VOLVO
Volvo Bus Corporation
Göteborg, Sweden

Service Bulletin Buses

This Service Bulletin replaces Service Bulletin 36–16 from 10.04.

Date	Group	No.	Release	Page
12.04	**36**	**16**	**04**	1(24)

Body electronics, PC connection

Body, electrical functions

This document describes the layout and content of the Master ID, and connection of the modem. The menus and selections provided to the user with Master ID are shown and explained.

Equipment and software

The following equipment is used when connecting up to the Master ID:

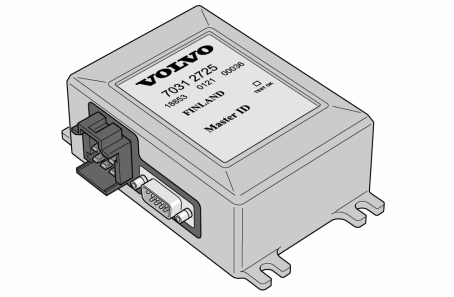
- A standard, straight serial cable (D-sub 9 pin female to 9 pin male).
- A VCADS Pro-PC or a standard PC with MS Internet Explorer
- SVG viewer — software that makes it possible to view the Master ID menus. SVG viewer is integrated in VCADS Pro. For non VCADS Pro-computers the application can be downloaded from *https://wsg.volvo.se/vbcremote*

Master ID

The Master ID is a control unit that is used partially as a memory reserve for the CECM-B and partially as an interface to the diagnostic PC. The Master ID contains information on the various functions implemented in the body and the ways of reading diagnoses from them.

When the Master ID is changed, the software must be downloaded from VBC-remote; this website is on the Volvo intranet (*https://wsg.volvo.se/vbcremote*).
Each bus has its own software package that is linked to the chassis number of the bus.

The Master ID is located in the forward electrical distribution unit and is connected to B bus.



T3016121

Connecting to control unit

Note: Before connecting to the Master ID, ensure to use either VCADS **version 2.0 or later** or a PC with Internet Explorer 5.5 or later installed.

Connecting to the Master ID is done in the following way:

- Connect the serial cable to one of the COM ports, for example, COM-port 1, on the computer.
- Connect the cable to the Master ID diagnostic connector, which is normally adjacent to the standard diagnostic connector.
- Connect the computer to the Master ID using the network connection “Master ID”.
- To create a network connection, see “Installation of modem” page 12.

Menus in Master ID

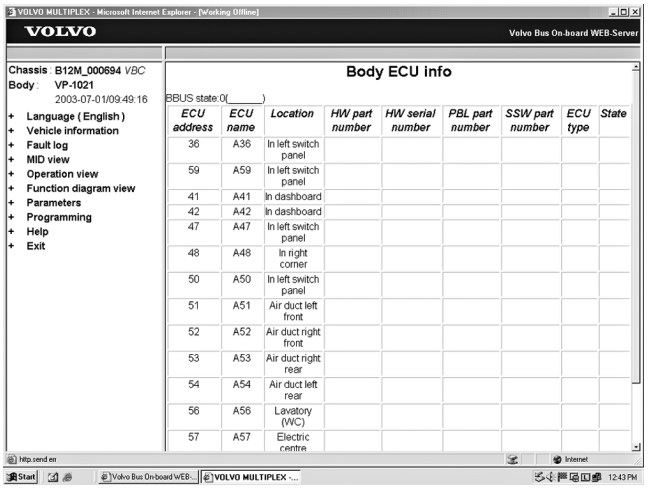
This is a presentation of the menus in Master ID.

Language

It is possible to choose between several languages; English is the default.

Vehicle information

This presents information about the hardware and software in the bus.



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There are three sub menus:

- Information on Master ID (Master ID Information) — information on all part numbers (all applications, etc.)
- Body ECU - shows all system software in the various control units, and their state.
- Part number for functions.

Body ECU - used to check whether the system is OK or not. The “State” column shows some of the following:

- 1 — OK
- 0 - The control unit responds but is not programmed.
- ERROR - The control unit does not respond.

Fault Log

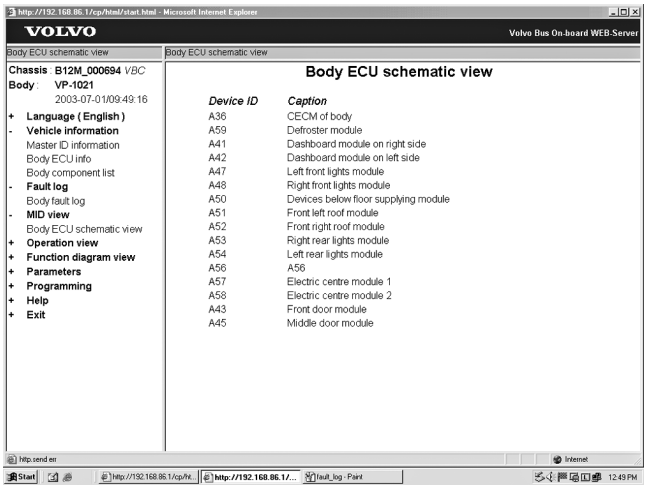
This shows the faults that the system has diagnosed. The user sees a description of each fault. They are grouped as shown in the figure.

