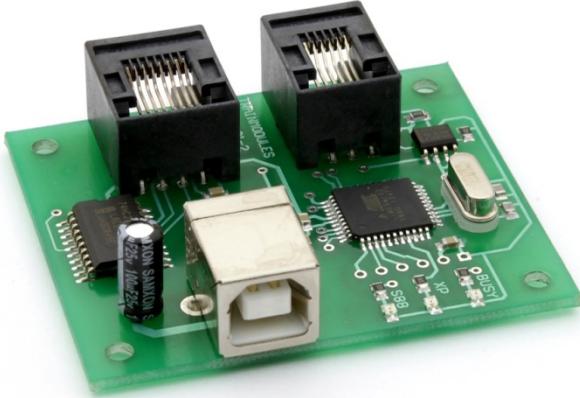
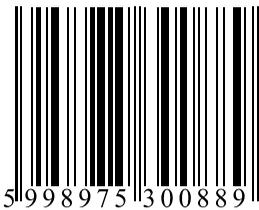


TM-54101



## XpressNet, S88N - PC interface

User's manual



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## Safety precautions

During the operation of the device the specified technical parameters shall always be met. At the installation the environment shall be fully taken into consideration. The device must not be exposed to moisture and direct sunshine.

A soldering tool may be necessary for the installation and/or mounting of the devices, which requires special care.

During the installation it shall be ensured that the bottom of the device should not contact with a conductive (e.g. metal) surface!

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## **Features and properties**

- Can be connected any XpressNet central
- Compatible with Lenz LI101 interface
- Feedback bus (S88) handling
- Easy configurable parameters
- Windows, Linux and Mac compatible

## **Technical specifications**

Input voltage: 5V (USB)

Standby current: 5 mA

Dimensions: 53x50mm

## **Short description**

The PC interface allows control the layout, thereby enhancing the game experience. We can control any locomotive, turnouts or an external device from a computer. Automatic timetables can be created

## **The first time use**

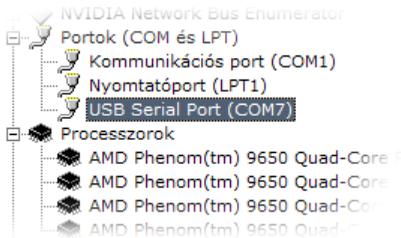
Each module will operate with the following default settings at the first use:

- XpressNet address: 31
- PC Baud rate: 19.200 kbit/s
- S88 initial address: 65 (the previous 64 device addresses are usually occupied)
- Number of S88 modules: 1

It is possible to modify these settings, either with Lenz's LI101 configuring device or with our application. With this latter application, the S88 feedback can be also modified.

## Detecting the COM port address

In order to enable communication between your device and your computer, you must know which communication (COM) port the device is on. For that, please open the device manager under Windows (Start menu -> Run -> *devmgmt.msc*, then Enter.



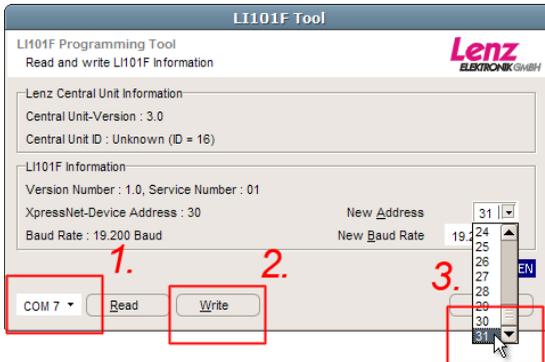
Then search for line “USB Serial Port” under menu point “Ports”. Here you can read that your device is found at the address “COM7” after connecting it to the computer. Obviously it may vary in case of each computer.

## Older versions of controller applications

Please keep in mind that the older versions of TrainController (<5.5), Rocrail, JMRI may not always support port numbers higher than 9, consequently they are able to communicate via ports COM1 – COM9.

In case a port number has to be modified, you can do it under “Right mouse click” -> “Properties” -> “Port setting” -> “Special”. Simply adjust it to an unused port number under 10.

