

Instructions

Art-Nr: 7026 Electronic locomotive lighting Ae 3/6 white
Art-Nr: 7036 Electronic locomotive lighting Ae 3/6 yellow

1. These parts are not suitable for small children. There is a danger of swallowing.
2. The product type 7026 can be seen in figure 1. These instructions are part of the product. Please retain them well. Do not worry about the yellow component having a white LED and the white component having a yellow LED. Also, if you illuminate the white component, it looks a bit weird. The white light with a touch of yellow does not appear until the component is put in its place inside the car body and behind the light conductor.
3. These components are made for voltages up to 16 volt. The components are suitable for digital trains. Only employ the components for their intended usage. Incorrect application and overvoltage can destroy the product. We do not assume any liability for any damages caused by incorrect usage.
4. All the parts of the component are firmly soldered. Do not try to pick and handle the components with any tools, avoid any impacts and do not try to squeeze them into the body. If you find any of the soldering points damaged, do not try to resolder them yourself. The small LEDs are extremely sensitive to heat. Soldering for too long or at too high temperatures will destroy the LEDs. If any of your LEDs are damaged, better contact your local dealer, he might be able to help.
5. These lighting electronics will only work if the original lighting has been working before. If the original bulb has not been working before, you should first repair your locomotive. Try with another bulb. You won't need it anymore in the locomotive afterwards, but you can use it for a different purpose afterwards. Before building in the LEDs, it is absolutely necessary to do a function test of the locomotive to make sure the original locomotive lighting is working correctly. Only then you can be sure that the new lighting electronics with the two small electronic components will be working as well.
6. For the installation of the electronics, open the locomotive by removing the body.
7. Remove the original bulb by turning the bracket aside, so that both of the bulb wires are laying open. Take the bulb out in a downward direction, this might be easier with the help of some tweezers.
8. Both diodes have to be by-passed with the two pieces of wire enclosed. These have to be soldered in from below as shown in figure 2. If you do not feel yourself able to do this or need any help after trying it, please contact your local dealer.
9. Now take one of the electronic components out of the package. Of course both the LEDs will be pointing into running direction, and since both components are exactly the same, the LEDs can be built in on any side of the locomotive, see figure 3.
10. The two thin, upright standing wires have to be threaded from below through the two holes in the board, see figure 4.
11. The two wires are poking out above and the component is leaning a little aslope as seen in figure 5. Now use your fingers, not any tools, to push the component from the front towards the back, so that in the end it stands straight and upright inside the recess at the undercarriage, see figure 6.
12. Now bend the two wires towards running direction, thus to the front, as seen in figure 7.

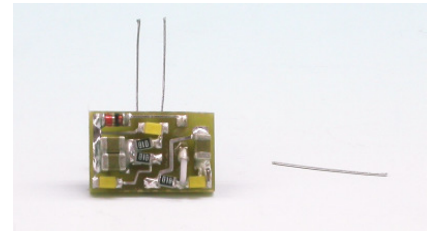


figure 1: One of the components of Ae 3/6

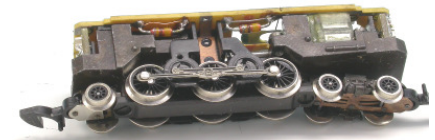


figure 2: By-passing of a diode with the enclosed

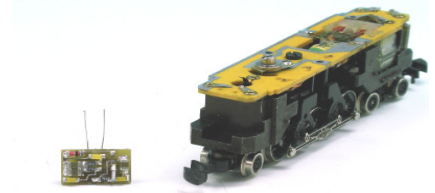


figure 3: The bulb has already been removed.



figure 4: The component completely fills in the recess.



figure 5: The wires are threaded, the component is



figure 6: Use your fingers to push the component towards the back.

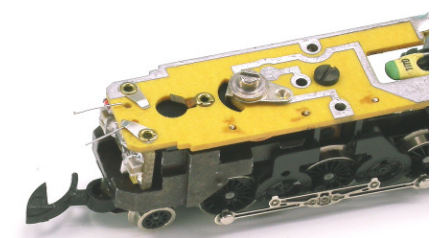


figure 7: Bend the wires to the front

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13. Now turn the brackets back to their original place and establish a firm connection to the wires. In the end, cut off the endings of the wires sticking out in front at the board, see figure 8.
14. Now do a function test by putting the locomotive on the tracks and letting it run into the direction the lighting electronics are pointing. If the LEDs are working, everything is fine. If they are not working, check the contact brackets on the board. If only on one side the LED is working, check the wire link at the diode underneath the board from figure 2.
15. Now take the second component and build it into the other side as described under point 7 to 14.
16. Do a function test again. Now in each running direction, the relevant LEDs should be working.
17. If everything is working correctly, carefully put the body back on. Watch out that no part gets squeezed in and that the body closes completely by engaging into the locking pins of the metal undercarriage.
18. A last function test now shows the terrific improvement. Almost independently from the running voltage, the lights at the outside of the locomotive body now are shining brightly and with an enjoyable color.
19. The only requirement for the new lighting electronics is the use of a pulse-modulated or pulse-width-modulated running controller, as nowadays is used everywhere in the Z-model world. You will get another specially nice effect when using our controller, since thanks to an additional function it still lets the lights shine when the train is standing.
20. We are proud that with our new technology Z-Model Trains have come much closer again to the standard of the Swiss original trains.
21. High Tech Modellbahnen manufactures its products with the greatest possible care. We issue a guarantee and warranty according to legal regulation. Should you find any new product you just bought defective, please contact your local dealer.
22. It can always happen that somebody damages something by inappropriate use or something simply gets broken. Since the parts are very small, it is not advisable trying to repair broken parts by yourself. Please contact your local dealer who might be able to save them instead of a self-repairing try that might end up in a total economic loss.

Now enjoy your new locomotive lighting and always have fun with your model trains.

High Tech Modellbahnen
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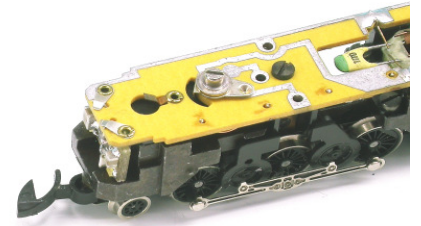


figure 8: Clamp the wires with the brackets and thus



figure 9: Function test forwards, three times white



figure 10: Function test backwards, simultaneously one-time white



figure 11: Hello Switzerland, we are coming...



figure 12: ... but always with the proper lighting