T3017111

The fault logs should be read in the following way:
The information that is read off between **FMI** and **Function** shows the control unit that is sending the signal, whereas the information between **Device** and **Location** shows the component that is receiving the signal. It is also possible to see whether the fault is active or not.

MID view

Here is a list of the different control units in the vehicle body.



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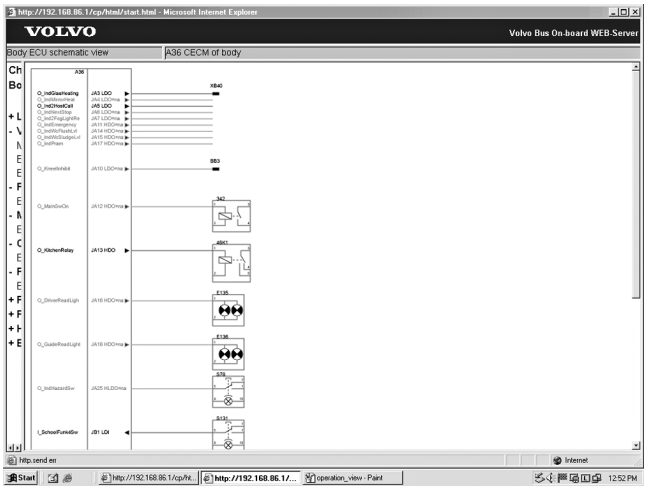
The user makes the selection and double clicks on the control unit. A wiring diagram is presented.



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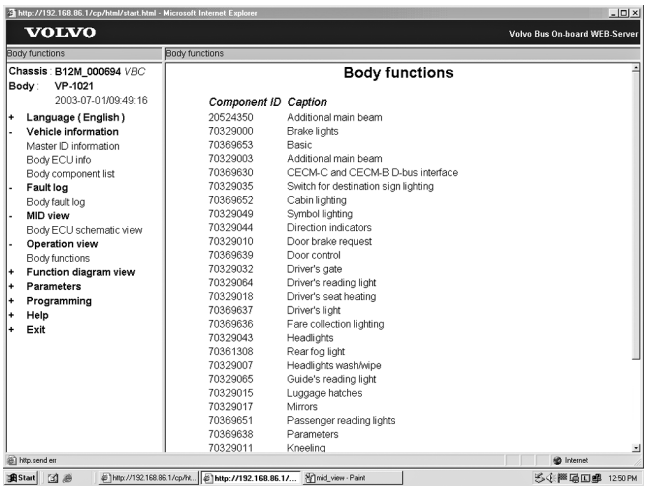
A picture of the control unit's input and output signals is shown.

1 Signal name — type and value are presented.
2 Pin number and signal type.

Operation view

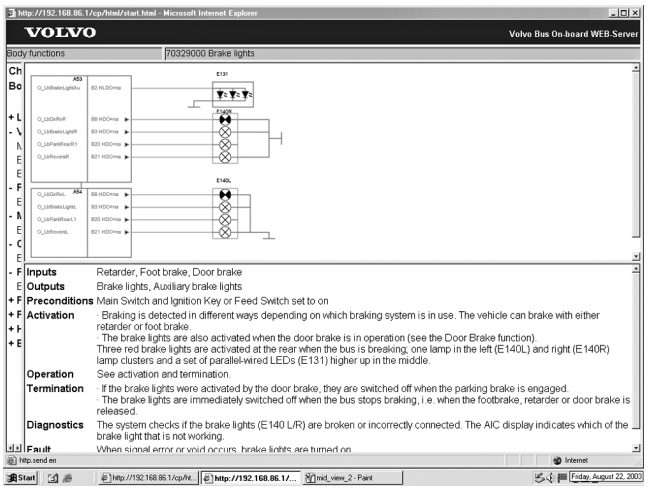
Select “Body functions”. The following menu is shown:



T3017112

This shows the functions that are downloaded to the bus and their part numbers. Select the function you wish to study and the following view is shown.

