

GB

TRUST 56K PC-CARD MODEM

Instruction manual

Version 1.0

Thank you

Thank you very much for purchasing this product from the Trust range. We wish you hours of fun with it. Please read this manual carefully before using the product.

Registration

Register your purchase now at the Trust Internet site (www.trust.com) and you could win one of the fabulous prizes. The website is also the place to look for dealer addresses, comprehensive product information, drivers and FAQ's (Frequently Asked Questions).

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1. Introduction

This manual is intended for users of the Trust 56K PC-Card Modem. No prior knowledge is necessary to install and use this product.

If you have any questions after reading this instruction manual, please contact one of the Trust Service Centres. You can find your nearest Service Centre at the end of this manual. You can also visit the Trust website (www.trust.com) for support, detailed product information, drivers and FAQ's (Frequently Asked Questions).

1.1 Conventions used in the manual

The following conventions have been used in this manual to indicate instructions:

- <key>** Here you should press a key. The name of the key is given between brackets.
- 'System'** This is a specific term used in a program. These are the terms used by, for example, Microsoft Windows 98.
- [DIR]** Key in the text shown in square brackets [...].
- (term)** The text between the parentheses {...} is the English term, e.g. (File) used in the figure referred to.

Additional information will be shown as follows:

Note: *The modem does not work under DOS, OS/2 or UNIX.*

The examples assume that the letter "D" has been assigned to your CD-ROM drive. If your system uses a different letter for your CD-ROM drive, for example "E", you should replace "D" by "E".

1.2 Contents of the package

Please check the contents of the package before reading the instruction manual. It should contain the following:

- PC-Card modem
- Telephone cable
- CD-ROM containing the drivers, application software and instruction manual
- Telephone plug (optional)
- Quick installation manual

Please contact your dealer if anything is missing or damaged.

1.3 Minimum system requirements

- Pentium 100 CPU
- Windows 95
- 16 MB RAM
- 4 MB free hard disk space
- 4-speed CD-ROM drive
- Free PCMCIA type II slot
- Analogue telephone connection

2. Installation

2.1 Installing the device

- A. Firmly insert the fax modem into your computer's PCMCIA slot so that the 68 pin connection is facing towards the computer (see figure 1). Use the arrow on the label as a guide for the correct position. A noise signal will be heard. If you do not here this signal, check whether the drivers for the PCMCIA slot have been installed.

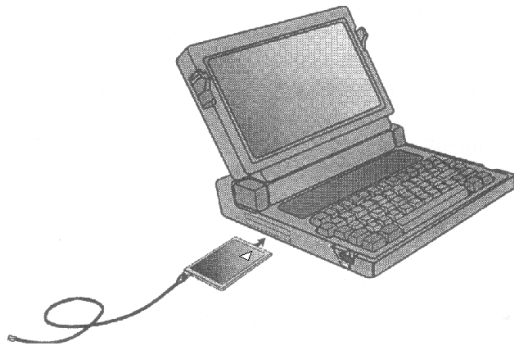


Figure 1: Inserting the Trust 56K PC-Card Modem

- B. Insert the cable supplied into the PC Card (see figure 1). The shape of the connection only allows the plug to be inserted in one way. Insert the other end of the cable into the telephone socket.

The installation of the device is now complete. Continue with the installation of the drivers.

2.2 Installing the driver

2.2.1 Windows 95 OSR2

Install the driver that is included on the CD-ROM. The modem can only be used after the driver has been installed.

Installation may take place differently from the description given below. This is due to the different versions of Windows 95 available. If in doubt, consult the Windows Help function for more information about adding hardware.

1. Start Windows.
2. Insert the fax modem into the PCMCIA slot (if you have not already done so). Windows will detect the new device. Figure 2 will appear.



