- Interface for connecting a PC to a *Digital plus by Lenz* [R] system.

- All system functions can be controlled via the PC (with suitable software).

- Operating system requirements: Windows© 2000 or Windows © XP

- USB interface.

- Baud rate 57,600 Bd.

- Supplied software:
  Tool for setting the XpressNet address
  Throttle control panel
  CV editor for easy configuration of decoder settings.

- Additional information and data protocol on supplied CD.

- Small, space-saving housing.

- All required cables included.

Digital *plus*
by Lenz

Installing the LI-USB Computer Interface

1st edition, 01 05

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Contents

Welcome!

We would like to congratulate you on your acquisition of the USB interface. Please make sure all components have been received:

| USB interface | Connecting cable for the XpressNet | Connecting cable for the USB port | CD "Information and software for USB interface" |

If a component is missing, please ask your dealer for a supplementary delivery.

Important advice, please read first!

The USB interface is a component of the *Digital plus by Lenz*® system and was submitted to intensive testing before delivery. Lenz Elektronik GmbH guarantees fault-free operation if you follow the advice below:

The USB interface may be used only with components of the *Digital plus by Lenz*® system. Any use other than the one described in this operating manual is not permitted and all guarantees shall become null and void if the USB interface is used inappropriately.

Only connect your USB interface to devices which are designed for this purpose. This operating manual will inform you which devices are suitable. Even if other devices (including those of other manufacturers) use the same connectors, you must not operate the USB interface with these devices. *The fact that the connectors are similar does not automatically mean that you may use them for operation*, even if you are dealing with devices for controlling model railways.

Do not expose the USB interface to damp or direct sunlight.

If you have any questions which this operating manual does not answer, please contact us:

	Europe	North America
Postal address:	Lenz Elektronik GmbH Huettenbergstrasse 29 D-35398 Giessen	Lenz Agency PO Box 143 Chelmsford, MA 01824
Phone	++49 (0) 6403 900 133	++1 978 250 1494
Fax	++49 (0) 6403 900 155	++1 978 455 LENZ
Email	info@digital-plus.de	support@lenz.com

If you experience any problems with the USB interface, just contact us, stating the following information:

- The system you are using (LZ100, Compact etc.)
- The version numbers of your system and of your LI-USB interface

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Connecting the interface and installing the USB driver

Use only the cables supplied for the connection.

> *Important advice!*
> *You may not make any other electrical connections between the PC and the model railway layout apart from those via the USB interface as this could damage the components. In this case all guarantees shall become null and void!*
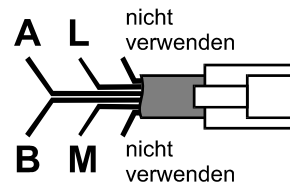
Connection to the XpressNet
Use this cable included in the package to connect the XpressNet.

Plug one end into the USB interface socket "XpressNet" and connect the other to an adapter LA152.

If you want to connect the USB interface to the terminal screws LMAB of a LZ100 or LZV100, simply cut the cable in the middle and connect the cable wires to the corresponding terminal screws. The pin assignment is shown in the illustration on the right.

A L   nicht verwenden

B M   nicht verwenden

Upon successful connection of the USB interface to the XpressNet, the red LED will shine. This LED indicates that an XpressNet connection has been established and that communication with the command station is now possible.

Connection to the PC

Your PC needs a free USB port to operate the USB interface.
Use the connecting cable for the USB port to connect the USB interface to your PC. Before connecting the interface, please make sure that your PC is switched on so that it is able to detect the new hardware and install the driver. You should also insert the supplied CD into your CD drive.

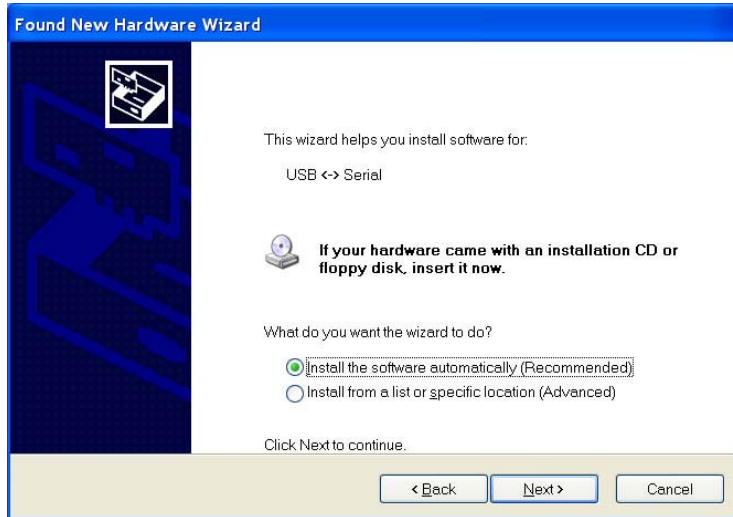Plug the USB "B" plug into the socket marked with the USB logo (⟷).