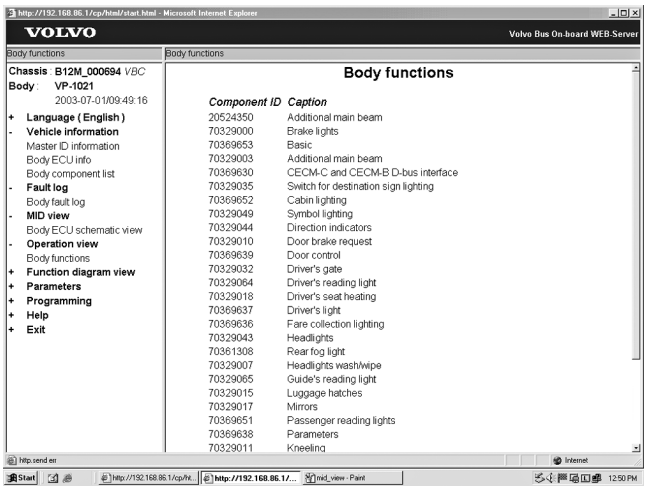
The user is shown the wiring diagram for the function and which pins and components are affected. The function description is shown in the lower part of the window.



T3017107

Function Diagram View

This shows which functions are downloaded to the bus and their part numbers. Click on the function of interest and more complete information will be presented.



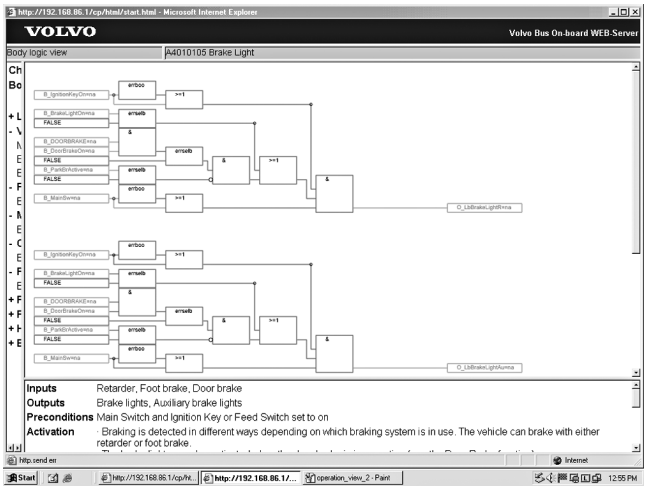
T3017112

A more detailed view of the function is shown in diagram form.

When the window opens, the illustration is automatically shifted sideways, which means that the heading almost disappears. The complete heading will be shown again when the pointer is held over the heading section.

The diagram gives more insight into the logic of the function. The signal values are also shown in the diagram window.

A function description is shown at the bottom of the window.



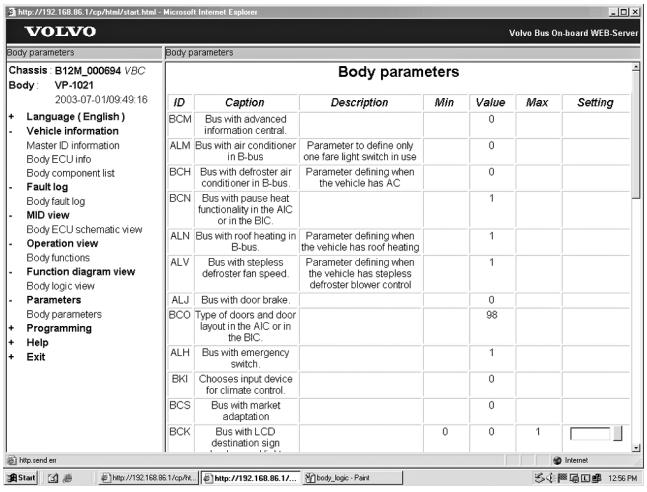
T3017108

Parameters

Most parameters in the bus can be seen in more detail. Some are customer parameters and can be changed. Others are set in the factory.

The list explains the various columns from left to right:

1 Parameter ID.
2 Parameter name.
3 Parameter description.
4 The minimum value of the parameter.
5 Current parameter values.
6 The maximum value of the parameter.
7 Enter the new value (when the parameter is reprogrammed) and press the **SET** button. It can then be seen in the “Value” column.



T3017106

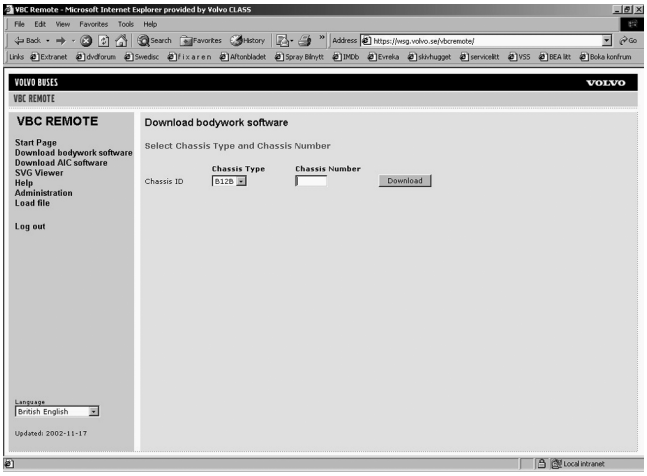
Programming

In order to programme the software, the user must connect up to VBC Remote and download the software in question.

