

Item No LS4800 Signal Kit

Semaphore Home Signal, 1:220 (Z) Hp0/Hp1 one arm

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!

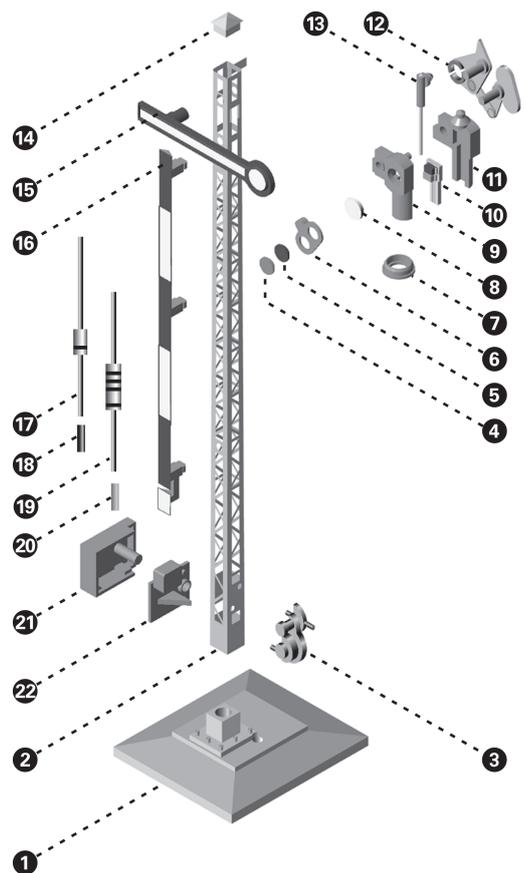
F Ce produit n'est pas un jouet. Ne convient pas aux enfants de moins de 14 ans!

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 10 - 16 V, DC/AC



Content:



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.

- | | | | |
|----|---------------------------------------|----|---|
| 1 | 1 base plate | 15 | 1 signal arm |
| 2 | 1 signal mast | 16 | 1 post plate |
| 3 | 1 imitation of lantern-winch | 17 | 1 diode 1N4148 or similar |
| 4 | 1 filter-lens, green | 18 | 1 shrink-tube, black |
| 5 | 1 filter-lens, red | 19 | 1 resistor, 820Ω (grey, red, brown, gold) |
| 6 | 1 lantern-screen | 20 | 1 shrink-tube, yellow |
| 7 | 1 base of lantern-case | 21 | 1 imitation of drive casing, front part |
| 8 | 1 filter-lens, white | 22 | 1 imitation of drive-casing, back part |
| 9 | 1 front of lantern-case | | Without illustration: |
| 10 | 1 circuit-board with 2 LED, green/red | 23 | 1 positioning wire |
| 11 | 1 back part of lantern-case | 24 | 1 cable |
| 12 | 1 positioning mechanism | 25 | 1 labels |
| 13 | 1 socket of positioning-wire | | |
| 14 | 1 mast top | | |

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:

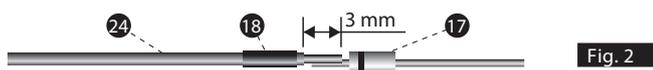
For a better control, you can tick each finished work-step in a box at the left side of the text.

1. Cut the cable (24) into two pieces of equal length, then remove the insulation of both parts at both ends (approx. 3 mm) and tin-plate it. Be careful, the cable can easily be torn!
2. Shorten that lead of the diode (17) where the black ring is tending to up to a length of approx. 3 mm [Fig. 1]



Fig. 1

3. Solder one of the cables on the shortened lead of the diode (17). Then insulate the junction with black shrink-tube (18). Shrink on with a hair-drier or hot-air-gun. [Fig. 2]



4. Shorten one of the leads of the resistor (19) up to a length of approx. 3 mm (direction of resistor is negligible) and solder on one end of the second shortened cable. Insulate this junction with yellow shrink-tube (20) [Fig. 3]



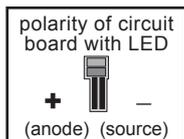
5. Insert the unworked ends of both cables into the central big opening of the base-plate (1) and then pull them from the bottom up through the mast (2). Lead-through both cables as shown in Fig. 4.

6. After that, insert both cables into the base of the lantern-case (7). [Fig. 5]



Fig. 5

7. The LED's are mounted on a small circuit board. Due to Fig. 4 the cables have to be soldered on using as less solder as possible. Pay attention to the polarity and solder on only for a short time!



Attention!
Circuit board with LED may never be connected without resistor and diode!

