# PCAN-Diag 2

Quick Start Guide

This guide covers the basic operation of the PCAN-Diag. A comprehensive documentation in PDF format (German and English) is available on our website or on the internal memory card of the PCAN-Diag in the directory *PCAN-Diag\Documentation*.

**Note:** The "PCAN-Diag 2 package" is available for download on our website. Beside the documentation and the device help, it contains the current firmware as well as the software PCAN-Diag Editor and PCAN-Symbol Editor.

Download: www.peak-system.com/quick/DLP2069



PCAN-Dia

# Connectors



#### CAN connector (D-Sub)

... for connecting a High-speed CAN bus

#### PC connector (USB)

... for configuring the device with the PCAN-Diag Editor software and for accessing the internal memory card.

#### **BNC connector**

... for picking off a CAN-specific trigger signal by an external oscilloscope or for analyzing an external signal via measuring channel 2.

#### Switch interlock for push dial

... for securing the device for transport. If the toggle switch is up, the device is locked.

Voltage supply ... 12 V DC (8 - 50 V possible).

#### GND socket (4 mm)

... for establishing a separate ground connection between the PCAN-Diag and the device under test.

## **Operation**

#### Voltage Supply

Set up the voltage supply with the supplied AC adaptor. Apply the appropriate plug adaptor to the AC adaptor (Euro, U.S., or UK). For mobile use, the PCAN-Diag can be supplied by batteries (also in the scope of supply).

### Connecting to a CAN Bus

Connect the PCAN-Diag to a CAN bus via the CAN connector (D-Sub) on the rear of the device.

### Turning on and Operating the Device

Hold down the push dial for at least half a second. The main menu appears after a blip and the splash screen. Any user input is done via the push dial:







### Adjusting the CAN Bit Rate

To successfully establish a connection to a CAN bus, the bit rate used by the PCAN-Diag must correspond to the one on the bus. The setting is done in the **Device Settings** area with one of the following entries:

Device Settings	-TR act
Silent startup	
Dotect CAN bitrate	
CAN bitrate	
User CAN bitrates	
CAN termination	
Listen-only mode	
Auto-reset on BusOff	
D-Sub GND connection	
Shutdown time (battery):	
Screensaver timeout	
Beeper	
Date & time	
Reset file index (48):	
OK Save&OK <u>Lancel</u> Help Transceiver. High speed	

#### CAN bitrate Detect CAN bitrate

Manual selection of a bit rate from a list. Automatic detection of the bit rate (only possible when there's CAN traffic on the connected bus).

# Receiving and Transmitting

### **Displaying Incoming CAN Messages**

Navigate to the CAN Data > Receive Messages menu entry. Incoming CAN messages are displayed as a list, sorted by the CAN ID (column ID). The representation of the CAN data bytes (D0...D7) is in hexadecimal format.

CAN Data/Receive Messages - TR ac	ct
Exit Help Rst Tx1 Tx2 Tx3 Tx4 Tx5 Tx6 T	
ID D0 D1 D2 D3 D4 D5 D6 D7 Count T	120
330 20 22 58 39 30 22 00 00 754 1	00n
02385af3 2a 33 01 b4 3143	24n
200 27 34 377 2	00a
222 23 af 23 00 88 12 34 d7 377 2	200n
223 20 38 54 43 90 ab ff fe 1508	49n
224 30 a2 39 45 8a 3771	20n
225 40 92 34 88 88 39 49 00 1714	44m
321 23 54 302 2	49n
322 26 04 377 2	100n
331 11 11 11 11 11 11 11 11 11 932	81 <b>n</b>
02385af7 12 34 56 fe do ba 2286	33a

### Transmitting CAN Messages

Navigate to the **CAN Data** > **Manage Transmit Lists** menu entry. Here you can create transmit lists with one or more CAN messages:

- Enable the transmit list entry with the corresponding check box.
- By clicking on the name, you can edit the transmit list. On this page you can insert single messages with I on the right side or edit an existing one with E.
- Afterwards, edit the period for repeated transmission of the list in the Cycle time(ms) column.
- Close the page with Save&OK .

For the transmission of the list open **CAN Data** > **Transmit Messages**. Here you can start and stop the CAN transmission by clicking on the name of the list.



# Oscilloscope Function

In order to analyze incoming signals with the oscilloscope function, select the **Scope** entry from the main menu. Before first use, adjust the following settings for the oscilloscope in the **Setting** area, if needed:

Trigger

Ch(1/2) source Selection of the signal sources to be viewed.

> Selection of the event that triggers the sampling of the signals (e.g. CAN frame start or end, CAN ID, CAN error, level).

After confirming the settings with **Save&OK**, you can start the recording and manipulate the view with the following functions:

Single		
Run		
Zoom /	Delay	

Triggers a single recording of the signal.

Starts the repeated recording of the signal (end with **Stop**). Adjusts the view regarding the horizontal axis.

# Device Configuration with Projects

The device and oscilloscope settings, CAN transmit lists, and the symbolic view of incoming CAN messages can be set up comfortably in form of projects on a PC with the software PCAN-Diag Editor. Afterwards the projects are transferred to your PCAN-Diag via USB.

You can find the program (PcanDiagEdt.exe) on the internal memory card of the PCAN-Diag in the directory: *PCAN-Diag*\*Tools* or on our website.

Comprehensive instructions about the creation of and the work with projects are in the user manual for the PCAN-Diag or in the program help of the PCAN-Diag Editor.

Ren .	Talat	Manufas	
Shell Alarhage	10	Man (A. KOB) Sugarana: gravitan ody rock & Sol ("gy rock") Columbar conscious an other OS Sol Sal married in Stateout	
OWNER	10110	Water Gill State an Autor and Argued Autor, and a scarage of a Mallo, a sub-trainer of	
Oliversiation	-04	Taking the started has been reader as its rate of	
Line of york	100	These shads going on the description in the Offices ("Spreads").	
No. a tar ball	-	When the CMD controller has game to BurOP once child due to many transmission once. The PCMD Dag automatically and the CMD controller.	
I-Set ENE-convection	100	Connects the MCARE Engl-Well receive 3 autorit of the fold CARE connection.	
Involvention (Index)	100	Tak sakinaf dalaphirakan ikuka is angendeal in hakey molei, kofferika akan ikukasi magilari akenalip	
lowers to seal	Freedo	The started's day him to be about the states in proported. Why significantly proton pilletime of the TATE scenes.	
Terger .		Endles or shalles assortic spratleg	
Day LAN Malkadan			
	-	Net aloue "Millionals on the "Soul", equals only with a 2 byth has value discriptions that it money righters involve the SATURE of Million	
Carl New	and a	The same is shown in the descent ON biblished true. St. Associate	
	-	Nite along "All balance and a "bood", again may with a 2 light her only along out the 20 lineary righter brokey to \$2.000 at 10.000 at 10.000.	
ited form	and .	The marks is shown in the alexan's GNN bitrate/int (mar. Worksonder).	
10189	-	With advance (2011) advances on the "Const", regardle may write a 2 might be advanced as the off the out the opposite at the tag of the constraints.	
tine) form	tine?	Recome a doar a fis duar's GM Metricities. Moleschrö	-
hope .			
Henringt.			

