

Communicator ISDN 128 PCI

---

ENGLISH

# Communicator ISDN 128 PCI

**User's Manual**

Version 1.0

## **Copyright Statement**

No part of this manual may be reproduced or transmitted, in any form or by any means, electronic or mechanical, including photocopying, recording, or information storage and retrieval systems, for any purpose other than the purchaser's personal use, without the prior written permission of the manufacturer.

## **Disclaimer Statement**

The manufacturer specifically disclaims all warranties, either express or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the software, the product manual(s) and written materials, and any other accompanying hardware. The manufacturer reserves the right to revise or make improvements to its product at any time and without obligation to notify any person of such revisions or improvements.

In no event shall the manufacturer be liable for any consequential or incidental damages, including any loss of business profits or any other commercial damages, arising out of the use of its product.

All company or product names are trademarks or registered trademarks of their respective owners.

## Table of Contents

<b>1. Introduction.....</b>	<b>2</b>
1.1 Conventions .....	2
1.2 Contents .....	2
1.3 Minimum system requirements .....	3
<b>2. Installation.....</b>	<b>4</b>
2.1 Installation of the Microsoft Accelerator Pack .....	4
2.2 Installation of the ISDN adapter .....	5
2.3 Installation of the driver .....	5
2.3.1 Windows 95 and 98.....	5
2.3.2 Windows NT 4.0.....	6
<b>3. Creating an external connection .....</b>	<b>8</b>
3.1 Windows 95 and 98 .....	8
3.1.1 Internet connection at 64k .....	8
3.1.2 Addition of an extra channel for 128k .....	8
3.2 Windows NT .....	10
3.2.1 Internet connection for 64k.....	10
3.2.2 Addition of an extra channel for 128k .....	11
<b>4. Software .....</b>	<b>14</b>
<b>5. Troubleshooting .....</b>	<b>15</b>
<b>6. Specifications .....</b>	<b>18</b>

## 1. Introduction

This manual is intended for users of the Communicator ISDN 128 PCI. Experience with networks is required to install the product.

**Note:** *This product does **not** operate with MS-DOS, Windows 3.1x, Windows NT3.x and Apple Macintosh computers. Use this product only with Windows 95, Windows 98 or Windows NT 4.0.*

### 1.1 Conventions

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

**'System'** This is a specific term used in a program. These are the terms used by, for example, Windows.

**[DIR]** Text in this font should be typed in.

Additional information will be shown as follows:

**Note:** *Turn off the computer before connecting the ISDN-adapter.*

The following notation has been used in the examples: floppydisk is drive 'A:'; hard disk is drive 'C:'; CD-ROM player is drive 'D:'. If your system uses different drive letters you should replace the drive letters in the examples with your own.

### 1.2 Contents

You should find the following components in the box:

- ISDN adapter
- ISDN cable (RJ45)
- Disks with drivers
- This manual

Please contact your dealer if anything is missing or damaged.

### **1.3 Minimum system requirements**

- Compatible PC with Pentium 100MHz CPU and 16 MB RAM
- Microsoft Windows 95 / 98 or Windows NT 4.0
- Available PCI slot
- Hard disk with at least 2 MB free hard disk space
- Floppydisk drive
- ISDN connection

## 2. Installation

Installing the ISDN adapter entails the following:

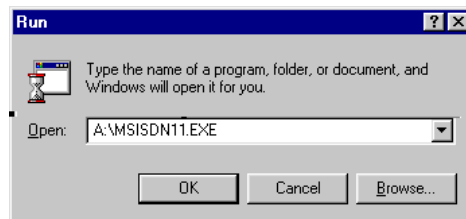
1. For Windows 95, installation of the Microsoft Accelerator Pack (see Chapter 2.1)
2. Installation of the ISDN adapter in your computer (see Chapter 2.2)
3. Installation of the driver (see Chapter 2.3)
4. Settings adjustment (see Chapter 3)

### 2.1 Installation of the Microsoft Accelerator Pack

**Note:** *Install the Microsoft Accelerator Pack only if you use Windows 95 and BEFORE you insert the card into the computer.*

The installation of the Microsoft Accelerator Pack is necessary in Windows 95 in order to make a connection by means of the PPP protocol.

