TRANZEO WIRELESS QUICK START GUIDE

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BEFORE YOU SET UP THE HARDWARE

Before you jump in and start setting up the radios, take a moment to follow these pre-install steps

Install the Access Point Utility

1. Insert the CD into your CD ROM Drive

2. Double Click onto My Computer on your Desktop

3. Double Click on your CD ROM

4. Double click onto the Folder called *Access Point Utility*.

5. Double click onto the folder called *v1.40.1*

6. Double click Setup.exe

7. The Install program will start.

8. Click Next to the welcome screen

9. Enter your Name and Company Name when prompted and click next

10. Click Next to select the standard Install Location

11. Click Next to select the standard Start Menu Location

12. Click Next to confirm settings

13. The program will now install.

14. When complete, a new group will created in your Start Menu called *Tranzeo Tr series Utility*

TRANZEO WIRELESS QUICK START GUIDE

HARDWARE INSTALLATION

Product Kit

Before installation, make sure that you have the following items:

The TR Wireless LAN Access Point	x 1
DC Power Adapter	x 1
Product CD	x 1

If any of the above items were not included or damaged, please contact your local dealer for support.

System Requirements

Installation of the 11Mbps Wireless LAN Access Point requires:

1. An AC power outlet (100~240V, 50~60Hz), which supplies the power for the Access Point.
2. A 10/100 Base-T (UTP) Ethernet cable drop.
3. Antenna with N-Male connector

Mechanical Description

The following table provides an overview of each LED activity:

LED Definition	Activity	Description
PWR	Continuous Green	Power Enabled
Link	Continuous Green	When on, linked to at least one unit.
AP	Continuous Green	Ready. On when in AP mode.
TX	Flashing Green	Flashes when there is TX activity
RX	Flashing Green	Flashes when there is RX activity

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Site Selection

Before installation, determine the TR Units location. Proper placement of the unit is critical to ensure optimum radio range and performance. Typically, the best location to place your Access Point at your site is the center of your wireless coverage area. Try to place your mobile stations within the line of sight. Obstructions may impede performance of the unit.

Access Point Placement You can place the Access Point on a flat surface such as a table or cabinet, or mount the unit on a vertical surface like a wall.

Installation Instructions

Connect the Ethernet Cable The 11Mbps Wireless LAN Access Point supports 10/100M Ethernet connection. Attach your UTP Ethernet cable to the RJ-45 connector on the Access Point. Then connect the other end of the RJ-45 cable to a hub or a station. Please be aware that, use the MDI port to connect the Access Point to a hub. Otherwise, please use the MDI-X port to connect the Access Point to a computer/station.

Connect the Power Cable Connect the power adapter to the power jack on the Access Point, and plug the other end of the power into an electrical outlet. The Access Point will be powered on and the power light will be solid green.

NOTE: ONLY use the power adapter supplied with the Access Point. Otherwise, the product may be damaged.

-Optional-

RS-232 (serial) Connection: The RS-232 port configuration is provided for advanced users to manage the Access Point. You may use any terminal emulation program with a RS-232 (serial) connection (e.g., Telix, ProCOMM, Windows 95/98/NT/ME/2000's HyperTerminal) to configure the Access Point.

1. Attach the 9-pin or 25-pin connector of the RS-232 *NULL-MODEM* cable to the COM port on your computer.
2. Connect the other end of the RS-232 cable to the RS-232 port on your Access Point.
3. From the **Start** menu, select **Program Files** and open the Terminal program.
4. Assign a name for the connection.
5. Select the Com port and click **OK**.
6. Set the port settings to **57600 bps, 8 data bits, no parity, no flow control**. Click **OK**.
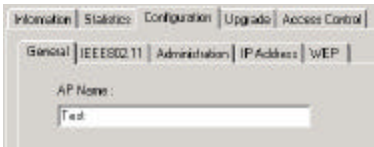7. The Access Point console screen appears when the connection has been established

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CONNECTING TO YOUR WIRELESS ISP

Wireless ISP's use Access Points (AP) to provide you with Internet service. This allows them to send the "Internet" to you wirelessly. The AP talks to Station Adapters and visas versa.

