Porsche OBD diagnostic interface

T-OBD is an USB-to-serial interface for connecting a Windows PC to the OBD1 diagnostic interface in Porsche 993 and 964.
The rather elderly Scantoool software is a bit fiddly to set up, but once working, it is a great car enthusiast tool. The software runs fine on Windows XP, 7, 8, 8.1 and Windows 10 platforms. Please read all these instructions before use. Windows settings may differ from this user guide.

Download software

All necessary software and documentation can be downloaded from our web site:
http://www.bergvillfx.com/downloads/

Driver installation

Windows 7 and later driver installation is almost fully automatic and would normally introduce no problems. The PC must be connected to Internet to be able to download the drivers.
Please ensure that you see the complete file name in your Windows Explorer application:
- Select Start/Control Panel
- In the **Control Panel** dialogue, double-click **Appearance And Personalization**
- In the Appearance And Personalization dialogue box, double-click **Folder Options**, or click **Show Hidden Files And Folders** under **Folder Options**
- In the **Folder Options** dialogue, ensure that **Show Hidden Files And Folders** is selected, click **OK**

Download and extract all files in the ZIP archive to your hard disk. The location below (**C:\Scantool**) is an example.
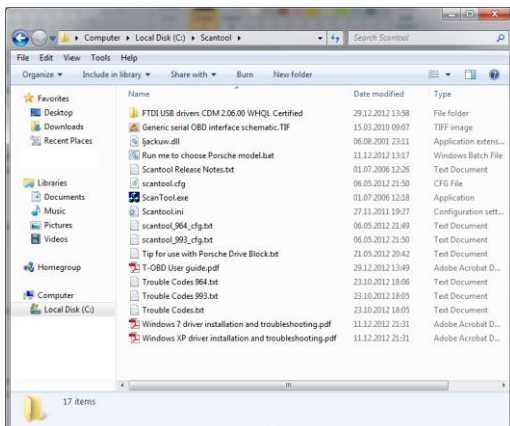
Plug in the T-OBD interface, Windows detect it as a **FT232R USB UART** and will download the drivers automatically from the Internet, and will eventually be displayed as Ready for Use:
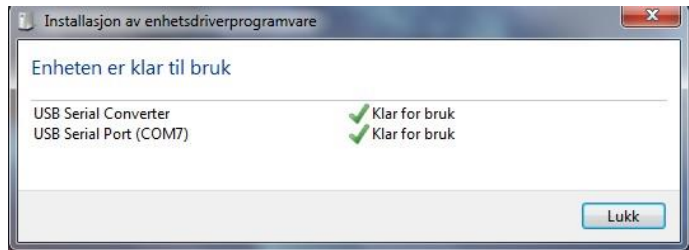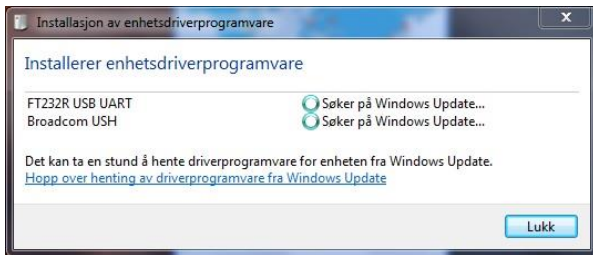
(Please excuse the norwegian text in screenshots)

