



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

Art. Nr. 0150-3134



CAN-USB Converter

Installation Guide

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Table of Content

1	INTRODUCTION.....	4
2	TECHNICAL DATA.....	5
2.1	CAN CONNECTOR ON USB-CAN CONVERTER – PIN ASSIGNMENT	5
2.2	CAN CONNECTOR ON LINMOT CONTROLLER E1100 & B1100	5
2.2.1	<i>Pin Description of the COM Connector:</i>	<i>5</i>
2.2.2	<i>CAN Pin Description of the CMD and ME Connector:.....</i>	<i>6</i>
2.2.3	<i>CAN Termination</i>	<i>6</i>
3	HOW TO INSTALL THE USB-CAN CONVERTER	7
3.1	SYSTEM REQUIREMENTS	7
3.2	INSTALLATION	7
4	CONTACT ADDRESSES	8

1 Introduction

The USB-CAN converter can be used to login from a PC with installed LinMot-Talk 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).



The 'Device Login' dialog box is a standard Windows-style window with a blue title bar and a close button (X) in the top right corner. The main area has a light beige background. It contains four labeled fields: 'Interface Type' with three radio buttons (RS232, RS485, CAN), 'COM Port' with a dropdown menu showing 'COM1', 'Device MAC-ID' with a dropdown menu showing '2', and 'Login Password' with an empty text box. At the bottom are 'OK' and 'Cancel' buttons.

Interface Type:	<input type="radio"/> RS232
	<input type="radio"/> RS485
	<input checked="" type="radio"/> CAN
COM Port:	COM1
Device MAC-ID:	2
Login Password:	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

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.

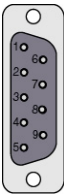
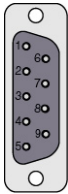


Table 2-1: Pinning of the CAN connector

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	Pin 8	CAN L
Pin 4	RS-485 RX+	Pin 9	CAN H
Pin 5	GND		

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
Pin 7	CAN H
Pin 8	CAN L

ME Connector

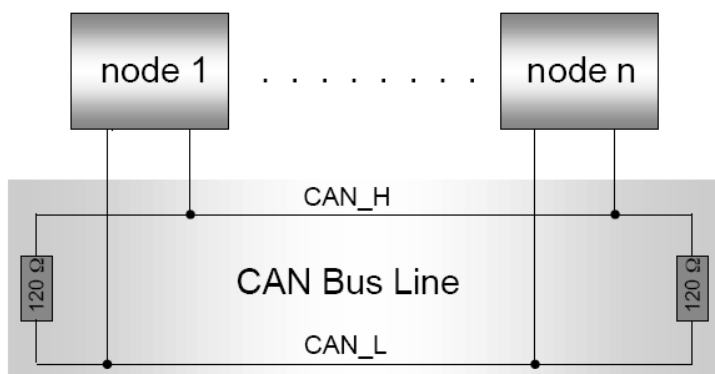
Pin 1	A
Pin 2	/A
Pin 3	B
Pin 4	Z
Pin 5	/Z
Pin 6	/B
Pin 7	CAN H
Pin 8	CAN L



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 XP/Vista/7

3.2 Installation

Note: Before connecting the USB-CAN converter to the PC, download and install the actual driver software from our home page:

<http://www.linmot.com/fileadmin/drivers/CANusb/Win32/CANDriversAndSoftware32.zip>
(drivers for Windows 32 bit OS)

<http://www.linmot.com/fileadmin/drivers/CANusb/Win64/CANDriversAndSoftware64.zip>
(driver for Windows 64 bit OS)

Unzip the downloaded file, run it to start the installation and follow the setup instruction as they appear).

After the driver has been installed successfully connect the USB-CAN converter to the PC and follow the proposed actions and settings.

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