## Basic configuration with Lenz LI101 tool

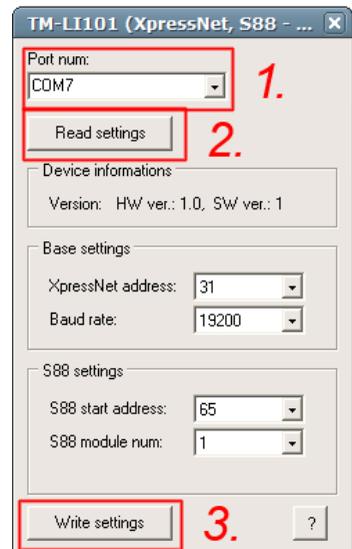


Only the basic settings of LI101F interface can be modified with this utility application made by Lenz, thus your module supports this application because of downward compatibility.

## Configuration with „TrainModules – PC Interface“ application

With this device you can adjust the S88 feedback bus also.

1. Adjustment of the already defined port number. When it is opened, it will check all of the serial ports between COM1 and COM20 and offers only that can be accessed.
2. Please load the current settings. Now all fields are automatically filled. You may read the device hardware and software versions at the part “Device information”.
3. Please remember to save the desired values after adjusting them.
4. After that, unplug the device from the digital centre and from the computer, then please reconnect.

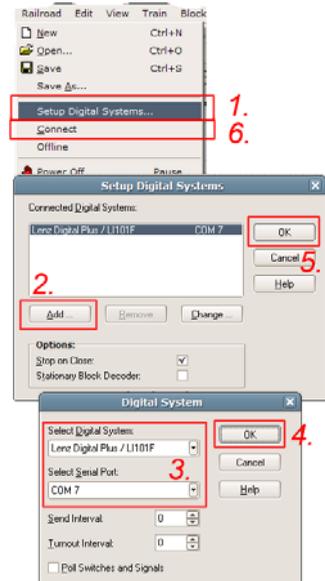


- a. XpressNet address: address of the device

- b. Baud rate: communication speed
- c. S88 start address: starting address of the feedback system
- d. S88 module num: number of modules connected to each other.

## Use with TrainController™ application

1. Adjustment of digital system.
2. Add PC interface.
3. Select adapter "Lenz LI101F", then adjust PORT number (the one you have already read in the device manager and used at the interface configuration). In our example it is COM7.
4. Please click on "OK".
5. Please approve the settings here. You must be able to see the newly added device in the list.
6. If you did not adjust the port, the message "Offline" will appear next to the name of the device.
7. Click on "Connect" in the main menu.

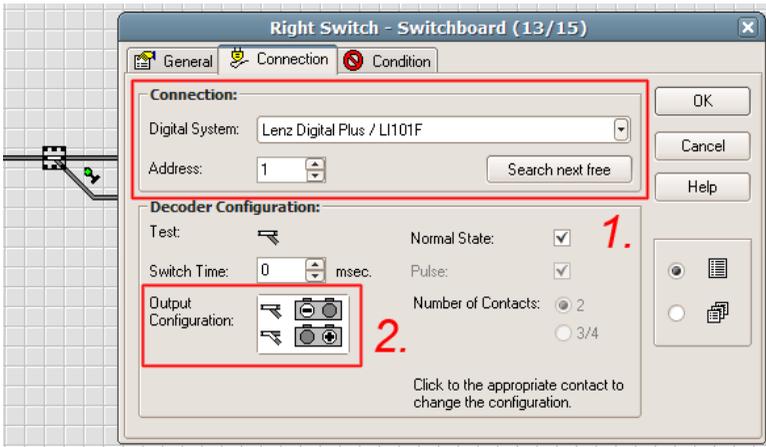


Subsequently the application will be able to communicate with the adapter device.

TrainController will be connected automatically to the interface at the each start of application. In general separate connection is not necessary.

## Use of railway switches

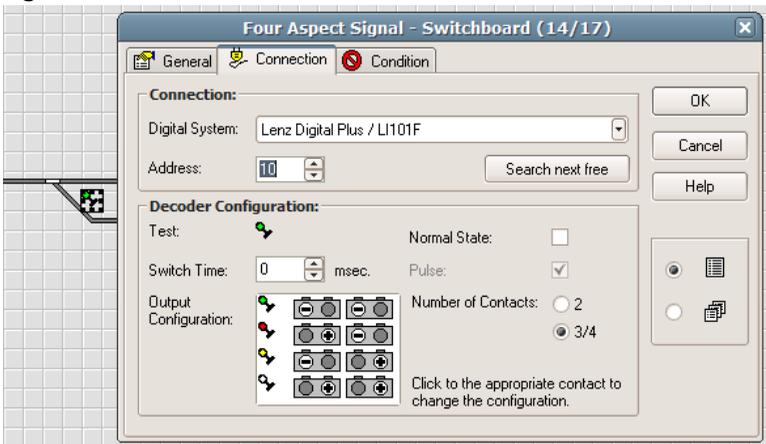
Please always draw the railway line in the first step. Then add the railway switches of which the addresses must be labelled. Please double click on the railway switches.