After successfully installing the drivers the T-OBD will now appear in Device Manager. **Start/Control Panel/Device Manager.** Right-click on the **FT232R USB UART** icon, select: **Properties**, select the Port Settings tab, and then the **Advanced** button:
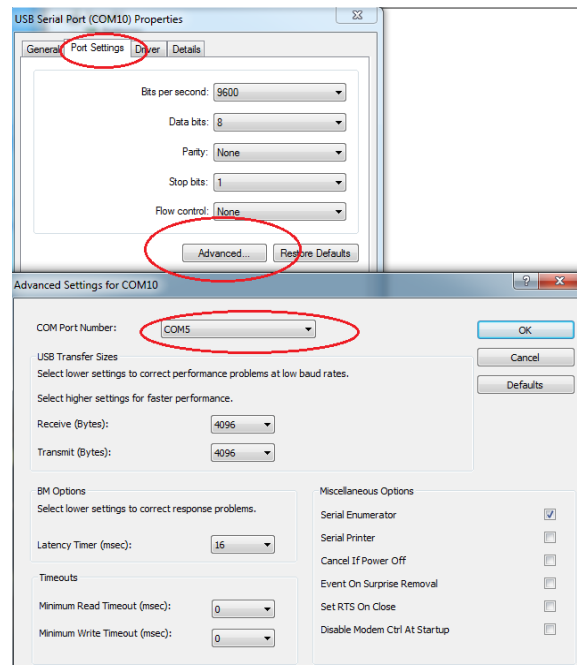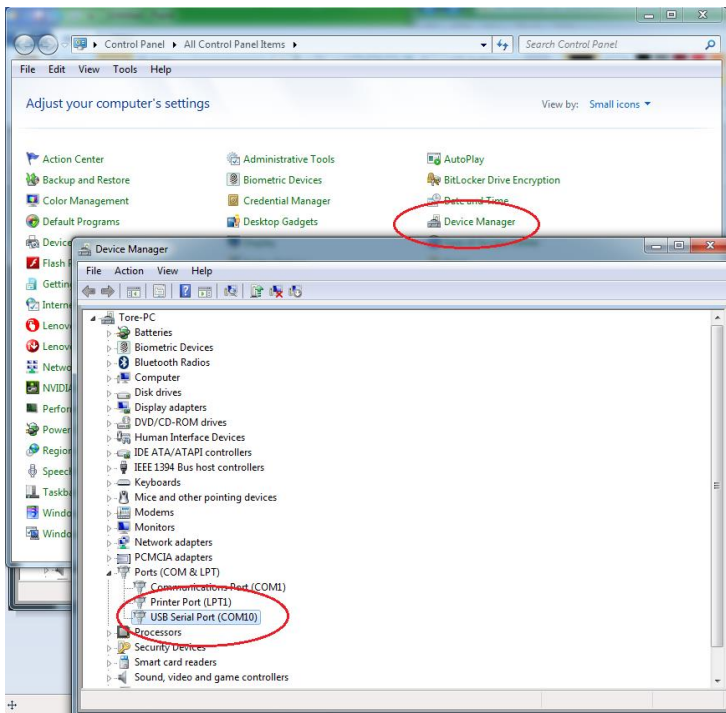

The Scantool software **does not support com ports above number 9**. Ensure that the number is of a value of 9 or lower, press OK, and verify the change by watching the Device Manager window.

Scantool.ini file

Be sure to set your computer to see the complete file name in your Windows Explorer application as described above.

Edit the **scantool.ini** file using Notepad or a similar text editor, and enter the serial port number that you found above (COM5 is an example)

IMPORTANT: Copy the edited **Scantool.ini** file in the Windows folder.
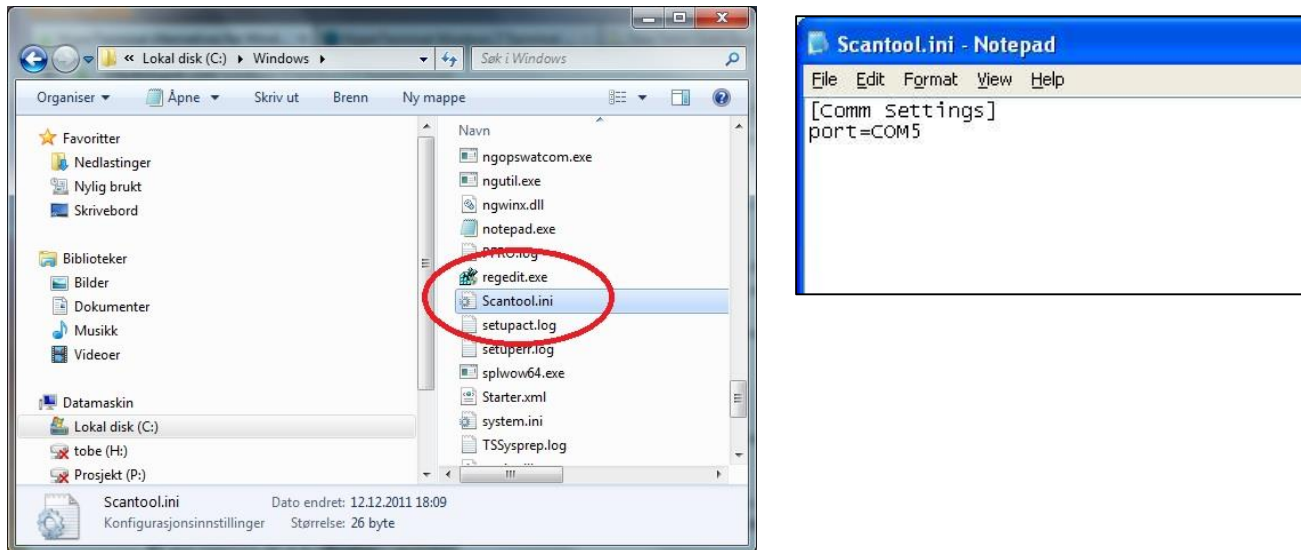
Important notice:

If the edited scantool.ini file it is NOT placed in the Windows folder, Scantool will use COM1. If COM1 exist on your computer, (probably a mouse or a serial port) Scantool will use the wrong port and never get any contact with either the T-OBD or your car OBD units. If COM1 does NOT exist on your computer, Scantool will prompt an error message saying that it can't find the COM1 port.