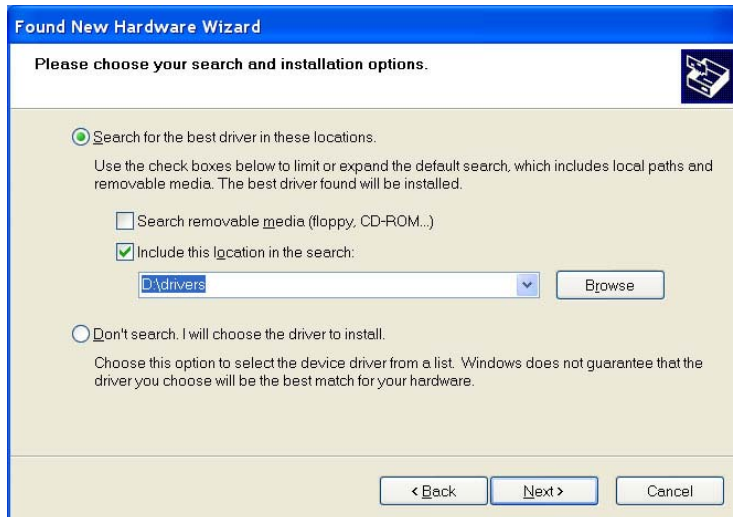Plug the USB "A" plug into the PC's free USB port.

Your PC will detect the new hardware and start the "Found New Hardware Wizard" This window will pop up once your system has detected the LI-USB:

Select No. Not this time and then click Next

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Select "Install from a list or specific location (Advanced)" and then click "Next". The following window will pop up:

Insert the supplied CD into the CD-ROM drive (if not already there). Click "Include this location in the search" and enter "D:\drivers" in the field below. Here, "D" stands for the drive letter of the CD-ROM drive (replace "D" with the letter of your CD-ROM drive as appropriate). Then, click "Next".

Click "Continue installation":

The driver software will now be installed.
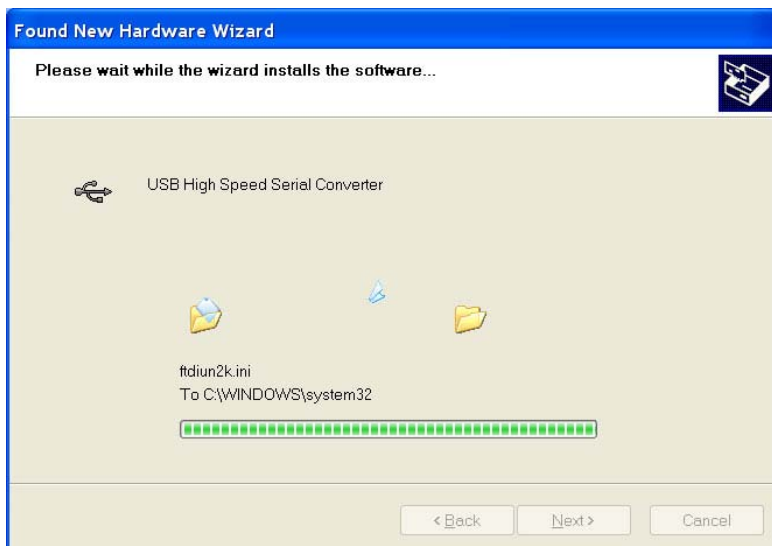
Upon successful installation of the driver software, this window will pop up: Click "Finish".

| **Important advice:** |
| Under Windows® XP, your PC will now repeat this installation procedure. This is normal - simply repeat the above steps. |

Upon successful installation, the new USB hardware will be displayed in the system tray:
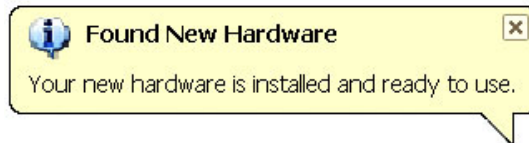
The required USB driver is now installed on your PC. Proceed to install the application software. You should leave the CD in the CD-ROM drive.