1. Insert the disk "Windows 95/98 drivers" into drive A.
2. Select 'Run' in the Start menu.
3. Type [A:\MSISDN11.EXE] onto the command line (see Figure 1) and click on 'OK'.



**Figure 1: Starting Set-up**

4. Follow the instructions on the monitor to complete the installation. Click on 'Yes' to all the questions posed during the installation.
5. You should restart your computer when installation is complete.

6. Continue with Chapter 2.2 in order to install the ISDN adapter in your computer.

## 2.2 Installation of the ISDN adapter

**Note:** *Make sure that the plug has been removed from the outlet before you open the casing. Working on a computer that is still connected to the electrical mains is dangerous.*

1. Close Windows.
2. Turn off your computer.
3. Remove the plug of the computer from the outlet.
4. Remove the casing from the computer. If necessary, consult your computer's user manual.
5. Remove the metal cover plate from an available PCI slot and save the screw. A PCI slot can usually be identified by its white colour.
6. Insert the ISDN adapter into the PCI slot, pressing the card into the slot firmly. Fasten the card with the screw.
7. Close the PC and insert the plug into the outlet again.
8. Connect the RJ45 cable to your ISDN adapter.
9. Connect the other side of the RJ45 cable to the ISDN wall outlet.

## 2.3 Installation of the driver

### 2.3.1 Windows 95 and 98

1. Turn on the computer and get Windows started. The ISDN adapter is automatically recognised in Windows as a 'PCI Network Controller'.
2. Insert the disk 'Windows 95/98 Drivers' into the 'A' drive.
3. The location of the driver is 'A:\WIN95'. Enter this location when Windows asks for it, or choose 'Install From Disk'.
4. Follow the instructions on the screen.
5. Select 'DSS1: Euro-ISDN' for use in Europe.
6. Enter your telephone number. This is only necessary if you want to use the ISDN adapter to process incoming calls.

## Communicator ISDN 128 PCI

---

7. After the driver has been installed, the 'NDIS-WAN' driver will be installed automatically. Enter 'A:\WIN95' once more as the location of the driver if Windows asks. You will also need the original Windows CD.
8. After the installation, you must re-start your computer. Remove the disk from the driver.

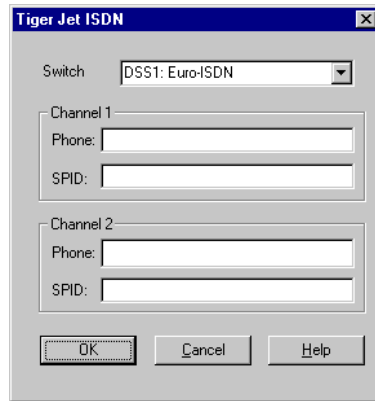
### 2.3.2 Windows NT 4.0

**Note:** *The Trust Communicator ISDN 128 has been tested with Windows NT with Service Pack 3. Other versions can work, but have not been tested. If you use the upgrade CD for Service Pack 3, re-install it after the completion of the entire installation of the ISDN adapter.*

Complete the following steps to install your ISDN adapter in Windows NT4.0:

1. Start Windows NT4.0.
2. Sign on as 'Administrator'.
3. Go to 'Network' in your Control Panel (Start, Settings, Control Panel, Network).
4. Click on the tab 'Adapters'.
5. Click on 'Add...'. After a few moments, a list containing Network adapters will appear.
6. Insert into drive A the disk marked with the label 'Windows NT Drivers'.
7. Click on 'Have Disk...'.
8. Type [A:\WINNT] into the input field and click on 'OK'.
9. Select 'Trust ISDN adapter' and click on 'OK'. Figure 2 appears.





**Figure 2: Windows NT settings**

10. Select 'DSS1: Euro-ISDN' for the option 'Switch' in Figure 2. This is the correct setting for Europe.
11. Enter your telephone number and SPID number (data from a telecommunications company). This is necessary only if you want to use the ISDN adapter for incoming calls.
12. Click on 'OK' to continue.
13. You will be asked to adjust the Remote Access Service (RAS) if you have already installed it on your computer. If you have not installed RAS, you must do so now. Make sure that you have the original Windows NT CD-ROM within reach.
14. Select 'ISDN1 - Trust' in 'Add RAS Device'.
15. Click on 'OK'.
16. Click on 'Add..' and add 'ISDN2 - Trust'.
17. Click on 'Continue' to proceed. After a few moments, you return to the 'Network' dialog box.
18. Click on 'Close' to complete the installation.
19. Re-start the computer when asked.