Config files

Scantool use the file **scantool.cfg** to set all the communication parameters. Another file defines all the trouble code text strings: **Trouble Codes.txt**
These two files are Porsche car model specific, and the Porsche 993 versions are the default.

If you are to use Scantool in a Porsche 964 you have to change these two files to the 964 versions.
Run the batch file **Run me to choose Porsche model** to activate either the 964 or 993 setup files.
You also can choose to see measured values in either degrees Celsius or Fahrenheit. This utility simplifies the necessary file copying and renaming. For those who are interested, this batch file automatically does the following when choosing the 964 setup:
Copy the file **scantool_964_cfg.txt** to **scantool.cfg**
Copy the file **Trouble Codes 964.txt** to **Trouble Codes.txt**
When choosing the 993 model, this is done:
Copy the file **scantool_993_cfg.txt** to **scantool.cfg**
Copy the file **Trouble Codes 993.txt** to **Trouble Codes.txt**

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Scantool use

Connect the T-OBD to a USB-port on your computer, and set the T-OBD switch to the **Other** position. Plug the T-OBD into the diagnostic connector in the car. Turn the ignition ON. A red light inside the T-OBD shall be lit, it's visible through a small hole on the underside of the adapter. This is the L-line indicator for the OBD1 interface.

Start Scantool.exe, the internal red light shall start blinking. Scantool will now, by default, try to connect to the Motronic engine control unit in the car. To connect to other units such as the CCU, ABS or alarm, select the appropriate module in the pull-down menu (Device) in the Scantool window.

Please set the T-OBD switch to the **Airbag** position if you are to communicate with this control unit in the Porsche 993.

19-pin adapter

Bergvill F/X stock an adapter for use in the Porsche 964 and early 993 and 964 models. These cars are equipped with a round 19-pin OBD connector. These do not have the special K'-line for communication with the Climate Control, ABS and Alarm control units. All communication to these units is done on the K-line, therefore, **always keep the switch in the Other position** when using in the 964 or early 993 and with this 19-pin adapter.

Please be aware that there are lots of these adapters sold on eBay and other web shops. We have not yet found an adapter that's made with the proper electrical connections according to Porsche specifications. Normally you will not see any internal red light in the T-OBD when using these rogue adapters.

The Bergvill F/X 19-pin adapters are of course tested and certified for use with all known OBD diagnostic tools.

Porsche Drive Block

You will experience problems connecting to the Motronic DME in 993 models equipped with the Porsche Drive Block immobilizer. This is a shortcoming of the Scantool software.

We have no conclusive solution to this, and will update this user manual if we find it.

To verify the T-OBD operation, select the CCU or other unit in the car and see if it's possible to connect to these. If so, the T-OBD is working OK, but you have a Porsche Drive Block unit preventing the connection to the DME.

Some have been able to do a workaround to connect to the engine control unit with a Porsche Drive Block, but some don't. We've seen this information on this thread on Rennlist:

http://forums.rennlist.com/rennforums/993-forum/371155-scantool-interface-for-1995-obd1-cars-and-the-immobilizer-is-there-a-workaround.html

This text was posted in the above thread:

"I did some different setups to try connection to the motronic. And suddenly scantool was connected to it without the workaround (switch installed to the immobilizer unit). So I retried to connect several times and here is my way to connect to the motronic in my '95 cab with remote and immobilizer:

Setup:
- Car closed and locked.
- Laptop inside and connected to OBD. Switches to:
- SW1/1 = DME/CCU/ABS/ALARM (not SRS)
- SW2/1 = DME (Motronic)
- Scantool4 not running

1. Press remote control to unlock the door.
2. Open door
3. Put the key into the ignition
4. Ignition on, but do not start the engine
5. Run scantool4.
6. Scantool4 tries to connect several times but fails.
7. Close scantool4
8. Run scantool4 again
9. Scantool4 tries to connect several times until connection is done. Scantool4 shows all data you need.
Note: If you switch off ignition you have to lock your car and do all this from beginning.

Another customer has reported this procedure for communicating with the DME:
1. Car is open and engine runs. Connect the OBD and start Scantool. Switch on obd is in Other.
Then I connect to the alarm and see the information of the alarm-system.
2. Connect to Motronic. There will be no connection.
3. Set the switch to position air bag. Short pause. Then move the switch again to Other.
Then the Motronic in my car connects and shows all values.

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