- **VBC Remote** is available from the Volvo intranet under the address: *https://wsg.volvo.se/vbcremote*
- Type in the user name and password using the digipass — (static user names and passwords can be obtained for those who are not connected via VCADS).
- The **VBC Remote** website shows the following menus:
  - **Home** — takes the user back to the start page.
  - **Download bodywork software** — this downloads the selected software for the bus bodywork. The user must state chassis type, chassis number and MID number.
  - **Download AIC software** — this downloads the selected software for the bus AIC. The user must state chassis type, chassis number and MID number.
  - **SVG-viewer** — location of the SVG-viewer. (Does not apply to VCADS Pro computers)
  - **Help** — information about using Master ID.
  - **Log out** — terminates the connection to VBC Remote.

Downloading new software

- Find **VBC Remote** on the Volvo intranet under the address: *https://wsg.volvo.se/vbcremote*
- Type in the user name and password by using the digipass — (static user names and passwords can be obtained for those who are not connected via VCADS).
- Select the command **“Download vehicle software”** or **“Download AIC software”** depending on which type is to be installed.
- Enter chassis type, chassis number and MID number.
- Select a location for the software. It is recommended to create a new folder in “Windows Explorer” to use specifically for storing downloaded software.
- Download the software to this folder.
- Close down VBC Remote and connect up to the Master ID. For VCADS users, go in on the connection you have created, which should be done as in “Installation of modem” page 12.
- Start Internet Explorer.
- Enter the address http://192.168.86.1



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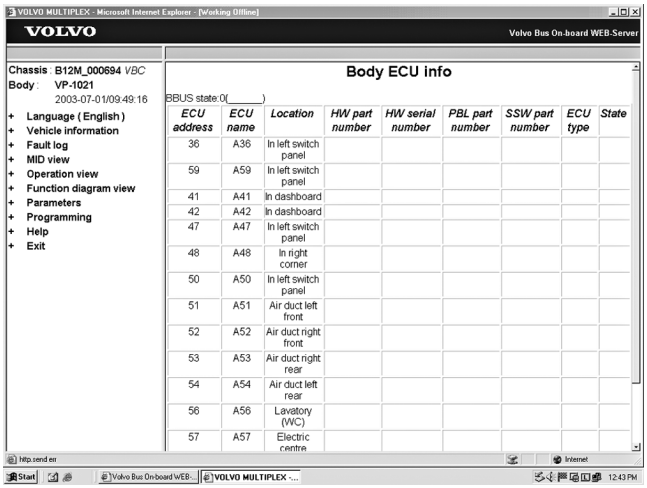
- Select “Programming” and then “Download”.
- Click “Enter”.



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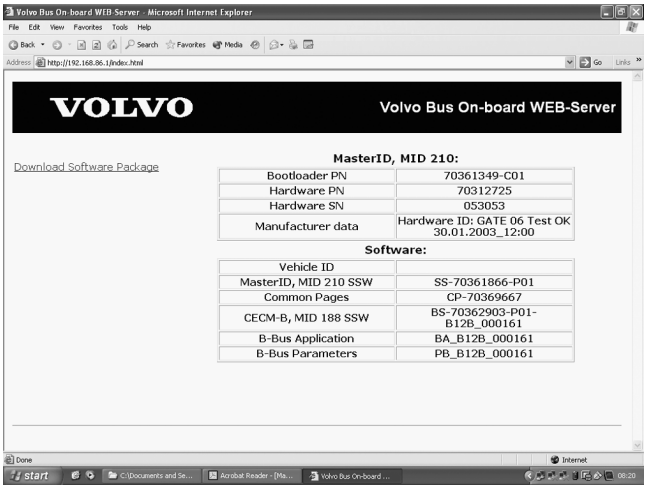
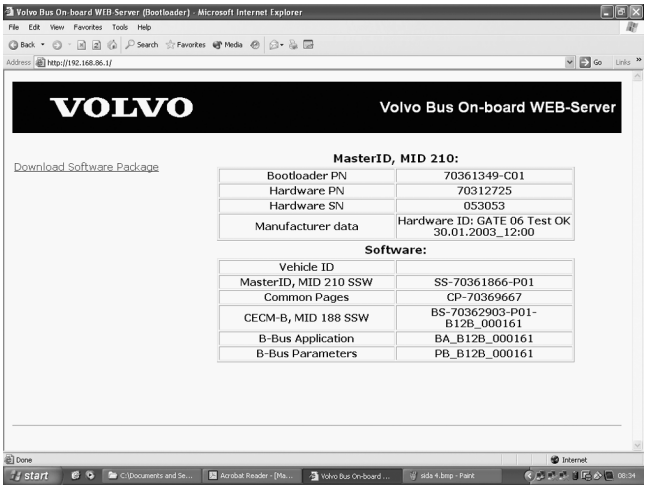
- Enter the address http://192.168.86.1/start_bl.html
- Click “Enter”.
- Check that Bootloader is on the screen. This is shown at the top of the screen.
  Volvo Bus On board WEB Server (Bootloader).