1. Plug the Ethernet Cable of your Cable, DSL, or other type of Internet service into the uplink port of your hub.
2. From the Hub plug one line into the Ethernet adapter on your computer.
3. Plug a crosspatch cable into the Port marked PC on the DC injector.
4. Plug the Ethernet Cable from your Tranzeo Access Point into the port marked CPE on the DC injector.
5. Plug the DC power supply into the DC Injector.
6. Install the Access Point Utility from the CD.
7. Execute the utility and double click on the icon of the Tranzeo Access Point. When prompted, enter the Password. The default password is "default".
8. Click the **Configuration** tab and then onto the **General** tab. Name the Access Point so you can easily identify the unit.

9. Click on the **IEEE802.11** tab and use the drop down menu to set the Radio Mode to **Wireless LAN Access Point (AP)**
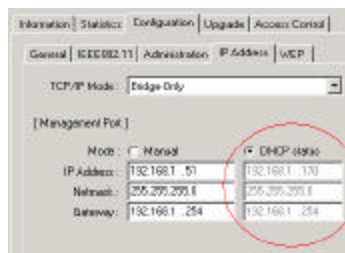
10. Set the **ESSID** by typing in an ID. Your Wireless ISP should provide you with the correct value for this setting.

If you need to pass a Public IP skip to step 16.

11. Click the **IP Address** tab and set the **TCP/IP Mode** to **Bridge-Only**.
12. Click the **DHCP Status** Radio Button to receive an address via a **DHCP server** or select **Manual** to manually assign an IP address.

13. Click **Apply** and then click **OK** to reset.
14. Reboot your PC.
15. Start your web browser.   You should now be able to access the Internet.

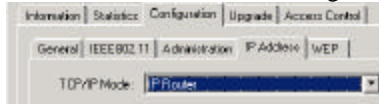# TRANZEO WIRELESS QUICK START GUIDE

When do I use the IP Router mode vs. the Bridge mode?

Using the table below, determine which features you need. Some options are not supported directly by the Station Adaptor and therefore an external Router such as the Tranzeo BIG PS/4 may be required.
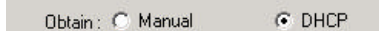
Mode	Use Radio's DHCP Server	Use Upstream DHCP Server	Use Radio's NAT	Use Radio's PPPOE	Access to VPN	Static Public IP's on Multiple Units	Mixed Public and Private IP's	Firewall Protection
Router Only	☑	☒	☑	☑	☑*	☒	☒	☒
Bridge Only	☒	☑	☒	☒	☑	☑	☑	☒
Bridge with External Router	☒	☑**	☒	☒	☑**	☑**	☑**	☑**

Notes: *If using Public IPs on both the LAN and the Wan Interface. **Feature only available if supported by Router.
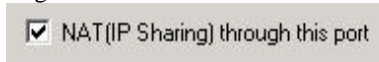
- **To share the connection using the Bridge Only Mode you are now finished.**
- **To share the connection using the Bridge with External Router Mode plug the cable from the DC Injector marked "PC" into the WAN port of the router. Depending on the router, a cross over cable may be needed. Follow the instruction that came with your router for setting it up.**
- **To share the connection using the Router Mode you need to do the following additional steps**:
1. Click the **IP Address** tab and set the **TCP/IP Mode** to **IP Router** using the drop down menu.
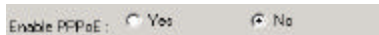

2. Select the **WAN on WLA** option.
3. Click the Setup button above the **WAN on ETH** radio button.
4. Set the option to **Obtain DHCP** if your ISP uses DCHP; otherwise enter in the values your ISP gave you.

5. Check the **NAT (IP Sharing) through this port** box.
   Note: Turn off NAT if you need to allow access to a VPN or other application that needs a public IP. The sub-net mask needs to be set correctly to allow the routing to occur.