Figure 2: New hardware detected

3. Insert the CD-ROM containing the driver into your CD-ROM drive and click on 'Next'. Figure 3 will appear.



Figure 3: Installing the PC Card

4. Click on 'Other Locations...'. Figure 4 will appear.

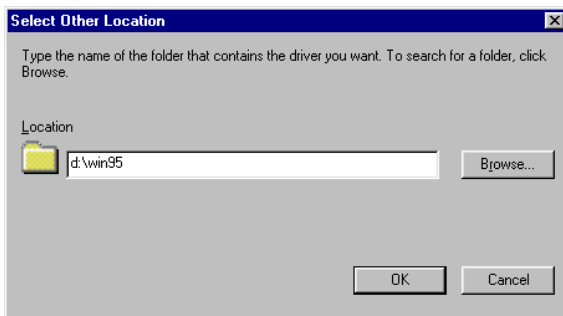


Figure 4: Specifying a location for the driver

5. In the command line, type 'd:\win95' and click on 'OK'. Figure 5 will appear.



Figure 5: Driver found

6. Click on 'Finish'. A number of files will be copied to your hard drive. Windows may request the location of the driver again. If it does, type 'd:\win95'.

Figure 6 will appear once the files have been copied to your hard drive.



Figure 6: Wave device found

7. Click on 'Next'. Figure 7 will appear.

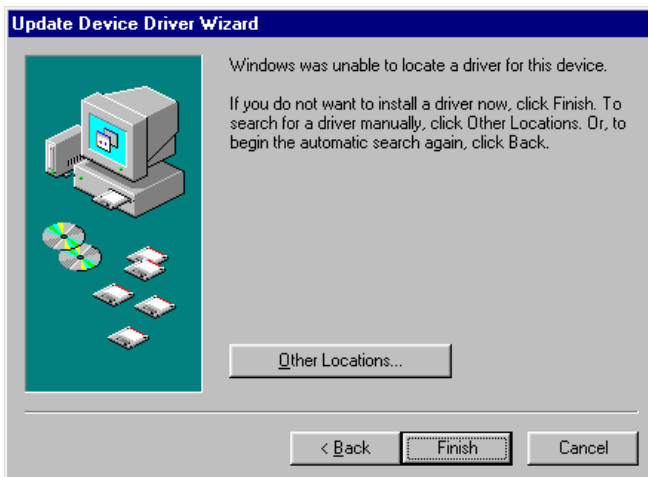


Figure 7: Specifying other locations

8. Click on 'Other Locations...'. Figure 8 will appear.

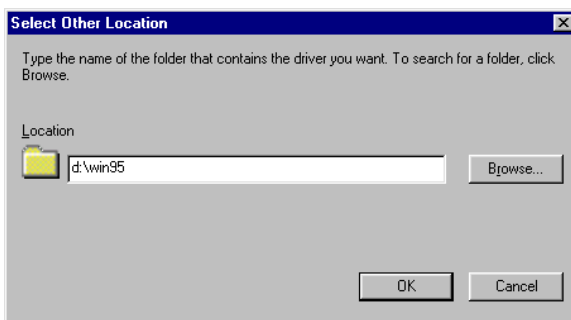


Figure 8: Specifying a location for the driver



- Click on 'OK'. The driver will be located and figure 9 will appear.



Figure 9: Driver found

- Click on 'Finish'. A number of files will be copied to your hard drive. Windows may request the location of the driver again. If it does, type 'd:\win95'.

The installation of the driver is now complete. Continue to chapter 3 for information on how to test the modem.

2.2.2 Windows 98

Install the driver that is included on the CD-ROM. The modem can only be used after the driver has been installed.

- Start Windows.
- Insert the fax modem into the PCMCIA slot (if you have not already done so). Windows will detect new hardware (see figure 10).



Figure 10: New hardware detected

3. Click on 'Next'. Figure 11 will appear.



Figure 11: Searching for the best driver

4. Select the first option 'Search for the best driver for your device (Recommended)' and click on 'Next'. Figure 12 will appear.



Figure 12: Specifying a location

5. Choose the last option, 'Specify a location', and type 'd:\win98' in the command line. Click on 'Next'. Figure 13 will appear.

