128K PCI ISDN MODEM

User Manual - Windows NT 4.0

Revision 1.3

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WARNING : This product may only be connected to the Telecommunications Network under the following conditions :

(i) The card can only be installed in a Computer that has a case (cover) fitted that can only be removed with the use of a tool or key. The card should not be installed in a Computer with a “Flip Top” case.

(ii) Do not connect the card to the Telecommunications Network until the Computer case is fitted and screwed or locked in place.

(iii) In the event that the Computer case is to be removed, the card must be disconnected from the Telecommunications Network before the case is removed, and must not be re-connected until the case is replaced and screwed or locked in place.

CHAPTER 1: INTRODUCTION

Features

- The world's first PCI ISDN Modem endorsed by Microsoft.
- PCI PLUG and PLAY. No jumpers or switches.
- Supports Telstra Microlink and Telstra OnRamp2 ETSI ISDN.
- Supports PPP (64 Kbit/s) and Multi-link PPP (128Kbit/s).
- Native driver support under Microsoft Windows NT. Compatible with all software running under RAS and Dial-Up Networking.
- Simple installation procedure (less than 5 minutes installation time).

Packing List

You should find the following items in your NET*jet* 128K ISDN modem kit:

- NET*jet* PCI ISDN card
- NET*jet* Distribution CD including documentation files
- An RJ-45 ISDN cable

Please contact your dealer if any items are damaged or missing.

Trademarks

NET*jet* is a registered trademark of Traverse Technologies Australia Pty Ltd. All other trademarks and copyrights are the property of their respective holders.

Introduction

This manual provides step-by-step instructions for installing and setting up the NET*jet* ISDN adapter to complete a call across the ISDN network. You can use the NET*jet* ISDN adapter to connect your personal computer to a remote computer network. The remote network can be the Internet, or it can be a remote PC in your office network. If you are connecting to the Internet you will be able to use all of the features offered by your Internet access program. Features vary, but may include browsing, uploading and downloading files, using Email and accessing World Wide Web sites and chat rooms.

If you are telecommuting, you can use the office network just as if you were at work. For example, if you normally log into the office network for file retrieval and storage, you will use the same procedure from your home PC to open and save files. If you use Email over a local area network at work, you will be able use the same Email program at your home. You can also use the adapter to connect to a single remote PC that contains another ISDN adapter. This allows you to use peer-to-peer network programs for file sharing between two PCs.

CHAPTER 2: HOW TO ORDER AN ISDN LINE

At present, Telstra are the only carrier within Australia that supply Basic Rate ISDN lines.

Telstra Sales can be contacted on 132000 anywhere in Australia.

Information on their ISDN services is also available on the internet at:

web http://www.telstra.com.au/prod-ser/isdn/
email ISDN@Telstra.com.au

The NET*jet* product is compatible with both the new ETSI OnRamp2 ISDN service and the older Microlink ISDN services of Telstra. If you install the NET*jet* card first, you can go back and add your ISDN telephone numbers (see Chapter 3, Section V).

CHAPTER 3: HARDWARE AND SOFTWARE INSTALLATION

I) IMPORTANT SYSTEM REQUIREMENTS.

Before attempting to install the NETjet ISDN Adapter in your computer, you must have the following installed :

(1) RAS - Remote Access Service
(2) SP3 - Service Pack 3

If you don't have these components installed, then you cannot continue with this installation.

Note: SP3 must be installed *after* installing RAS or any other Windows NT system software.

II) Installing NET*jet ISDN Adapter for Windows NT*

Follow these steps to install the NET*jet* ISDN adapter:

1. To install the NET*jet* ISDN adapter in your computer

a. Power OFF your computer system and remove all power cables.

b. Remove screws and case.

c. Locate a free PCI slot.

d. Unscrew/remove slot rear panel.

e. Place the NET*jet* PCI ISDN adapter over the PCI slot. Press the adapter down firmly with both hands into the slot. Check to be sure the adapter is seated property.

f. Screw/secure rear panel of NET*jet* ISDN adapter.

g. Refit case and screws.

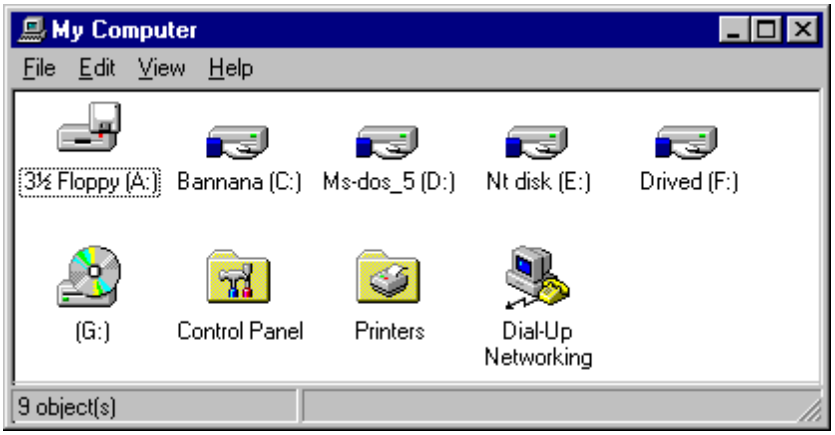
h. Reconnect all power cables.

i. Plug one end of the cable that came with your NET*jet* PCI ISDN adapter into the jack on the adapter and plug the other end into Telstra's NT1 RJ45 socket.

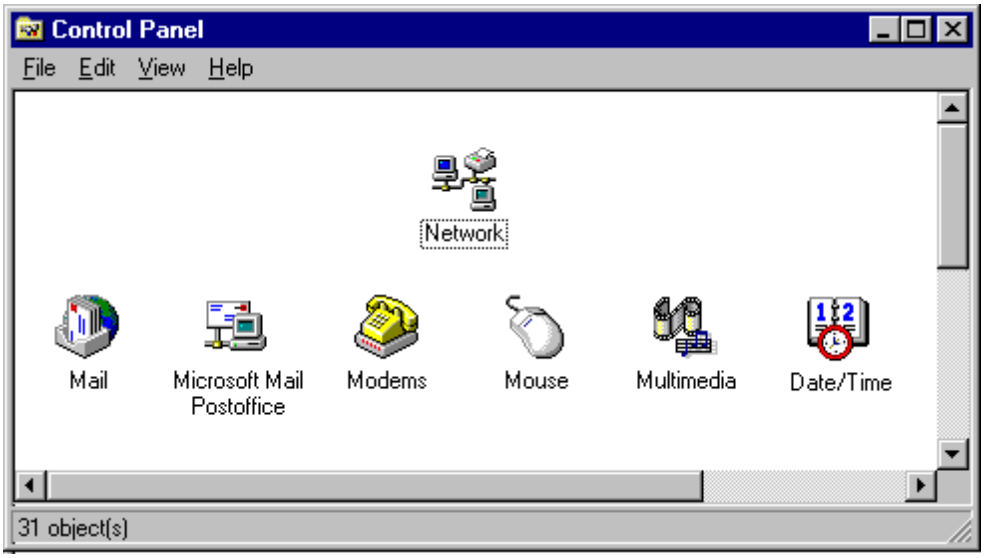
2. Install the NET*jet* ISDN driver for Windows NT

a. After you have installed the NET*jet* ISDN adapter into your PC, turn on the machine.

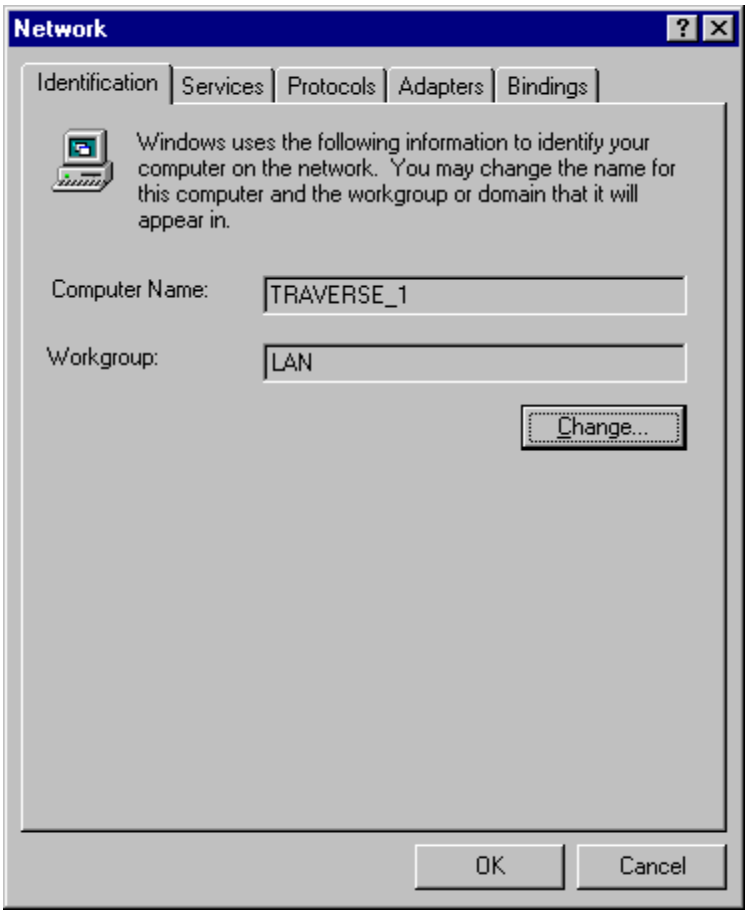
b. From the Desktop select “My Computer”.



c. Then select “Control Panel”.