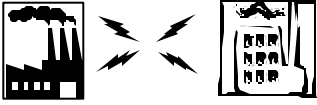6. Turn off **PPPoE** by clicking the **No** radio button.

7. Click the **Close** button to exit.
8. Click the **LAN on Eth's** setup button and set the range of IP's that you want to have given out to by this Access Point.   For more information see **Using TheTranzeo Wireless Built-In DHCP Server**

9. Click **Apply** and then click **OK** to reset.
10. Reboot your PC.
11. Start your web browser.   You should now be able to access the Internet.
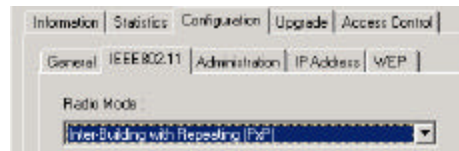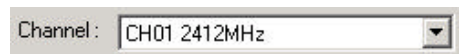
BRIDGING TWO NETWORK SECTIONS

Bridging allows two Tranzeo Access Points to connect two separate areas to the same network. In this mode, the AP's operate as a data connection only. Both Access Points must be Tranzeo Products.

1. Plug the Ethernet Cable of your Cable, DSL, or other type of Internet service into the uplink port of your hub.
2. From the Hub plug one line into the Ethernet adapter on your computer.
3. Plug a crosspatch cable into the Port marked PC on the DC injector.
4. Plug the Ethernet Cable from your Tranzeo Access Point into the port marked CPE on the DC injector.
5. Plug the DC power supply into the DC Injector.
6. Install the Access Point Utility. See **How to Install the Access Point Utility** for instructions.
7. Execute the utility and double click on the icon of the Tranzeo Access Point.
8. Enter the Password. The default password is "default".
9. From the Configuration Tab select the **General** tab. Name the Access Point so you can easily identify the unit.
10. Click the **IEEE802.11** tab and use the drop down menu to set the **Radio Mode** to **Inter-Building with Repeating PxP**
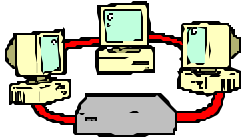

11. Set the C**hannel** for your Tranzeo Access Point Ensure both Tranzeo Access Point are set to the same channel.
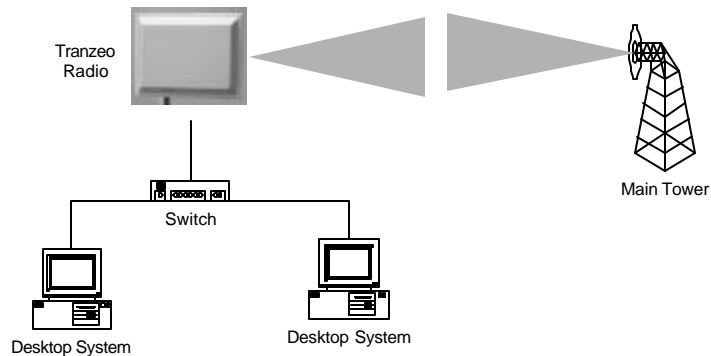

12. Click **Apply**. Click **OK** for reset.
13. Repeat for the other Tranzeo Access Point's.

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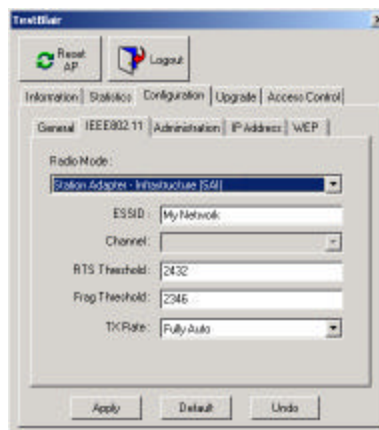
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CONNECTING YOUR NETWORK TO THE INTERNET

IP Routing allows for multiple computers to share a connection. This means that you can have multiple computers using 1 CPE to gain access to your network. You set the CPE to assign IP addresses within a specified range (e.g. 192.168.1.10 to 192.168.1.200). By setting the CPE to Station Adapter Mode the unit is able to send and receive data to and from an Access Point.

