



# QuickStart Router Manual

---

*This document describes the physical installation and operational controls of your Router.  
Please read carefully before attempting to install or operate your Router product.*

# **Table of Contents**

Table of Contents.....	2
Before You Begin.....	4
Some information about TCP/IP.....	5
I.P. Addresses - a very short tutorial.....	5
Regulatory Notices.....	6
Notices.....	9
Introduction.....	10
Router Features.....	11
Physical Description.....	12
Safety Information.....	13
Installation.....	14
Items supplied by ZyTrax.....	15
Items supplied by the Customer.....	16
Physical Installation.....	17
Physical Installation.....	18
Connections.....	19
Power Connections.....	19
ISDN Line Connections.....	19
LAN Connections.....	19
WarpTwo.1 Network Configurations.....	21
WarpTwo.6 Network Configurations.....	22
Verifying Operation after Power On.....	23
Controls.....	24
WarpTwo.1 Rear Panel Connectors.....	25
WarpTwo.6 Rear Panel Connectors.....	26
WarpTwo.1 Front Panel LEDs.....	27
WarpTwo.6 Front Panel LEDs.....	28
Configuration.....	30
Configuration Templates.....	31
Static Client Template Check List.....	32
Server Template Check List.....	33
Proxy Client Template Check List.....	34
HotPools (PVA) Template Check List.....	35
Installing CoolFig.....	36
The Router Wizard.....	37
Router Wizard Startup Screen.....	38
Router Wizard Step 1 (IP Address).....	39
Router Wizard Step 2 (ISDN Line).....	40
Router Wizard Step 3 (Pre-dial No.).....	41
Router Wizard Step 3 (continued).....	42
Router Wizard Step 4 (Template).....	43
Trouble Shooting.....	44

Troubleshooting Procedures .....	45
Customer Service.....	51
Document History .....	52
Additional Resources .....	53

### **List of Figures**

Figure 1 WarpTwo.1 Network Configuration .....	21
Figure 2 WarpTwo.6 Network Configuration .....	22
Figure 3 WarpTwo.1 Rear Panel View .....	25
Figure 4 WarpTwo.6 Rear Panel View .....	26
Figure 5 WarpTwo.1 LEDS Font View.....	27
Figure 6 WarpTwo.6 Front LEDs View .....	28

# ***Before You Begin***

---

## *Some information before you start...*

This QuickStart Manual is designed to get your router configured as quickly as possible. Here is what you will be doing:

1. Unpacking your router and checking that all the parts are present and look undamaged.
2. Making sure you have the parts that you need to supply (LAN cables).
3. Physically installing your router and confirming that it is functioning correctly.
4. Confirming the type of configuration you will be creating.
5. Capturing the information for configuration using the appropriate Check List.
6. Installing the Configuration software (CoolFig) on your PC.
7. Configuring your router.
8. Using your router!

This manual covers two models of the WarpTwo range.

### **WarpTwo.1**

- ISDN BRI
- Single 10MB LAN (10baseT) connection.

### **WarpTwo.6**

- ISDN BRI
- 6 port 10MB LAN (10baseT) HUB.

All the information in this manual and much more is contained on the CD-ROM supplied with your router.

## ***Some information about TCP/IP***

### ***I.P. Addresses - a very short tutorial***

When using the TCP/IP protocol (the protocol of the Internet) you will inevitably come across the term I.P. Address. An I.P. address uniquely defines you to the Internet so that messages sent from you can be returned to you in the same way that your mail address uniquely defines you. I.P. addresses are written as a series of 4 numbers (each in the range 1 to 255) separated by a period or dot. This is called in the Internet jargon "dotted decimal format". A typical I.P. address when written this way would look like this:

**207.107.60.101**

Your I.P. Address is allocated in one of two ways. It may be **dynamic** or it may be **static (fixed)**.

If your I.P. Address is **static**, it will be allocated either by your network administrator or by your ISP. In this case you will be told the I.P. Address in dotted decimal format and you should configure your ZyTrax Router and your networked PC's with these addresses.

If your I.P. Address is **dynamic** it will probably change each time you log into the Internet.

If you are uncomfortable with this stuff, you can print one of the Check Lists for your type of configuration, capture the information and then just enter it into the Router Wizard when prompted.

**Note:** Just in case you ever wondered, TCP/IP stands for Transmission Control Protocol/Internet Protocol. Catchy?

## **FCC Requirements**

### **Warning**

This equipment uses, generates, and can radiate radio frequency energy interfering with radio communications if not installed and used according to the instruction manual. It has been tested and complies with the limits for a Class B computing device according to FCC Rules, Part 15. Operation of this equipment in a residential area may cause interference. If it does, you must correct the cause of the interference.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

SHIELDED CABLES: Shielded DTE cables should be used with this unit to ensure compliance with Class B limits.

## **Notice From The Canadian Department Of Communication:**

### **Notice for Doc Ices-003 Issue 1**

"This digital apparatus does not exceed the Class (A)<sup>1</sup> limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications."

### **Notice:**

The Canadian Department of Communication label identifies certified equipment. This certification means that equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

### **Caution**

Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate."

"The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

The Load Number of the unit is 1.

## **Restrictions concernant le raccordement de matériel**

“Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe (A)<sup>2</sup> prescrites dans la norme sur le matériel brouilleur: “Appareils Numériques”. NMB-003 édictée par le Ministre des communications.”

### **Avis**

L'étiquette du Ministère des communications de Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordou prolongateur téléphonique interne). L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêchent pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunication ne permettent pas que l'on raccorde leur matériel à des jacks d'abonné, sauf dans les cas précis prévus par les tarifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

### **Avertissement**

L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.”

“L'indice de charge (IC) assigné à chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.”

L'indice de charge de ce produit est 1.

## **Copyright**

---

**ZyTrax™, HotPools™, SuperNAT™, LockBox™** are trademarks of ZyTrax Communications Inc. All other brand and product names are trade names or registered trademarks of their respective companies. All rights are reserved.

ZyTrax Communications Inc. reserves the right to make changes to this publication, or the products and software described within, at any time without prior notice. If there are any comments regarding this manual or the products described within, please forward them to:

ZyTrax Communications Inc.  
70 rue Notre Dame West  
Suite 301  
Montreal, QC  
Canada H2Y 1S6

Telephone: (514) 285 9088

Facsimile: (514) 285-8523  
(Attn. support)

Internet: support@zytrax.com

World Wide Web [www.zytrax.com/support](http://www.zytrax.com/support)

© Copyright 1996 ZyTrax Communications Inc. The copyrights and other intellectual property rights of ZyTrax Communications Inc., its software, and user's manual are the property of ZyTrax Communications Inc. either as a result of absolute ownership or by virtue of a licensed agreement and are protected by copyright laws and international treaties. All rights are reserved.

*No part of this manual may be reproduced, stored in a retrieval system, or transmitted in any form without prior consent from ZyTrax Communications Inc.*

### ***Important Notice***

---

The information contained in this document was carefully reviewed and should be accurate. However, ZyTrax Communications Inc. assumes no responsibility for inaccuracies.

ZyTrax Communications Inc. reserves the right to make changes to its products or to discontinue any product or service without notice. ZyTrax Communications Inc. advises its customers to obtain the latest version of the relevant Product Description before they place an order to verify that the information is current.

Please note that ZyTrax Communications Inc. products are not intended for use in life-support appliances, devices, systems, or health related products. If you use ZyTrax products in such applications, you must obtain written approval from the relevant ZyTrax officer.

ZyTrax Communications Inc. makes no warranties, expressed or implied, other than compliance with the relevant ZyTrax Product Description. ZyTrax liability is limited to replacement of defective items or return of amounts paid for the defective items (at the client's request).