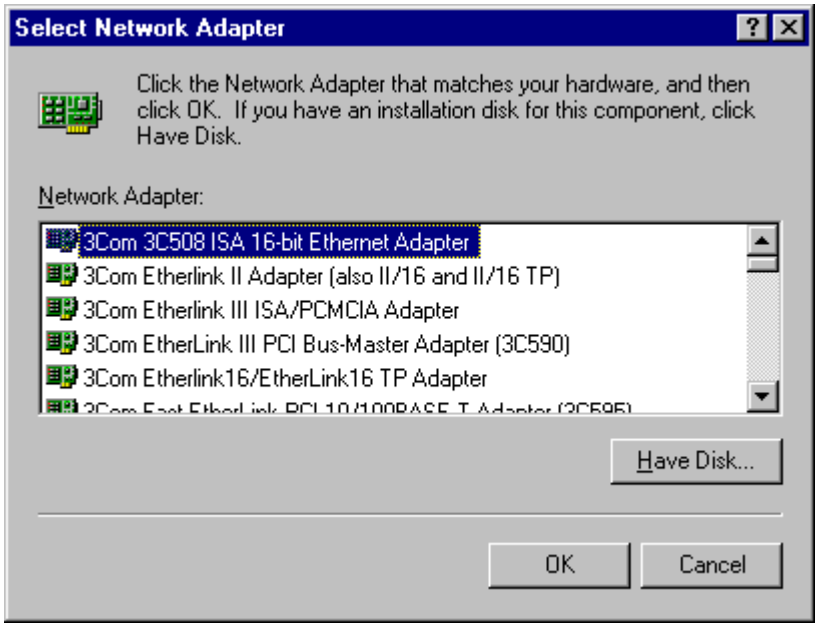


d. Select “Network”.

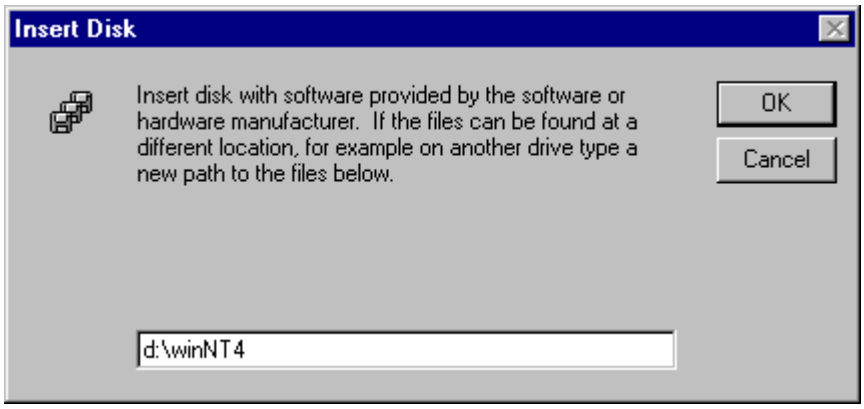


e. Then select the “Adapters” tab.

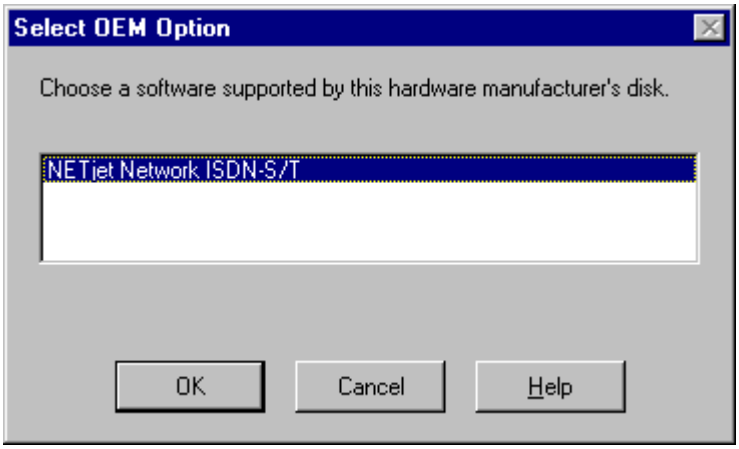
f. Select “Add”.



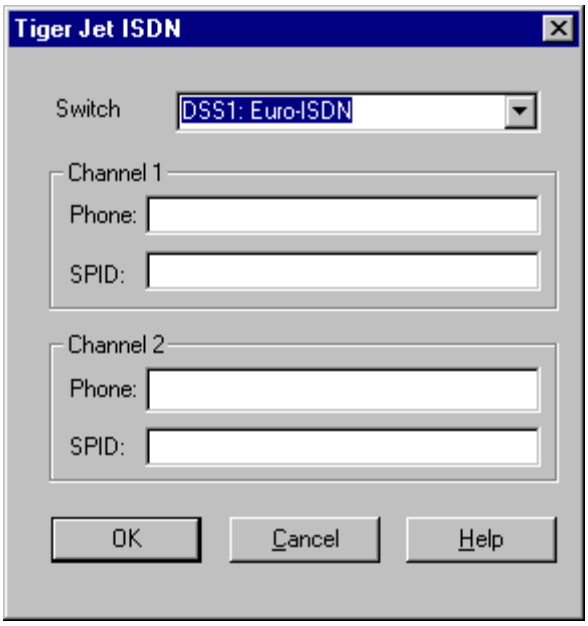
g. Then select “Have Disk”.



h. Insert your NETjet Distribution CD into your CD drive. Enter “d:\winNT4” (where d: is your CD drive), then select “OK”.



i. Select “OK”.



j. If you have an OnRamp2 ISDN line :
Select "DSS1: Euro-ISDN" for Switch type,

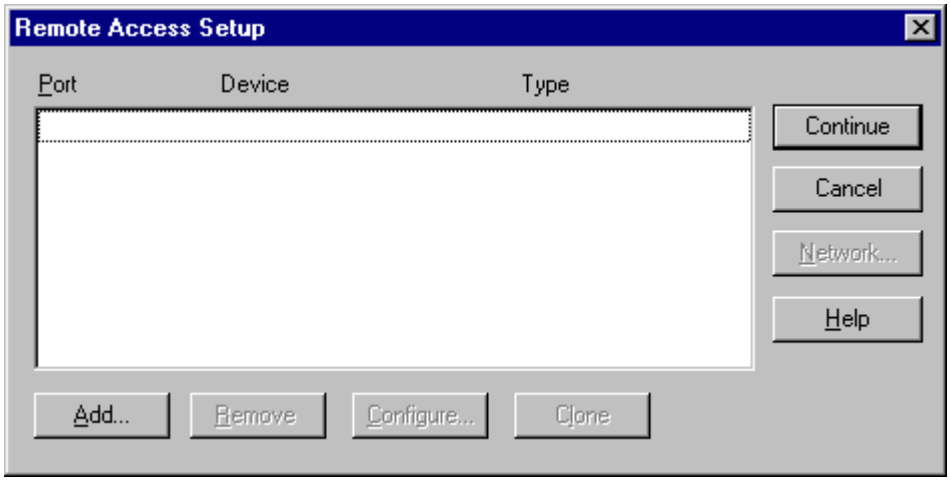
or if you have a Microlink ISDN line :
Select "ATT: AT&T ESS 5" for Switch type.

Then type in the phone numbers provided by Telstra when they installed your ISDN line. If you have only one number, just type in the number on the first field and leave the second one blank. (Note: if you don't have the Phone numbers now, it is possible to enter them later). Ignore the SPID fields, these are for USA market only.Then select "OK".

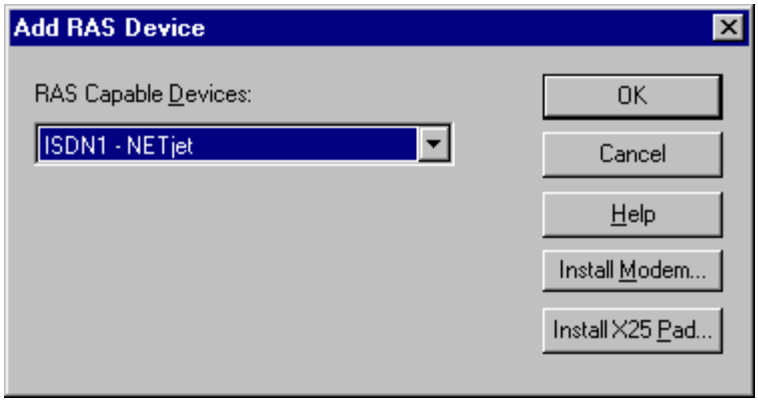
k. You have now installed your NETjet driver. Select “OK” and RAS will be invoked to allow you to configure your ISDN ports.