## 3. Creating an external connection

You must create an external connection in order to use your ISDN adapter.

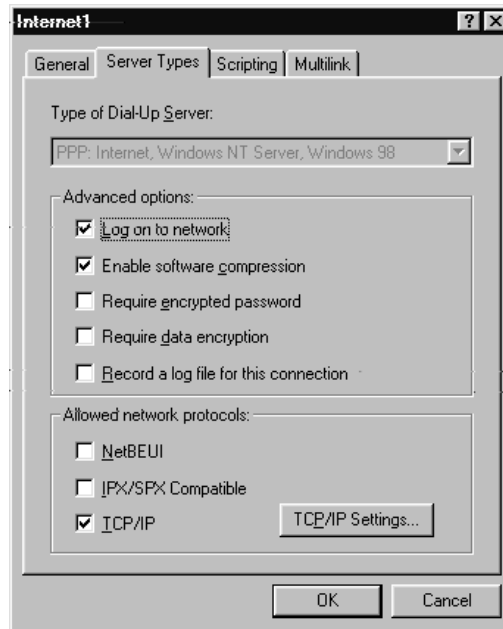
### 3.1 Windows 95 and 98

#### 3.1.1 Internet connection at 64k

1. Open the dialog box 'Dial-Up Networking'. If it is not present, install it. See the Windows User Manual.
2. Double click the icon 'Make New Connection'.
3. Type in a name for your connection into the dialog box that appears; e.g., 'Internet 1'.
4. Select the appropriate modem from the list, 'TJISDN-Line1', and click on 'Next' to continue.
5. Enter the telephone number of your Internet Service Provider (ISP). Click on 'Next' to continue.
6. Click on 'Finish' to complete the installation.

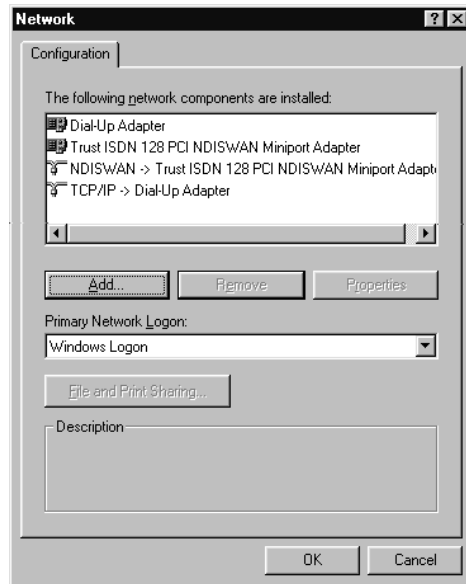
#### 3.1.2 Addition of an extra channel for 128k

1. Go to the dialog box 'Dial-Up Networking'.
2. Select 'Internet 1' (or the name you entered for step 3 in Chapter 3.1.1) by giving one left mouse click on the icon. A menu appears.
3. Choose 'Properties' from the menu.
4. Check the settings under the tab 'Server Types'. Adjust them as illustrated in Figure 3 or ask your provider for this data.



**Figure 3: The settings most commonly used to connect to the Internet**

5. In Windows 95, click on the 'Settings...' button. You now enter the dialog box 'Set Additional Devices'. In Windows 98, click on the 'Multilink' tab.
6. Select 'Use additional devices'.
7. Click on 'Add' with your mouse.
8. Select 'Device name: TJISDN-Line2' from the list.
9. Check the telephone number and change it if necessary.
10. Click on 'OK' to continue.
11. Click on 'OK' to complete the configuration.
12. Open 'Network Properties' by means of Start | Settings | Control Panel, and then double click 'Network' in the list.
13. Check the settings. The components illustrated in Figure 4 must be present minimally.



**Figure 4: Settings of the network**

Your Internet Service Provider (ISP) can provide the information for the 'Server Types'. In most cases, you will not need the tab called 'Scripting'.

Sometimes you will be required to enter data for settings under the button 'TCP/IP settings'. Consult with your ISP if your current settings do not seem to be working.