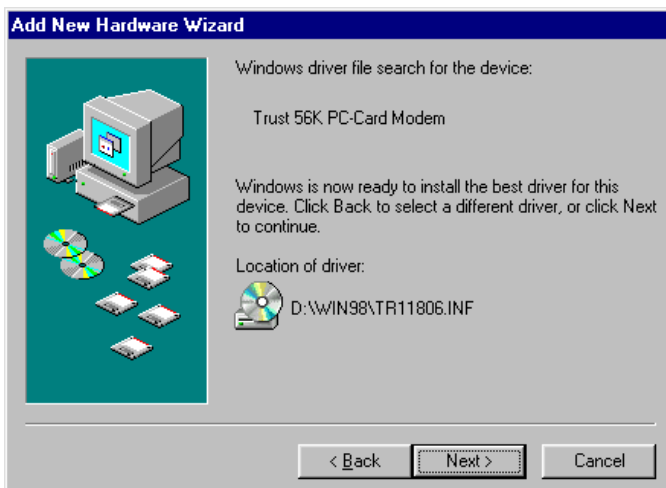


Figure 13: Driver found

- Click on 'Next'. A number of files will be copied. When complete, figure 14 will appear.



Figure 14: Modem installed

- Click on 'Finish'. Figure 15 will appear.



Figure 15: Wave device found

- Click on 'Next'. Figure 16 will appear.



Figure 16: Searching for the best driver

9. Select the first option 'Search for the best driver for your device (Recommended)' and click on 'Next'. Figure 17 will appear.



Figure 17: Specifying a location for the driver

10. Choose the last option, 'Specify a location', and type 'd:\win98' in the command line. Click on 'Next'. Figure 18 will appear.



Figure 18: Driver found

11. Click on 'Next'. A number of files will be copied. When complete, figure 19 will appear.



Figure 19: Driver installed

The installation of the driver is now complete. Continue to chapter 3 for information on how to test the modem.

2.2.3 Windows NT4.0

The driver included on the CD-ROM must be installed before the modem can be used.

1. Insert the fax modem into the PCMCIA slot (if you have not already done so).
2. Start Windows NT4.0.
3. Log in as 'Administrator'.
4. Insert the CD-ROM into your CD-ROM drive.
5. Click on 'Start', followed by 'Run'.
6. In the command line, type 'd:\winnt4\setup.exe' and click on 'OK'.
7. Follow the on-screen instructions.

The installation of the driver is now complete. Continue to chapter 4 for information on how to use the modem.

2.2.4 Windows 2000

The driver included on the CD-ROM must be installed before the modem can be used.

Note: *The Trust 56K PC-Card Modem must not already be inserted into the PCMCIA slot!*

1. Start Windows 2000.
2. Log in as 'Administrator'.
3. Insert the CD-ROM into your CD-ROM drive.
4. Insert the fax modem into the PCMCIA slot. Windows will detect new hardware and will install a 'Standard PCMCIA Card Modem'.
5. Choose 'No' when Windows asks you if you wish to restart the computer.
6. Double click on the PCMCIA icon in the taskbar (see figure 20). Figure 21 will appear.