3. Configuring your ISDN ports.

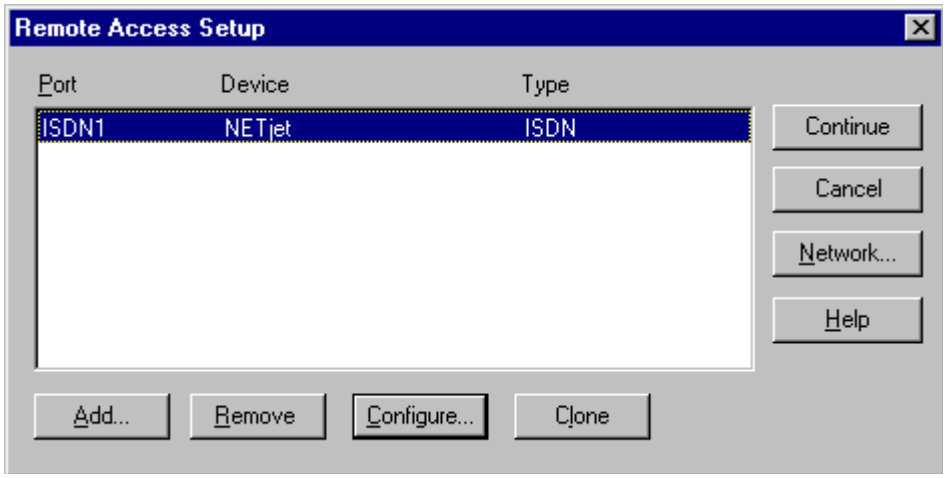
When RAS is first invoked after the driver installation you will see the following screen:



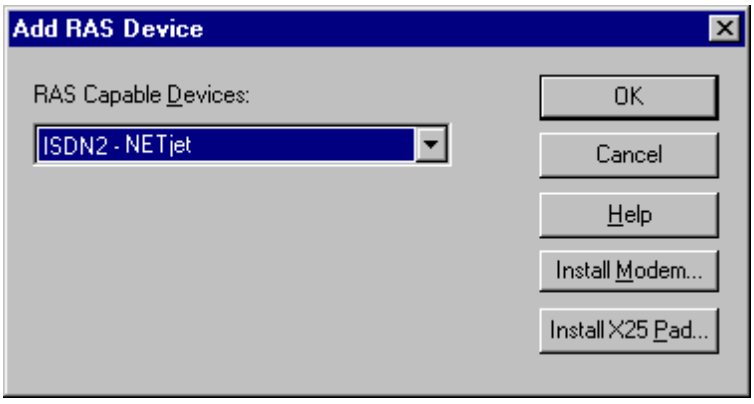
a. Select “Add”.



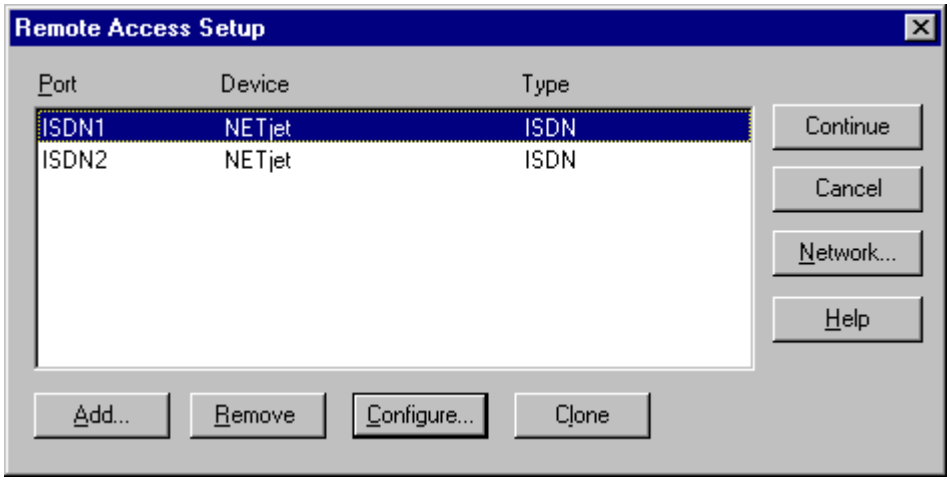
b. Then select “ISDN1” to add the first ISDN port, then select “OK”.



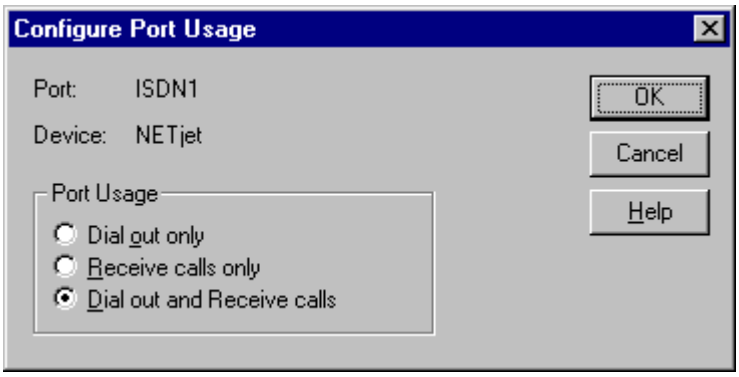
c. Select “Add”



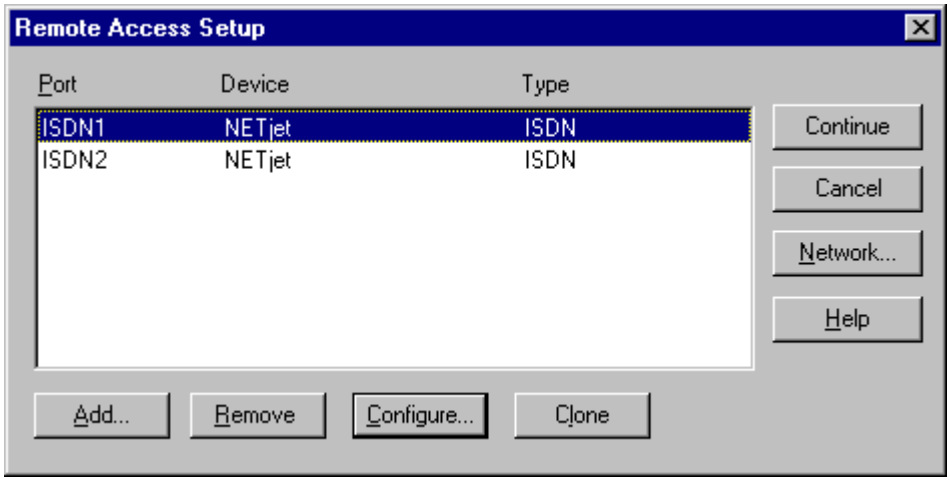
d. Then select “ISDN2” to add the second ISDN port, then select “OK”.



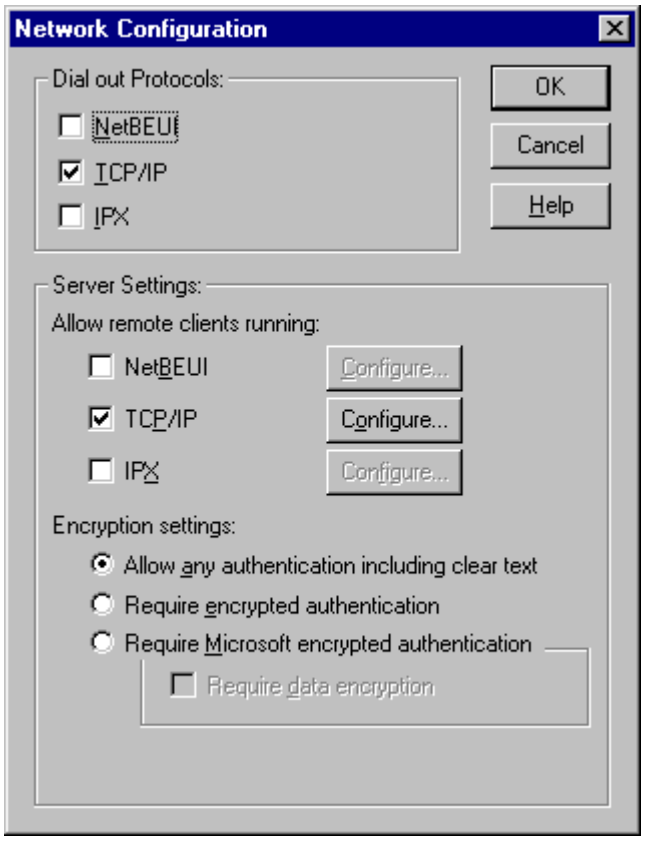
c. For each ISDN port listed select “Configure” (one port at a time).



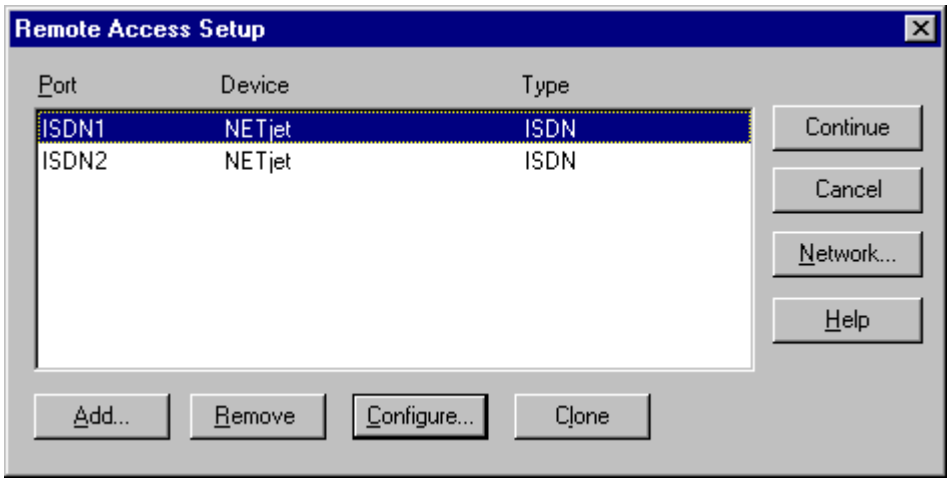
d. You can now configure each ISDN port's usage. Then select "OK" then "Continue".



