



## **Installation Guide for LinMot USB-CAN Converter for Configuration of E1100/B1100 Controllers by CAN Bus**

**Art. Nr. 0150-3134**



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## **CAN-USB Converter**

### **Installation Guide**

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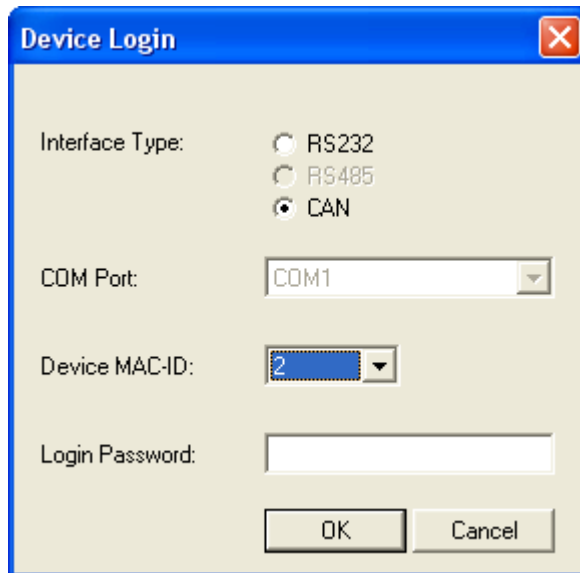
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## 1 Introduction

The USB-CAN converter can be used to login from a PC with installed LinMot-Talk 1100 software to one or more E1100/B1100 controllers over the CAN bus. It can help the user to debug and configure the system in case the serial communication port is occupied (for example if the active interface is LinRS).



For E1100 controllers, the MAC-ID is selected by the two rotary HEX switches S1 and S2.

For B1100 controller the MAC-ID is set via parameter. The default value is 63.

## 2 Technical Data

Unit:	USB interface
CPU:	Microprocessor Siemens SAB-C165
Memory:	256 Kbytes SRAM
CAN connector:	D-Sub 9
PC connector:	USB connector

### 2.1 CAN connector on USB-CAN Converter – Pin assignment

The USB – CAN converter is equipped with a D-Sub connector which provides connection to the CAN bus conforming to the CAN High Speed Bus (ISO 11898).

DSUB 9 male:

Pin	Signal
1	N.C.
2	CAN_L
3	GND
4	N.C.
5	Drain connected to connector shield (1M/10n to isolated GND)
6	GND
7	CAN_H
8	N.C.
9	N.C.

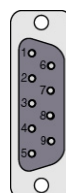
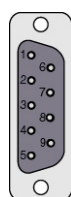


Table 2-1: Pinning of the CAN connector

### 2.2 CAN connector on LinMot Controller E1100 & B1100

#### 2.2.1 Pin Description of the COM Connector:

DSBU 9 male:



Pin 1	RS-485 TX+	Pin 6	RS-485 RX-
Pin 2	RS-232 TX	Pin 7	RS-485 TX-
Pin 3	RS-232 RX	<b>Pin 8</b>	<b>CAN L</b>
Pin 4	RS-485 RX+	<b>Pin 9</b>	<b>CAN H</b>
<b>Pin 5</b>	<b>GND</b>		

### 2.2.2 CAN Pin Description of the CMD and ME Connector:

2xRJ45 with 1:1 connected signals. Standard twisted pairs: 1/2, 3/6, 4/5, 7/8.  
Ethernet cables according standard



#### CMD Connector

Pin 1	RS485 A
Pin 2	RS485 B
Pin 3	RS485 Y
Pin 4/5	Ground
Pin 6	RS485 Z
<b>Pin 7</b>	<b>CAN H</b>
<b>Pin 8</b>	<b>CAN L</b>

#### ME Connector

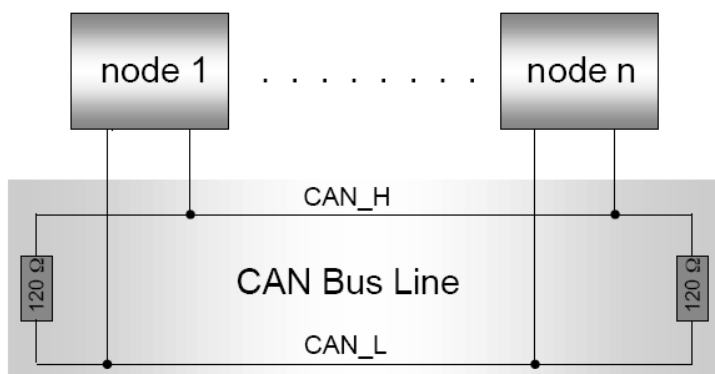
Pin 1	A
Pin 2	/A
Pin 3	B
Pin 4	Z
Pin 5	/Z
Pin 6	/B
<b>Pin 7</b>	<b>CAN H</b>
<b>Pin 8</b>	<b>CAN L</b>



On E1100-GP Controller use the ME connector, on E1100-DP, E1100-RS and B1100 controllers use the CMD connector.