T3017779

- Click “Download software package”.



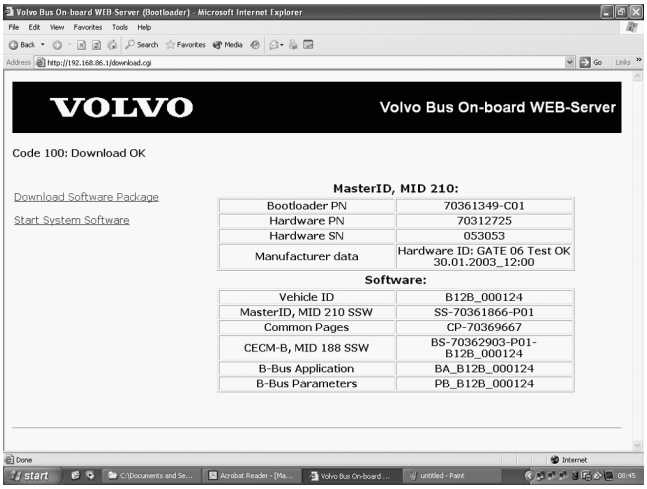
T3017780

- Click “Browse”.
- Browse to the folder where the current software was previously stored.
- Open the folder and mark the file which ends with .210.
- Open this file
- Press “Download” to download the software from the Master ID.

T3017781

- Wait until the message “Download OK” is shown.

Note: This can take about 20 minutes.



T3017782

- Press “Start System Software”. Check with the PC to see that the software has been downloaded in CECM-B. Close the connection to Master ID and disconnect main power. Wait approx 20 seconds and then turn on main power again. Reconnect the computer and check that CECM-B downloads the software to the I/O-modules. Wait until the main menu appears on the screen again. Return to the vehicle information page, see “Vehicle information” page 4, and make sure all the modules have status = 1.

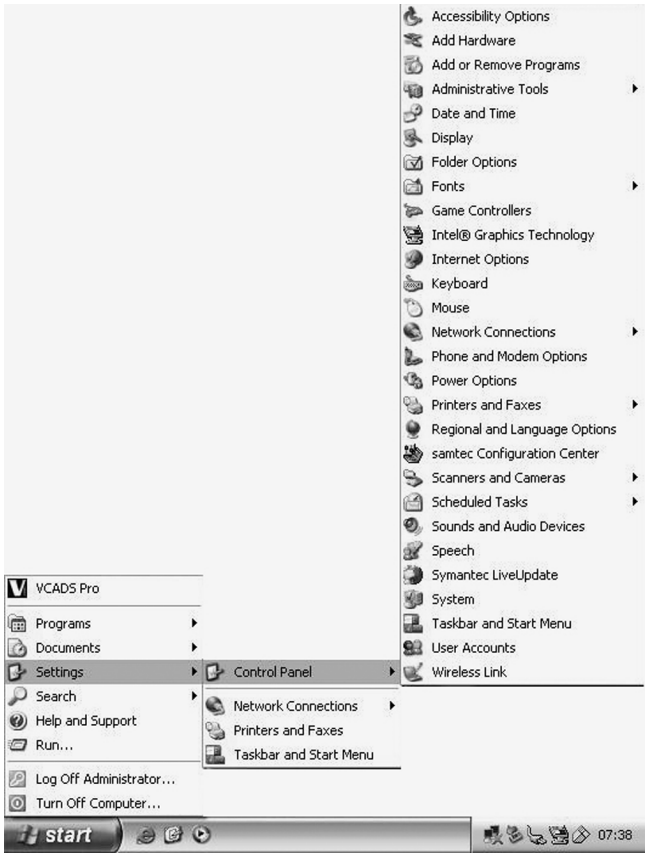
Exit

Is used to exit the programme.

Installation of modem

In order to connect to the Master ID, a modem connection must be created. This is done in the following way and is shown on a VCADS Pro computer. There can be differences depending on the version of Windows being used.