### ***Avis Important***

---

L'information contenu dans ce document a été soigneusement révisée et est présumée exacte. Toutefois, aucune responsabilité n'est assumée pour les inexactitudes.

ZyTrax Communications Inc. se réserve le droit de modifier ses produits ou de discontinuer tout produit ou service sans avis et recommande à ses clients d'obtenir la dernière version de la Description de Produit appropriée pour vérifier, avant de passer des commandes, que l'information sur laquelle on se base est actuelle.

Soyez avisés que les produits de ZyTrax Communications Inc. ne sont pas conçus pour être utilisés dans des appareils, équipements ou systèmes d'assistance respiratoire ou tout autre produit relié à la santé. L'utilisation des produits de ZyTrax Communications Inc. dans ces conditions requiert l'autorisation écrite de l'officier désigné de ZyTrax.

ZyTrax Communications Inc. ne donne aucune garantie expresse ou implicite autre que la conformité avec la Description de Produit appropriée de ZyTrax. La responsabilité de ZyTrax est limitée au remplacement des articles défectueux ou au remboursement des sommes payées pour les articles défectueux (au choix de l'acquéreur).

# ***Introduction***

---

*This section outlines the features  
on your ZyTrax Router*

## ***Router Features***

Your product is a sophisticated ISDN Multicast IP Router and provides the following features:

- Compatible with most ISDN central office switches.
- Integral NT1 device (North American Models).
- Support of ISDN's S/T multi-dropped bus (European models).
- Status display LEDs.
- Operation parameters saved in non-volatile (FLASH) storage.
- Configuration and management uses TCP/IP SNMP protocol.
- Local or remote management and configuration.
- Remote or local downloading and upgrading of the Router application while fully operational.
- "Dual Boot" feature ensures operation following of a power failure during application upgrade operations.
- Single click IP address change.
- TCP/IP MPPP (RFC1990) protocol on one to eight B Channels.
- 56K bit/s and 64K bit/s operation.
- LockBox (Firewall).
- Router Security (Access List).
- Standard Network Address Translation (NAT).
- SuperNAT extensions.
- 'Thin Proxy' service using a static or dynamic IP address.
- DHCP Server.
- Multicast support.
- Routing Information Protocol (RIP).
- Policy Routing and QoS.
- Time of Day Routing.
- Telnet diagnostic access.

For a full explanation of the above and the other features of your router visit [www.zytrax.com/features](http://www.zytrax.com/features).

# ***Physical Description***

---

## **WarpTwo.1**

**Height:** 1.00" (26 mm)

**Depth:** 4.5" (115 mm)

**Width:** 5.9" (145 mm)

**Weight:** 10 oz. (0.28 kgs)

## **WarpTwo.6**

**Height:** 1.5" (35 mm)

**Depth:** 7.6" (195 mm)

**Width:** 6.8" (173 mm)

**Weight:** 10 oz. (0.28 kgs)

## ***Safety Information***

For your own safety, please take the following precautions when working with ZyTrax equipment:

1. Never install electrical equipment when you or your clothing is wet.
2. Do not install your ZyTrax Router in the vicinity of water (e.g. leaking pipes, running water, a bathtub, shower, sink, wet basement, or a swimming pool).
3. Immediately disconnect the power supply if liquid comes in contact with the product.
4. Make sure the power supply is not connected during installation.
5. Do not install your ZyTrax Router in an area where an object may rest or fall on the power cord.
6. Follow all the warnings and instructions marked on the product.
7. Do not overload wall outlets or extension cords as this can increase the risk of fire or shock.
8. Never push objects of any kind into this product as they may cause a short circuit and increase the risk of shock or fire.
9. Do not use a telephone to report a gas leak in the vicinity of the suspected gas leak.
10. Do not use a telephone during an electrical storm. There is a remote risk of electric shock from lightning.

# ***Installation***

---

*The following section describes the installation of your Router product...*

## ***Items supplied by ZyTrax***

**Before attempting any operation, unpack your Router shipping box carefully and confirm that all parts are present and there are no signs of physical damage.**

**NOTE: If any parts appear damaged DO NOT PROCEED with the installation. Contact local support for advice and guidance.**

Each Router comes with the following parts:

<b>Description</b>	<b>Quantity</b>
Router Base unit	1
9 volt, 1 amp Power supply	1
ISDN Cable with RJ45 jacks on either end - 6' (2 m) length	1
QuickStart Router Manual	1
CD-ROM containing software and documentation.	1
This Check List	1

NOTE: ZyTrax does not supply LAN cables for use with your router because the choice (Category 3, 4, 5, 5e), color, cable lengths, existing installation standards etc. are so great that even if we supplied a cable, the chances are very high that it would be the wrong type.

## ***Items supplied by the Customer***

You supply the following:

<b>Description</b>	<b>Quantity</b>
LAN cable to connect your router to your HUB or PC	1
Configuration Information (see Check Lists)	1

### NOTES:

1. ZyTrax does not supply LAN cables for use with your router because the choice (Category 3, 4, 5, 5e), color, cable lengths, existing installation standards etc. are so great that even if we supplied a cable, the chances are very high that it would be the wrong type.
2. For the required LAN cable type see the sections entitled 'Network Configurations' for your model type in this manual.

***In all cases take the following precautions when installing:***

1. Never install electrical equipment when you or your clothing is wet.
2. DO NOT install your Router in the vicinity of water e.g. leaking pipes, running water, a bathtub , shower, sink, wet basement or a swimming pool.
3. Immediately stop all installation work and disconnect the power supply if liquid is spilled into the product.
4. Ensure the power supply is not connected during installation.
5. DO NOT install your Router where there is a danger that an object may rest or fall on the power cord
6. Proceed with care and read all instruction first. If you do not understand the instructions contact local support personnel.

## ***Physical Installation***

Select a suitable location for the installation by checking the following:

1. Ensure the distance of the power outlet to the Router is equal to or less than the length of the power cord (6' or 2 meters) or have available a suitable and approved extension.
2. Ensure that objects will not rest or fall on the power cord.
3. Ensure there is adequate ventilation (approximately 6" of unobstructed space is necessary at the front and rear of the Router).
4. Ensure that the distance from the Service Provider socket to the ISDN U interface socket of the Router is less than 9' or 3 meters or obtain a longer RJ45 cable (NOTE: The ISDN U interface cable can be up to 300' or 100 meters in length).

### ***Power Connections***

---

To connect the Router to a power source proceed as follows (**NOTE:** Numbers refer to Figures 3 and 4 in the 'Controls' section):

1. Connect the Barrel connector from the Wall Transformer to the Power Connector (1) of the Router.
2. Connect the Transformer to a suitable power socket (2 pin, 110V supply). The Router will draw a maximum current of 1 amp at 9V.

### ***ISDN Line Connections***

---

To connect your Router to an ISDN U line, proceed as follows (**NOTE:** Numbers refer to Figures 3 and 4 in the 'Controls' section):

1. Connect one end of the ISDN Cable to the Telephone Service Provider's jack. Your Router has a built in NT1 and DOES NOT REQUIRE an external NT1 unit.
2. Connect the other end of the cable to the Router U interface connector WarpTwo.1 (2), WarpTwo.6 (4).

