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# **CANpro USB**

## **Hardware User Manual**

Part number: DUL-OO-012410

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V1.00

# 1 Installation

To properly install the CANpro USB on your PC, please follow the instructions detailed in the next sections.

## 1.1 System requirements

To run the CANpro USB on a PC, the PC must meet the following requirements:

- Free USB 2.0 port
- Windows7 (32 or 64 bit version), Windows Vista or Windows XP installed

## 1.2 Software installation

The CANpro USB software is part of the “CAN Drivers and API” CD which is also available from the download section at [www.softing.com](http://www.softing.com).

- Insert the CD in your PC's CD/DVD drive.
- Run *CANDriversAndSoftware32.exe* for 32 bit systems or *CANDriversAndSoftware64.exe* for 64 bit systems. This will start the Setup procedure.
- Please follow the instructions given by the setup software.



**NOTE:**

**Make sure to install the software before you plug in your CANpro USB hardware for the first time.**

## 1.3 Hardware and driver installation

Once the software setup is finished please connect the CANpro USB to a free USB port of your PC. The computer will recognize the new hardware.

- If the “New Hardware Wizard” asks if Windows Update should be connected select *No*.
- In the next step select *automatic software installation* All required drivers will then be installed.

## 1.4 Driver configuration

CANpro USB is recognized by the driver automatically. Nothing more is usually required. However, advanced configuration – like changing the name of a CAN channel or setting a default baudrate - is possible with the Softing CAN Interface Manager.

- Click *Start – All Programs – Softing CAN – Runtime System Configuration – Softing CAN Interface Manager (SCIM)*
- For more details on the driver configuration click *Start – All Programs – Softing CAN – Runtime System Configuration – SCIM\_Manual*

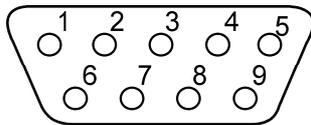
## 1.5 Application Software

How to use CANpro USB and how to write application software, is described in the Software Manual.

- To open this manual click *Start – All Programs – Softing CAN – CAN\_API - DOC – Softing Layer2*

## 2 CAN Connector Pin Assignment

Connector pinning complies to CiA standard DS 102.



Pinning of the 9 pin D-Sub connector

Pin	Signal
1	N.C.
2	CAN_L
3	Isolated GND
4	N.C.
5	Drain connected to connector shield (1M/2.2n to isolated GND)
6	Isolated GND
7	CAN_H
8	N.C.
9	N.C.

## 3 Status LEDs

There are status LEDs for CAN and USB that show the current status.

CAN Status LED	Status
off	no power or in reset state
flashing green	in initialization state
solid green	CAN started
flashing red	CAN error passive
solid red	CAN bus off

USB Status LED	Status
off	no power or not recognized
solid green	connected and recognized
solid red	not (yet) recognized or error

## 4 CE Information

This device complies with the requirements of the EC directive 2004/108/EC "Electromagnetic Compatibility" (EMC directive).



The product meets the following requirements:

- Emission: EN61000-6-4 Generic emission Standard (industrial environments)  
EN55022 Class A (ITE Product Standard)  
EN55011 Group1 Class A (ISM Product Standard)
- Immunity: EN61000-6-2 Generic Immunity Standard (industrial environments)

A "Declaration of Conformity" in accordance with the above standards has been made and is filed at Softing Industrial Automation GmbH, Germany.

### NOTE:

- To satisfy the EMC requirements, the equipment used (PC, monitor, CAN stations, etc.) also has to meet the EMC requirements. A shielded cable must be used. In addition, the cable shield must be grounded properly.

**Warning!** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## 5 RoHS Information

CANpro USB is RoHS compliant.



## 6 Technical data

- Unit: USB 2.0 CAN interface
- CPU: XE164, 80 MHz with internal CAN controller
- Memory: 384 kbytes XE164 on-chip Flash, 512 kbytes RAM,
- Supported USB rates: high speed (480 Mbit/s) and full speed (12 Mbit/s)
- USB connection: connector type USB-B, incl. USB 2.0 cable (A-B, 1,8m)
- CAN interface: galvanically isolated (500V) CAN high speed according to ISO 11898-2
- CAN connector: Sub-D 9 pin male, pin assignment acc. to CiA DS102
- Baud rate: 8 kbit/s up to 1 Mbit/s
- Power supply: via USB: +5V ( $\pm 5\%$ ); typ. 200mA
- Temperature range: Operation: 0°C ... 55°C  
Storage: -20°C ... 70°C
- Relative humidity < 90% (non-condensing)