1

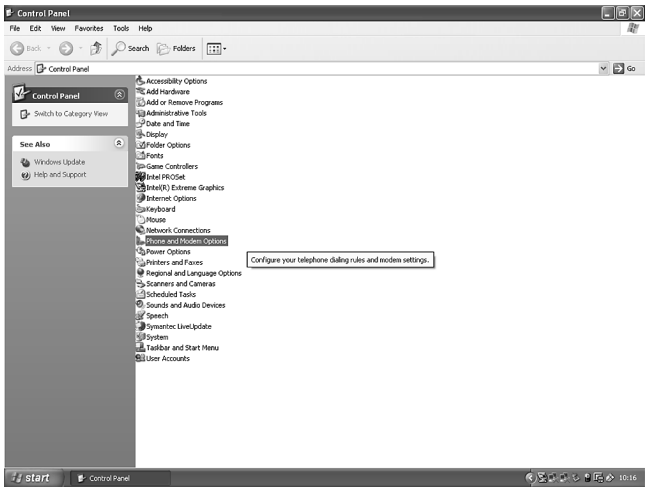


T3017242

Open the Control Panel from the Start Menu.

Note: If “Control Panel” is not on the Start Menu then select “Run”. Type in *Control* and press OK.

2



T3017790

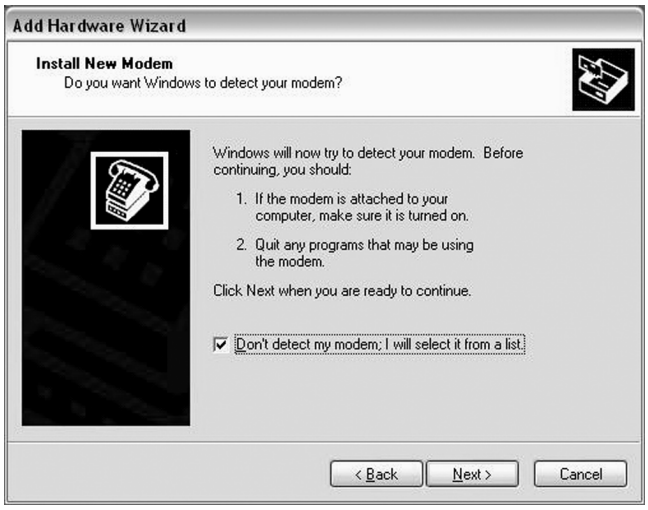
Open “Phone and modem options”. Follow the automatic installation if there is one, or continue below.

3

T3017237

Select the tab “Modem” and then click “Add” to install a new modem for the computer.

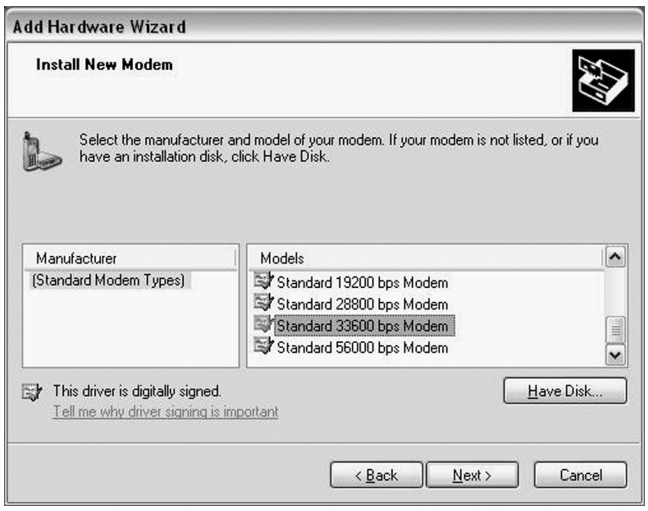
4



T3017236

Here the user chooses to let the computer find a modem or to select one manually. Check the box for manual selection. Then click “Next”.

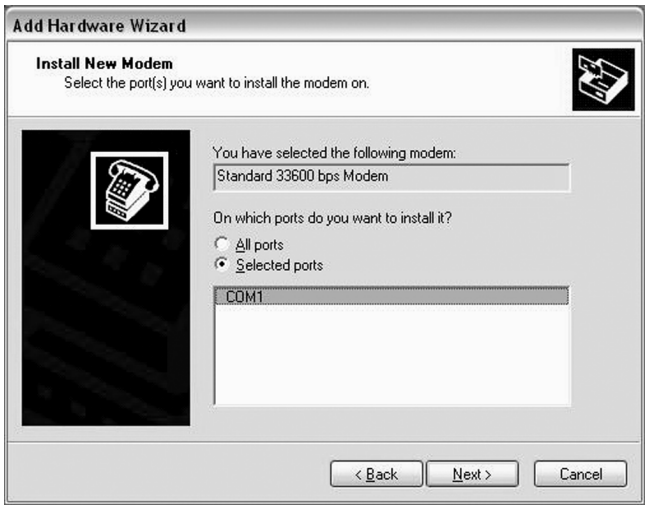
5



T3017244

Here a “standard 33600 bps modem” is selected. Click “Next”.