## 3.2 Windows NT

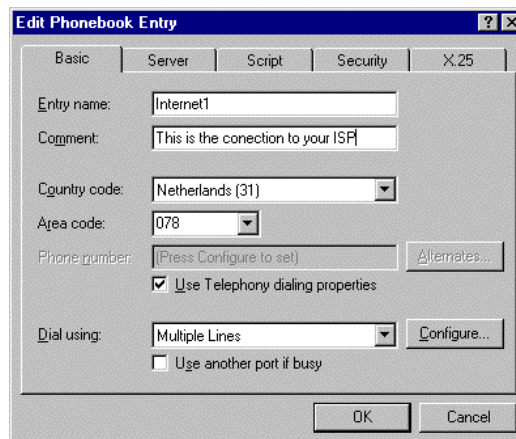
### 3.2.1 Internet connection for 64k

1. Go to the dialog box 'Dial-Up Networking'.
2. Two possibilities exist. Possibility one: A connection has already been created in the past. The screen 'Dial-up Networking' is visible. Click on 'New' to make a new connection. Continue with step 6. Or possibility two: A connection has never been made before. Continue with step 3.
3. The system asks for your current location etc. Fill in the screen and click on 'Close'. A dialog box appears with the message 'The phone-book is empty'.
4. Click on 'OK' to continue. The dialog box 'Add connection' appears.

5. Type in a name for your connection into the dialog box that appears (e.g., 'Internet 1') and then click on 'Next'.
6. Follow the instructions on the screen and fill in the data that is requested. Click on 'Next' to proceed to the next screen.
7. Click on 'Finish' to complete the installation.

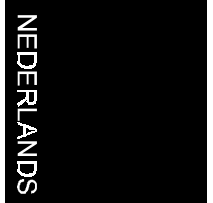
### 3.2.2 Addition of an extra channel for 128k

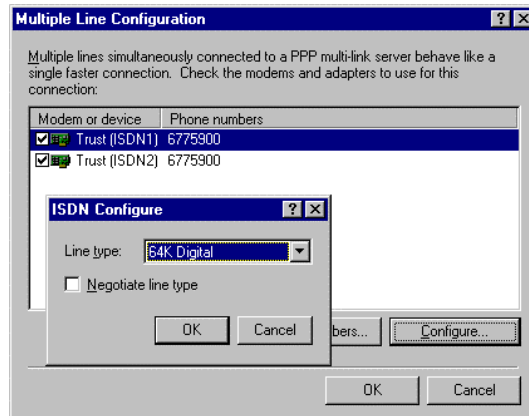
1. Go to the dialog box 'Dial-Up Networking'.
2. Select the connection ('Internet 1') that you want to use for multilink.
3. Click on the 'More' button. A list appears.
4. Select 'Edit entry and modem properties' from the list that appears.
5. Click on the 'Basic' tab. Check the data and change it if necessary (see Figure 5).



**Figure 5: Settings of the connection**

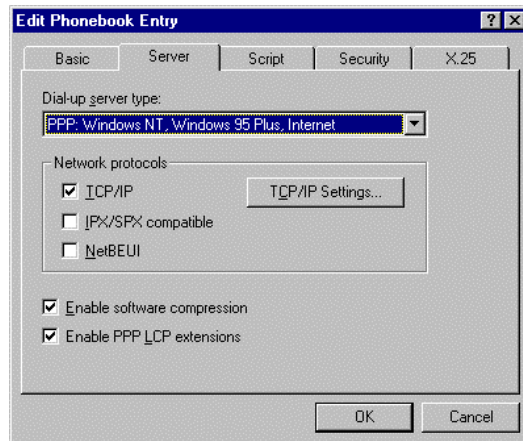
6. Select 'Multiple lines' in 'Dial Using'.
7. Click the key 'Configure...' and follow the instructions on the screen. The result can be seen in Figure 6.





