

PCAN-DONGLE



Hardware manual

Version 1.1

Released Jan.2001

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1. Overview

- ? Baudrate configuration up to 1 MBits
- ? Equipped with a PHILIPS CAN-Controller 82C200/SJA1000 with a 16 MHz clock.
- ? Supports all Interrupt- and Port address configurations of parallel Interfaces.
- ? Allows Hardware Reset of the 82C200/SJA1000 from Software commands.
- ? Uses spacesaving Portadapter casing.
- ? Transceiver 82C251
- ? Connection via 9 pol. SUB-D. Complies with CiA-Recommended DS102

2. Application possibilities

PCAN-DONGLE allows the connection of CAN-Busses to the parallel interface of IBM compatible PC's. It is specifically designed for the use of Notebooks, which can be plugged into a Standart PC ISA connectingblock. The Adapters can be connected to every PC in a CAN-Network.

3. Commissioning

The Hardware of the CAN-Dongle does not require configuring. It needs only the Interrupts used and the Port address of the parallel interface. These can be found with the MS-DOS Tool MSD, which is included in Version 6.0 of every MS-Dos system.

(MSD.EXE in the DOS directory)

You can also take a look in the BIOS integrated Pheripherals to get the base adress and the interrupt of your parallel port.

PORT	Address	Interrupt
LPT1	378	IRQ7
LPT2	278	IRQ5

Table 1: List of current Interrupts and Base addresses for parallel interfaces in the PC

3.1 Connection to the CAN-Nets

The CAN-Net is connected via the 9 pole SUB-D-plug according to CiA Recommendation DS 102-1. Minimal configurations are the PINs 2 and 7 (CAN-L, CAN-H)

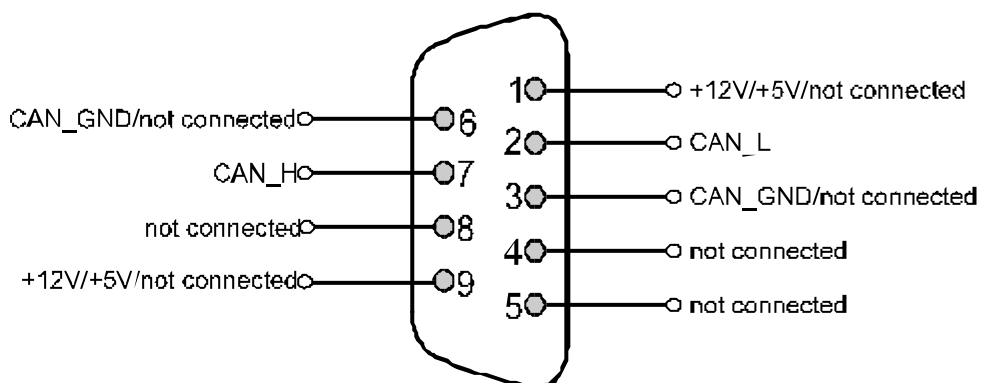
Configuration of the SUB-D plugs according to CiA/DS 102-1

The SUB-D-plug on board corresponds to the recommended DS 102-1 von CiA. Reserved Pins are not connected.

Pin	Connection
1	User-defined +12V / +5V / not connected.
2	CAN-L
3	User-defined CAN-GND / not connected.
4	not connected.
5	not connected.
6	User-defined CAN-GND / not connected.
7	CAN-H
8	not connected.
9	User-defined +12V / +5V / not connected.

Tabelle 1: Connection configuration for the 9 pol. SUB-D plug.

Fig 2: Connection configuration for the 9 pole SUB-D plug.



4. The Program CANVIEW

Contained in the enclosed packet is the program CANVIEW which is a CAN-Bus Viewer that runs under DOS. It supports the various PEAK company 82C200/SJA1000 based PC-Hardware extensions. It allows the Sending and Receiving of CAN-Messages. It displays the basic software for the Light-version of CANMON for DOS. With CANVIEW existing Nets can be quickly examined and built.

4.1 Program configuration

Start CANMON under DOS. Enter the Port address of the parallel interface and the Interrupt. Select your desired Baudrate.

If your processor is connected through a bi-directional interface, which is switched on, you can select the DONGLE-CAN EPP Modus. If you have any problems with it then simply select the DONGLE-CAN Modus. To use the 11/29 Bit ID Mode select the SJA Dongle (only original PEAK-Dongles build after 01/99 can use this mode).

The Dongle is configured and connected with CCANNET via the F10 button. If the error message "CAN-Controller 82C200/SJA1000 not found" is displayed, then check the Interrupt and Port address and then select Hardware type.

Online help is available at all times via the F1 button..

CANVIEW										Hardware: PC-ISA-CAN		
Empfangen												
Name	ID	Len	Daten	[hex]					Anzahl	Zeit[s]		
	02D	2:	00 64	--	--	--	--	--	1			
	02E	8:	00 64 00 64 00 00 80 AF						208	0.321		
	02D	2:	00 64	--	--	--	--	--	1			
Senden												
Name	ID	Len	Daten	[hex]					Anzahl	Zeit	Sollzt	Trigger
	01E	5:	A7 00 FE 04 00	--	--	--	--	--	1		warten	User
	023	1:	00	--	--	--	--	--			warten	
	025	1:	00	--	--	--	--	--	209	0.222	0.200	Time
	020	2:	00 00	--	--	--	--	--			warten	
	021	2:	00 00	--	--	--	--	--			warten	
Fehler												
Fehlertyp	Anzahl		Zeit									
<F1> Hotkeys, <Strg-F1> Hilfe												
(c) h&h'95												

Fig. 7: Screenshot of CANVIEW