Installing the supplied application software

1. Insert the supplied CD "Documentation and sample demos for LI-USB" into the CD-ROM drive, if you have not already done so. You can install the software by clicking on the "**LI-USB Lenz Supplied Software Installation**" link on the loaded html page or

2. Click "Start" and then Run

3. Enter the following in the window and then press Enter
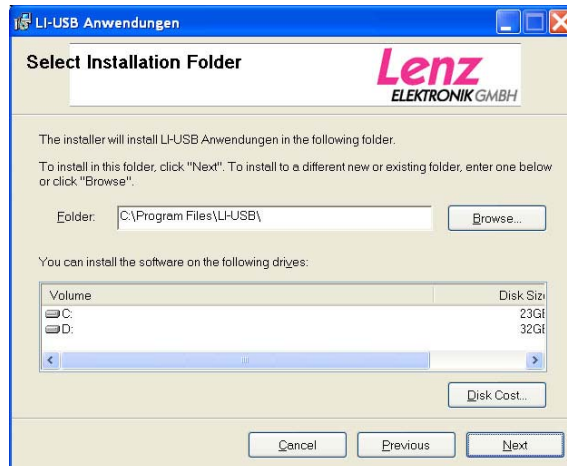   **"D:\LI-USB\LI-USB.msi"**

(Replace "D" with the letter of your CD-ROM drive as appropriate.)

The program for the installation of the "LI-USB Server", "LI-USB CV Editor", "LI-USB Fahrpult" and "LI-USB Configuration" will be started. Once installed you can change the language used from German to English.

Follow the instructions on the screen:

Click "Next".

![Lenz ELEKTRONIK GMBH logo]
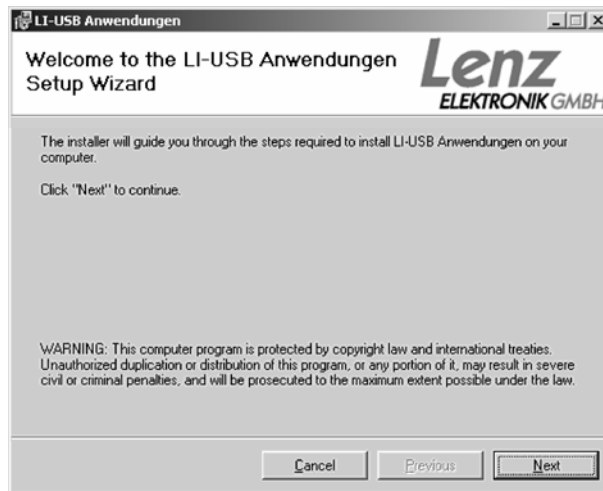
The proposed default installation folder is "C:\Program Files\LI-USB\". This can be changed as desired.

Click "Next".

The LI-USB applications are now installed on your PC.

Upon successful installation of the applications, this window will pop up. Click "Close" to exit the installation. Upon successful installation, four new icons will be displayed on your desktop:
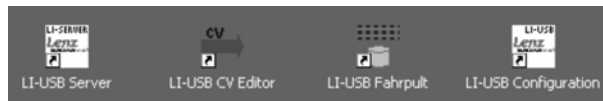
Application software for the LI-USB interface

You can find detailed information on the supplied software (including how to change the language to English) in the file "LI-USB Software Users Guide" ("LI-USB Software Users Guide.pdf") on the installation CD.

You need the Adobe Acrobat Reader$^©$ to read and print this file. If this program is not already installed on your PC, you can find the installation file for the Adobe Acrobat Reader$^©$ on the supplied CD in the directory "Adobe".

Data protocol between USB interface and PC

You will also find a detailed description of the communication and the protocol between PC and interface in a PDF file on the supplied data medium.

File name: "LI- USB XpressNet Developers Guide.pdf"

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Demonstration programs

The interface may include one or several demonstration programs that explain how your model railway can be controlled via the PC. These demonstration programs were made available to us by several software manufacturers. Lenz Elektronik GmbH cannot guarantee that these programs will work correctly or answer any questions regarding their installation and function. If you have any questions, please contact the respective software manufacturer.

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Warning: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

This equipment complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CE Please save this manual for future reference!