



**Manual**

# **Installation instructions**

**Version 2.4**

**English**

## **Imprint**

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# 1 Introduction

In this chapter you find the following information:

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	Certification	
	Warranty	
	Support	
	Registered trademarks	

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## 1.1 About this user manual

### 1.1.1 Access help and conventions

#### To find information quickly







The user manual provides you the following access help:

- At the beginning of each chapter you will find a summary of the contents,
- In the header you can see in which chapter and paragraph you are ((situated)).

#### Conventions

In the two following charts you will find the conventions used in the user manual regarding utilized spellings and symbols.

Style	Utilization
<b>bold</b>	Blocks, surface elements, window- and dialog names of the software. Accentuation of warnings and advices. <b>[OK]</b> Push buttons in brackets <b>File   Save</b> Notation for menus and menu entries
Windows	Legally protected proper names and side notes.
Source code	File name and source code.
Hyperlink	Hyperlinks and references.
<STRG>+<S>	Notation for shortcuts.

Symbol	Utilization
	This symbol calls your attention to warnings.
	Here you can find additional information.
	Here is an example that has been prepared for you.
	Step-by-step instructions provide assistance at these points.
	Instructions on editing files are found at these points.
	This symbol warns you not to edit the specified file.

### 1.1.2 Certification

#### Certified Quality Management System

Vector Informatik GmbH has ISO 9001:2008 certification. The ISO standard is a globally recognized standard.

### 1.1.3 Warranty

#### Restriction of warranty

We reserve the right to change the contents of the documentation and the software without notice. Vector Informatik GmbH assumes no liability for correct contents or damages which are resulted from the usage of the user manual. We are grateful for references to mistakes or for suggestions for improvement to be able to offer you even more efficient products in the future.

### 1.1.4 Support

#### You need support?

You can get through to our support at the phone number

+49 711 80670-200 or by fax

+49 711 80670-111

E-Mail: [support@vector-informatik.de](mailto:support@vector-informatik.de)

### 1.1.5 Registered trademarks

#### Registered trademarks

All trademarks mentioned in this user manual and if necessary third party registered are absolutely subject to the conditions of each valid label right and the rights of particular registered proprietor. All trademarks, trade names or company names are or can be trademarks or registered trademarks of their particular proprietors. All rights which are not expressly allowed, are reserved. If an explicit label of trademarks, which are used in this user manual, fails, should not mean that a name is free of third party rights.

→ **Windows, Windows XP, Windows Vista, Windows 7** are trademarks of the Microsoft Corporation.





## 2 Notes

In this chapter you find the following information:

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2.3	Vector Hardware Configuration	page 11
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	Measurement applications	
	Device Manager	
	Power Manager	

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## 2.1 Minimum requirements

### Hardware

<b>CPU</b>	Pentium 4 or higher
<b>Memory</b>	512 MB or more
<b>Interfaces</b>	CANcardXL : PCMCIA CANcardXLLe : ExpressCard 54 CANboardXL PCI : PCI CANboardXL PCIe : PCI Express 1x CANboardXL PXI : Compact PCI/PXI CANcaseXL : USB CANcaseXL log : USB VN2610 : USB VN3300 : PCI VN3600 : USB VN7600 : USB VN8910 : USB

### Software

<b>Operating system</b>	Windows XP SP2 Windows Vista Windows 7
<b>Driver version</b>	7.x