### 2.2.3 CAN Termination

The CANbus must be terminated by two 120 Ohm resistors at both ends of the bus line according the following scheme:



For easy installation, the LinMot CANopen controller has built in termination resistors, which can be activated if the LinMot controller is at the end of the bus line and if there is no termination in the connector.

**S3**  
ON – OFF  
RS485/232  
RS485 Term  
CAN Term  
Interface



**S3**

**E1100** controllers: The built in termination resistor for the CAN bus can be activated by setting the dip switch “CAN Term” to “ON”

If the dip switch “Interface” is set to “OFF”, the CANopen Interface is deactivated.

**S4**  
ON – OFF  
RS485/232  
RS485 Term  
CAN Term  
Interface



**S4**

**B1100** controllers: The built in termination resistor for the CAN bus can be activated by setting the dip switch “CAN Term” to “ON”

If the dip switch “Interface” is set to “OFF”, the CANopen Interface is deactivated.

## 3 How to install the USB-CAN converter

### 3.1 System Requirements

To run the USB-CAN interface converter your PC must meet the following requirements:

- 100% IBM-compatible
- At least one available USB port
- Windows 2000 / XP
- At least 1.5 MByte free memory on the hard disk

### 3.2 Installation

**Note:** Before connecting the USB-CAN converter to the PC, install the LinMot-Talk 1100, the driver files are automatically copied on your PC.

After the installation of LinMot-Talk 1100 connect the USB-CAN converter to a free USB port.

#### 3.2.1 Windows 2000

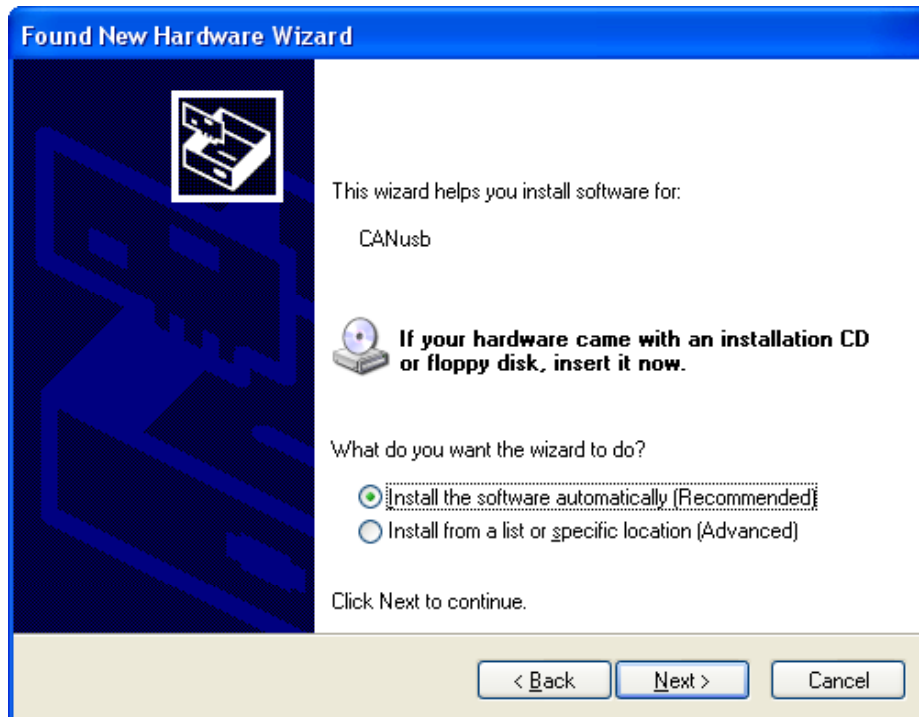
To enhance the stability of the system USB stack, it is recommended to install service pack 2 for Windows 2000. Windows 2000 will search for the driver files and install the software for the USB-CAN converter automatically.

#### 3.2.2 Windows XP

The “Found New Hardware Wizard” will be started after you have connected the USB-CAN converter to a free USB port. In the follow window choose the option “No, not this time”.



In the follow window, choose the option "Install the software automatically (Recommended)". The software will be installed.



### 3.2.3 Windows Vista

Under windows vista, the LinMot-Talk 1100 software must be installed first, so all necessary drivers will be copied on the PC. The first time, the USB-CAN converter is connected to the PC, the driver installation wizard will be started. Just follow the proposed actions and settings.



## 4 Contact Addresses

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