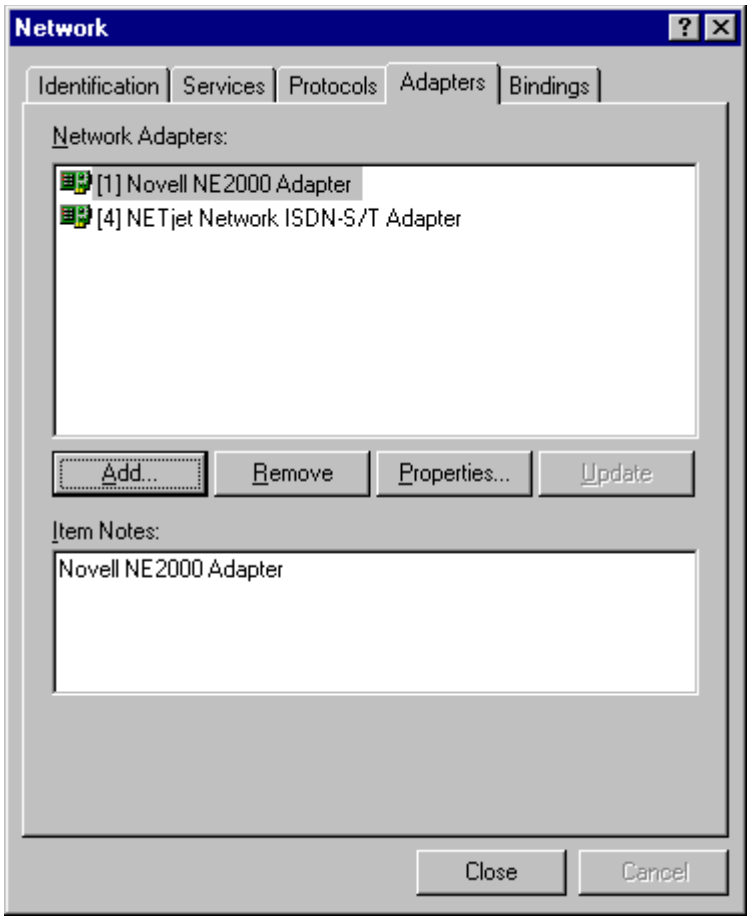
e. For each ISDN port listed select "Network" (one port at a time).



f. You should then setup your “Network Configuration” as shown. Then select “OK”.



h. When you have setup the “Network” settings for both ISDN ports, select “Continue”.



i. You should now see that your NETjet ISDN Adapter has been installed. Select “Close” and then “Yes” when prompted to restart your computer.

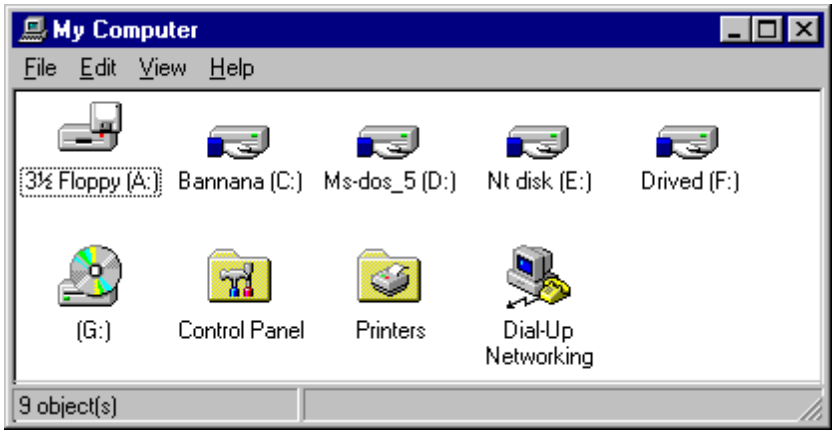
III) Setting Up Internet Access

1. Install your Internet access program

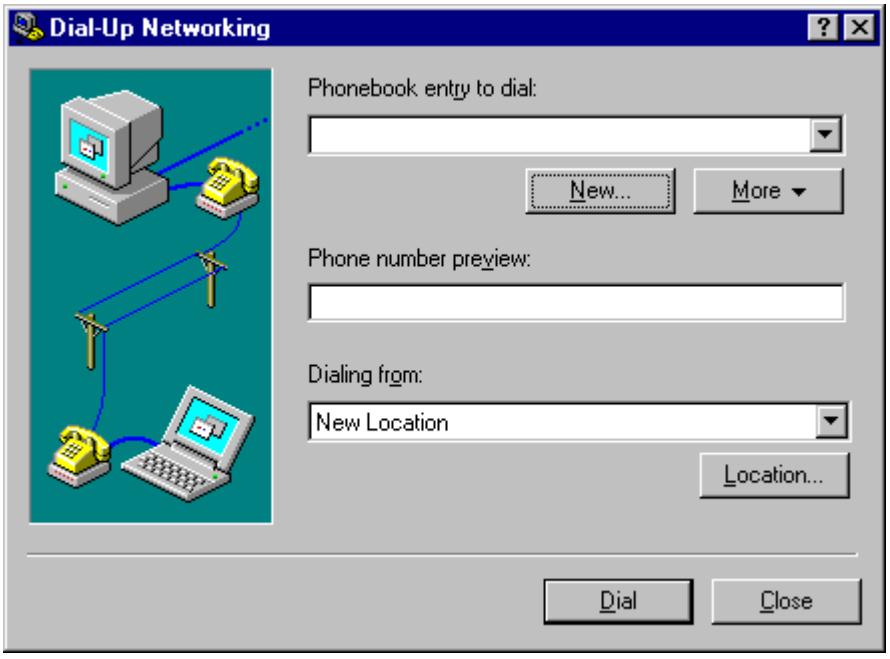
The NET*jet* ISDN adapter will work with any Internet access program such as Internet Explorer, Netscape, etc.

2. Seting up Dial-Up Networking

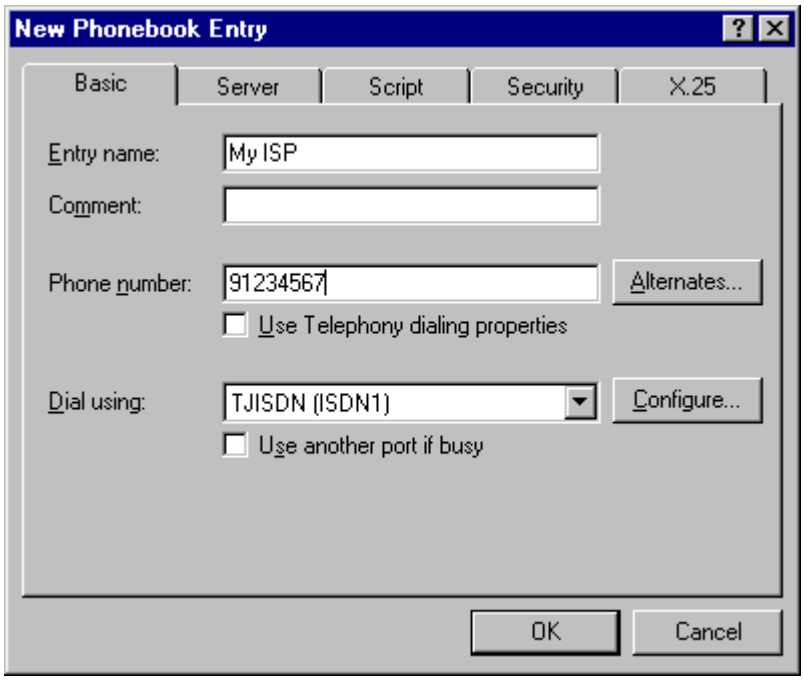
a. From the desktop select “My Computer”.



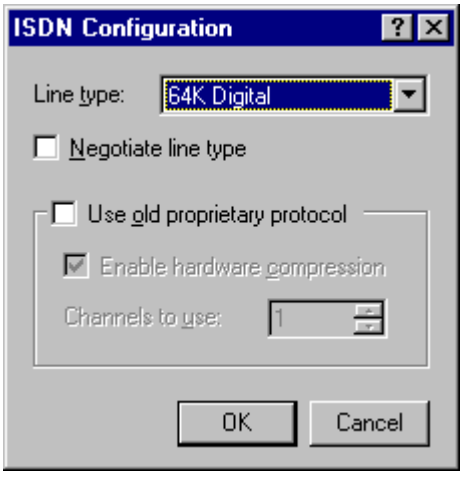
b. Select “Dial-Up Networking”.



