

# Item No LS4812 Signal Kit

## Light Home Signal, 1:220 (Z) Hp0/Hp1/Hp2

**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"!

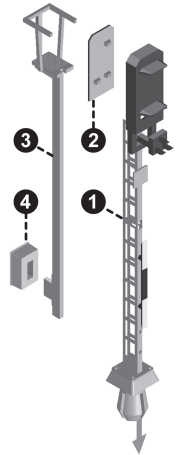
A soldering iron develops temperatures up to 400°C. Do not leave it unattended! Keep distance to combustible materials and use a heat-resistant base-pad for work. Any electrical connection-work may only be done when disconnected from the main power supply.

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 signal screen, post plate, foundation and plate for signal number
- 2 1 circuit board with 3 LED's
- 3 1 back part of mast with basket
- 4 1 switchbox
- Without illustration:
- 5 1 diode
- 6 3 resistor
- 7 1 cable
- 8 1 shrink-tube, black
- 9 1 shrink-tube, green
- 10 1 shrink-tube, red
- 11 1 shrink-tube, yellow
- 12 1 labels



### The following tools are required:

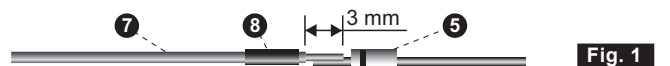
- Small edge cutter
- Flat pliers and pointed tweezers
- Soldering iron with thin tip, solder (pref. Ø 0,5 mm)
- Superglue

### Assembly:

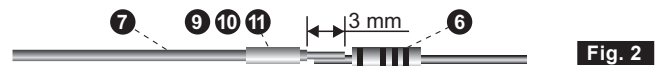
For a better control, you can tick each finished work-step in a box at the left side of the text.

- 1. Shorten the cable into 4 pieces of equal length. Uninsulate the ends of all cables (length: approx. 3 mm) and tin-plate them.
- 2. Lead the cables through the mast (1) so that approx. 20 cm of the cables remain outside at both ends.

- 3. Solder one of the cables (7) on the diode (5). The black ring must tend towards the cable! Insulate the junction with black shrink-tube (8). Shrink on with hair-drier or hot-air-gun. Attention: the shrink-tube should be mounted onto the cable before soldering! (Fig. 1)



- 4. The other cables are being soldered on the resistors (6). Insulate the junctions with the other shrink-tubes (9, 10). Attention: shrink-tubes should be mounted onto the cables before soldering! (Fig. 2)



- 5. Solder the cables on the circuit-board (2), which is not yet inserted into the signal screen according to Fig. 3. (LED's are placed at the front side.) Solder only a short time! Do not "roast"! The LEDs and the circuit board are sensitive to heat. Use only little solder! Take care that the fields are not being connected electrically!



- 6. If all cables are soldered on correctly, check the function of each LED before you insert the circuit board into the screen. To do so, connect each LED with the the alternating voltage output of a commercially available model-railway transformer. The cable insulated with black shrink-tube is the common anode ('+'). (Attention: Die LEDs may never be run without resistor and diode!)

- 7. Then the circuit board (2) is being inserted into the signal screen. Gently pull out the cables at the bottom of the mast (be careful!). Make sure the cables are being pulled through from top to the bottom.

**8.** After that, mount the back part (3) of the mast (1). Click it into place by pushing it downwards. Fix the top with superglue.

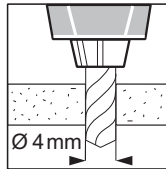
**9.** Now the switchbox (4) is being mounted on the pin at the bottom of the back part of the mast (2). Fix it with a drop of superglue. Make sure the imitation of the hinges is at the bottom.

**10.** To mark the signal, cut out one of the labels (12) and fix it at the plate below the screen at the front side of the mast (1).

Tip: Paint back of circuit-board with black colour.

**11.** You only need a hole with a diameter of 4 mm to mount the signal on the bearing plate. (Fig. 4) 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. 4**

## 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.