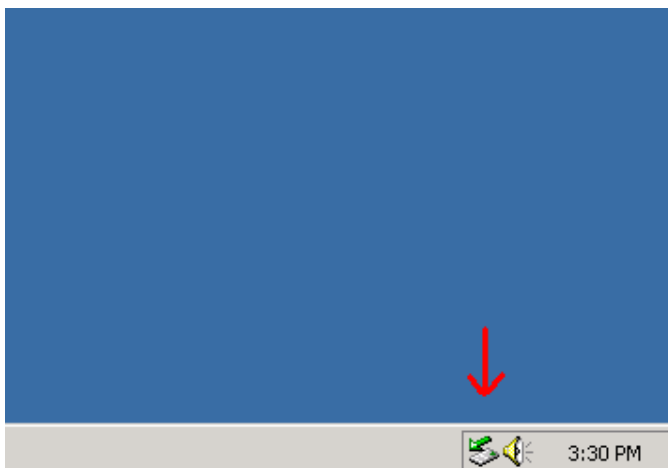


Figure 20: PCMCIA icon in the taskbar

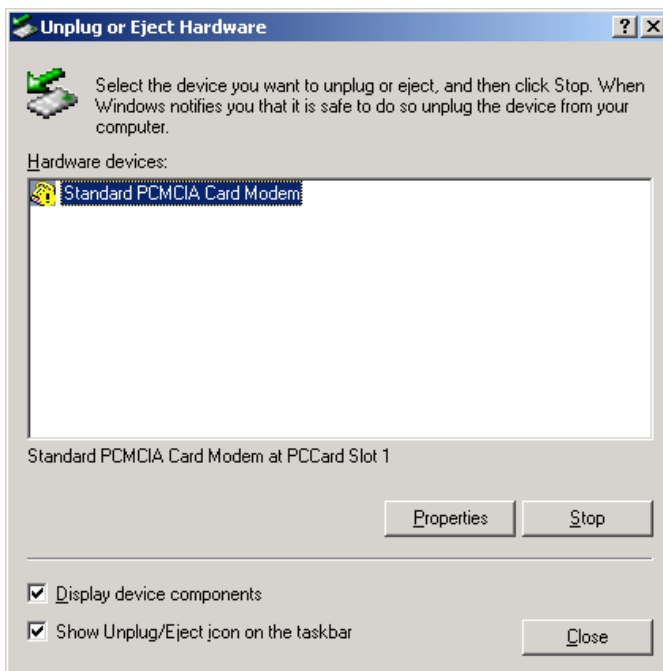


Figure 21: Standard PCMCIA Card Modem

7. Click once on 'Standard PCMCIA Card Modem' so that it becomes blue. Next, click on 'Properties'.
8. Click on the 'Driver' tab (see figure 22).

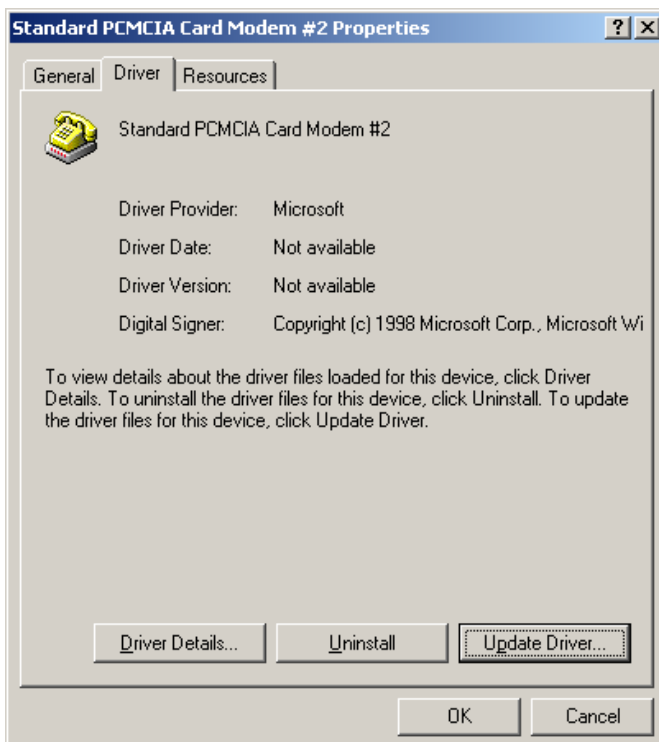


Figure 22: Standard PCMCIA Card properties

9. Click on 'Update Driver...'. A new window will appear.

10. Click on 'Next'. Figure 23 will appear.



Figure 23: Upgrade device driver

11. Choose the first option 'Search for a suitable driver for my device (recommended)' by clicking on it once and then click on 'Next'. Figure 24 will appear.