**NOTE: Your Router DOES NOT REQUIRE AN EXTERNAL NT1 TO FUNCTION. If your Router is connected to an external NT1 it WILL NOT FUNCTION CORRECTLY. If in any doubt contact your service provider and confirm that an ISDN U INTERFACE has been provided.**

### ***LAN Connections***

---

To connect your router to your LAN or PC proceed as follows (**NOTE:** Numbers refer to Figures 3 and 4 in the 'Controls' section):

#### **WarpTwo.1**

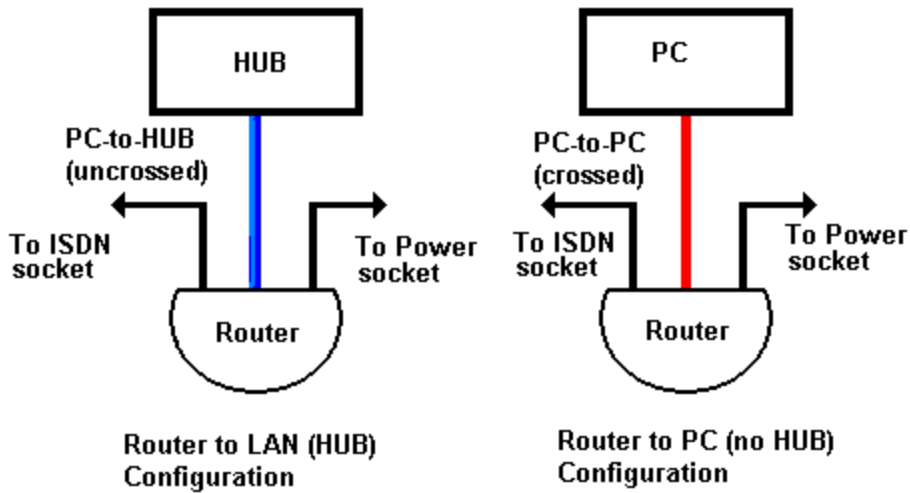
Connect your LAN cable to the socket (2)

#### **WarpTwo.6**

This product provides an Embedded LAN HUB. Connect your PCs or HUB to the 6 available sockets (2).

Your router may be configured in your network using a variety of methods as described in the next section.

## WarpTwo.1 Network Configurations

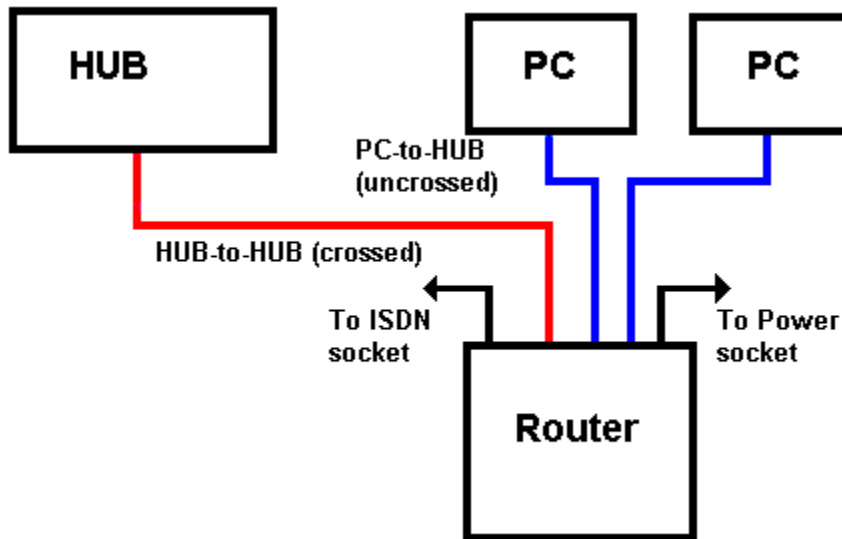


**Figure 1 WarpTwo.1 Network Configuration**

The above diagram shows WarpTwo.1 in two possible configurations:

1. Connected to a single PC (without a HUB) in which case the Router to PC cable MUST be a PC-to-PC (crossed) cable.
2. Connected to a HUB in which case the Router to HUB cable MUST BE a PC-to-HUB (uncrossed) cable.

## WarpTwo.6 Network Configurations



**Figure 2 WarpTwo.6 Network Configuration**

The above diagram shows connection of your WarpTwo.6 router with a number of possible connections

1. Router to PC using PC-to-HUB (uncrossed) cables.
2. Router to HUB using HUB-to-HUB (crossed) cables.

**NOTE:** Please read carefully the use of the UPLINK switch, which can allow you to connect your WarpTwo.6 Router to a HUB using a PC-to-HUB cable.

## ***Verifying Operation after Power On***

Confirm the following steps:

1. The Router has been plugged into a suitable power socket (2 pin, 110V supply)
2. One end of the ISDN cable has been plugged into the Router and the other end into the Telephone Service Provider's wall socket.

You will see the following display on the LEDs immediately after applying power:

1. All LEDs will go ON for approximately 1 second.
2. LED 2 will go ON for approximately 3 seconds.
3. LED 3 will go ON for approximately 3 seconds
4. All LEDs will go ON for approximately 1 second.

If the ISDN line is connected and operational you will see the following sequence of operations on the ISDN Line Status LED:

1. The ISDN LED (6) will go ON 5 to 10 seconds after connecting the ISDN line, indicating the ISDN line has synchronized at the U interface.
2. The B1 LED will go ON approximately 5 seconds after the ISDN LED went ON, indicating the switch has accepted the B1 SPID.
3. The B1 LED will go ON approximately 5 seconds after the ISDN LED went ON, indicating the switch has accepted the B1 SPID.

If the router is connected to a LAN or PC then:

### **WarpTwo.1**

1. The LINK LED will be ON (Figure 3 No. 7)

### **WarpTwo.6**

1. One LINK LED on the HUB (Figure 4 Nos. 1 – 6) will be ON for every active connection.

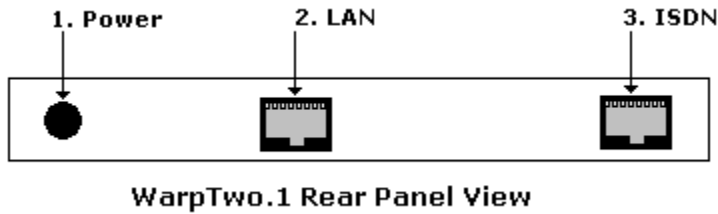
# ***Controls***

---

*The following section contains a description of the controls of your Router....*

## **WarpTwo.1 Rear Panel Connectors**

### **WarpTwo.1 (Single LAN Connection)**



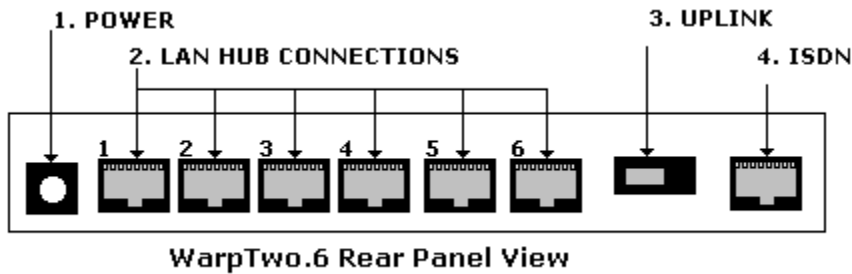
**Figure 3 WarpTwo.1 Rear Panel View**

Key to Controls in Figure 3 WarpTwo.1 Rear Panel View above

1. Power - Connect the supplied 9 Volt, 1 Amp. 'Barrel' type connector here
2. Connect to a PC or HUB using a PC-to-HUB (Uncrossed or straight) cable. YOU SUPPLY THIS CABLE. ZyTrax always recommends use of Category 5 or 5e LAN cables for the most reliable performance.
3. ISDN Connector. Connect the supplied 3-meter RJ45 ISDN U interface cable from the ISDN Wall Jack to this connector.