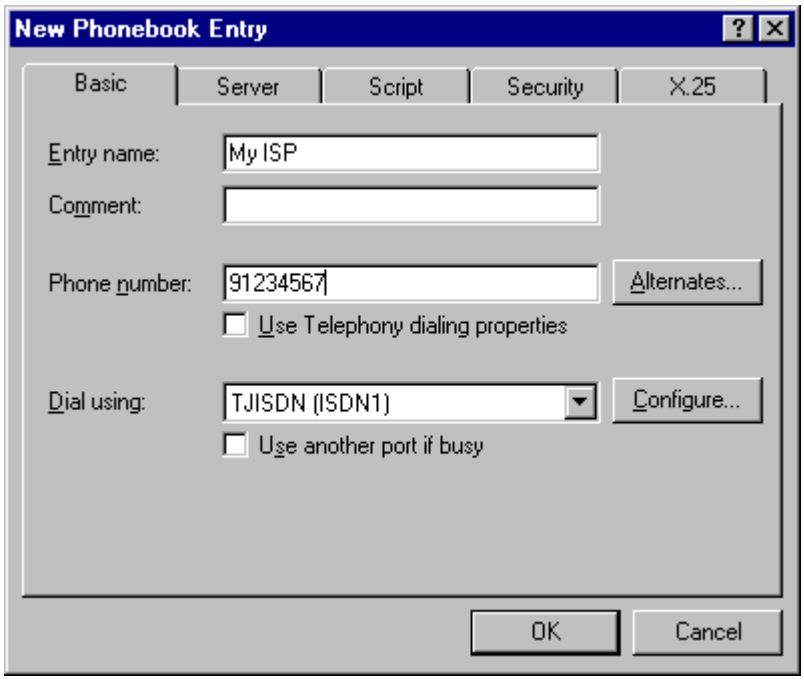
c. Select “New” to make a new entry.



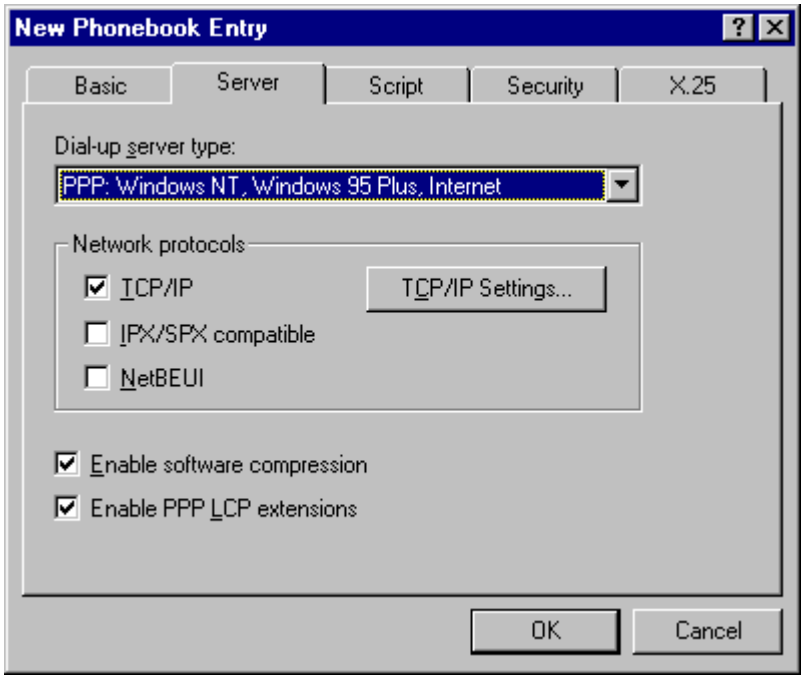
d. Enter the name of your ISP and phone number. Then select “Configure”.



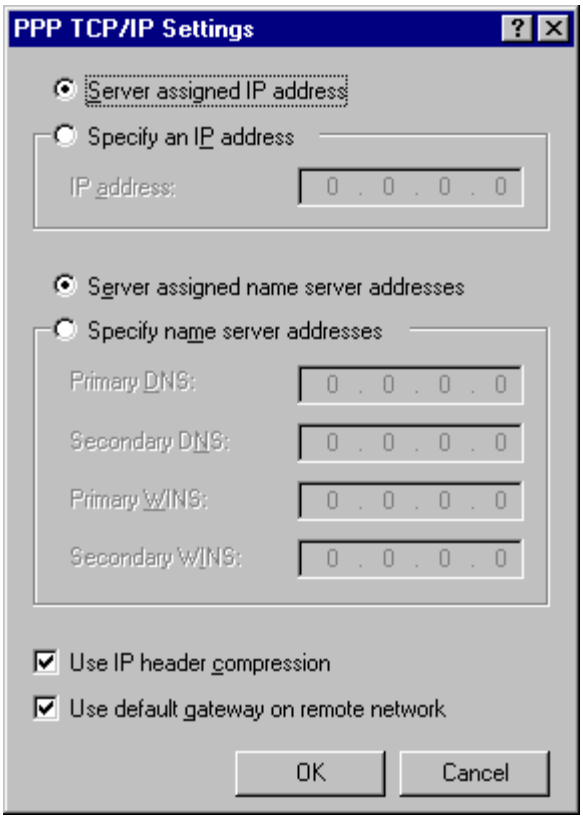
e. Set up the configuration as shown. **DO NOT SELECT “Negotiate Line Type”.** Then select “OK”.



f. Select the “Server” tab.

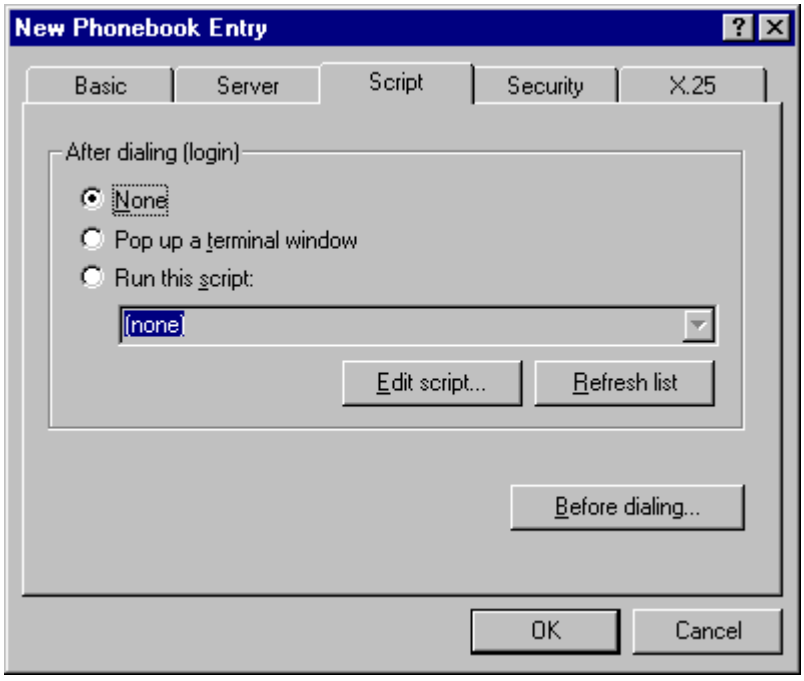


g. Setup the configuration as shown, then select “TCP/IP Settings”.

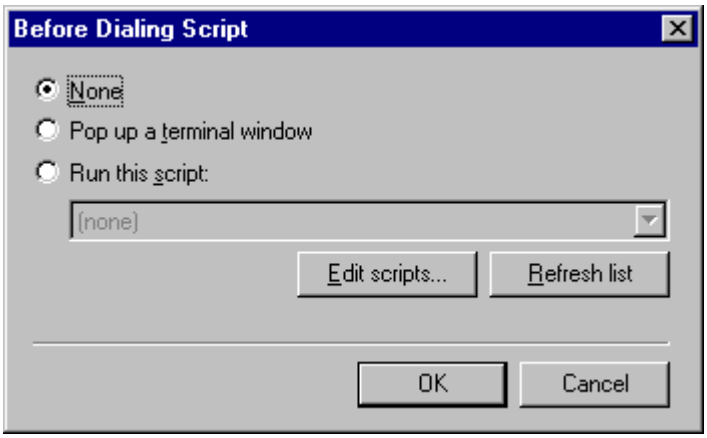


Note : If you remove the tick on “Use IP header compression” then your login will be slightly faster but the overall throughput may drop slightly.

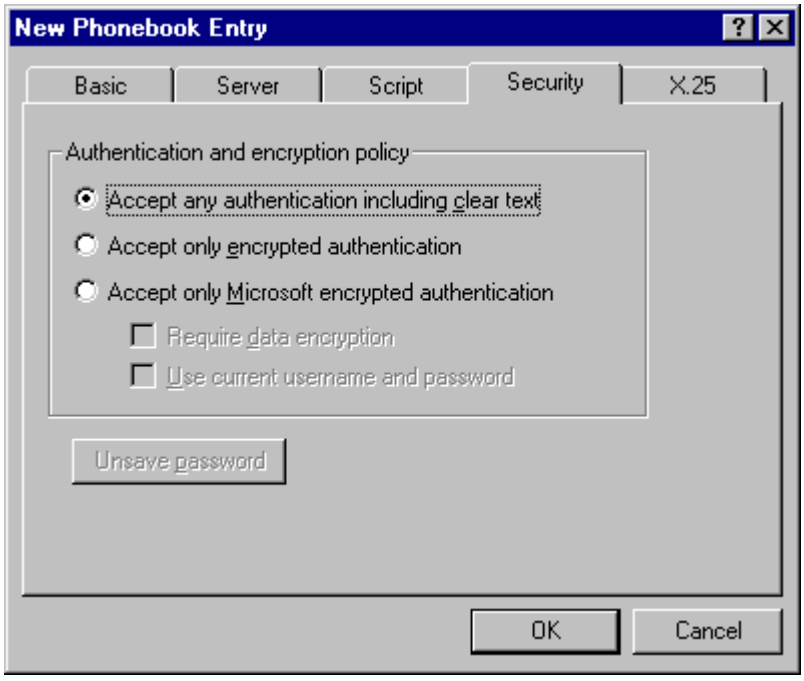
h. The TCP/IP settings should be set up as shown, select “OK”. Next select the “Script” tab.