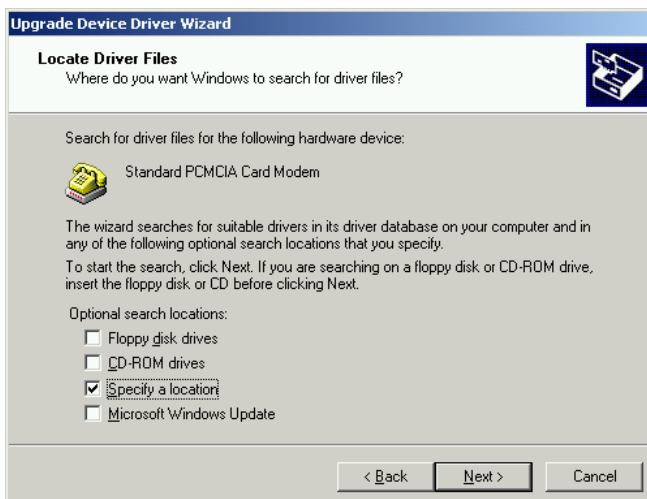


Figure 24: Specifying a location for the driver

12. Choose the option 'Specify a location' by clicking on it once and then click on 'Next'. Figure 25 will appear.



Figure 25: Specifying a location for the driver

13. In the command line, type 'd:\win2000' and click on 'OK'. Figure 26 will appear.

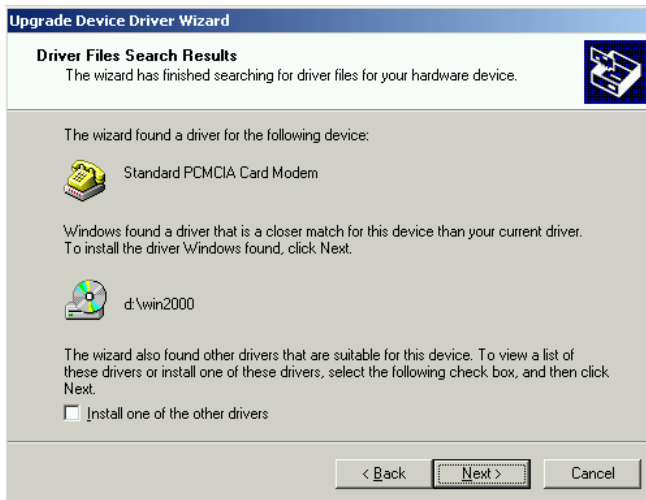


Figure 26: Driver found

14. Click on 'Next'. A number of files will be copied. When complete, figure 27 will appear.

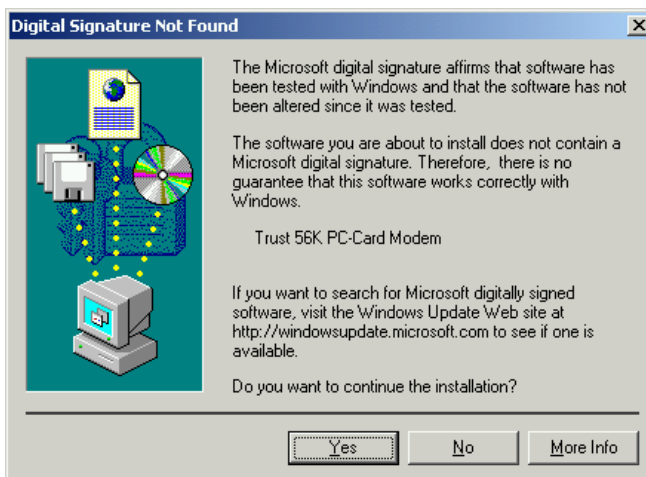


Figure 27: Digital signature not found



15. Windows 2000 will display a message stating that the driver's digital signature has not been found. Due to the fast development of computer technology, it is not always possible to have the newest drivers signed in time. Click on 'Yes' to accept and continue with the installation. Figure 28 will appear.



Figure 28: Modem installed

Note: *Make sure that Windows 2000 allows non-signed drivers to be installed. You can set this by going to 'Control Panel - System' and clicking the 'Hardware' tab. Click on the 'Driver Signing...' tab and then select 'Warn'.*

16. Click on 'Finish'. Choose 'No' if you are asked whether you wish to restart your computer.
17. Click on 'Start', followed by 'Run'. A new window will be displayed.
18. In the command line, type 'D:\WIN2000\LTTHOMOL.EXE' and click on 'OK'.
The modem has now been successfully installed. If you were previously asked to restart your computer, then you must do this now.

2.3 Installing the software

1. Insert the CD-ROM into your CD-ROM drive.
2. Select 'Run' from the Start menu.
3. Type [D:\SETUP.EXE] and click on 'OK' (see figure 29) to start the Trust Software Installer.