# WarpTwo.6 Rear Panel Connectors

## WarpTwo.6 (6 Port HUB)



**Figure 4 WarpTwo.6 Rear Panel View**

Key to Controls in Figure 4 WarpTwo.6 Rear Panel View above

1. Power - Connect the supplied 9 Volt, 1 Amp. 'Barrel' type connector here.
2. Connect up to 6 PCs using PC-to-HUB (Uncrossed) cables (with RJ45 connectors). Or connect up to 5 PCs (using PC-to-HUB cables) and another HUB (in socket 6) using a PC-to-HUB (uncrossed or straight) cable (with RJ45 connectors). YOU SUPPLY THESE CABLES. NOTE: See also Uplink switch when connecting to a HUB or a PC in socket 6.
3. Uplink Switch. This switch may be used to control the TYPE of cable used when using socket 6 only. See the full explanation below.
4. ISDN Connector. Connect the supplied 3-meter RJ45 ISDN U interface cable from the ISDN Wall Jack to this connector.

### Rear Panel Uplink Switch

This switch controls the behavior of socket 6 ONLY (the socket immediately to the left of the Uplink switch). Use this switch as follows:

1. If using socket 6 to connect a PC using a PC-to-HUB (uncrossed or straight) cable set the 'slide switch' to its RIGHTMOST (PC) position.
2. If using socket 6 to connect to a HUB using a PC-to-HUB (uncrossed or straight) cable set the switch to its LEFTMOST (HUB) position.
3. If using socket 6 to connect to another HUB using a HUB-to-HUB (crossed) cable set this switch to its RIGHTMOST (PC) position.



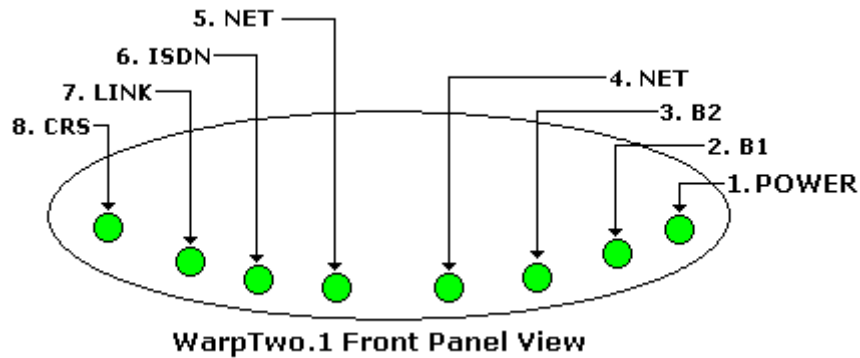
'Slide Switch' setting when connecting to another HUB using a PC-to-HUB (uncrossed or straight) cable. Switch is set in LEFTMOST position.



'Slide Switch' setting when connecting a PC using a PC-to-HUB (uncrossed or straight) cable OR connecting to another HUB using a HUB-to-HUB (CROSSED) cable. Switch set to RIGHTMOST position.

## WarpTwo.1 Front Panel LEDs

### WarpTwo.1 (Single LAN Connection)



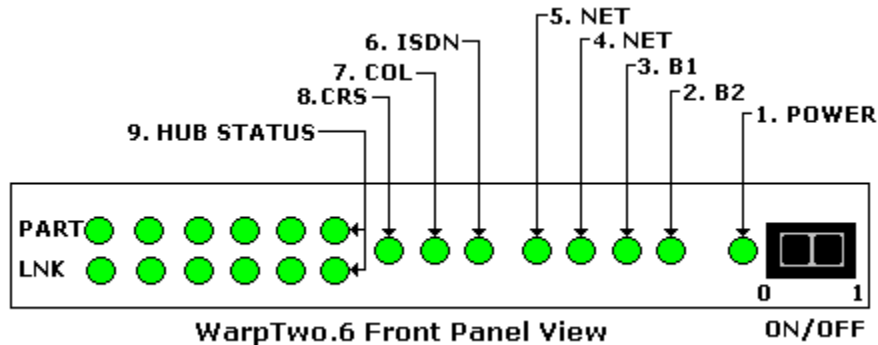
**Figure 5 WarpTwo.1 LEDS Font View**

Key to Controls in Figure 5 WarpTwo.1 LEDS Font View above

1. Power. When ON indicates Power is available to the router. When OFF indicates no Power is available to the router.
2. B1. When ON indicates that the SPID for the ISDN B1 Channel has been accepted and the channel is fully operational. If OFF indicates that the B1 Channel SPID has not yet been accepted. This LED setting is only valid when the ISDN (6) LED is ON.
3. B2. When ON indicates that the SPID for the ISDN B2 Channel has been accepted and the channel is fully operational. If OFF indicates that the B2 Channel SPID has not yet been accepted. This LED setting is only valid when the ISDN (6) LED is ON.
4. NET 1. If this LED is steady ON Indicates that the B1 channel is connected to a remote network. If the LED is ON for 1 to 3 seconds then OFF indicates that the B1 channel is dialing but failing to connect successfully (see troubleshooting). If this LED is steady OFF indicates that the B1 channel is not currently connected.
5. NET 2. If this LED is steady ON Indicates that the B2 channel is connected to a remote network. If the LED is ON for 1 to 3 seconds then OFF indicates that the B2 channel is dialing but failing to connect successfully (see troubleshooting). If this LED is steady OFF indicates that the B2 channel is not currently connected.
6. ISDN. When ON this indicates that the ISDN U interface has successfully synchronized with the Central Office. When OFF this indicates that the ISDN line has not synchronized (see troubleshooting).
7. LINK. When ON this indicates that the router is connected to a 10MB Ethernet LAN. When this LED is OFF it indicates that the router is NOT connected to a 10MB Ethernet LAN (see troubleshooting).
8. CRS. This LED is valid only when the LINK LED is ON. This LED flashes normally when LAN activity is detected.

# WarpTwo.6 Front Panel LEDs

## WarpTwo.6 (6 Port HUB)



**Figure 6 WarpTwo.6 Front LEDs View**

Key to Controls in Figure 6 WarpTwo.6 Front LEDs View above

### ON/OFF 'Rocker' Switch

When the 'rocker' switch is set to the '0' position the Router is not Powered (and the Power LED (1) will be OFF). When this 'rocker' switch is set to '1' position the Router is powered (and the Power LED (1) will be ON).

1. Power. When ON indicates Power is available to the router. When OFF indicates no Power is available to the router.
2. B1. When ON indicates that the SPID for the ISDN B1 Channel has been accepted and the channel is fully operational. If OFF indicates that the B1 Channel SPID has not yet been accepted. This LED setting is only valid when the ISDN (6) LED is ON.
3. B2. When ON indicates that the SPID for the ISDN B2 Channel has been accepted and the channel is fully operational. If OFF indicates that the B2 Channel SPID has not yet been accepted. This LED setting is only valid when the ISDN (6) LED is ON.
4. NET 1. If this LED is steady ON Indicates that the B1 channel is connected to a remote network. If the LED is ON for 1 to 3 seconds then OFF indicates that the B1 channel is dialing but failing to connect successfully (see troubleshooting). If this LED is steady OFF indicates that the B1 channel is not currently connected.
5. NET 2. If this LED is steady ON Indicates that the B2 channel is connected to a remote network. If the LED is ON for 1 to 3 seconds then OFF indicates that the B2 channel is dialing but failing to connect successfully (see troubleshooting). If this LED is steady OFF indicates that the B2 channel is not currently connected.
6. ISDN. When ON this indicates that the ISDN U interface has successfully synchronized with the Central Office. When OFF this indicates that the ISDN line has not synchronized (see troubleshooting).
7. COL. This LED flashes when Collisions are detected on the Ethernet LAN. Collisions are normal on Ethernet LANs but depending on the LAN traffic they should typically be rare (see troubleshooting).
8. CRS. This LED is valid only when one or more LINK LEDs (see 9 below) are ON. This LED flashes when LAN activity is detected.
9. Indicates the connection state of each HUB port. When the LINK LED is ON indicates a valid 10 MB Ethernet connection to a PC or HUB on the corresponding port. When the corresponding PART LED is ON indicates an error condition on the interface (see troubleshooting).



