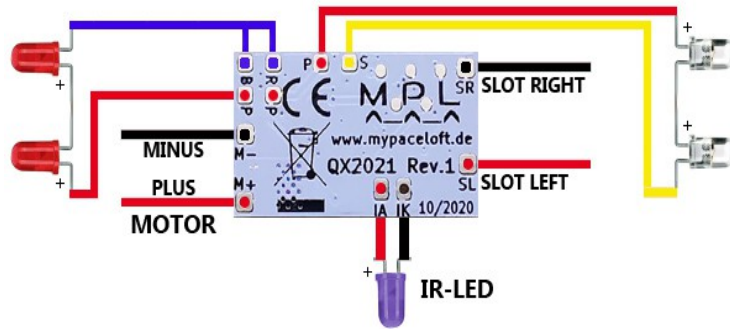


**Slotcar micro Digital Decoder QX2021 - with Ghostcar™ funktion**  
**Picture 1**



**Polarity of a standard LED**



**A = anode "plus"**  
 (Identifiable by the longer wire)  
**C = cathode "minus"**  
 (Identifiable on the flat side of the housing)

**Technical specifications**

Minimum operating voltage 12,0 Volt DC  
 Maximum operating voltage : 18,5 Volt DC  
 Size (L x B x H): 24,5 x 15 x 3 mm  
 Net weight 1,4 g.  
 Underside without components  
 Suitable for 18D engines  
 From version QX2021 Rev.2 also for 13D  
 tune engines.

**Decoder connections**

see picture 1

If a separate brake / taillight is not required, a bridge must be soldered in between solder pads **B** and **R**. This works best if you lead the cable through solder pad **B** to solder pad **R** on the back and solder the cable to both solder pads. The LEDs are connected via Plus + **P** and switched via ground.

**R** = tail light / **B** = brake light / **S** = headlight

**Delivery state QX2021-K & QX2021-P (combined brake / tail light)**

If using vehicles with separate brake & tail lights, the solder bridge between B and R must be disconnected, and an additional wire must be attached to solder pad R."

It is easiest and safest if the cables are fed through the holes in the soldering pads and soldered on the back. The soldering pads must not be drilled open. Drilling the solder pads will cause malfunctions. The solder pads are contacted.

**Installation instructions**

To mount the IR diode in the front area, drill a hole with a diameter of 3.0 mm to the left of the center of the chassis. Solder the cables according to the connection diagram (picture 1). The IR diode with socket can be soldered directly to the board or positioned at a suitable point in the car with cables. The decoder can be attached to the appropriate location in the chassis using hot glue or double-sided adhesive tape (not included).

**!! When installing in vehicles with tuning motors, please note the following: The area under the Mosfet (the Mosfet is, viewed from the rear, above the garbage can symbol) must be kept clear so that it does not overheat.**

**When attaching with double-sided adhesive tape or a hot glue gun, this area should be left out generously so that the Mosfet is ventilated.**

### **Notices**

The pitlane function is only possible using the CU 30352 of Carrera®.

### **Recommendations**

If disruptions occur in the railway protocol, we recommend installing a 47 - 100 nanofarad interference suppression capacitor in parallel with the motor connections.

### **Important**

To change settings, the slotcar has to be placed on the track in the driving direction. Any change in programming is confirmed by flashing lights. Settings are saved until a new programming is carried. The slotcar has to be de-energized for at least 3 seconds to recode!

10 speed levels and braking levels can be set on the CU. With other software solutions such as Cockpit-XP or Open Lap, the basic speed and brake can be set in 16 steps.

### **Encoding to an according speed controller**

Start the encoding by pressing the CODE button on the CU once and complete the process by pressing the lane change button on the speed controller.

### **Setting the basic speed**

By pressing the SPEED button on the CU select the desired speed level and confirm by pressing the ENTER button on the CU.

### **Setting the braking effect**

By pressing the BRAKE button on the CU select the desired braking level and confirm by pressing the ENTER button on the CU.

### **Light on/off**

The slotcar must be located at least 3 seconds at a stand still on the track. Then the light can be switched on or off by pressing the lane change button on the speed controller.

### **Encoding the ghostcar™**

Start the encoding process by pressing the CODE button on the CU twice and continue the process by pressing the lane change button on the speed controller. While the lights are flashing, use the speed controller to bring the slotcar to the desired speed and complete the process by pressing the lane change button on the controller.

### **Safety Information**

**Warning!** Small parts – choking hazard - Not suitable for children under 14 years.

This device is marked with the symbol for the selective disposal of electrical equipment ( WEEE ).

This product must be disposed in accordance with the EU Directive 2002/96 / EC in order if necessary to minimize resulting environmental damage.

For further informations about our products visit our homepage.