1. Please select digital system, then give the address of the railway switch
2. If the railway switch operates oppositely to the signal, the problem may be eliminated by exchanging the outputs.

## Use of light signals

The signals are used similarly to the railway switches. It must also be set to the address of the railway switches, but a four-light signals need more than one address.



If – in case of a light signal with three/four lights – you set 10 for the address as indicated in the above example, the signal occupies addresses 10 and 11.

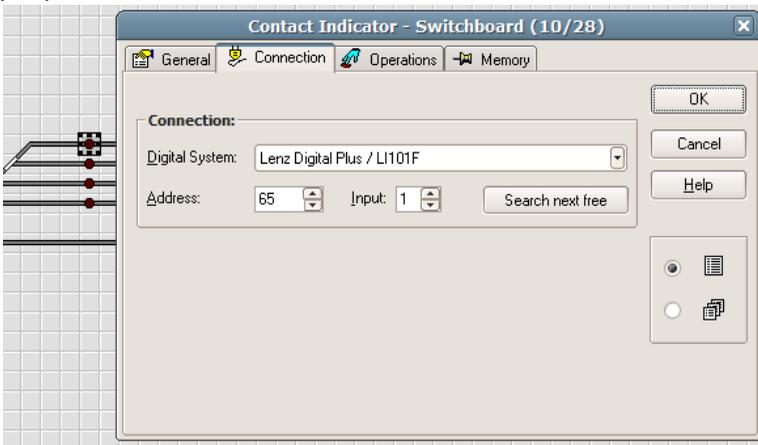
An output configuration belongs to each signal aspect. Marks “+” and “-” indicate whether the given output is switched on in its active or inactive status.

## Railway occupancy and feedback reports

For indicating railway occupancy you will need a railway occupancy sensor (Order no.: 26301) and S88 feedback module (order no.: 78832).

The first S88 feedback module can be accessed on the previously adjusted S88 initial address. Such a feedback module can receive 8 inputs. Therefore, if you use 3 feedback modules, (if 65 is the initial address) their addresses are 65, 66 and 67 moving away from the PC interface. Each of these modules is capable of reporting 8 input statuses, which equals altogether 24 input statuses. You may use 127 such modules in total ( $127 \cdot 8 = 1\ 016$  inputs).

Add an “Indicator” element to the railway line then edit its properties:



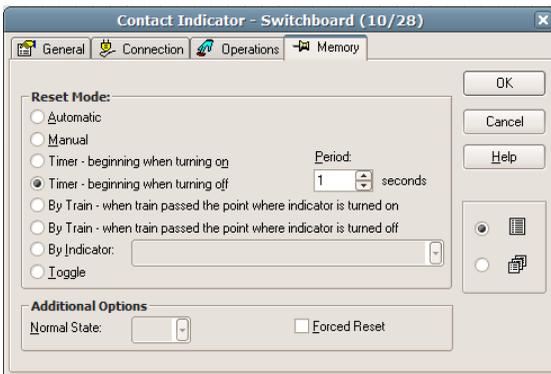
After setting the address of the feedback report module, please adjust the input to which this “Indicator” is connected. These inputs equal with the numbers of inputs (from 1 to 8).

## Allocation of railway line

It is possible to assign a railway line to the feedback report module under tab "General" by "Highlighted track elements". Then you may select click by click which railway section should be illuminated together with the feedback module.

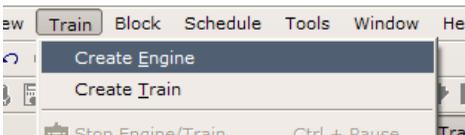
## Noise filtering – at railway line occupancy

One second "Timer, turning off" delay can be found under tab "Memory". By using it, the feedback signal will not blink, but it is turned off with a delay of 1 second.