1. Plug the Ethernet Cable of your Cable, DSL, or other type of Internet service into the uplink port of your hub.
2. From the Hub plug one line into the Ethernet adapter on your computer.
3. Plug a crosspatch cable into the Port marked PC on the DC injector.
4. Plug the Ethernet Cable from your Tranzeo Access Point into the port marked CPE on the DC injector.
5. Plug the DC power supply into the DC Injector.
6. Install the Access Point Utility. See **How to Install the Access Point Utility** for instruction.
7. Execute the utility and double click on the icon of the Tranzeo Access Point.
8. Enter the Password. The default password is "default".
9. From the Configuration Tab select the **General** tab. Name the Access Point so you can easily identify the unit.
10. Click the **IEEE802.11** tab and use the drop down menu to set the **Radio Mode** to **Station Adapter – Infrastructure (SAI).**

11. Enter the **ESSID** of the AP that you wish to connect to. It MUST be the same as the AP that you wish to connect to.
12. Hit **Apply**. Click **OK** to reset.

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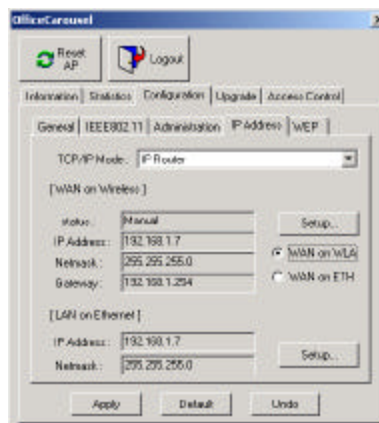## When do I use the IP Router mode vs. the Bridge mode?

Using the table below, determine which features you need. Some options are not supported directly by the Station Adaptor and therefore an external Router such as the Tranzeo BIG PS/4 may be required.

Mode	Use Radio's DHCP Server	Use Upstream DHCP Server	Use Radio's NAT	Use Radio's PPPOE	Access to VPN	Static Public IP's on Multiple Units	Mixed Public and Private IP's	Firewall Protection
Router Only	☑	☒	☑	☑	☑*	☒	☒	☒
Bridge Only	☒	☑	☒	☒	☑	☑	☑	☒
Bridge with External Router	☒	☑**	☒	☒	☑**	☑**	☑**	☑**

Notes: *If using Public IPs on both the LAN and the Wan Interface. **Feature only available if supported by Router.

- **To share the connection using the Bridge Only Mode you are now finished.**

- **To share the connection using the Bridge with External Router Mode plug the cable from the DC Injector marked "PC" into the WAN port of the router. Depending on the router, a cross over cable may be needed. Follow the instruction that came with your router for setting it up.**

- **To share the connection using the Router Mode you need to do the following additional steps:**

13. For privacy on the network and/or sharing the connection for multiple computers you need to do the following: (Fig 9)
14. Click the **IP Address** tab and change the **TCP/IP Mode** from **Bridge-Only** to **IP Router.**
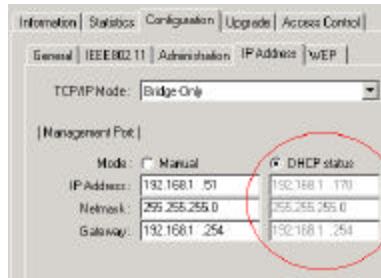15. Select **WAN on the WLA** (Wide Area Network on Wireless LAN) radio button.