# Configuration

---

*ZyTrax supplies three utilities for use with your Router:*

**COOLFIG** - Configuration and management utility. To download the latest version of this utility together with operational instructions and a help system, please consult the ZyTrax web pages [www.zytrax.com/coolfig](http://www.zytrax.com/coolfig).

**ZING** - Router and Network monitoring utility. To download the latest version of this utility together with operational instructions and a help system, please consult the ZyTrax web pages [www.zytrax.com/zing](http://www.zytrax.com/zing).

**Control Server (NT\_Ser)** - Diagnostic and maintenance utility. To download the latest version of this utility together with operational instructions and a help system, please consult the ZyTrax web pages [www.zytrax.com/controlserver](http://www.zytrax.com/controlserver).

## ***Configuration Templates***

Configuration Templates are designed to simplify the process of initial configuration by requesting that you enter only the information required for the type of configuration you want. Even if a Template does not suit your needs exactly, select the closest fit, then edit the configuration after the Router Wizard has finished.

<b>Template Name</b>	<b>Description/Characteristics</b>
----------------------	------------------------------------

Static Client	You have more than 1 IP address assigned to by an ISP or your Network Administrator. Your IP Addresses do not change. You only connect to the Internet or Remote network(s). You never receive calls from Remote Networks.
Server	You only receive calls from Remote Networks You never make calls to remote Networks.
Thin Proxy Client	You have 1 IP address allocated by your ISP or Network Administrator. The IP address may be fixed or may change each time you connect. You only make calls to the Internet or a Remote Network. You never receive calls from a Remote Network.
HotPools (PVA)	You have more than 1 IP address assigned to you by your ISP or Network administrator. You will make and receive calls from the Internet or a Remote Network.

Select and complete the Check List for the chosen Configuration Template below.

## Static Client Template Check List

You will need all of the following information before you start configuring your ISDN router. The most obvious source of the information for each question is also defined. Print this form and use it to collect all the required information before you start.

### Your ISDN Line Information

Information	Source	Data
1. The area code of your ISDN Line (3 digits)	TSP	_____
2. The first (or only) Telephone Number of your ISDN Line (7 digits)	TSP	_____
3. The second Telephone Number of your ISDN Line (7 digits)	TSP	_____
4. The SPID for the first (or only) telephone number	TSP	_____
5. The SPID for the second telephone number	TSP	_____
6. Do you need to dial a number to make outgoing calls (1 digit e.g. 9)	TSP	_____

**NOTE:** TSP = Telephony Service Provider e.g. Phone company.

### Your ISP or Remote Network Connection

Information	Source	Data
10. The area code of the remote network if different from your ISDN line.	ISP or NA	_____
11. The telephone number of the remote network (7 digits)	ISP or NA	_____
12. If there are two numbers enter the second one here (7 digits)	ISP or NA	_____
13. What is the type of security (PAP or CHAP).	ISP or NA	_____
14. What is the User ID (PAP) or Name (CHAP) for this network?	ISP or NA	_____
15. What is the Password (PAP) or Secret (CHAP) for this network	ISP or NA	_____
16. What is the maximum speed of the connection?	ISP or NA	_____
17. Is the connection permanent or dynamic?	ISP or NA	_____

**NOTES:** Items 12 and 13 are very sensitive; please make sure you keep this information in a safe place. ISP = Internet Service Provider, NA = Network Administrator in your organization.

### Your Local LAN Information

Information	Source	Data
20. What is the lowest IP address used on your local LAN?	NA	_____
21. What is the Highest IP address used on your local LAN?	NA	_____

**NOTES:** NA = Network Administrator.

## **Server Template Check List**

You will need all of the following information before you start configuring your ISDN router. The most obvious source of the information for each question is also defined. Print this form and use it to collect all the required information before you start.

### **Your ISDN Line Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
1. The area code of your ISDN Line (3 digits)	TSP	_____
2. The first (or only) Telephone Number of your ISDN Line (7 digits)	TSP	_____
3. The second Telephone Number of your ISDN Line (7 digits)	TSP	_____
4. The SPID for the first (or only) telephone number	TSP	_____
5. The SPID for the second telephone number	TSP	_____
6. Do you need to dial a number to make outgoing calls (1 digit e.g. 9)	TSP	_____

**NOTE:** TSP = Telephony Service Provider e.g. Phone company.

### **Your Remote Network Connection**

<b>Information</b>	<b>Source</b>	<b>Data</b>
10. The area code of the remote network if different from ISDN line.	ISP or NA	_____
11. The telephone number of the remote network (7 digits)	ISP or NA	_____
12. If there are two numbers enter the second one here (7 digits)	ISP or NA	_____
13. What is the type of security (PAP or CHAP).	ISP or NA	_____
14. What is the User ID (PAP) or Name (CHAP) for this network?	ISP or NA	_____
15. What is the Password (PAP) or Secret (CHAP) for this network	ISP or NA	_____
16. What is the maximum speed of the connection?	ISP or NA	_____
17. Is the connection permanent or dynamic?	ISP or NA	_____

**NOTES:** Items 12 and 13 are very sensitive; please make sure you keep this information in a safe place. ISP = Internet Service Provider, NA = Network Administrator in your organization.

### **Your Local LAN Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
20. What is the lowest IP address used on your local LAN?	NA	_____
21. What is the Highest IP address used on your local LAN?	NA	_____

**NOTES:** NA = Network Administrator.

## **Proxy Client Template Check List**

You will need all of the following information before you start configuring your ISDN router. The most obvious source of the information for each question is also defined. Print this form and use it to collect all the required information before you start.

### **Your ISDN Line Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
1. The area code of your ISDN Line (3 digits)	TSP	_____
2. The first (or only) Telephone Number of your ISDN Line (7 digits)	TSP	_____
3. The second Telephone Number of your ISDN Line (7 digits)	TSP	_____
4. The SPID for the first (or only) telephone number	TSP	_____
5. The SPID for the second telephone number	TSP	_____
6. Do you need to dial a number to make outgoing calls (1 digit e.g. 9)	TSP	_____

**NOTE:** TSP = Telephony Service Provider e.g. Phone company.

### **Your ISP or Remote Network Connection**

<b>Information</b>	<b>Source</b>	<b>Data</b>
10. The area code of the remote network if different from your ISDN line.	ISP or NA	_____
11. The telephone number of the remote network (7 digits)	ISP or NA	_____
12. If there are two numbers enter the second one here (7 digits)	ISP or NA	_____
13. What is the type of security (PAP or CHAP).	ISP or NA	_____
14. What is the User ID (PAP) or Name (CHAP) for this network?	ISP or NA	_____
15. What is the Password (PAP) or Secret (CHAP) for this network	ISP or NA	_____
16. What is the maximum speed of the connection?	ISP or NA	_____
17. Is the connection permanent or dynamic?	ISP or NA	_____

**NOTES:** Items 12 and 13 are very sensitive; please make sure you keep this information in a safe place. ISP = Internet Service Provider, NA = Network Administrator in your organization.

### **Your Local LAN Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
20. What is the lowest IP address used on your local LAN?	NA	_____
21. What is the Highest IP address used on your local LAN?	NA	_____

**NOTES:** NA = Network Administrator.

## **HotPools (PVA) Template Check List**

You will need all of the following information before you start configuring your ISDN router. The most obvious source of the information for each question is also defined. Print this form and use it to collect all the required information before you start.