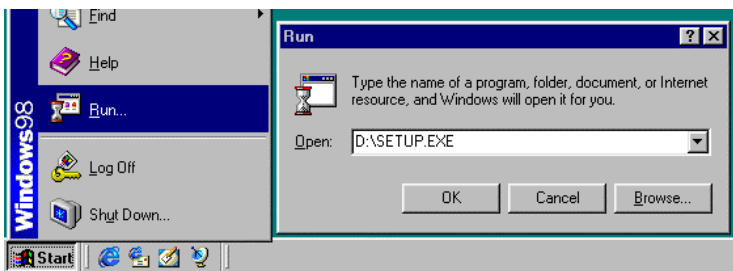


Figure 29: Starting set-up

- Select the language you wish to use. Figure 30 will appear.

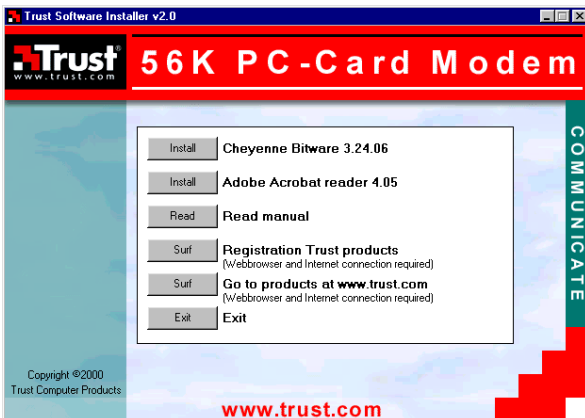


Figure 30: Trust Software Installer

- Select 'Cheyenne Bitware 3.24.06'.
 - Follow the on-screen instructions.
- Restart your computer after installing the software.

3. Testing

Carry out the following test to check whether the modem functions correctly with your computer.

Note: *This function is not available in Windows NT.*

3.1 Windows 95 / 98

- Go to the 'Control Panel' (Start - Settings – Control Panel).
- Double click on the 'Modems' icon.
- Click on the 'Diagnostics' tab.
- Select the COM port for the Trust 56K PC-Card Modem and click on the 'More Info...' button.
- The response from the modem will appear in the window after a short time. If there is no response, see the 'Troubleshooting' chapter for more information.

3.2 Windows 2000

- Go to the 'Control Panel' (Start – Settings – Control Panel).
- Double click on the 'System' icon.
- Click on the 'Hardware' tab.
- Click on the 'Device Manager...' button.
- Double click on 'Modems'.
- Double click on 'Trust 56K PC-Card Modem'.
- Choose the 'Diagnostics' tab.
- Next, click on the 'Query Modem' button.
- The response from the modem will appear in the window after a short time. If there is no response, see the 'Troubleshooting' chapter for more information.

This test only checks the communication between the modem and the computer. It does not check for problems with the connection.

Continue to chapter 4 for information on how to use the modem.

4. Using the modem

4.1 Internet

Several other programs are necessary for connecting to your ISP (Internet Service Provider). These are included as standard in Windows and are usually installed automatically when you double click on the Internet icon. Some Internet Service Providers supply a complete software package for Internet access that makes your system suitable for Internet use.

4.2 Dial tone abroad

A different dial tone may be used if you use your modem abroad or via your own telephone exchange. This results in the 'No Dial Tone' error message being displayed when an attempt is made to make a connection.

Turn off the dial tone detection by carrying out the following steps:

4.2.1 Windows 95/98

1. Go to the 'Control Panel' (Start - Settings - Control Panel).
2. Double click on the 'Modems' icon.
3. Click on the 'Properties' button.
4. Click on the 'Connection' tab. Figure 31 will appear.