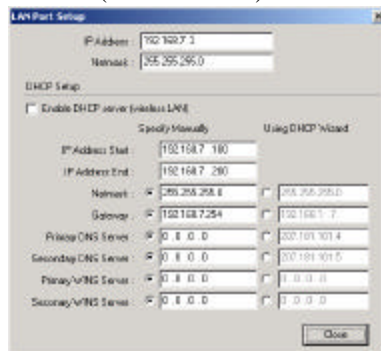**From here there are two possible routes to choose, DHCP or Manual.**

If You Use a DHCP Server

16. Click the **DHCP Status** Radio Button to receive an address via a DHCP server
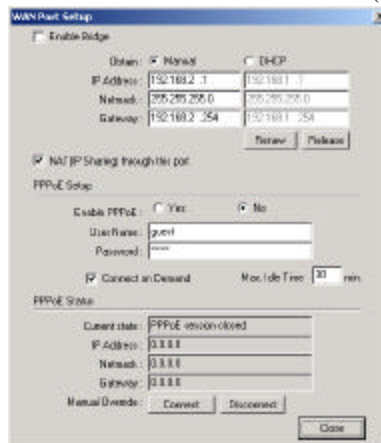
17. If you do not wish to have the built in DHCP Server issue addresses, click on the Setup Button above the WAN on WLA and WAN on ETH (Wide Area Network on Ethernet) radio buttons.

18. Uncheck the box labeled "Enable DHCP Server (wireless LAN)"

19. Click **Apply** and then click **OK** to reset

If You Use Static IP Addresses:

20. Click on the **Setup** Button above **the WAN on WLA and WAN on ETH** (Wide Area Network on Ethernet) radio buttons.

21. Set the **Obtain** radio buttons to **Manual** and enter the Public IP Address (for management purposes e.g. telnet, pinging etc…), net mask, and gateway.
22. Check the **NAT (IP Sharing)** through this port box. (Fig 10 a)
23. Turn off **PPPoE** by clicking the **no** radio button. Close the window by hitting the **Close** button.
24. Click the LAN on Ethernet setup button.
25. Enter the Private IP Address into the box marked **IP Address.**

Note: Ensure that the subnets are the same in the IP Address and the Range of IP's that you wish to have given out (the third numbers in the IP Address are the same).

26. If you do not wish to have the built in DHCP Server issue addresses, click on the **Setup** Button above the **WAN on WLA** and **WAN on ETH** (Wide Area Network on Ethernet) radio buttons.

27. Uncheck the box labeled **Enable DHCP Server (wireless LAN)**

If you wish to have the Tranzeo Wireless Access Point's built in DHCP server issue IP Address on the LAN side follow the steps below, otherwise your Access Point setup is complete.

For instructions on how to set up a static IP on Windows Clients, see Page 16.

Using the Tranzeo Access Point's Built In DHCP Server:

28. Check the DHCP radio button
29. Set the range of IP's that you want to have given out to the multiple computers that can be connected to this CPE.

30. Set the Gateway to the LAN IP of this radio.
31. Ensure that the subnets are the same.
32. Enter the DNS settings into the boxes.
If you have DHCP Client enabled on your PC the unit will send all relevant information to your radio automatically.
33. Hit Apply.
34. For multiple computers do the following:
35. Plug another Ethernet cable into an available port on the hub and put the other end into the Ethernet card in your PC.
36. Check the connection by opening a web page (that isn't cached) in your browser.
37. Repeat steps 37.and 38 for more computers.

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TO MANAGE THE TRANZEO ACCESS POINT FROM INSIDE YOUR NETWORK

To manage the Tranzeo Access Point from inside your network you will need to use the Access Points Private address to access the Web Management features.

TO REMOTELY MANAGE THE TRANZEO ACCESS POINT

To remotely manage the Tranzeo Access Point (from an outside location) you will need to use the public IP address of the Tranzeo Access Point to access the Web Management features.

USING THE BUILT-IN WEB MANAGEMENT

The built-in Web Management provides you with a user-friendly graphical user interface (web pages) to manage your Wireless Access Points. An AP with an assigned IP address (e.g. http://192.168.1.1) will allow you via web browser (e.g., Netscape Navigator 3.0 ~ 4.5 or MS Internet Explorer 4.0 or later) to monitor and configure the Wireless Access Point.
1. Open your web browser.
2. Enter the IP address of your Wireless Access Point in the Address field (for example http://192.168.1.1). You will have access to the Wireless Access Point Web Pages of the Wireless Access Point.
3. Click on the Neighborhood Access Point item and you will see all the other Access Points available on the network.
4. Enter the password to login to the Wireless Access Point. The default password is default. The main page will Load.

