

LED Interior Lighting Sets

Instruction Manual 50703 (380mm)

Manual version 1.0
December 2010



Interior Lighting Sets

General Features

The ESU LED Interior lighting set 50703 uses the most contemporary technique to supply its 16 yellow and 16 warm-white light-emitting diodes (LEDs) with a constantly smooth and warm light. Thanks to its small measurements it is universally usable for gauges 0 to G. The following features make the ESU Interior lighting sets so special:

- Pre-installed constant voltage source for a constantly bright and even light, independent of the track voltage.
- Individually adjustable brightness: Yellow LEDs and white LEDs be set separately.
- The lighting boards can be cut off arbitrarily to fit the cars of all manufacturers.

- To bridge prolonged power interruptions a „Power-Pack“ energy storage is already installed.
- Each Interior lighting set comes with a red taillight.
- Appropriate for DC and AC layouts as well as digital voltage.
- The ESU LokPilot Fx V3.0 (52621) can be directly plugged onto the 21MTC connection.

Interior Lighting Sets

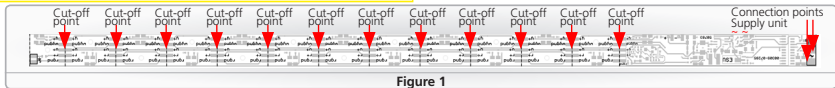
Warning Notices - Please read before use

- The LED Interior lighting sets are exclusively intended for the use with electrical model train layouts.
- The supply voltage must be switched off any time while connection work is carried out!
- When connecting the lighting sets please always stick to the principles expressed here in this manual.
- Protect from humidity! Please do not unnecessarily bend the lighting boards to avoid damage.
- The colour and the brightness of the LEDs may vary a little within the framework of manufacturer's tolerances.

Installation

First of all the lighting board should be shortened to the required length. In order to do so break off the lighting board by hand at one of the pre-carved and marked cut-off points (as shown in figure 1). When breaking off the board please make sure that none of the components and conducting paths will be damaged; the circuit board is meant to break at the exact desired point! Alternatively, you can use a saw.

Oddments can be connected to other interior lighting sets, provided that the maximum of 32 LEDs is not exceeded.



Interior Lighting Sets

If not needed, remove the taillights.

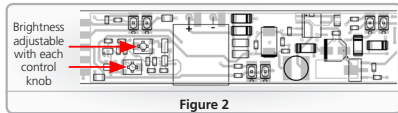
You might need to shorten the soldered supplying cables to the required length. All left and right terminal points on the lighting board are already connected with each other. Therefore one cable per side is sufficient. One side will be connected with the left collector, the other side with the right collector of the waggon. Polarity is not important, every lighting board has an intern rectifier.

If your waggons have current-carrying couplers connect the two supplying circuits alternatively with the coupler contacts.

Fix the lighting boards under the carriage roof with double-faced adhesive tape. Alternatively you may sweep the interior equipment for appropriate anchorage points. In many cases toilet facilities / rest rooms are perfectly suitable for this purpose.

Brightness adjustment

Via the potentiometers as shown in figure 2 the brightness of the yellow and white LEDs can be individually adjusted, as desired. With a skillful brightness adjustment you are able to mix your desired color shade.



Interior Lighting Sets

PowerPack

The as standard pre-installed »PowerPack« energy storage ensures that the lighting functions are maintained, also during a longer-lasting current interruption (e.g. in front of red signals). Wire connections are not necessary, the functions works fully automatically.

Taillight

The taillight can be used on both ends of the lighting board. Please consider the correct polaritay when soldering the wires.

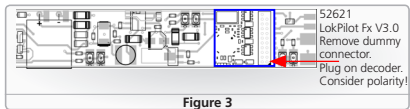
Digital operation

If you wish to switch the circuit board digitally you need the LokPilot Fx V3.0 decoder, ESU Ordering no. 52621. The LokPilot decoder is a multi protocol decoder and can be used for DCC, Motorola® or analogue AC operation.

You only need to remove the dummy connector from the circuit board and plug on the decoder instead. Please make sure that the polarity is correct and the decoder is seated correctly!

Without having to change the settings after the installation the lighting board is now switchable with F1. The taillight is switchable via the lighting key F0 (direction-dependent).

Interior Lighting Sets



Technical data

Supply voltage	4-24V = / ~
Constant brightness	from 6V
Current consumption	max. 90mA
Dimensions	380mm x 15mm