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1. Package Contents

Before use please check the packaging and contents for damage or missing parts:

- > Are there any indications that the packaging or the contents have been damaged during transport?
- > Are there signs of wear on the device?

Do not use the Multi-CAN Gateway if there are signs of damage. If in doubt contact our Technical Customer Service.

Package Contents:

- i-NOVATIVE® Multi-CAN Gateway
- USB cabel
- CD with drivers, software and documentation

System Requirements (for GUI):

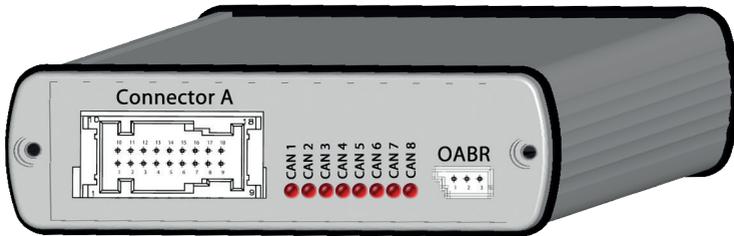
- Microsoft Windows 2000, Windows XP 32/64Bit, Windows Vista 32/64Bit,
- xWindows 7 32/64Bit, Windows 8 32/64Bit
- x86 compatible processor (32 Bit or 64 Bit)
- 512MB RAM
- 30 MByte free space on the Hard Disk.
- Screen resolution of 1024x768 or higher supporting at least 256 colours.

2. Operation and Configuration

2.1. Operation and Connection

Step 1

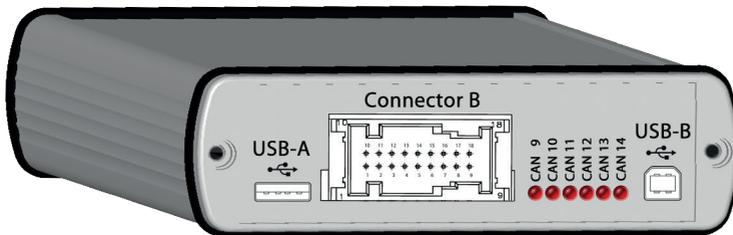
Connect the Multi-CAN Gateway using Connector A or Connector B (as in Step 2) to your Test Environment. Take note of the pinning for the Tyco MQS connector found in the chapter „Pinning“.



Ensure use of the appropriate CAN Connections (CAN-High, CAN-Low), to prevent corruption of the attached CAN-Bus. If necessary check the pinning (2.4.) for the correct configuration.

Step 2, optional (GUI Software for Firmware Update)

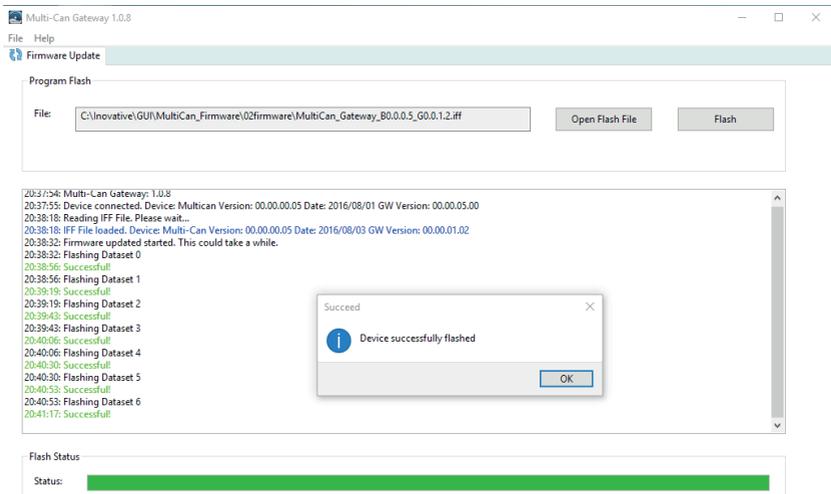
Connect the Multi-CAN Gateway to a PC with a USB-B cable and proceed with section 2.2 (Installation of Software and Drivers).



2.2. Installation of GUI Software for Firmware Update

In order to use the GUI of the Multi-CAN Gateway, the Software must first be installed on a PC.

- If necessary download the current Multi-CAN Gateway Software from our website <http://www.i-novative.de/de/downloads>
- Navigate to the directory where the Installation data was saved.
- Double-click the application to start the installation.



- Select the new Firmware Data (.iff) („Load File“), and click on „Flash“
- After a few seconds, the new Firmware will be loaded into the Multi-CAN Gateway.

NOTE: Do not under any circumstances interrupt the firmware update process as this can result in corruption of the software leaving the device in an undefined state. The device can then only be recovered by our customer service.

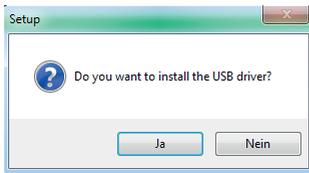
2.3. Driver Installation (USB)

1. Automatic Driver installation

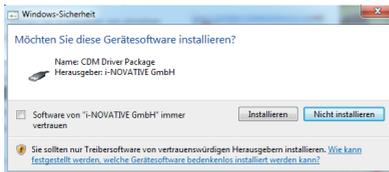
The Multi-CAN Gateway driver is compatible with the following operating systems: Windows 2000, Windows XP 32/64Bit, Windows Vista 32/64Bit, Windows 7 32/64Bit and Windows 8 32/64Bit.

Important Note: Administrator rights must be used for the installation of the drivers.

During the installation of the Multi-CAN Gateway Software the necessary USB driver can also be installed at the same time. During installation there is a prompt to install the USB driver.



Choose „Yes“ if the driver was not previously installed or if a new driver installation is required. During driver installation follow the on-screen instructions.