WEB MANAGEMENT OPTIONS

The Tranzeo Wireless Access Point main page contains three items for you to manage your Wireless Access Point.

Information Page

General

This item displays the general information of the Wireless Access Point such as the MAC address, Frequency Domain, and Firmware Version.

Statistics

This item displays the Ethernet and wireless network traffic.

Configuration Page

General

You may make the settings on the Wireless Access Point such as ESSID, Radio mode, channel, RTS threshold, fragment threshold and password.

WEP

To prevent unauthorized wireless stations from accessing data transmitted over the network, the 11Mbps Wireless LAN Access Point offers WEP (Wired Equivalency Privacy). You can set up 4 encryption keys but choose one key to encrypt your data. For detailed configuration please refer to page 19 of the TR Access Point Manual.

Access Control

The Access Control Table enables you to restrict wireless stations accessing the Wireless Access Points by identifying the MAC address of the wireless devices.

TCP/IP

The Access Control Table enables you to set the Wireless Access Point act as either a bridge with DHCP client enabled, or a wireless Router with DHCP server and PPPoE enabled.
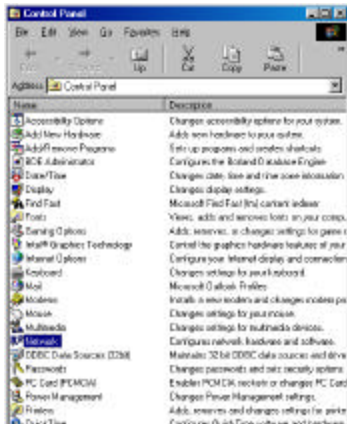
Upgrade Page

Here, you can upload the newest firmware of the Wireless Access Point. You may either enter the file name in the entry field or browse the file by clicking the **Browse** button.
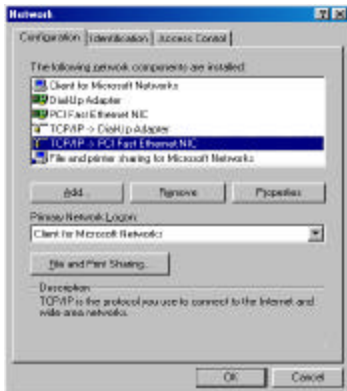
TO ASSIGN A STATIC IP IN WINDOWS 98

1. Click Start button, then Settings, then Control Panel.
2. Click the network icon in the list as in Figure 15.

3. Select the TCP/IP icon in the list and click properties.

4. Click the Specify an IP Address radio button.

5. Enter the IP address and the Subnet mask.

6.
7. Click the Gateway tab

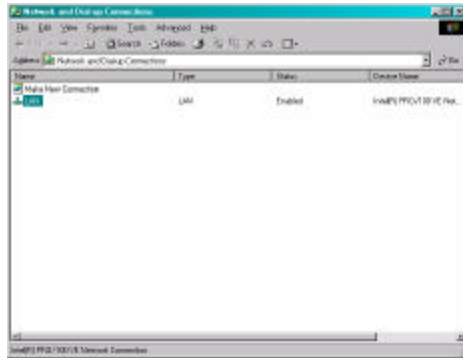8. Enter the gateway and Click the Add button.
9. Click the DNS Configuration tab.