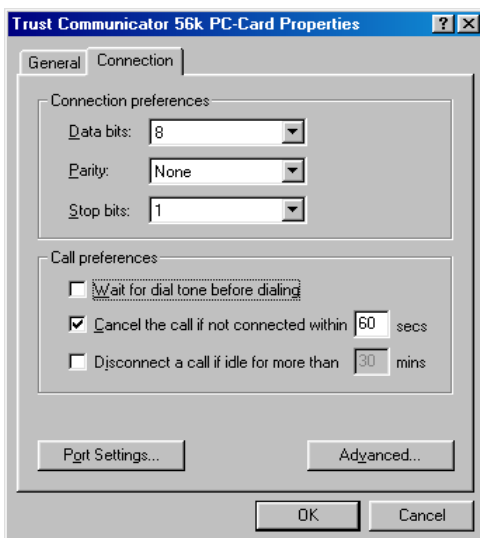


Figure 31: Modem connection

5. Remove the tick in the 'Wait for dial tone before dialling' check box (see figure 31) to switch off the dial tone detection.
6. Click on 'OK' to confirm the change.

4.2.2 Windows 2000

1. Go to the 'Control Panel' (Start – Settings – Control Panel).
2. Double click on the 'System icon.
3. Click on the 'Hardware' tab.
4. Click on the 'Device Manager...' button.
5. Double click on 'Modems'. The 'Trust 56K PC-Card Modem' will be displayed.
6. Double click on 'Trust 56K PC-Card Modem'.
7. Click on the 'Modem' tab.
8. Remove the tick from the 'Wait for dial tone before dialling' check box.
9. Click on 'OK' to confirm the change.

5. Troubleshooting

This chapter is intended to help solve any problems that may be encountered. If this does not help to solve the problem, visit the Trust Internet site at www.trust.com, contact your dealer or call the Trust Help Desk. The following details will be required:

- **The article number. This can be found below the bar code**
- **Your version of Windows and its language of use**
- **The type of CPU and its speed**
- **The size of the internal memory**
- **The name and version of the program**
- **The exact error message or a good description of what does not work and when it happens.**

Problem	Possible cause	Solution
The modem does not react.	The drivers have not been installed correctly.	Remove the drivers and reinstall them.
The modem makes a connection, but no data appears on the screen.	The communication parameters have not been set correctly.	Check whether all the communication settings (speed, data, stop and parity bits) have been set correctly and are equal on both sides of the connection.
	The system is waiting for you.	Press the <ENTER> button several times. The remote system may be waiting until it has received data from you before sending anything.
The modem calls, but no connection is made.	Poor connection.	Redial.
	Wrong number.	Check the number.
	The communication protocol is wrong.	Contact your service provider for the correct communication settings.
The modem experiences errors when connecting to a remote modem.	There is another call coming in.	Make sure that 'Call Waiting' is turned off.
	Poor connection.	Redial.
The error message 'No Dial Tone' is displayed.	The telephone line is in use.	Wait until the line is free.
	The telephone line does not work.	Test using the normal telephone and make the necessary repairs.
	The dial tone is different.	Switch off dial tone detection (see chapter 4.2).

6. Trust Service Centres



Inhabitants of the UK and Ireland should contact:	
UK Office	
From: 9:30 - 17:00	Internet www.trust.com E-mail support-uk@trust.com Fax +44-(0)1376-514633 Tel. +44-(0)1376-500000
Inhabitants of Italy should contact:	
Italian Office	
From: 9:00 - 13:00 / 14:00 - 18:00	Internet www.trust.com E-mail support-it@trust.com Fax 051-6635843 Tel. 051-6635947
Inhabitants of France and North Africa should contact:	
French Office	
From: 9:00 - 17:00	Internet www.trust.com E-mail support-fr@trust.com Fax +33-(0)1-48174918 Tel. +33-(0)1-48174931
Inhabitants of Germany should contact:	
German Office	
From: 9:00 - 17:00	Internet www.trust.com E-mail support-de@trust.com Fax 02821-58873 Tel. 0800-00TRUST (=0800-0087878)
Inhabitants of Spain should contact:	
Spanish Office	
From: 9:00 - 17:00	Internet www.trust.com E-mail support-es@trust.com Fax +31-78-6543299 Tel. +31-78-6549999
Inhabitants of the Netherlands should:	
Dutch Office	
From: 9:00 - 17:00	Internet www.trust.com E-mail support-nl@trust.com Fax +31-78-6543299 Tel. +31-78-6549999
Inhabitants of all other European countries should contact:	
European Head Office	
From: 9.00 - 17.00	Internet www.trust.com E-mail support@trust.com Fax +31-78-6543299 Tel. +31-78-6549999