**Info:** Please note that you will need **Administrator Rights** for the following steps.



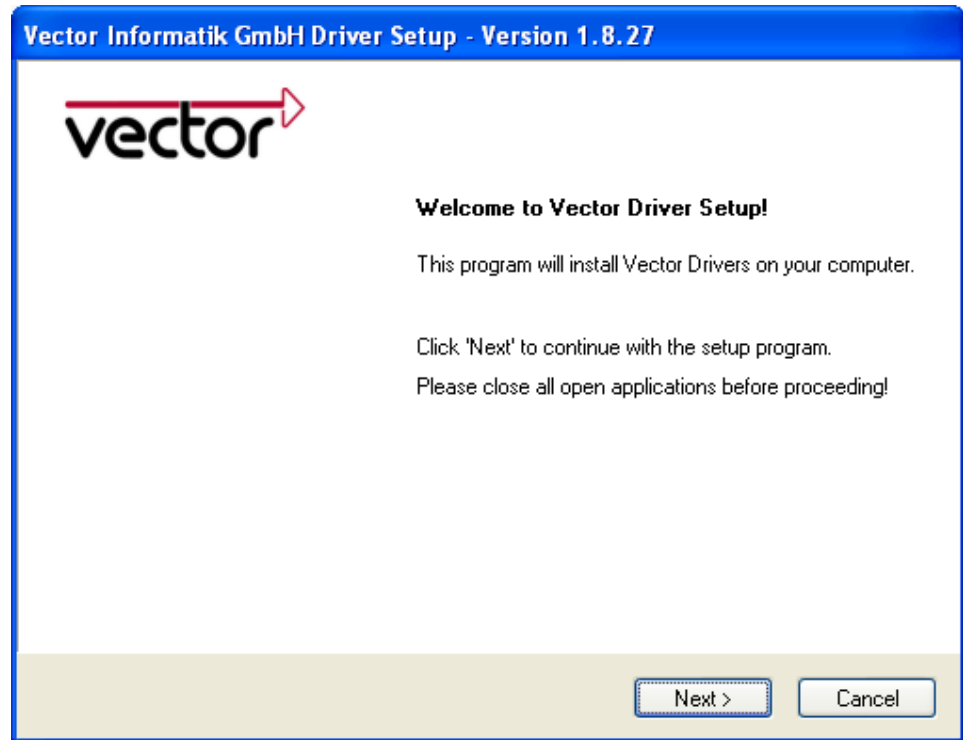
**Info:** In **Windows Vista** and **Windows 7** it is **not** possible to install the drivers from a network drive. If you got your update from the Vector product page in the internet, please copy the files to your local hard drive.

## 2.2 Driver Setup

**General information** The Vector Driver Disk V7.3 or higher offers a new driver setup which allows the installation or the removal of Vector device drivers:

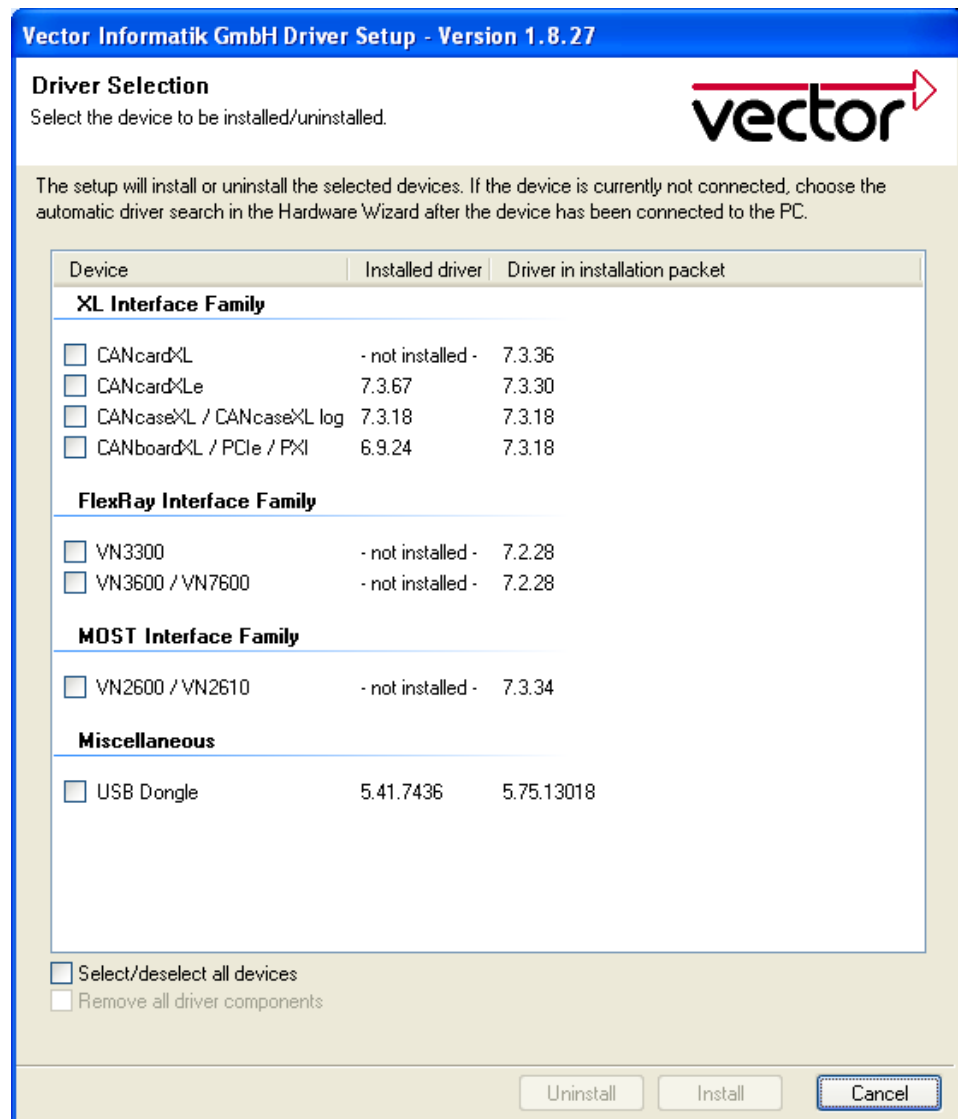


1. Execute **Driver Setup** from the autostart menu or directly from \Drivers\setup.exe



2. Click **[Next]** in the driver setup dialog. The initialization process starts.

3. In the driver selection dialog select your devices to be installed (or to be uninstalled). Also ensure that those devices are connected with the PC. Otherwise the drivers are only pre-installed in this Vector Driver Setup.



4. Click **[Install]** to execute the driver installation, or **[Uninstall]** to remove existing drivers.
5. A confirmation dialog appears. Click **[Close]** to exit.



**Info:** It is also possible to pre-install the drivers if the hardware is currently not connected. In this case the installation of the driver has to be completed with the **Windows found new Hardware** wizard after connecting the device. Use the option for automatic driver search then.

## 2.3 Vector Hardware Configuration

### Executing Vector Hardware Config

After successful installation you will find the configuration application **Vector Hardware** in the Control Panel. The tool gives you information about the connected and installed Vector devices. Furthermore, the settings can be changed there.

#### Windows XP

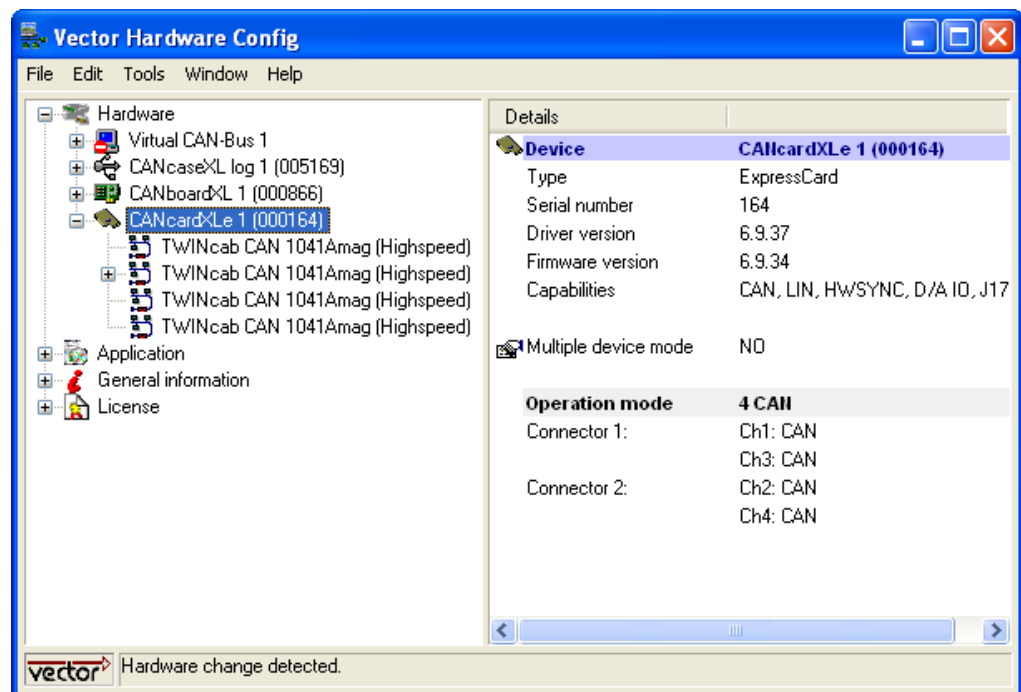
- Category view  
**Start | (Settings) | Control Panel**, click in the left part of the window for further Control Panel options followed by **Vector Hardware**.
- Classic view  
**Start | (Settings) | Control Panel**, click **Vector Hardware** in the list.