Select „Install“ or „Continue“ until the driver installation completes. You may be prompted to restart the computer to complete installation.

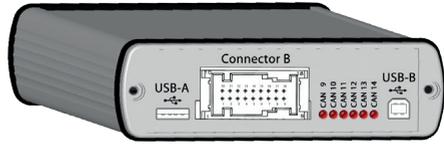
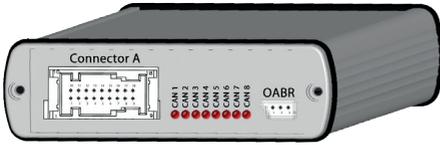
2. Manual Driver installation

It is also possible to install the Multi-CAN Gateway manually.
Proceed as follows:

- Download the latest drivers from our website. The most recent driver will always be available <http://www.i-novative.de/de/downloads>
- Unzip the downloaded driver to the default directory in the root of your C drive by double-clicking on the archive file.
- Connect the Multi-CAN Gateway to the PC using the USB cable and switch the device on (= using 12V supply and the Tyco connector)
- After a short time a warning in the task bar will appear indicating that a driver could not be found.
- Open the „device manager“ under Windows „System“ and look for an entry „Multi-CAN Gateway“ under „Other Devices“.
- Select „Driver Update“:
- Right-click on the Multi-CAN Gateway und select „Browse my computer for driver software“.
- Select the directory where the driver software was unzipped and click on „continue“
- Select „Install“.
- Finally the message „The driver software has been successfully updated“ will be displayed.

2.4. Pinning & Connectors

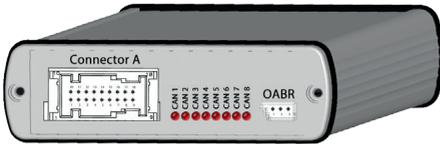
a) Tyco MQS



Connector A (left)					
High Speed CAN 1	Low	18	9	Low	High Speed CAN 2
	High	17	8	High	
High Speed CAN 3	Low	16	7	Low	High Speed CAN 4
	High	15	6	High	
High Speed CAN 5	Low	14	5	Low	High Speed CAN 6
	High	13	4	High	
High Speed CAN 7	Low	12	3	Low	High Speed CAN 8
	High	11	2	High	
KL_31	Masse	10	1	+12V	KL_30

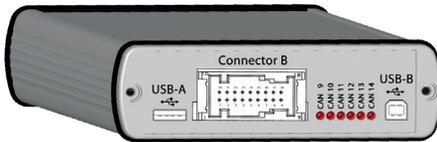
Connector B (right)					
High Speed CAN 9	Low	18	9	Low	High Speed CAN 10
	High	17	8	High	
High Speed CAN 11	Low	16	7	Low	High Speed CAN 12
	High	15	6	High	
High Speed CAN 13	Low	14	5	Low	High Speed CAN 14
	High	13	4	High	
Low Speed CAN	High	12	3		LIN 1
	Low	11	2		LIN 2
		nc	10	1	nc

b) OABR (left)



1	SHD	OABR
2	D+	
3	D-	

c) USB Ports (right)



USB-A: For optional USB Stick (Storage)
 USB-B: For Firmware & Configuration Update

3. Cleaning

Before cleaning disconnect all cables from the Multi-CAN gateway. Clean carefully using a soft cloth (preferably Microfibre) dampened with water. Do not use detergents, alcohol or other solvents during cleaning under any circumstances. Please note that the connectors are fragile and contacts can be damaged by Improper handling.

4. Technical Data

- 14x HighSpeed CAN (500k)
- 1x LowSpeed CAN (100k)
- 2x (optional) LIN Nodes
- 1x OABR BroadReach Port
- 1 Port USB-B (for easy Firmware Update)
- 1 Port USB-A (for USB Stick expansion)
- Status LEDs for each CAN port
- Life-Cycle management function over CAN Bus
- Simple GUI Firmware update
- Operating Voltage: 5 to 26 Volt DC
- Dimensions: 120 x 80 x 35 mm
- Robust, EMV optimized Aluminium body.
- Manufacturer: i-NOVATIVE® GmbH

5. Important Notes

5.1 Packaging Regulations

„Manufacturers and distributors are fundamentally obliged to ensure that sales packaging is reclaimed and reused or can be recycled after use by the end user“ (in accordance with § 4 clause 1 of the VerpackVO). Should you as a customer have problems with the disposal of the packaging, contact I-Novative by E-mail: info@i-novative.de.

5.2. Recycling Advice and RoHS Conformity



Please note that some of the products of i-novative® GmbH must be disposed of at a recycling point and may not be disposed of with normal household waste (circuit boards, power supply, etc.).



i-novative® products are RoHS compliant (RoHS = Restriction of Hazardous Substances Directive).

5.3. CE-Mark

The i-novative Multi-CAN Gateway carries the CE-Mark.



This device is compliant with EU-Directive: 89/336/EG concerning electromagnetic compatibility and conformity to the regulations. Conformity with the above directive is indicated by the CE-Mark.

6. Manufacturer und Support

i-novative® is a registered trademark of i-novative® GmbH. For questions, problems and for product information of all kinds please contact the manufacturer:

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Kesselbodenstrasse 11
85391 Allershausen

E-Mail:	support@i-novative.de
Tel:	+49 (0)8166 5 82 91 40
Fax:	+49 (0)8166 9 88 91 70
Internet:	www.i-novative.de

7. Guarantee

Within the guarantee period the device is covered against manufacturing and material defects. The applicable guarantee information for your country can be found on the home page of your Distributor. If you have questions or problems we can be contacted during our normal business hours by telephone: +49 (0)8166 5 82 91 40 or by e-mail: support@i-novative.de.