### **Your ISDN Line Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
1. The area code of your ISDN Line (3 digits)	TSP	_____
2. The first (or only) Telephone Number of your ISDN Line (7 digits)	TSP	_____
3. The second Telephone Number of your ISDN Line (7 digits)	TSP	_____
4. The SPID for the first (or only) telephone number	TSP	_____
5. The SPID for the second telephone number	TSP	_____
6. Do you need to dial a number to make outgoing calls (1 digit e.g. 9)	TSP	_____

**NOTE:** TSP = Telephony Service Provider e.g. Phone company.

### **Your ISP or Remote Network Connection**

<b>Information</b>	<b>Source</b>	<b>Data</b>
10. The area code of the remote network if different from your ISDN line.	ISP or NA	_____
11. The telephone number of the remote network (7 digits)	ISP or NA	_____
12. If there are two numbers enter the second one here (7 digits)	ISP or NA	_____
13. What is the type of security (PAP or CHAP).	ISP or NA	_____
14. What is the User ID (PAP) or Name (CHAP) for this network?	ISP or NA	_____
15. What is the Password (PAP) or Secret (CHAP) for this network	ISP or NA	_____
16. What is the maximum speed of the connection?	ISP or NA	_____

**NOTES:** Items 12 and 13 are very sensitive; please make sure you keep this information in a safe place. ISP = Internet Service Provider, NA = Network Administrator in your organization.

### **Your Local LAN Information**

<b>Information</b>	<b>Source</b>	<b>Data</b>
20. What is the lowest IP address used on your local LAN?	NA	_____
21. What is the Highest IP address used on your local LAN?	NA	_____

**NOTES:** NA = Network Administrator.

## ***Installing CoolFig***

Select the most suitable method below and follow the instructions:

### **Installing from the Web**

Get the latest updates to CoolFig on ZyTrax's web page ([www.zytrax.com/CoolFig](http://www.zytrax.com/CoolFig)) or FTP server ([ftp.zytrax.com](ftp://zytrax.com) anonymous login)

1. Click the download button to obtain the file `cfgxxx.exe` (a self-extracting zip file). (NOTE: xxx is the release level)
2. Save this file in a suitable temporary directory.
3. From Explorer or File Manager double click `cfgxxx.exe` to run the installation.
4. Follow Installation prompts to install CoolFig.

**NOTE:** The installation program will delete all temporary files created during the install process, but you should delete the downloaded file saved in step 2 above.

### **Installing from the CD-ROM**

1. Place the CD-ROM in a suitable drive.
2. Open the CoolFig directory
3. Double click 'setup'
4. Follow the installation prompts

### **Installing from Floppy**

1. Place the floppy in a suitable drive.
2. For Windows '95 or NT 4.x:
  - a. Select Run from the start menu
  - b. type '`a:setup`' in the prompt window
  - c. Click OK
  - d. Follow Installation prompts
3. For Windows NT 3.5.x:
  - a. Select Run from the File menu in Program Manager
  - b. Type '`a: setup`' in the prompt window
  - c. Click OK
  - d. Follow Installation prompts

## ***The Router Wizard***

The Router Wizard takes you step by step through the process of setting up your Router. The Router Wizard provides the following features:

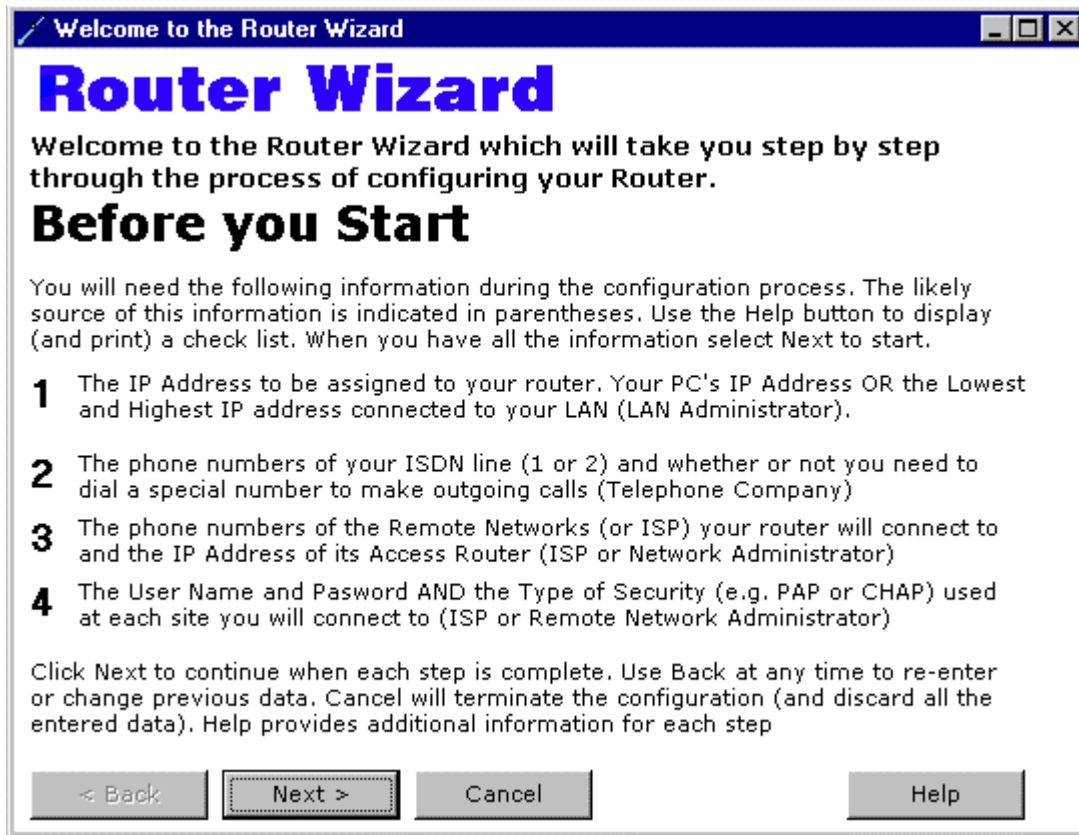
- Configuration Templates are used to minimize questions.
- Each screen asks for the minimum information required.
- Consistent navigation allows back up to correct errors.
- Additional Options may be configured using the 'Advanced' button.
- The Wizard does not use Sub Net Masks, but automatically calculates them from IP Addresses.
- Help screens are provided.
- Check lists may be printed before starting configuration.
- Graphics and Icons show the stage of information capture.

The following screens show the first 4 steps until you are asked to select the router template. Every screen contains a Help button, which will display information about that screen and lead you to additional information about the various topics required.

## ***Router Wizard Startup Screen***

---

When the Router Wizard starts the following screen is displayed:



**NOTE:** all Router Wizard screens have consistent navigation buttons as shown on the bottom of the screen above.

The initial Router Wizard screen provides a text description of the configuration process and a reminder of the information you require to complete the process of configuring your Router.

## **Router Wizard Step 1 (IP Address)**

This screen allows you to define the IP address of the Router.

**STEP 1 - Define Router IP Address**

# Router Wizard

In this step the Wizard will capture the IP address you want to assign to your Router (for information see the Chapter titled 'IP addresses' by clicking Help).

## Important

Please make sure that you have:

- Powered on your Router
- Connected your Router to your PC or Network AND to the ISDN line.
- Checked that your Router is functioning correctly by inspecting the LEDs (Consult the chapter titled 'Physical Installation' in your User Manual or click the Help button for on-line information if in doubt)

Enter the IP Address that you want to allocate to your Router e.g. 192.22.22.1.

< Back    Next >    Cancel    Help

**Note:** All Router Wizard screens have consistent navigation buttons as shown at the bottom of the screen above.

This screen requests the current IP address of the Router, or the IP address that you wish to allocate to the Router.

**IMPORTANT:** Before entering the IP address your Router should be fully functional and installed.

## Router Wizard Step 2 (ISDN Line)

**STEP 2 (ISDN Phone Nos.) for 209.148.89.77**

# Router Wizard

In this step the Wizard captures your local ISDN telephone numbers.

**2A Enter your Area Code**

Your Area Code is a three digit number. You may use any number of user formatting characters e.g. (514), +514 or 514 are all valid Area Codes.