6



T3017251

Here the port which the modem is to be connected to is selected. Select “COM1” and click “Next”.

7

T3017246

Click “Finish”. When the installation is complete, the newly installed modem should be seen in the window.

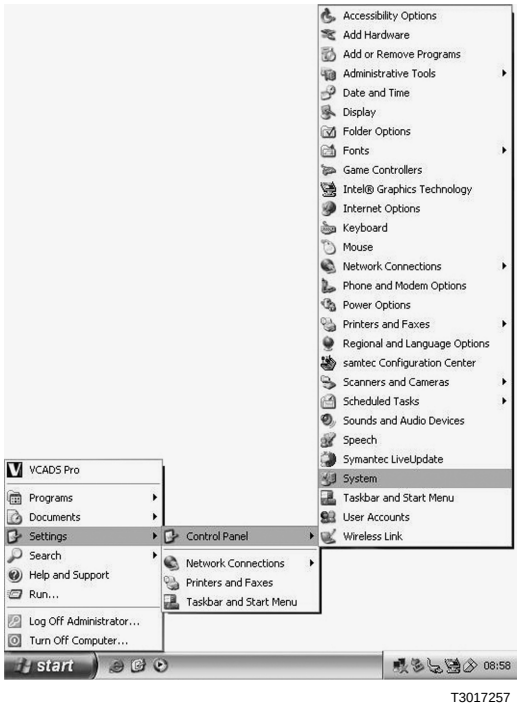
8

T3017252

Highlight the newly installed modem and click on “Properties”. Under the tab “Modem” check that the maximum speed of 115,200 bps is selected, and then click “OK”. When the installation is complete, click “OK” once again.

Note: The computer can also have other modems installed. Check that the settings for these have *not changed*.

9



T3017257

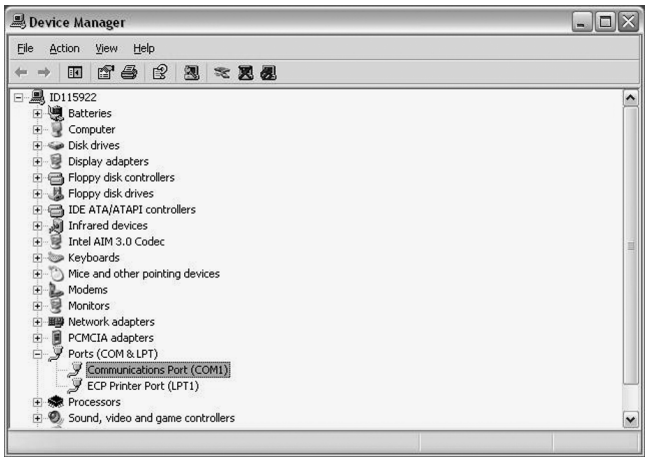
The communication port must be configured. Open “System” on the control panel.

10

T3017243

Select the “Hardware” tab and click “Device Manager”.

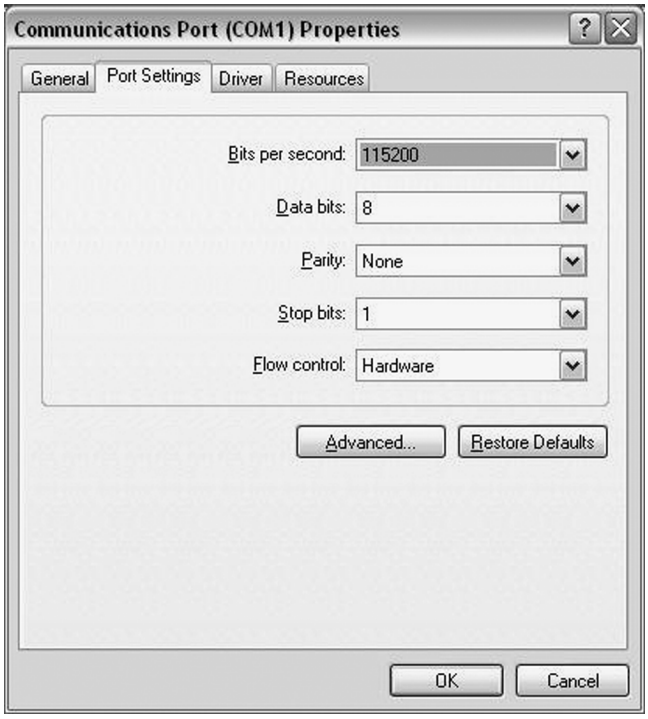
11



T3017245

Select “Communications port COM 1”. Right click and select “Properties”.