10. Click the Enable DNS Radio Button.

11. Enter the host and DNS server into the box and click Add.
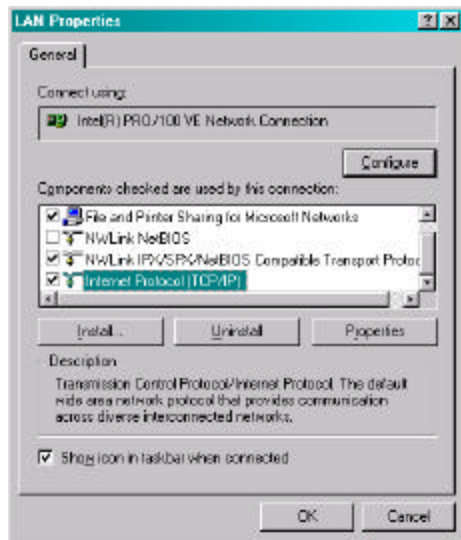
12. Enter the Domain ONLY if there is one.

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TO ASSIGN A STATIC IP IN WINDOWS 2000:

1. Click the Start Button, then Settings, and then select Network and Dial-up Connections.
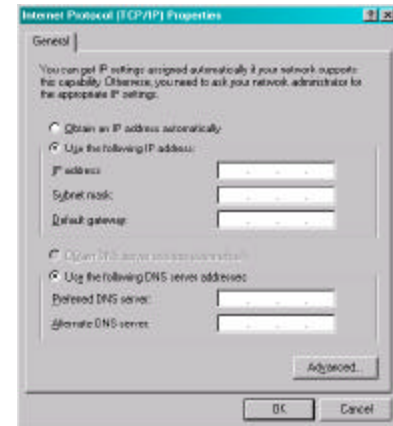2. Right click on the Network connection that will be in the window and click properties
.

3. Select the TCP/IP icon in the list and click properties.

4. Click the "Use the Following IP Address" radio button.

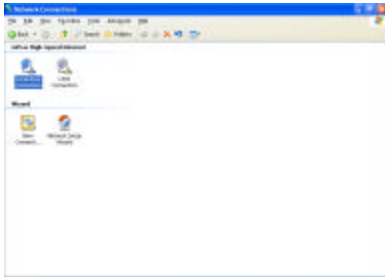*Note: For the correct setting to enter, contact your network administrator.*

   a. Enter the IP address, Subnet Mask, and Default Gateway.
   b. Enter the preferred and Alternate DNS values.
   c. Click OK

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Unit 13 – 11720 Stewart Crescent, Maple Ridge, B.C. Canada V2X 9E7 Phone (604) 460-6002 Fax (604) 460-6005 www.tranzeo.com Page 14 of 15
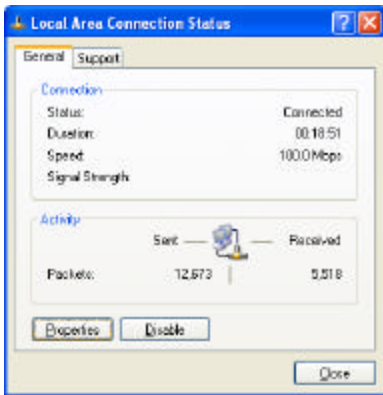
TRANZEO WIRELESS QUICK START GUIDE
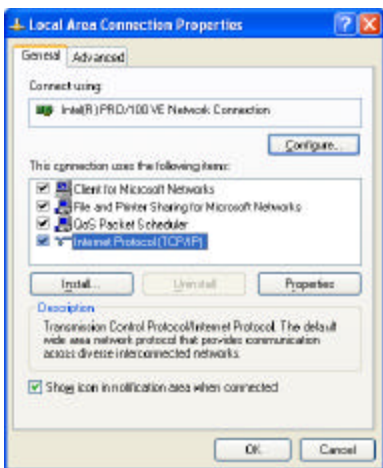
TO ASSIGN A STATIC IP IN WINDOWS XP:

1. Click the Start Button, then Control Panel.
2. Click the Network Connections Icon.
3. Double Click on your connection in the window as in Figure 23.

4. Click the Properties button.

5. Select TCP/IP from the list and click properties.

6. Click "Use the following IP Address" radio button. *Note: For the correct setting to enter, contact your network administrator.*
7. Enter the IP address, Subnet Mask, and Default Gateway.
8. Enter the preferred and Alternate DNS values and click OK.

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