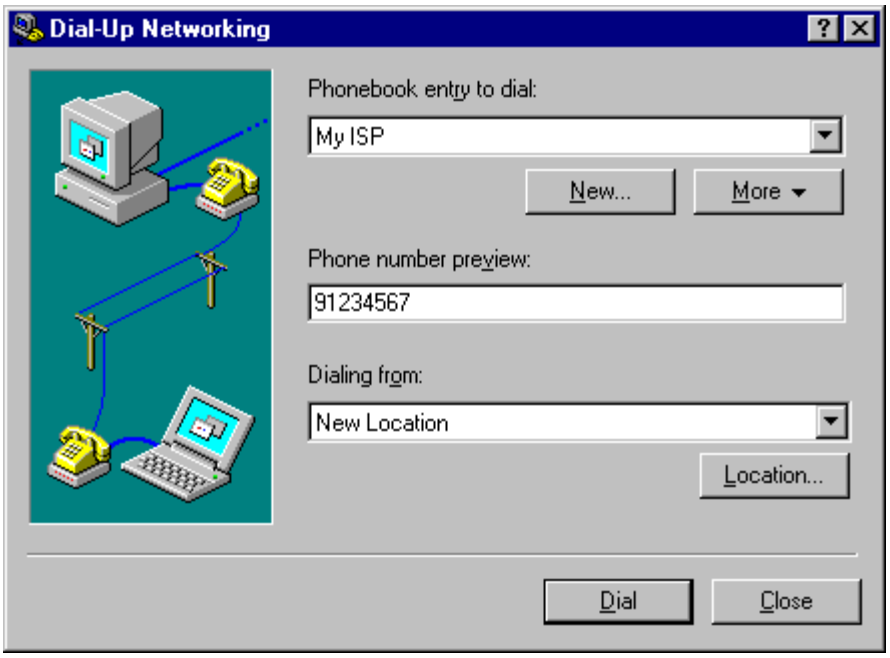
i. Select “None”, then select “Before Dialing”.



j. Check that “None” is selected, then select “OK”. Now select the “Security” tab.



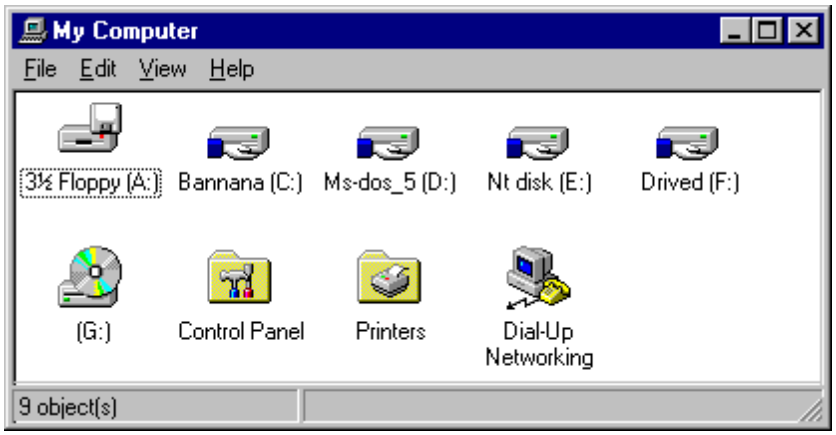
k. Select “Accept any” unless your ISP tells you otherwise. Select “OK”.



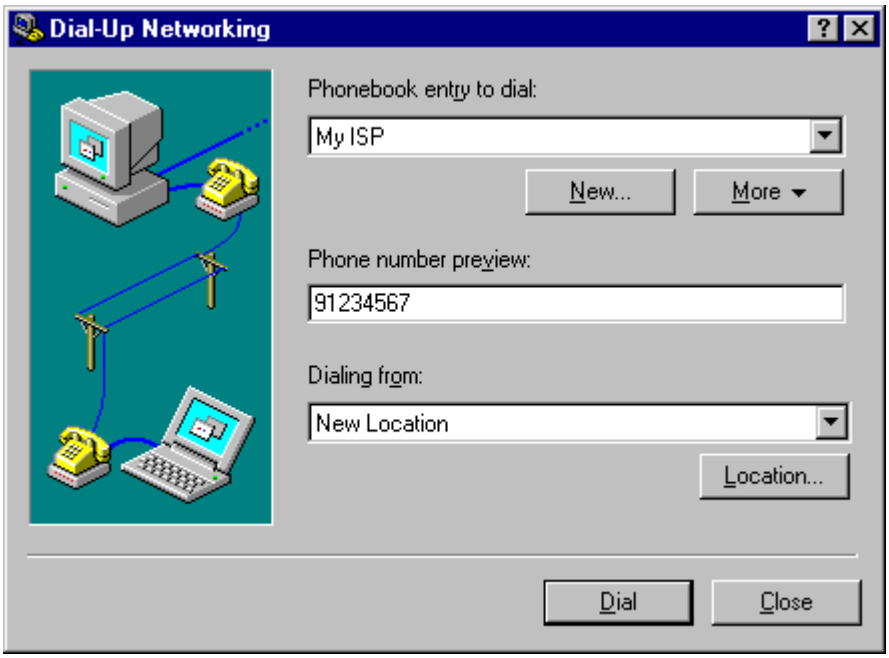
l. You are now ready to dial you ISP. To dial now select “Dial”, otherwise select “Close” to dial later.

IV) Dialing Out

a. From the desktop select “My Computer”.

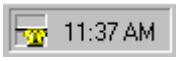


b. Select “Dial-Up Networking”.



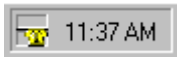
c. Select the phonebook entry you wish to dial, then select “Dial”.

d. Enter your User name and Password, for most ISPs a Domain name is not required. Now select "OK". **Hint : If you select "Save password", you don't need to enter your password every time you log in.** Once you are connected to your ISP, you should see the following Dial-Up Networking icon appear in the task bar.

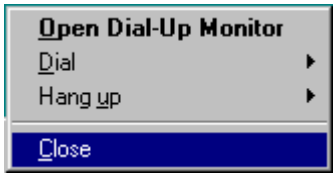


e. Now that you are connected to your ISP, you can now launch your Internet application (eg Netscape etc) and you're up running.

V) Hanging Up



a. Right click the Dial-Up Networking icon in the task bar.

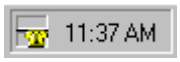


b. Select “Hang Up” then “My ISP”.

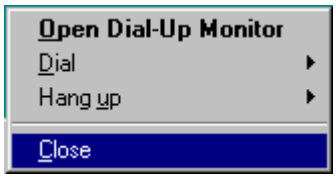
c. Select “Yes” to disconnect.

VI) Dial-Up Monitor

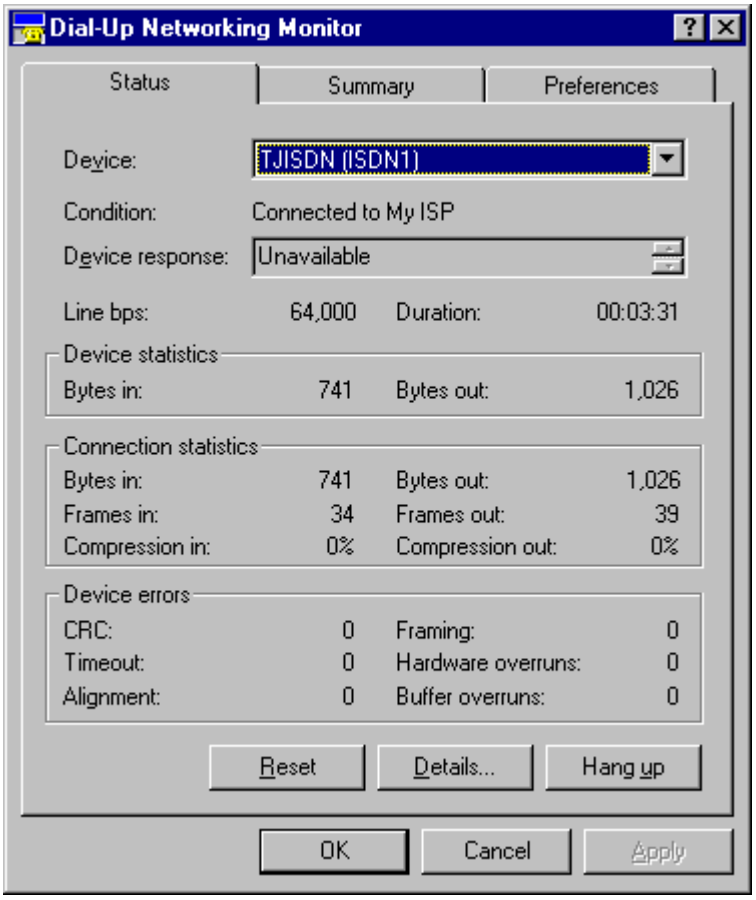
The Dial-Up monitor gives the current status and statistics of each ISDN port.



a. Right click the Dial-Up Networking icon in the task bar.



b. Select “Open Dial-Up Monitor”.