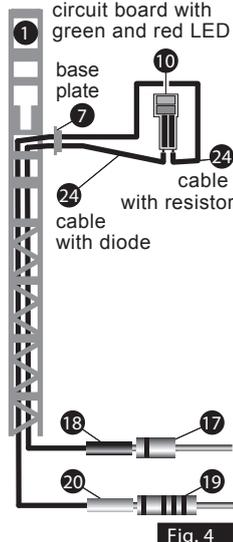


Fig. 4

8. Insert circuit board with LED into lantern-case (9, 11) as shown in Fig. 6. Put both parts of the case together and then mount the base of the lantern-case. Finally insert white filter-lens (8) into the opening. [Fig.6]

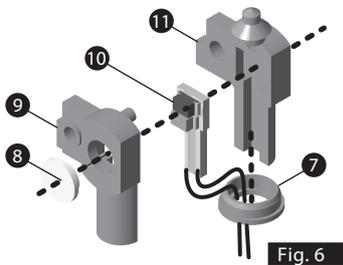


Fig. 6

9. If all parts are mounted and soldered correctly, the mast (2) can be mounted onto the base plate. Fix it with a drop of superglue. Make sure the position of the signal mast is equal to the position shown in the overview-drawing. ["content"]

10. Now it is time to check the illumination. Connect both cables with the alternating voltage output of a commercially available model-railway transformer. Both red and green LED's should glow. If the lantern does not work, check conscientiously in comparison with the figures above: wiring, power source, soldering joints. Don't continue until the lantern works properly.

11. Now the lantern can be inserted as shown in Fig. 7. After that, gently pull out the cables at the bottom of the signal mast (be careful!) so that a little loop between mast and lantern remains.



Fig. 7

12. Now the pre-assembled positioning mechanism can be inserted carefully into the matching holes at the back of the signal mast and of the lantern. The pin at the lantern-screen has to be pushed into the lantern's hole [Fig. 8]. The other pin belongs to the hole in the signal mast.

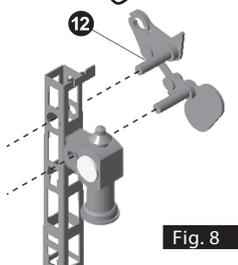


Fig. 8

13. Now the signal arm (15) is being mounted on the axle which is sticking out at the front side of the mast [Fig. 9]. The positioning mechanism is now also being fixed. The position of the signal arm does not matter at this time, its exact arrangement will be done later.

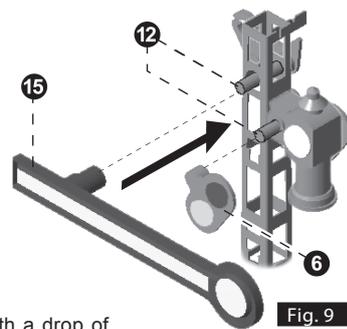


Fig. 9

14. Insert filter-lens (4, 5) according to Fig. 10 into the lantern-screen, fix it with very little superglue if necessary.

15. The lantern-screen (6) is now being attached to the axle of the positioning mechanism which is now sticking out at the front side of the lantern [Fig. 9].

16. Place the mast top and fix it with a drop of superglue.

17. The post-plate (16) is now being inserted into the matching holes at the front side of the mast. Fix it with a drop of superglue.

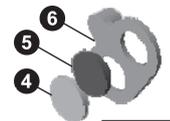


Fig. 10

18. Now the imitation of the lantern-winch (3) has to be inserted into the matching holes at the bottom of the mast. Fix it with a drop of superglue [Fig. 11].

19. The back part of the drive casing (22) is now being glued into the matching holes at the bottom of the mast [Fig. 11]. Make sure that the case juts out to the front side. After that, mount the front part (21) of the casing.

20. Push the socket of the positioning wire (13) onto the undulated end of the wire (23). After that, stick the wire from above into the matching hole of the base plate (1) (position: left side, looking from the front). Then clinch the socket (13) into the matching eye of the positioning mechanism (12).

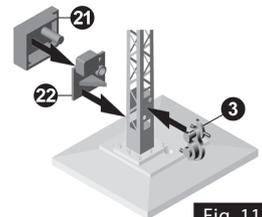


Fig. 11

21. Finally the positions of the screen and the signal arm have to be adjusted precisely, so that the position of the light-signal fits to the one of the semaphore signal.

22. To mark the signal, cut out one of the labels (25) and fix it at the bottom of the post plate (16). [Fig. 12]

23. The base plate needs a hole with a diameter of 13 mm. Insert the cables from above and finally plug-in the signal. [Fig. 1]



Fig. 12

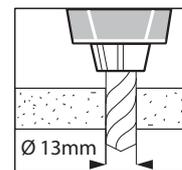


Fig. 13

24. The decision how the drive will be connected with the positioning mechanism is up to the buyer and depends on the chosen drive