#### Windows Vista

- Category view  
**Start | (Settings) | Control Panel**, click in the right part of the window for Additional Options followed by **Vector Hardware**.
- Classic view  
**Start | (Settings) | Control Panel**, click **Vector Hardware** in the list.

#### Windows 7

- Category view  
**Start | Control Panel | Hardware and Sound**, click **Vector Hardware** in the list.
- Symbols view  
**Start | Control Panel**, click **Vector Hardware** in the list.



The tool is split into two windows. The left window lets you access the installed Vector devices, the right window displays the details of the selection. The following nodes are available in the left window:

#### Hardware

Each installed Vector device is shown in **Hardware**. Additional details on the available channels are shown in a tree view. Status information on the device components and channels are also shown in this dialog.

**Application**

In **Application** all available applications are shown with their configured channels. If you click on an application, all of its channels are displayed in the right pane on the screen.

**General information**

The **General information** section contains general information on Vector devices and applications.

**License**

Information on all currently valid licenses is displayed in **License**. You can look there to see which tools and applications are currently licensed.



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**Note:** You will find a detailed description of **Vector Hardware Config** in the online help (**Help | Contents**).

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## 2.4 Further Notes

### 2.4.1 Measurement applications

**Compatible software** The device can be run with several applications from Vector (e.g. **CANape**, **CANoe**) or with measurement applications from other companies. Therefore the device must have a related license. A license for applications based on the **XL Driver Library** is not required.

### 2.4.2 Device Manager

- Windows XP**
- Category view  
**Start | (Settings) | Control Panel | Performance and Maintenance | System | Hardware | Device Manager**
  - Classic view  
**Start | (Settings) | Control Panel | System | Hardware | Device Manager**
- Windows Vista**
- Category view  
**Start | (Settings) | Control Panel | Performance and Maintenance | System | Device Manager**
  - Classic view  
**Start | (Settings) | Control Panel | System | Hardware | Device Manager**
- Windows 7**
- Category view  
**Start | Control Panel | System and Security | Device Manager**
  - Symbols view  
**Start | Control | Device Manager**

### 2.4.3 Power Manager

**Timing requirements** Many desktop PCs have power managers which block the CPU for a specific time. This impairs accuracy of the time system. If your application has stringent timing requirements (e.g. time-driven sending of messages or time-driven evaluations), you must deactivate these power managers.

Power management settings may be contained:

- in the BIOS setup,
- on the Control Panel of **Windows XP / Vista / Windows 7** (e.g. Power options).

No further mention will be made of the power manager in this document.





### 3 Operating test and troubleshooting

In this chapter you find the following information:

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## 3.1 Loop test

### Operating test

The test described here can be performed to check the functional integrity of drivers and hardware. This test is identical for **Windows XP**, **Windows Vista**, **Windows 7** and independent of the application being used.