**2B Enter 1 or 2 ISDN telephone numbers (7 digits)**

Line 1 number

Line 2 number

Typically an ISDN line has two telephone numbers in which case enter them both. Some service options only support a single telephone number in which case leave the 'Line 2 number' entry blank. IT IS IMPORTANT that you enter the Primary ISDN number (typically the first number supplied) in 'Line 1 number'. If you have any doubts about the Primary number consult your telephone service provider.

< Back   Next >   Cancel   Help

**Note:** All Router Wizard screens have consistent navigation buttons as shown at the bottom of the screen above.

This screen requests you to enter the details about the area code and telephone numbers of your ISDN line configuration.

### **Enter your Area code**

Enter your 3-digit area code and any formatting characters you require (e.g. '(514)', '514' and '-514-' are all valid).

### **Enter 1 or 2 ISDN Telephone Numbers (7 digits)**

Enter the 7-digit local phone number and any formatting characters required (e.g. '744-1111', '744.1111' or '7441111' are all valid). ISDN lines typically have two telephone numbers if you only have a single number allocated enter it in the 'Line 1 number' box and leave the 'Line 2 number' box empty.

## Router Wizard Step 3 (Pre-dial No.)

STEP 3 (Outgoing Calls) for 209.148.89.77

### Router Wizard

In this Step the Wizard captures information about 'pre-dial digits' (if required) to make outgoing calls.

**3A** Do you have to enter a number before you can make outgoing calls?

Yes  No

Many ISDN lines are supplied as part of a Centrex group (which is know by many trade names accross the country) in which case they usually - but not always - require a number to be entered before making a call outside the Centrex group.

< Back    Next >    Cancel    Help

**Note:** All Router Wizard screens have consistent navigation buttons as shown at the bottom of the screen above.

Many ISDN lines require a number to be dialed (to get an outside line) before the outgoing number can be dialed. This number is sometimes called a 'pre dial digit or string'.

If your line does NOT require any numbers to be dialed check the **NO** box and then Next. If your line does require a number check the **YES** box, which will display question 3B.

**NOTE:** The term Centrex is widely used with ISDN (though it can be known by many trade names across the country e.g. Microlink in Canada). Most Centrex lines do require a 'pre dial digit'. If in doubt check with your Telephone Service Provider. Remember you can always add or remove the digit later.

## ***Router Wizard Step 3 (continued)***

**STEP 3 (Outgoing Calls) for 209.148.89.77**

# Router Wizard

In this Step the Wizard captures information about 'pre-dial digits' (if required) to make outgoing calls.

**3A Do you have to enter a number before you can make outgoing calls?**

Yes  No

Many ISDN lines are supplied as part of a Centrex group (which is know by many trade names accross the country) in which case they usually - but not always - require a number to be entered before making a call outside the Centrex group.

**3B You entered Yes to 3A above, select from the list the number you need to dial before making calls outside the Centrex group or enter the number if not present.**

9

< Back   Next >   Cancel   Help

If you check YES to question 3A then question 3B will be displayed. Enter or select from the combo box the number that has to be dialed to make an outgoing call. If the number is '9' this is already selected as the default. You need to do nothing but move to the next screen.

## **Router Wizard Step 4 (Template)**

Step 4 requests you to select a Type of Router (a Configuration Template) and will tailor the questions asked in subsequent steps based on your selection.

**STEP 4 (Type of Configuration) for 209.148.89.77**

# Router Wizard

In this step the Wizard captures data about the Type of Router configuration you wish to create.

**4A Select from the choices below the configuration that most suits your requirements.**

- Static Client Access**  
My Router will ONLY make calls to one or more Remote Networks e.g. the Internet using static (or fixed) IP addresses.
- Server**  
My Router will ONLY accept incoming calls from one or more Remote Networks
- Proxy/NAT Client Access**  
My Router will ONLY connect to a Remote Network as a Proxy using one static or dynamically assigned IP address. This configuration uses NAT.
- HotPools or Permanent Virtual Access**  
My Router will be connected to a Hotpools or Permanent Virtual Access (PVA) Network and may both make and receive calls.

< Back   Next >   Cancel   Help

**Note:** All Router Wizard screens have consistent navigation buttons as shown at the bottom of the screen above.

### **Static Client Access**

The Router will ONLY make outgoing calls to one or more remote network(s) (which may be the Internet or a company Intranet). If your Router must be able to receive calls don't check this box, instead select either the Server or HotPools (Permanent Virtual Access) boxes.

### **Server**

The Router will ONLY receive calls from one or more remote networks and cannot make outgoing calls. If the Router must be able to make outgoing calls don't check this box, instead select the HotPools (Permanent Virtual Access) box.

### **Proxy/NAT Client Access**

If your Router will use a single (Static or dynamic) IP address to support one or more LAN connected PCs and only make OUTGOING calls to the Internet or remote network.

### **HotPools or Permanent Virtual Access**

Permanent Virtual Access (PVA) is a bi-directional network access technology pioneered by ZyTrax, which typically reduces Internet connection costs by up to 50% (for a full explanation go to <http://www.zytrax.com/pva>). If your company or Internet Service Provider supports PVA access technology check this box.

# **Trouble Shooting**

*If you are experiencing problems with your Router, please consult the following Frequently Asked questions before calling support since it may help you to isolate any problems and restore service as soon as possible.... (To contact support please consult the Support section of this manual)*

## ***Troubleshooting Procedures***

If your Router is not functioning correctly use the following Frequently Asked Questions (FAQs) as a guide to help you isolate any likely problem prior to calling support. If you have Internet Service available consult the support section for the latest information at [www.zytrax.com/support](http://www.zytrax.com/support) .

1. The ISDN LED is not ON.
2. The B1 (or B2) LEDS are not ON.
3. The NET 1 (or NET 2) LED comes on for a few seconds then goes OFF again.
4. One NET LED is ON the other comes ON for a few seconds then goes OFF again.
5. Both NET LEDS are ON.
6. Only one NET LED is ON.
7. The POWER LED is not ON.
8. The LINK LED is not ON.
9. The router is functioning normally but I cannot configure it or use Telnet.
10. I have just updated the Route Table (or any table) and want to use the new parameters immediately.

### **Q1. The ISDN LED is not ON.**

This indicates that your ISDN line is not connected or is not functioning (synchronizing) correctly.

1. Check that the ISDN line is connected to the rear of your router (see controls and indicators).
2. Check that the ISDN line is connected to your wall jack or termination.
3. Check that you are connected to an ISDN U interface and that you do NOT have an NT1 device connected (your router has a built-in NT1 for use in North America).
4. If you have another ISDN U interface device does it synchronize on this line?

If items 1, 2 and 3 are OK then it is most likely your ISDN Line. Contact your Telephone Service Provider and have them run a check. If item 4 is true and the replacement device definitely connects to a U interface then your router maybe faulty. Contact support.

### **Q2. The B1 (or B2) LEDS are not ON.**

If the ISDN LED is NOT ON follow the procedure defined in Q1 first.

If your ISDN LED is ON and the B1 (and/or the B2) LED is OFF then you may have an incorrect SPID or there may be a fault with your ISDN line.

1. If you have just changed the SPID reset your router to ensure the changes take effect (or use CoolFig's Update Menu, SPID Table followed by DN Table).
2. Check that your SPIDs are correct (use CoolFig's Router Summary window, ISDN Line Configuration). If one or both SPIDs are incorrect edit them in the Router Summary window and click Update.

3. If the unit was operational prior to this and you did NOT change the SPID, report the fault to your Telephone Service Provider.
4. Try removing the ISDN line from the connector (see controls and indicators) for about 30 seconds then replace it.

