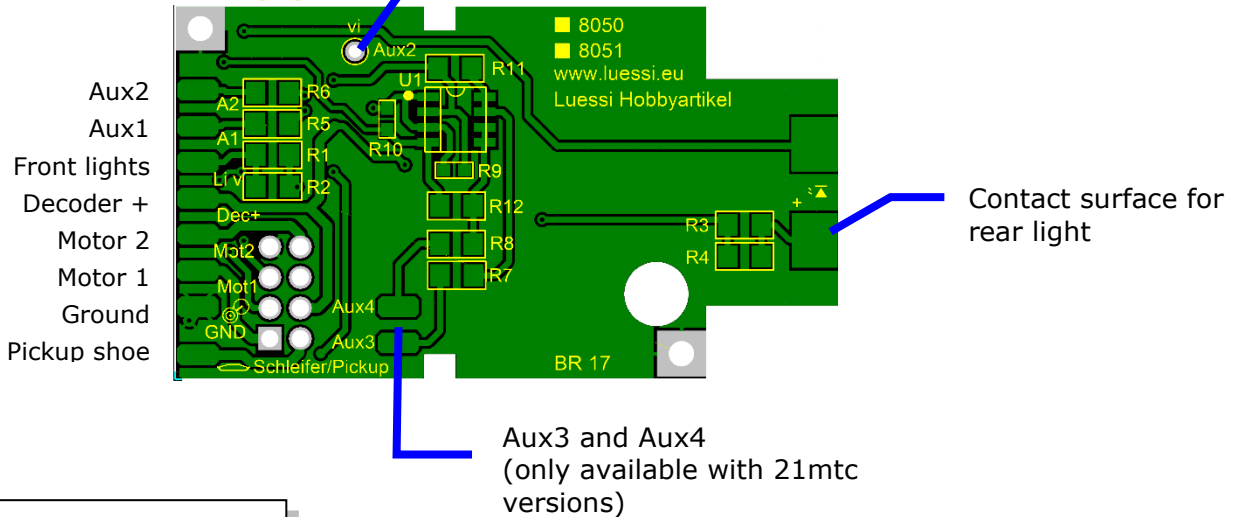
With the 8051mtc version the outputs Aux3 and Aux4 are amplified, with 8050mtc the outputs are led out directly unamplified from the decoder. The 8050 version is supplied with an 8-pole interface.



Loudspeaker connections on the underside (21mtc versions only)



Connection for Aux2 with 8-pin interface (violet)



Pin assignment of the 21mtc interface:

| 21MTC Märklin Farben | |
|----------------------|----------------------------------------------------------------------------------------------------|
| Hallsensor 1 | 1 22 ■ Schleifer, Pantograf |
| Hallsensor 2 | 2 21 ■ Räder, Masse |
| Hallsensor 3 | 3 20 ■ DC (-) Funktionen GND |
| Aux 4 (L) | ■ 4 19 ■ Motor + |
| Zugbus Clock | 5 18 ■ Motor - |
| Zugbus Data | 6 17 Motor (3) |
| Licht hinten | ■ 7 16 ■ DC (+) Funktionen |
| Licht vorne | ■ 8 15 ■ Aux 1 (F1) |
| Lautsprecher 2 | ■ 9 14 ■ Aux 2 (F2) |
| Lautsprecher 1 | ■ 10 13 ■ Aux 3 (L) |
| Verdrehschutz | ⊗ 12 Vcc +5V Prozessor |

| 21MTC NEM Farben | |
|------------------|--------------------------------------------------------------------------------------------------|
| Hallsensor 1 | 1 22 ■ Schiene rechts |
| Hallsensor 2 | 2 21 ■ Schiene links |
| Aux 6 (L) | 3 20 DC (-) Funktionen GND |
| Aux 4 (L) | 4 19 ■ Motor rechts (+) |
| Zugbus Clock | 5 18 ■ Motor links (-) |
| Zugbus Data | 6 17 Aux 5 (L) |
| Licht hinten | ■ 7 16 ■ DC (+) Funktionen |
| Licht vorne | ■ 8 15 ■ Aux 1 |
| Lautsprecher 2 | ■ 9 14 ■ Aux 2 |
| Lautsprecher 1 | ■ 10 13 Aux 3 (L) |
| Verdrehschutz | ⊗ 12 Vcc +5V Prozessor |