

USB-LoCoNet-Interface 63 120

Important Information - please be sure read!!!

The USB-LoCoNet-Interface connects the PC directly to the LoCoNet with the following systems:

- Uhlenbrock Intellibox, DAISY, Track-Control, IntelliLight
- Märklin 6021 with 6021-Infrared & LoCoNet adapter
- Fleischmann Twin-Center, ProfiBoss, LokBoss
- PIKO Power Box
- Digitrax centers without PC interfaces

The USB-LoCoNet-Interface can be used with the Windows 2000, XP and Vista (32 bits, without active user account control) operating systems. A support for older Windows of systems like 95 or 98 is not provided.

The USB-LoCoNet-Interface is supplied with the software "LoCoNet-Tool". With LoCoNet-Tool you can configure, Uhlenbrock LoCoNet modules such as Feedback modules, Switch modules, Displays and the LISSY system via the LoCoNet-System. Furthermore the software contains a LoCoNet Monitor with which you can supervise your LoCoNet and analyze automatic procedures.

If you want use the LoCoNet-Tool with an Intellibox, Twin-Center or PIKO Power Box then you must first access our Internet site www.uhlenbrock.de to register it with the serial number shown below and the serial number of your digital center.

The USB-LoCoNet-Interface, with PC control programs, can be used for layout control. All PC programs, which support the LoCoNet protocol, can be installed for layout control.

Note: Before you connect your new USB-LoCoNet-Interface with the PC, the driver for the interface must be installed. If you connect the interface with the PC before this it may malfunction.

Installation of the driver and "LoCoNet-Tool" software

Insert the CD into your CD-ROM drive. After short time the installation program will auto-start and guides you through the installation of the software.

If the installation program does not automatically start, open in the file manager or Explorer for the CD-ROM drive and double-click the "CDRUN.EXE" application to start it. Installation Information is provided in the "Driver Setup" file.

Serial Number

Guarantee declaration

Each component is tested for its complete functionality before distribution. If a fault should arise within the guarantee period of 2 years, we will repair the component free of charge upon production of proof of purchase. The warranty claim is void if the damage was caused by inappropriate treatment.

The trade names mentioned are registered trade marks of the respective companies.

Not suitably for children under 10 years! Electronics old devices do not belong into the domestic refuse.



USB-LoCoNet-Interface 63 120

1. Characteristics

- Galvanic isolation of PC and LoCoNet
- Supply directly from LoCoNet and/or from USB
- Baud rates: 19200, 38400, 57600, 115200
- 2 operating modes:
 - a) all bytes are directly transferred to the LoCoNet (only 19200 Baud)
 - b) only valid LoCoNet Messages are sent to the LoCoNet by the PC; the interface controls data traffic on the LoCoNet; all bytes are directly transferred to the PC from the LoCoNet (factory setting).

2. LED Functions

USB-LED

This LED lights as soon as the interface is ready for use on the USB bus.

LoCoNet-LED

Shows activity on the LoCoNet. As soon as a packet is transferred, this LED lights up briefly.

3. Interface Configuring

The interface can be configured by the Intellibox using LoCoNet programming.

The part number is 63 120; the module address 1.

| LNCV | Description | Factory Default |
|------|--|-----------------|
| 0 | Module address | 1 |
| 1 | Software Version | - |
| 2 | Baud rate 1=19200 2=38400 3=57600 4=115200 | 4 |
| 4 | LoCoNet Direct mode 0=off 1=on | 0 |

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4. Interface Installation

Install the provided driver on the PC. Connect the interface to a PC USB port and LoCoNet. After successful installation the PC has a new COM Port with the "Uhlenbrock USB-LoCoNet-Interfaces" designation. Now the interface can be addressed by software like a COM Port.

5. PC - LoCoNet Communication (only for Experts)

Communication between PC and LoCoNet must be according to the following schema:

- Send message over USB and then wait to receive the sent message again, before a new message is sent. Process other messages received during the waiting period.
- LACK (Long Acknowledge Message) treatment: If a message can be followed by a LACK (see LoCoNet documentation, for messages which can be followed by a LACK) a flag must be set by COM Port after the send and receive procedure. If this flag is set and the next message received is a LACK message then it must be processed because it is a response to the sent message. If the next message received is not a LACK then the set flag is reset. This ensures that a LACK is not assigned to a wrong message.
- Evaluate and process Received messages.
- By receiving echoed messages sent from the PC, separately initiated actions do not have to be processed, because they follow after the transmission to the LoCoNet. They are then back in the input buffer and are processed by the receipt routine.

Note: Sending messages without flow control, can lead to errors in communication between PC and LoCoNet. When using a Baud rate of 115200 Baud this flow control cannot decrease communication speed.

6. LoCoNet Direct mode (LNCV 4 = 1)

If the LoCoNet direct mode is active then each byte is sent directly to the LoCoNet without any flow control by the interface. This mode should be used only with a Baud rate of 19200 Baud.