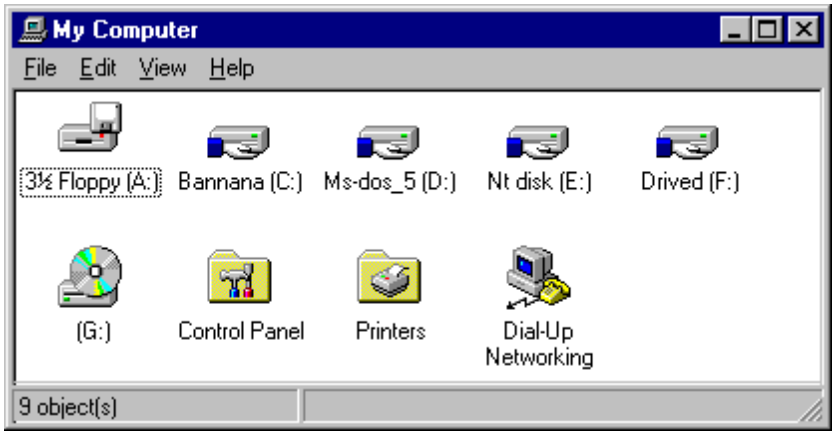


c. Select “OK” to remove this display from the screen.

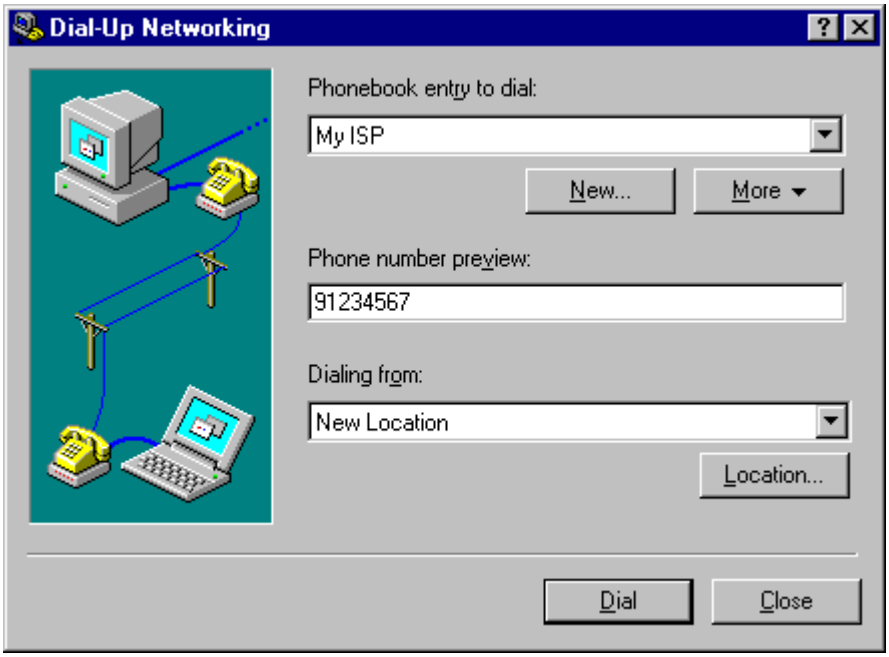
VII) Setting up ML-PPP (128K bps)

The MultiLink PPP (ML-PPP) protocol allows two 64k ports (using PPP) to be combined to form a 128k connection.

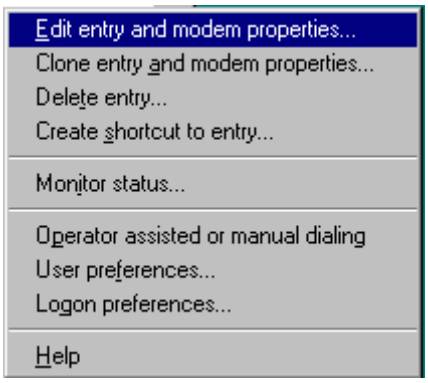
a. From the desktop select “My Computer”.



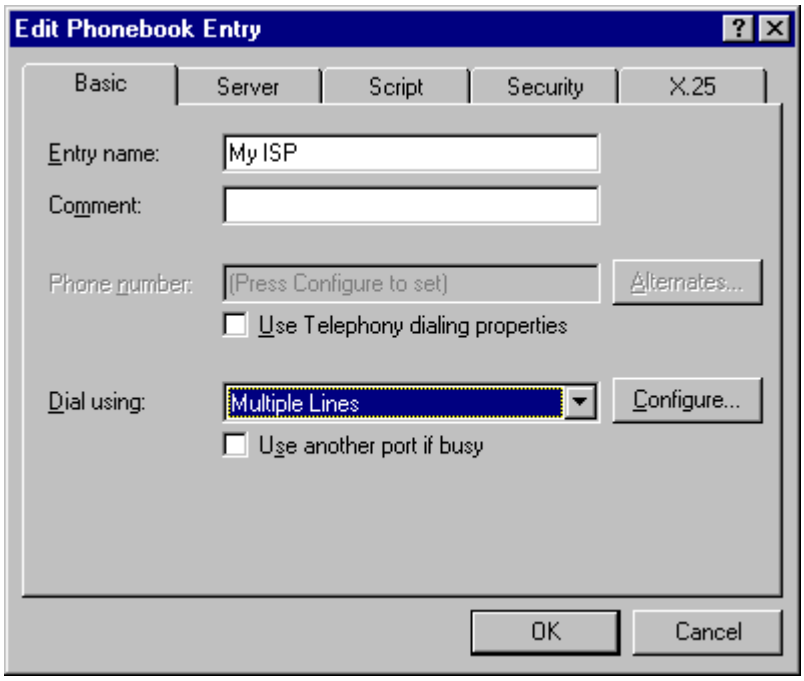
b. Select “Dial-Up Networking”.



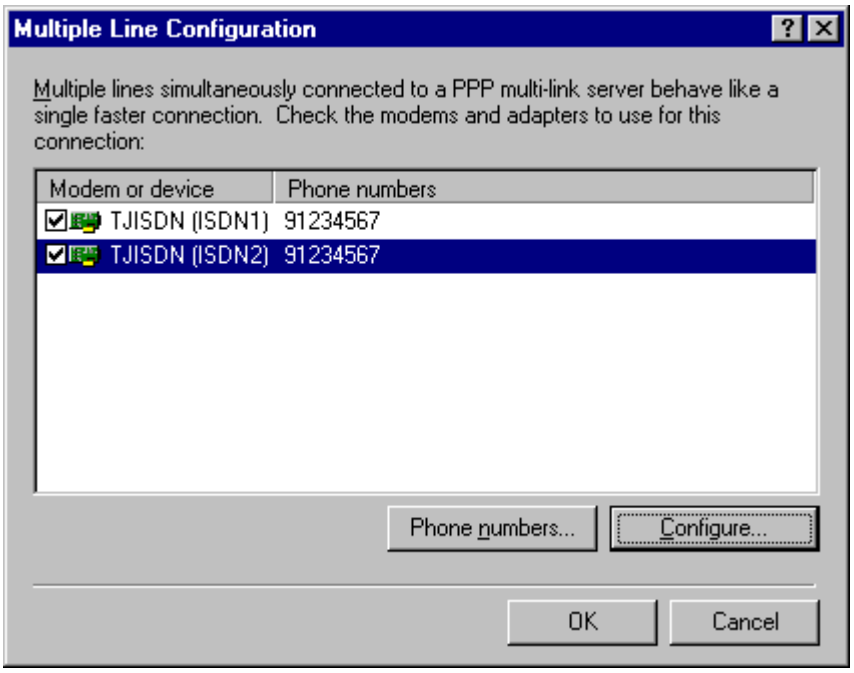
c. Select the phonebook entry you wish to configure for 128k, then select “More”.



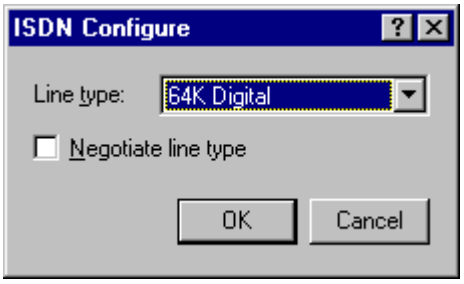
d. Select “Edit entry”.



