

Item No LS4810 Signal Kit

Light Distant Signal, 1:220 (Z) Vr0/Vr1

D Dieses Produkt ist kein Spielzeug. Nicht geeignet für Kinder unter 14 Jahren!

GB This product is not a toy. Not suitable for children under 14 years!

F Ce produit n'est pas un jouet. Ne convient pas aux enfants de moins de 14 ans!

Made for:
Lokshop eK
Froschhöhle 9
D - 76229 Karlsruhe
Tel.: +49721/490350
Fax: +49721/4903520
E-Mail: mail@lokshop.de

 10 - 16 V, DC/AC



The following instructions should be read carefully!



Congratulations!

You have bought a high-quality product, supposed to give pleasure during assembly and use. Please read these instructions carefully before assembling or using the product and check if the content of the packaging is complete.

Safety advices

This kit contains small parts which can easily be swallowed by children. Not suitable for children under 14 years!

The electric and electronic components may only be run with approved low-voltage transformers. The components are sensitive to heat and may only be exposed to high temperatures for a short time. Do not "roast"!

A soldering iron develops temperatures up to 400°C. Do not leave it unattended! Keep distance to combustible materials and use a heat-resistant base-pad for work. Any electrical connection-work may only be done when disconnected from the main power supply.

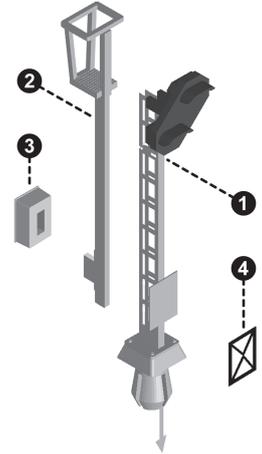
All sources of current must be secured against short-cut in order to prevent fire. Resistors are necessary for regular function. Lamps run without resistors will be destroyed. Resistors may not be covered with insulating materials in order to guarantee sufficient cooling.



Please check at first if the kit is complete. In case of damaged or missing parts due to the sellers improper packing, please send back the whole package.

Content:

- 1** 1 mast, pre-assembled with wired signal-screen, post-plate and foundation
- 2** 1 back part of mast with basket
- 3** 1 switchbox
- 4** 1 post plate, self adhesive
Without illustration:
- 5** 1 diode
- 6** 4 resistor
- 7** 1 shrink-tube, black
- 8** 2 shrink-tube, green
- 9** 2 shrink-tube, yellow



The following tools are required:

- Small edge cutter
- Flat pliers and pointed tweezers
- Soldering iron with thin tip, solder (pref. Ø 0,5 mm)
- Superglue

Assembly:

For a better control, you can tick each finished work-step in a box at the left side of the text.

- 1.** Unwind carefully and conscientiously the cables at the signal screen. Looking at the back of the screen, you will see 4 cables soldered on in two groups of two cables. One single cable is soldered on at the right edge. First, lead the two pairs of cables

through the mast (from top to bottom). Always take just one cable. If you take two cables at one time, they will get stuck. Be careful, cables can easily be torn! Before leading through the fifth cable, you should use the following trick in order to prevent it from getting stuck: remove the insulation of the cable (length: approx. 2 cm), lead it through the mast as far as possible and then pull it out using slender pliers or tweezers.

Be careful! In order to avoid damage, do not hold the signal at the screen. Do not squeeze the mast!

- 2.** If all cables are lead through, mount the back part of the mast (2). Click it into place by pushing it downwards. Fix the top with superglue.

- 3.** Now the switchbox (3) is being mounted on the pin at the bottom of the back part of the mast (2). Fix it with a drop of superglue. Make sure the imitation of the hinges is at the bottom.

- 4.** Glue the post plate (4) onto the holder at the front side of the mast.

- 5.** Solder the diode (5) on the single cable which is already uninsulated. Important: the diode belongs to this single cable at the edge of the screen, otherwise the LED's will be destroyed!

Shorten the uninsulated part of the cable to a length of approx. 3 mm. The marking ring of the diode (5) must tend towards the cable! Insulate the junction with black shrink-tube (7). Shrink on with hair-drier or hot-air-gun. Attention: the shrink-tube should be mounted onto the cable before soldering! (Fig. 1)



Fig. 1

- 6.** The resistors are now being soldered on the other 4 cables.
 Take any cable and remove insulation (length: approx. 3 mm). Connect it provisionally with a resistor. Connect the other end of the resistor with a source of current. Now look which LED is glowing. Disconnect provisional junction, solder the resistor on the cable and insulate the junction with a shrink-tube matching to the colour of the glowing LED. (Fig. 2) Mark the cable e.g. with a sticker or inscribe the position of the LED on the shrink-tube (= green above, green below...). So you don't have to try which LED belongs to which cable later.



Fig. 2

- 7.** Tip: Paint back of circuit-board with black colour.
 You only need a hole with a diameter of 4 mm to mount the signal on the bearing plate. (Fig. 3) Pull the cables with resistors through the hole and plug-in the signal. Connect cables with the control system. There should remain a little loop of about 3 cm of length so you can lay down the signal in case of maintenance works.
 The cable with black shrink-tube is the common anode (+).

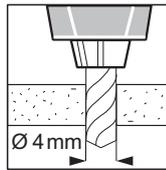


Fig. 3

Warranty:

As we aren't able to exert influence on correct and appropriate assembly, we can only guarantee the completeness of the kit and the immaculate condition of its parts. We guarantee the function of the modules in the state of not being mounted and the technical specifications of the model in case of correct and appropriate assembly and operation as shown in the instructions.

There is no warranty or liability for damages or resulting damages in relation of this product. We reserve repairs, amendments, delivery of spare parts or recompense.

Any further claims are excluded.

The following criterions are decisive for the expiration of warranty or rejection of repair:

- soldering with acidic tin-solder, flux or the like
- soldering, gluing or assembling the kit in an inappropriate way
- alterations or arbitrary repairs
- arbitrary alteration of model or circuit
- outplacement of parts or improper wiring etc.
- usage of parts not belonging to this kit
- destruction of circuits or soldering spots
- wrong wiring and resulting damages
- overloading the assembly
- damages caused by third persons
- damages caused by oblivion of instructions
- connection with wrong voltage or current
- wrong polarity of assembly
- operating errors or damages caused by breach of security or misuse
- damages caused by bridged or wrong fuses.

In all cases listed above the kit will be sent back at the expense of the customer.