



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

© 2011 NTI AG

This work is protected by copyright.

Under the copyright laws, this publication may not be reproduced or transmitted in any form, electronic or mechanical, including photocopying, recording, microfilm, storing in an information retrieval system, not even for didactical use, or translating, in whole or in part, without the prior written consent of NTI AG.

LinMot® is a registered trademark of NTI AG.

Note

The information in this documentation reflects the stage of development at the time of press and is therefore without obligation. NTI AG reserves itself the right to make changes at any time and without notice to reflect further technical advance or product improvement.

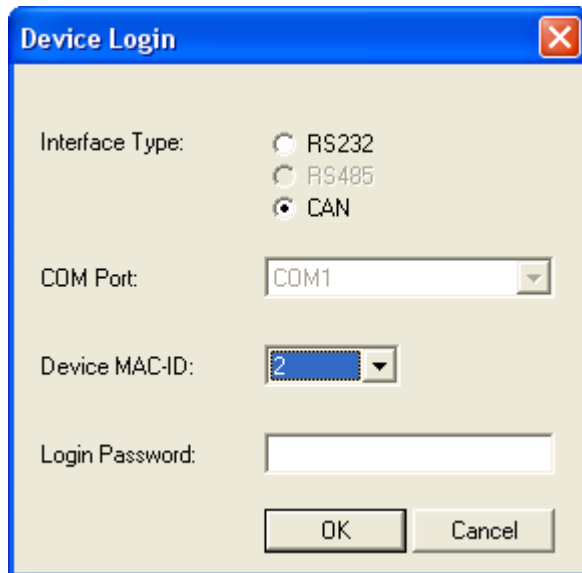
Document version 1.1.3 / VC/Ro/mk, July 2011

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).



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.

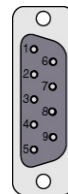
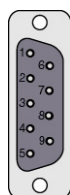


Table 2-1: Pinning of the CAN connector

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

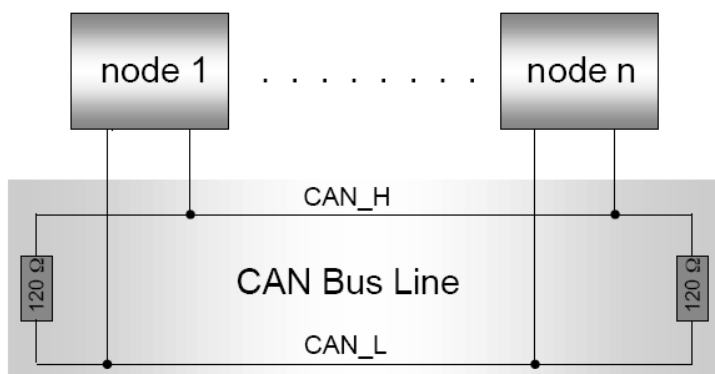
Pin 1	A
Pin 2	/A
Pin 3	B
Pin 4	Z
Pin 5	/Z
Pin 6	/B
Pin 7	CAN H
Pin 8	CAN L



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.

4 Contact Addresses

SWITZERLAND

NTI AG
Haerdlistr. 15
CH-8957 Spreitenbach

Sales and Administration: +41-(0)56-419 91 91
office@linmot.com

Tech. Support: +41-(0)56-544 71 00
support@linmot.com

Tech. Support (Skype) : [skype:support.linmot](https://www.skype.com/partner/linmot)

Fax: +41-(0)56-419 91 92
Web: <http://www.linmot.com/>

USA

LinMot, Inc.
5750 Townline Road
Elkhorn, WI 53121

Sales and Administration: 877-546-3270
262-743-2555

Tech. Support: 877-804-0718
262-743-1284

Fax: 800-463-8708
262-723-6688

E-Mail: us-sales@linmot.com
Web: <http://www.linmot-usa.com/>

Please visit <http://www.linmot.com/> to find the distribution near you.

Smart solutions are...