### **Q3. The NET 1 (or NET 2) LED comes on for a few seconds then goes OFF again.**

This means you are dialing a remote network number and not connecting.

1. Verify using CoolFig's Router Summary window that the 'Link speed and Type' parameters are correct 'Remote Telephone Numbers' are correct.
2. Verify using CoolFig's Router Summary window that the 'Remote Telephone Numbers' are correct.
3. Verify using CoolFig's Router Summary window that the 'Link Security' parameters are correct.
4. Verify that the phone number being used is serviceable by dialing it using a normal telephone.

### **Q4. One NET LED is ON the other comes ON for a few seconds then goes OFF again.**

This means that your second connection is not configured properly or you are dialing a remote network and not connecting.

1. Verify using CoolFig's Router Summary window that the 'Link speed and Type' parameters are correct 'Remote Telephone Numbers' are correct.
2. Verify using CoolFig's Router Summary window that the 'Remote Telephone Numbers' are correct.
3. Verify using CoolFig's Router Summary window that the 'Link Security' parameters are correct.
4. Verify that the phone number being used is serviceable by dialing it using a normal telephone.

### **Q5. Both NET LEDS are ON.**

This is normal is you are using a 128K service. You can verify the configuration as follows:

1. Go to CoolFig's Router Summary window.
2. Find the correct route.
3. Expand 'Remote Connection Details'.
4. Expand 'Link Speed and Type'.
5. If the configuration is incorrect click any value, then click again (not double click) and you will be presented with a display that will let you change the configuration.
6. Run Update from the Router summary window.

## **Q6. Only one NET LED is ON.**

This is normal if you are using a 64K service. You can verify the configuration as follows:

1. Go to CoolFig's Router Summary window.
2. Find the correct route.
3. Expand 'Remote Connection Details'.
4. Expand 'Link Speed and Type'.
5. If the configuration is incorrect click any value, then click again (not double click) and you will be presented with a display that will let you change the configuration.
6. Run Update from the Router summary window.

If the Speed is correct and you are using a dynamic service this indicates that you are not using enough bandwidth to trigger the threshold for use of the additional channel. You may want to review or experiment with your connection parameters with this in mind.

## **Q7. The POWER LED is not ON.**

This means no power is reaching your ISDN router.

1. Check that the power connector is snugly connected to the rear of the router (see controls and indicators)
2. Check that the power cord or transformer is properly connected to a power socket.
3. If WarpTwo.6 model ONLY check that the ON/OFF switch on the front of the unit is in the ON position (see controls and indicators).
4. Place another device of any kind into the power socket and confirm it is operational (if NOT your power circuit has fused).

## **Q8. The LINK LED is not ON.**

This means that you are not connected to any local LAN.

### **WarpTwo.1**

1. Check that you have a LAN (category 3 or 5) cable connected to the rear of the unit (see controls and indicators) and to either a PC or a HUB. NOTE: Over time connections can become loose or corroded, remove and re-insert both connectors.
2. If you are connecting DIRECTLY from a PC to the router (without a HUB) this cable MUST be a PC-to-PC (crossed) cable type. NOTE: The normal cable type is PC to HUB (uncrossed or straight).
3. If you are connecting from a HUB to the router use a normal PC-to-HUB (uncrossed) cable.
4. Try another cable of the same type.
5. Check that your HUB is powered ON.
6. Move the cable to another port on your HUB.

### **WarpTwo.6**

1. Check that you have a LAN (category 3 or 5) cable connected to the rear of the unit (see controls and indicators) and to either a PC or a HUB. Check carefully the

setting of the UPLINK switch. NOTE: Over time connections can become loose or corroded, remove and re-insert connectors.

2. Try another cable of the same type.
3. Move the cable to another port on the WarpTwo.6 HUB.

### **Q9. The router is functioning normally but I cannot configure it or use Telnet**

The most likely explanation is that you have a router lockout condition after configuring a GoodGuys (Access) List. Follow this procedure to recover normal access:

A router 'lockout' typically occurs for the following reasons:

1. You enter an incorrect IP address or Net Mask in the GoodGuys (Access List) table.
2. The allocated GoodGuys IP addresses are no longer valid or available.

**NOTE:** When you change the router's IP address the GoodGuys list is automatically disabled to avoid accidental router 'lockout' states. You will need to re-establish a valid GoodGuy list after changing the IP address.

A router 'lockout' typically has the following symptoms:

1. The router responds to a 'Ping' to its allocated IP address.
2. The router responds to a 'Ping' to its alias IP address 192.22.22.2.
3. The router continues to forward and route traffic normally.
4. Any attempt to access the router (using Telnet, CoolFig etc) fails to get any response.
5. The router fails to respond to a diagnostic find command (using the Diagnostic button on CoolFig main Toolbar).

If all the symptoms indicate a route 'lockout' use the following procedure to recover the router (**NOTE:** Your PC must be connected on the same LAN segment as your router for this procedure to work):

1. Ping the router using the IP address 192.22.22.2 it should always respond to this address. If not reset the router and verify the 'lockout' symptoms again.
2. Change the IP address on your PC to 192.22.22.17 (net mask of 255.255.255.0, leave the setting of default gateway untouched). Reboot your PC as necessary.
3. Run a diagnostic utility (CoolFig or NT\_Ser) with a router IP address of 192.22.22.2 and reconfigure the **goodGuyTable** correctly.
4. Restore your PC settings and reboot as necessary.
5. Verify that you can read any MIB value or run a Telnet session.

**Q10. I have just updated the Route Table (or any table) and want to use the new parameters immediately.**

If you use the Update button on the router summary window then it will present you with an option to update the router immediately to use the new parameters. If you did not use this method of update or declined the automatic update you will have to manually update the Table that you changed from CoolFig's Update Menu.



# ***Customer Service***

---

If you find any errors, missing information, confusing explanations, or if you have any other comments to make about ZyTrax products or services, please contact us and let us know. We value your opinion about our products and services. Be sure to address your request to the Support department.

Support and Customer Services  
ZyTrax, Inc.  
70 rue Notre Dame West  
3rd Floor  
Montreal, QC  
Canada, H2Y 1S6

Telephone:	(514) 285-9088
Facsimile:	(514) 285-8523 (attn. Support)
Internet:	Mail: <a href="mailto:support@zytrax.com">support@zytrax.com</a>
World Wide Web	<a href="http://www.zytrax.com/support">http://www.zytrax.com/support</a>

## ***Document History***

—First release of the *QuickStart Manual*.

## ***Additional Resources***

The following additional documents provide technical documentation about Internet, ISDN and related subjects.

### **TCP/IP Protocols and Standards**

#### **Internet RFC's (Request for Comments) (No Charge)**

Point to Point Protocol (PPP)	RFC 1661
PPP MultiLink	RFC 1990
PPP Challenge Handshake Protocol	RFC 1994
PPP IPCP	RFC 1332
PPP Authentication (for UPAP)	RFC 1334

Standards change rapidly in the field of Telecommunications and you should check that these documents (which were the latest at the time of publication) have not been super-ceded.

All Internet documents may be obtained, at no cost, via the web site at the following URL.

<http://info.internet.isi.edu/in-notes/rfc>

### **ISDN and Public Telecommunications standards**

#### **ITU-T (formerly CCITT) (Chargeable)**

Digital Subscriber Signaling System No. 1 Network Layer)	Q.931
Digital Subscriber Signaling System No. 1 ISDN User-Network Interface Data Link Layer Specification	Q.921

ITU Publications are chargeable documents available via Country Standards organizations and direct from the ITU at

<http://www.itu.ch/home/>

#### **For US ISDN standards**

#### **Telordia (ex Bellcore) documents (Chargeable)**

National ISDN 1 (still the most widespread)  
Generic Guidelines for ISDN Terminal Equipment  
on Basic Access Interfaces SR-NWT-001953