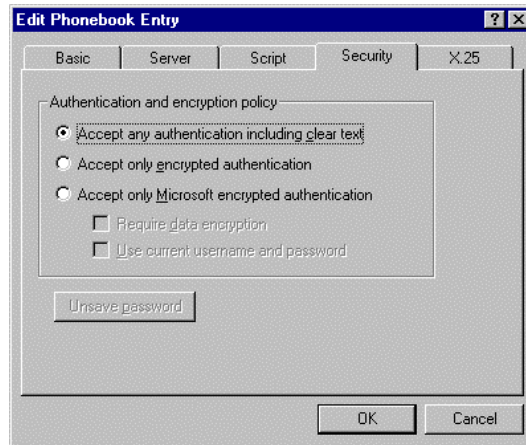
**Figure 6: Settings for using 128k. The telephone number illustrated here is an example. You must use the number of your ISP.**

8. Click on the 'Server' tab. Check the data and change it if necessary (see Figure 7).



**Figure 7: Network data settings**

9. Click on the 'Security' tab. Check the data and change it if necessary (see Figure 8).



**Figure 8: Settings for logging on**

10. Close all the windows by clicking on 'OK. You are ready to use the ISDN adapter.

## **4. Software**

No extra software is delivered with this product because it is for Internet users. The ISDN adapter works flawlessly with the Internet programs of Microsoft and Netscape. Microsoft Internet Explorer 4 works faster with ISDN than its predecessor, version 3.

If you want extra software anyway, we advise the latest version of RVS-COM because it is a perfect fit to the Trust Communicator ISDN 128 PCI. RVS-COM provides you the opportunity to send faxes and offers support for extra services such as T online through CAPI.



## 5. Troubleshooting

Problem	Cause	Possible Solution
ISDN is not found by the computer.	Your computer has no PnP-BIOS.	Select 'Add New Hardware' and have windows search for the card.
	The card is not connected properly to the slot.	Insert the card firmly into the PCI slot.
	No free interrupt is available.	Remove one or more cards from your system.
Connection cannot be made. An error message appears.	The ISDN number cannot be reached through the service with which you are trying to make a connection.	Choose the correct number.
	You are trying to make a connection through an ISDN private branch exchange.	Use a direct, outside ISDN line.
	Your ISP does not provide an ISDN connection through the number chosen.	Contact your ISP for the appropriate number.
	Your user name and / or password is / are not correct.	Enter your user name and / or password again.
	No network protocol has been installed or an incorrect one has been installed.	Ask your ISP about the settings. See Chapter 3.
A connection is not possible at 128Kbps.	The Accelerator Pack has not been installed for Microsoft Windows 95.	Install the Microsoft Accelerator Pack if you are using Windows 95.

Communicator ISDN 128 PCI

	Incorrect settings.	Adjust 'additional devices'. See Chapter 3.2.
	Your provider does not support ML-PPP.	Choose a 64k connection or another provider.
	Provider is almost overloaded.	Try again later.
Connection is very slow.	128k channel combination is unfavourable.	Switch back to 64k or call again.
	Internet is overloaded.	Call another time.
	Server is overloaded.	Try another address.
	Provider is almost overloaded.	Try again later.
After the card is installed, Windows continues to find new hardware but installs nothing.	The ISDN Accelerator Pack has not been installed in Windows 95.	Remove the card from the computer and install the Accelerator Pack.
An error message appears when attempts are made to call.	The network settings are incorrect (Windows 95/98).	The data illustrated in Figure 4 must be present, minimally, for the network.
	'Dial-up networking' has been installed incorrectly.	Remove it and then re-install it.
	The internal administration of Windows is corrupt.	Re-install Windows.

Check the Internet ([www.trust.com](http://www.trust.com)) for the FAQ's and for the latest version of the driver.

Please contact your dealer if you still have problems after you have tried these solutions. Have these details available:

- The item number of your ISDN adapter (appears under the bar-code on the packaging).

- The Windows version number and language.
- The type of processor in the computer and its speed.
- Your computer's network settings.
- The exact error message or a good description of what does not work properly and when.

## 6. Specifications

Type of adapter	Passive ISDN adapter
Installation	Plug and Play or through software
Throughput speed:	64 Kbps or 128 Kbps
Bus	PCI
Approval	Europe, CE
Software interface	CAPI 2
D channel protocol	DSS1, Euro ISDN
B Channel protocol	X75, HDLC, PPP and ML-PPP
Operating systems	Windows 95, 98 and NT4
Connection	S/T connection through RJ45 plug