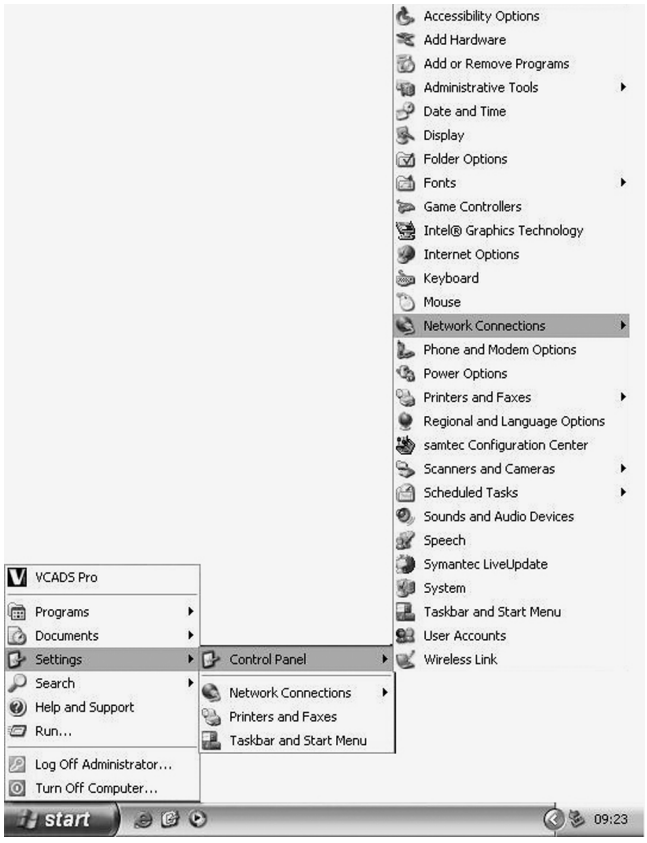
12



T3017239

Check that the speed 115,200 is selected under the “Port settings” tab and that “Flow control” is set to “Hardware”. Then click “OK”. Close the remaining windows.

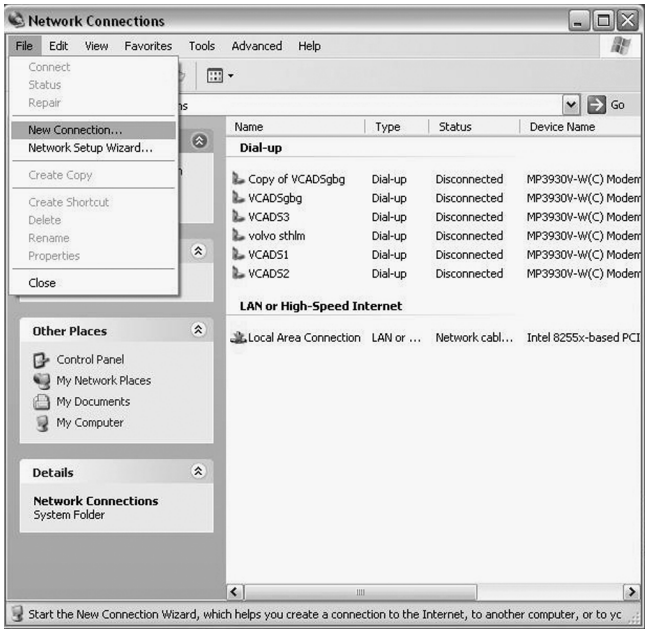
13



T3017253

A modem connection to the Master ID must also be created. Open “Network Connections” from the Control Panel.

14



T3017254

From the “File” menu, select “New Connection”.

15

T3017258

A welcome message is shown. Click “Next”.

16

T3017241

The computer then asks for the type of connection to set up, select “Connect to the Internet”. Click “Next”.

17

T3017247

Mark that the connection is to be configured manually. Click “Next”.

18

T3017240

Mark “Connect using a dial-up modem”. Click “Next”.

19

T3017238

Select the newly installed standard modem. Click “Next”.

20

T3017249

Give the connection a name. For example “Master ID”. Click “Next”.

21

T3017255

A telephone number must also be chosen. Select “0”. Click “Next”.

22

T3017248

The computer requests information about the user. Leave all the fields empty and ensure that **none** of the three alternatives at the bottom of the window are checked. Click “Next”.

23

T3017256

If the user wishes to create a shortcut from the desktop for this connection, check the box in this window. Click “Finish”.

The connection is now ready to use.