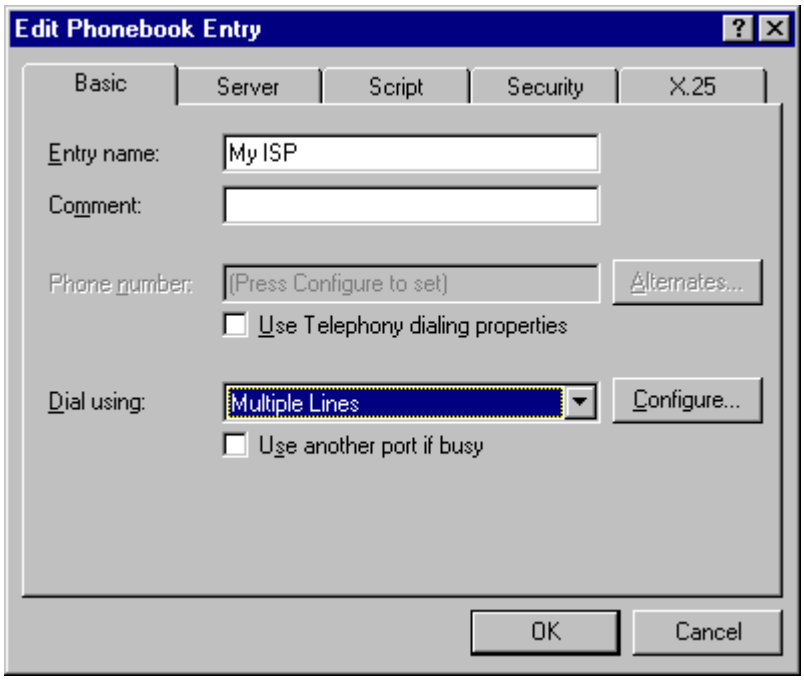
e. In the “Dial using” field select “Multiple Lines”. Then select “Configure”.



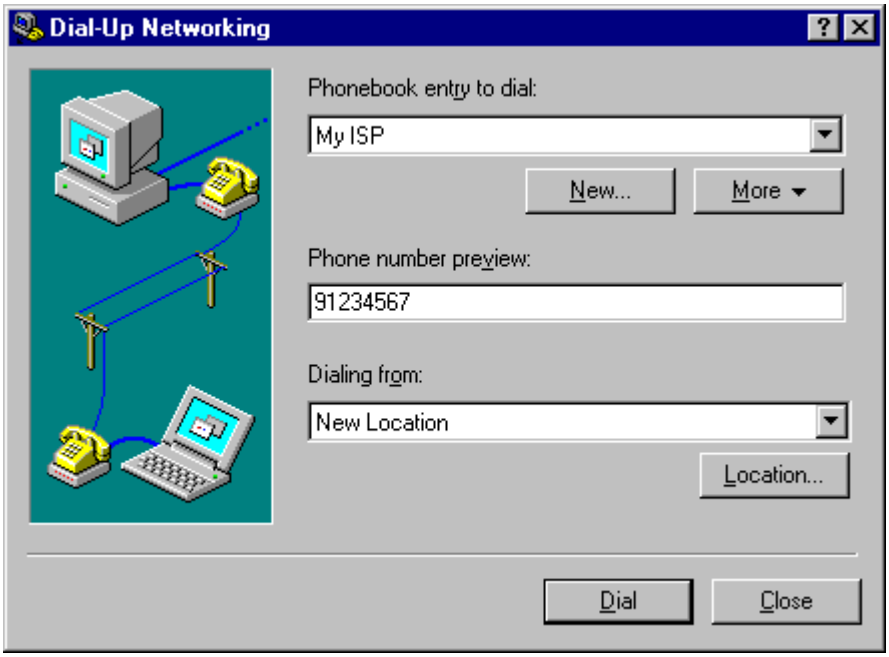
f. Select (tick) both ISDN ports and make sure they both have the same phone numbers. Then select “Configure”.



g. Check that both ports are configured as shown. When both ports are set up correctly select “OK”.



h. Select “OK”.



i. Now select “Dial” to connect to your ISP at 128k.

CHAPTER 4: Troubleshooting

IMPORTANT
You should note that your NET*jet* ISDN card and the cable that you have been supplied have both been factory tested. Telstra will also test your ISDN when it is installed. Almost all user problems are due to misconfiguration of Windows NT. Below is a list of common problems that users may incur.

If you are unable to indentify your problem below, then you can test your Hardware and ISDN line using the Diagnostic software provided on the Distribution CD. See the file d:\diagnostic\readme for more details.

Error Codes.

!Error 629 : The data link was terminated by the remote machine

Check your security setting :

My Computer | Dial-up Networking | Select the appropriate entry | More | Edit entry | Security = "Accept any authetication".

!Error 651 : Your modem has reported an error

Check that the number you are dialing is correct (you may be dialing a voice number). If the number is correct then check your ISDN switch protocol setting:

My Computer | Control Panel | Network | Adapters | NETjet | Properties | Switch

Select "DSS1: Euro-ISDN" for OnRamp2 or

Select "ATT: AT&T ESS 5" for Microlink.

!Error 680 : There is no dial tone

Check the connections between your NETjet card and the NT-1. Also check the connection between the NT-1 and the outside line.

!Error 692 : Hardware failure in port or attached device.

Check the line type :

My Computer | Dial-up Networking | Select the appropriate entry | More | Edit entry | Basic | Configure | Line type = "64K Digital"

!Error 720 : No PPP control protocols configured

Check the server type :

My Computer | Dial-up Networking | Select the appropriate entry | More | Edit entry |
Server | Dial-up server type = "PPP"

!Error 721 : Remote PPP peer is not responding

Check the line negotiation :

My Computer | Dial-up Networking | Select the appropriate entry | More | Edit entry |
Basic | Configure |
Negotiate Line Type = FALSE +
Use old prop. protocol = FALSE

Multi-link PPP troubles

If a connection is establishing on only one 64K channel and failing to “bundle” the additional line to make a 128K connection, try the following:

> In the Dialup Networking icon for your ISDN connection, delete the entry from the phonebook and then recreate the phonebook entry with “Multiple Lines” selected as per section VII.

Diagnostic Utility.

Included on the NET*jet* Distribution CD is DOS based utility that enables you to test your NET*jet* PCI ISDN card and your ISDN line independently of Windows NT and your ISP. If you are unable to configure your system and get your NET*jet* Card up and running, the next step is to use this utility. To do this see the README file in the \DIAGNOSTIC subdirectory on the NET*jet* Distribution CD.

APPENDIX A

A.1 Technical Support

If you encounter problems with your NET*jet* ISDN card, and you cannot locate the problem, firstly contact the dealer where you purchased your card. If your dealer is unable to help you then contact:

Traverse Technologies Australia Pty Ltd.
Technical Support
652 Smith Street
Clifton Hill Vic 3068
Internet: http://www.traverse.com.au
support@traverse.com.au

A.2 Returning a Product

If Technical Support determines that you need to return the product for warranty repair service, you will be issued a Return Authorisation (RA) number.
Return Authorisation Guidelines:

1. No product will be accepted for return for warranty service unless accompanied by a valid RA number. No RA number will be issued without a valid serial number. Write the RA number clearly on the outside of the package as follows: “RA#Annnn”.

2. Keep a record of the RA number and the name of the service representative who issued you the RA number for future reference.

3. Return a copy of the original sales invoice for proof of purchase and verification of warranty.

4. If it is determined that your warranty has expired or that the problem is not covered by the warranty, a method of payment will have to be authorised before an RA number is issued.

5. Write your name, return address and RA number on a small strip of paper and tape it to the NET*jet* card before packing it

6. Write a note describing the problem giving as much detail as possible.

7. Place the board in an antistatic bag, then in padded shipping bag. Use protective material, such as bubble wrap or foam to further protect the board.

8. The RA number that is issued to you is valid for only thirty days after the date of issue.

9. We will not accept packages that are not prepaid for shipping charges, or accept COD payments for such shipping costs. Traverse will pay for return shipment to the customer after a repair has been effected.

10. The shipping address:

Traverse Technologies Australia Pty Ltd
Technical Support
652 Smith Street
Clifton Hill Vic 3068, Australia

If you drop off a product at the above address, it will be processed and returned as a normal RA. Do not expect to be given a replacement right away, while you wait.

A.3 Warranty Terms you should know

Warranty Repair: Traverse Technologies Australia Pty Ltd will repair or replace (at our option) free of charge, within the warranty period. We require you to furnish a receipt, or similar bill of sale to determine the date of purchase. If you do not supply an adequate proof of purchase with the product, you will be charged an out-of-warranty repair fee, determined by the value of labor plus materials.

Shipping: For products under warranty, you must pay one way shipping and we will cover the shipping charges when we return the product to you. We cover the return charges within Australia. We do not provide express, or next day shipment of products. You will be required to pay for any next day shipping, or special handling you require. We will ship back to you by the most economical way, eg. Express Post. Replacement goods will not be shipped until the returned unit is received.

A.4 Limited Warranty

Our company warrants this product against defects in materials and workmanship for a period of one (1) year from the date of purchase. During the warranty period, products determined by us to be defective in form or function will be repaired, or at our option, replaced at no charge. This warranty does not apply if the product has been damaged by accident, abuse, misuse, missing serial number, or force majeur (such as a lightning strike), or as a result of service or modification other than by Traverse Technologies Australia Pty. Ltd.

This warranty applies only to the original purchaser of the NET*jet* card, and is non-transferable. The warranty does not cover any parts not installed by Traverse Technologies Australia Pty. Ltd.
This warranty is limited to parts and labor only and does not include any incidental that may occur during the course of service including (but not limited to) shipping, delivery, etc. Any incidental charges that may occur are the responsibility of the user.

Traverse Technologies Australia Pty. Ltd. is not responsible for any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, this product. This includes damage to property and, to the extent permitted by law, damages for personal injury. This warranty is in lieu of all other warranties including implied warranties of merchant ability and fitness for a particular purpose.

This warranty applies only to this product, and is governed by the laws of Australia.

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