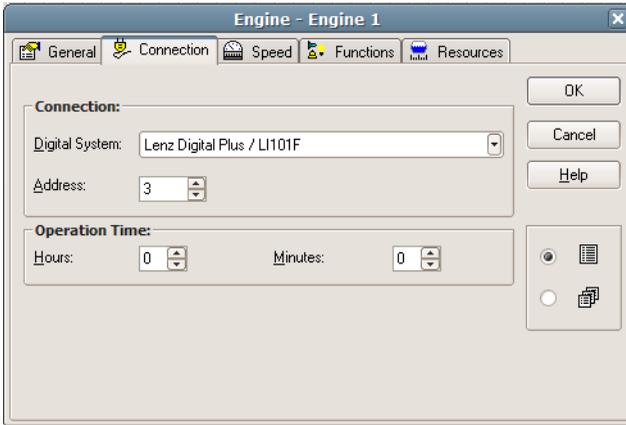
## Engines

Engines must be addressed in the same way. You must create an engine under menu point Train / Create Engine.

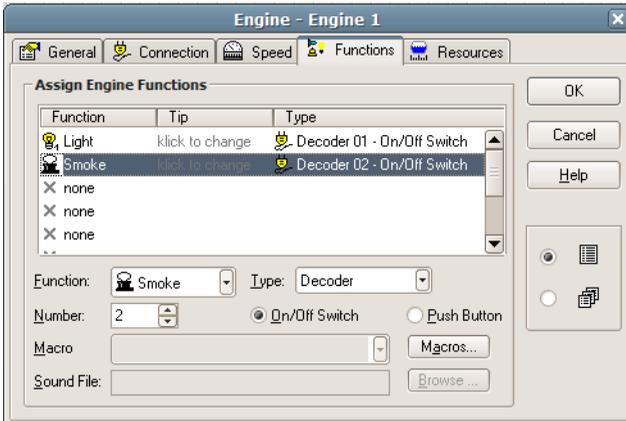


Then you must display the list of engines by means of menu point Window / Train List.

If you double click on the newly created engine, you will see the usual settings:

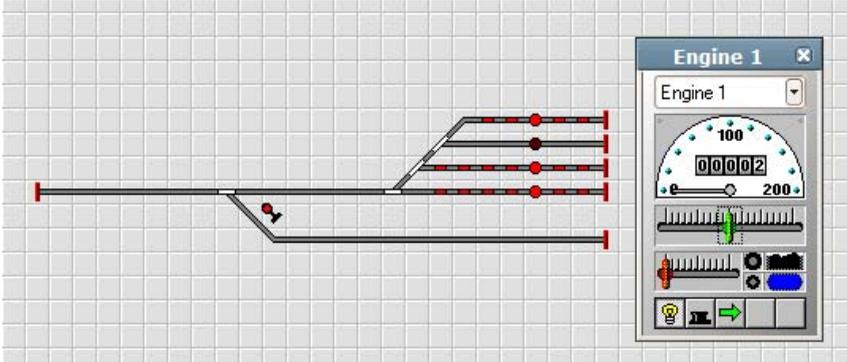


After adjusting the address please also indicate the functions under tab.



## Controlling engines

If you are not in editing mode (switching: Ctrl+E) double click on the previous engine list to obtain the following control panel:



Here you may see the previously adjusted function buttons below (light, smoke generator) together with your current engine and the speed/direction controller.

The application offers countless additional possibilities. The software's Help provides information on further settings and on the use of the application.

## Downloads

PC interface configuration utilities:

<http://www.trainmodules.hu/>

TrainController:

<http://www.freiwald.com/>

JMRI:

<http://jmri.sourceforge.net/>

## Guarantee and legal statement

Each parameter of the device will be submitted to comprehensive testing prior to marketing. The manufacturer undertakes one year guarantee for the product. Defects occurred during this period will be repaired by the manufacturer free of charge against the presentation of the invoice.

The validity of the guarantee will cease in case of improper usage and/or treatment.

Attention! By virtue of the European EMC directives the product can be used solely with devices provided with CE marking.

*The mentioned standards and branch names are the trademarks of the firms concerned.*

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Figure 1.