Appendix A: Technical specifications

Modulation standards	V.34, V.32bis, V.32, V.29, V.27ter, V.23, V.22bis, V.22, V.21 ch2, V.17, Bell212/103
56.000 bps norm	V.90 and K56Flex
Compression	V.42bis, MNP Class 5
Error correction	V.42, MNP Classes 2-4
Host interface	PCMCIA, Version 2.1 and higher, type 2 slot
FAX group	Group III
FAX command	Class 1
Controller	Hardware
Data pump	Hardware
Temperature	Working: 10° C to 50° C Storage: -10° C to 80° C

Appendix B: Conditions for a 56K connection

Under certain conditions, your 56K PC-Card Modem can receive data at a maximum speed of 56,000 bits per second. If a connection is not possible at a speed of 56,000 bps, the modem will automatically switch to a lower speed, usually between 49,000 and 53,000 bps.

A speed higher than 33,600 bps is only possible *for receiving data* under the following conditions:

- **You are connected to the Internet.**
- **Your ISP has a V.90 compatible connection station at the number you dial up to.**
- **You are connected to your ISP via a modern (digital) telephone exchange. If you are unsure, ask your telephone company.**
- **You use a direct analogue outside line.**

Under all other conditions, and when *sending data to the Internet*, the maximum speed is 33,600 bps.

Note: *The speed depends on the quality of the telephone line. The Trust 56K PC-Card Modem will reduce the speed if there is a bad connection.*

Appendix C: AT Command list

Command	Function
A	Answer incoming call
A/	Repeat last command Do not precede A/ with AT or follow with ENTER
B0	ITU-T V.22/V.21 modes at 1200/300 bps
B1	Bell 212A/103 modes at 1200/300 bps
B2	V.23 mode at 1200 bps while %B1200 is in effect (TX75/RX1200 bps in originate mode, TX1200/RX75 bps in answer mode)

D_	0-9	Digits for tone/pulse dialling
	A-D	"Alpha-digits" for tone dialling
	#,*	"Alpha-digits" for tone dialling
	P	Pulse dial
	R	Originate calls in answer mode
	S= <i>n</i>	Dial one of the four stored phone number (<i>n</i> =0-3)
	T	Tone dial
	W	Wait for second dial tone
	'	Pause (duration defined by register S8)
	@	Wait for five seconds of silence
	!	Hook flash
	:	Return to Command Mode after dialling
	^	Enable data modem calling tone
E0		Commands echo disabled
E1		Commands echo enabled
+++		Escape characters - switch from Data Mode to Command Mode
H0		Modem on-hook (hang up)
H1*		Modem off-hook (make busy)
I0		Product code
I1		Checksum code
I2		ROM test
I3		Model ID & firmware ID
I5		Country code
L0		Low speaker volume
L1		Low speaker volume
L2		Medium speaker volume
L3		High speaker volume
M0		Speaker always off
M1		Speaker on until carrier detected

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M2	Speaker always on
M3	Speaker off during dialling, on until carrier detected
N0	Auto Mode disabled. Modem handshake speed specified by the %Bn command
N1	Auto mode enabled. Modem handshake speed specified by the %Bn command and DTE speed
O0	Return to Data Mode
O1	Initiate an equalizer retrain and return to Data Mode
P	Pulse dial
Q0	Result codes enabled
Q1	Result codes disabled
Q2	"Ring" result code disabled. Also disables "CONNECT" and "No Carrier" result codes in answer mode
Sr?	Display content of S-register <i>r</i>
Sr= <i>n</i>	Set S-register <i>r</i> to value <i>n</i>
T	Tone dial
V0	Numeric responses
V1	Text responses
X0	Hayes SmartModem 300 compatible responses/blind dialling
X1	Same as X0 plus all CONNECT responses/blind dialling
X2	Same as X1 plus dial tone detection
X3	Same as X1 plus busy signal detection/blind dialling
X4	All responses and dial tone and busy signal detection
Y0	Long space disconnect disabled
Y1	Long space disconnect enabled
Z0	Reset and recall user profile 0
Z1	Aashima Manual