### 3.1.1 CAN

#### Device test

The operating test for CAN can be executed with the following devices:

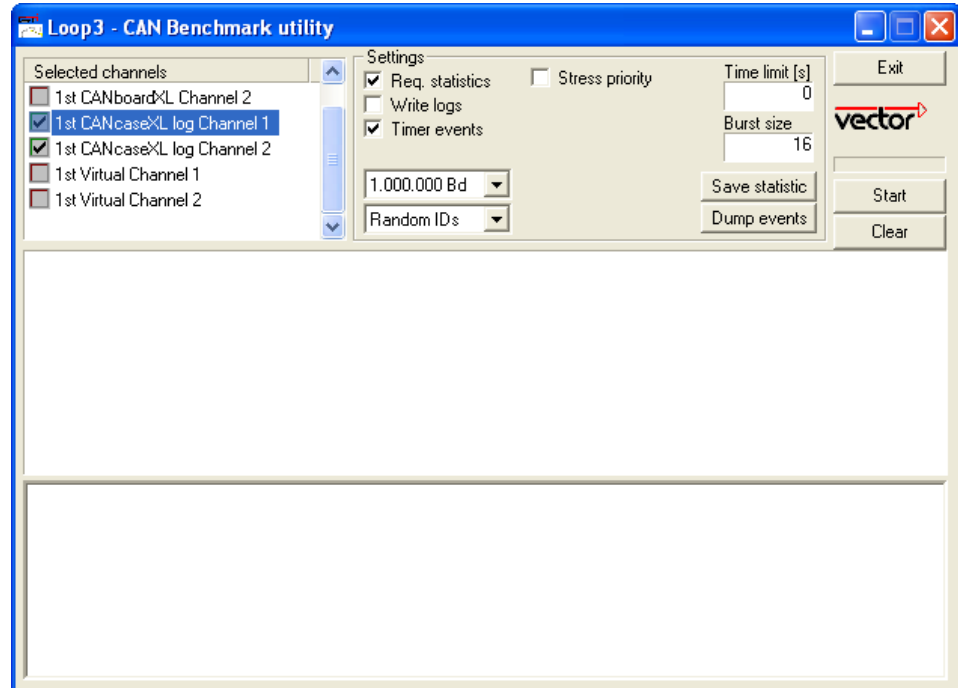
- CANcardXL
- CANcardXLLe
- CANcaseXL
- CANcaseXL log
- CANboard XL Family
- VN7600

#### Loop3.exe

Either two High-Speed or two Low-Speed transceivers are necessary for this functional test:

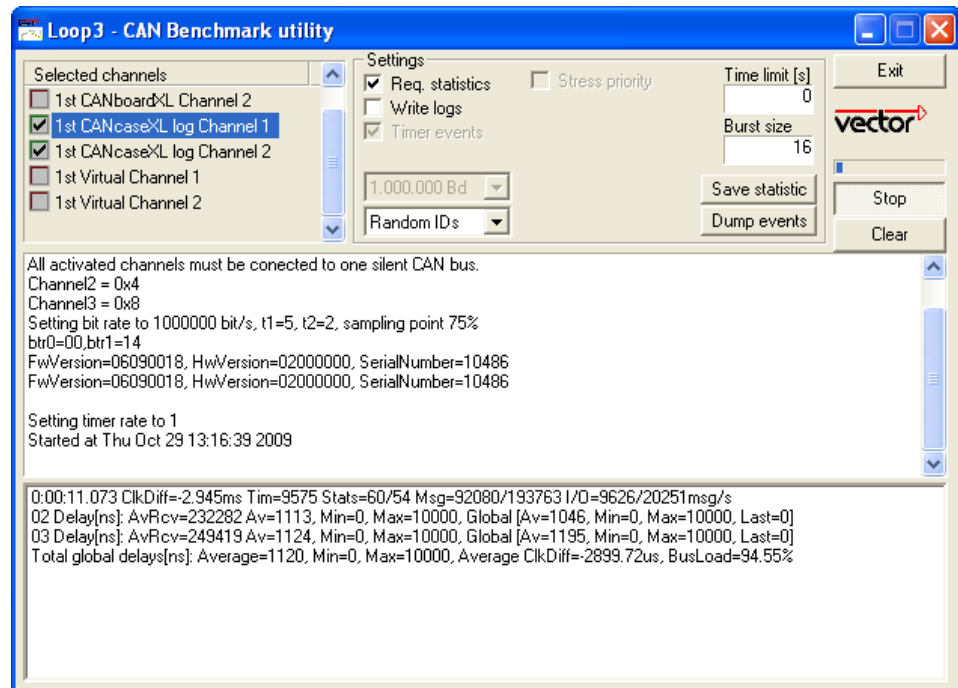


1. Connect both channels with a suitable cable. If two High-Speed transceivers are being used, we recommend our **CANcable 1**, and **CANcable 0** for Low-Speed transceivers.
2. Start `\Drivers\CommonFiles\Loop3.exe` from the driver CD. This program accesses the hardware and transmits CAN messages.
3. Select Channel 1 and Channel 2 (Selected channels) of the hardware to be tested.
4. Set the appropriate baudrate (Settings) depending on the transceiver being used (High-Speed max. 1,000,000 Bd, Low-Speed max. 125,000 Bd).
5. Click **[Start]**.

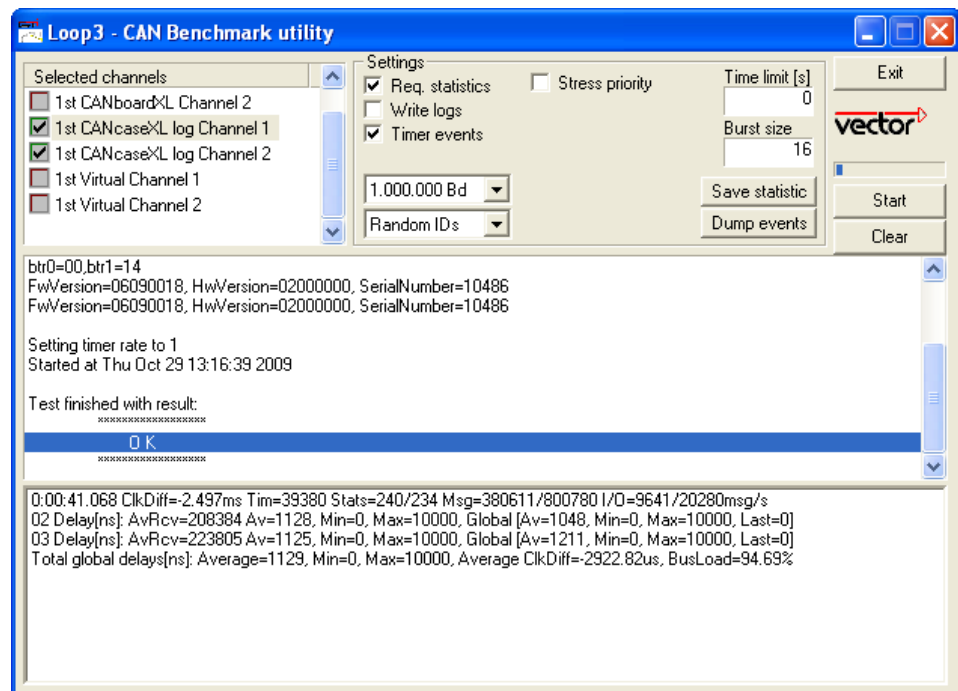


6. Once the system has been configured properly, you will see in the lower window of the test software some statistical data on the hardware being used.

### Loop3 Application



7. The test procedure is terminated by **[Stop]**. After a successful test an **OK** message is printed in the upper text window.



**Note:** If the functional test could not be performed successfully (**FAILED** error message in the upper window of the test software), please refer to section **Checking installation** on page 21.

### 3.1.2 FlexRay

#### Device test

The operating test for FlexRay can be executed with the following devices:

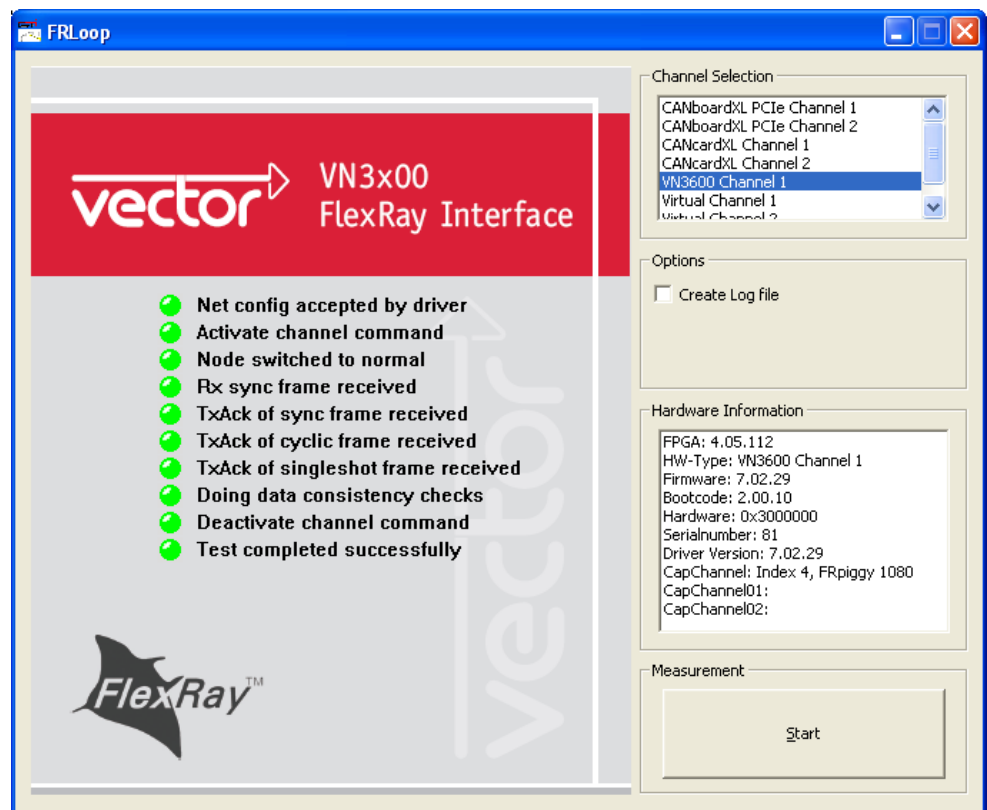
- VN3300
- VN3600
- VN7600

#### FRLoop.exe

This operating test requires a FlexRay Interface with a FRpiggy, which is plugged to the PC and installed. Remove the FlexRay cable if plugged.



1. Start \Drivers\CommonFiles\FRLoop.exe from the driver CD.
2. Execute the test.
3. If no error messages occur, the operating test was successful.



**Note:** If the functional test could not be performed successfully, please refer to section [Checking installation](#) on page 21.

### 3.1.3 MOST

#### Device test

The operating test for MOST can be executed with the following device:

→ VN2610

#### MLoop.exe

For this functional test a MOST fiber optic cable and a fiber coupler for HFBR connectors is required.



1. Start `\Drivers\CommonFiles\MLoop.exe` from the driver CD.  
This program accesses the hardware and switches the VN2610 to **Master** mode (deactivated bypass).
2. Select the VN2610 to be tested from the list of detected devices.
3. Click **[Twinkle]** and check if the power LED of VN2610 is blinking at least 1 second.
4. Connect the MOST fiber optic cable with the VN2610 device, select **Master** mode and check if the program displays status **Unlock**. Check if red light comes out of the Tx fiber of the MOST fiber optic cable.
5. Connect both ends of the fiber with one fiber coupler to a ring and check if the program displays status **Lock**.
6. Exit `MLoop.exe` with **[Exit]**.



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**Note:** If the functional test could not be performed successfully, please refer to section [Checking installation](#) on page 21.

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## 3.2 Checking installation



To perform the following test steps, the device must be inserted in the PC or connected.

- Open the Device Manager.
- Check to see whether the device is shown in the group **CAN-Hardware** and **Vector-Hardware** respectively. If this device is not listed, the device driver is not or improperly installed. In this case open the **Other Components** item that is marked with a yellow ? in the Device Manager.
- If you find an entry for **Vector <device>** here, the driver is improperly installed. Correct the driver installation as described in section 3.3.
- If you do not find the entries for the device, the device driver has not been installed yet.

## 3.3 Correction of driver installation



- If the driver is improperly installed, the entry **Vector <device>** appears in **Other Components** of the **Device Manager**. To solve this problem, connect the device with the PC and restart the Vector Driver Setup.





## 4 Appendix A: Address table

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