ISP Access Point

ISP's use Access Points 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.

ISP's TR–2015/TR–2018/TR–1000/TR–2000 Unit

1. Plug your Cable, DSL, or other type of Internet service into the uplink port of your hub. (Fig 1)

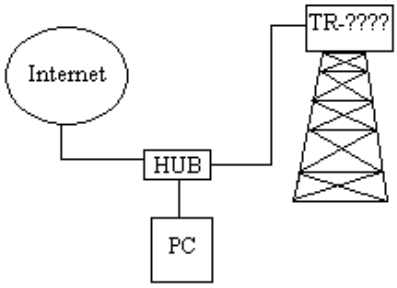


Figure 1

From the Hub plug one line into the Ethernet adapter on your computer. Plug a crosspatch cable into the Port marked PC on the DC injector. Plug the TR–2015/TR–2018/TR–1000/TR–2000 into the port marked CPE on the DC injector. Plug DC power supply into the DC Injector.

2. Install the Access Point Utility from the CD. Execute the utility and double click on the icon of the TR–2015/TR–2018/TR–1000/TR–2000. Enter the Password. The default password is "default".
3. Click the Configuration tab and then the General tab. Name the Access Point so you can easily identify the unit. (Fig. 2)

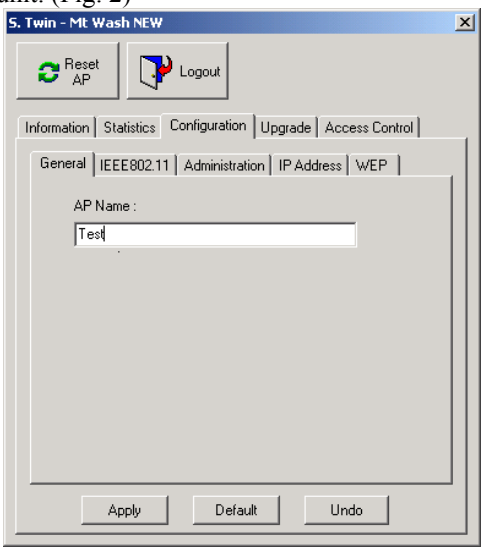


Figure 2

4. Click the IEEE802.11 tab and use the drop down menu to set the Radio Mode to Wireless LAN Access Point (AP). (Fig 3)

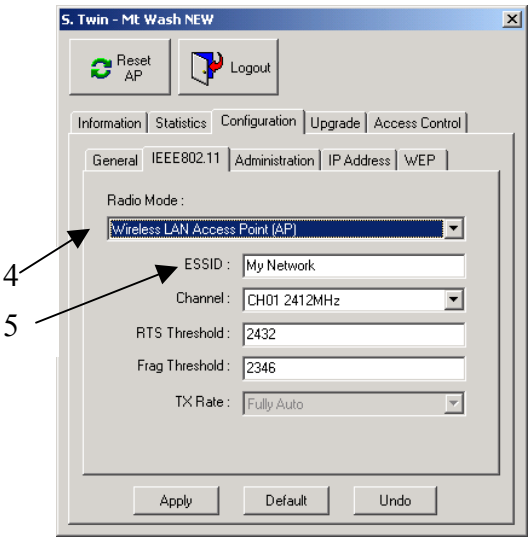


Figure 3

5. Set the ESSID by typing in an ID. (Fig 3)

Note: You must have an ESSID entered into the box.

6. Hit Apply. Hit OK for reset.
7. Click the IP Address tab and set the TCP/IP Mode to Bridge-Only. (Fig 4)
    a. Click the DHCP Status Radio Button to receive an address via a DHCP server or select manual to manually assign an IP address.

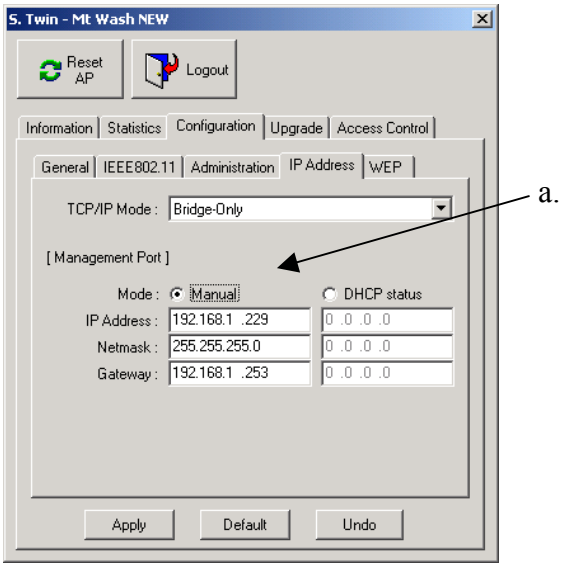


Figure 4

8. Hit Apply. Hit OK to reset.
9. To check signal strength start a telnet session by going to the Start Menu and select Run. Type in "telnet" and the IP of the unit. Enter password. Type "stat" and hit enter. Signal Strength is displayed across the top.

To manage the TR–2015/TR–2018/TR–1000/TR–2000 from inside your network use the gateway's address to telnet or when using your browser. To remotely manage the TR–2015/TR–2018/TR–1000/TR–2000 (from an outside location) use the IP address of the TR–2015/TR–2018/TR–1000/TR–2000. (Fig 5)

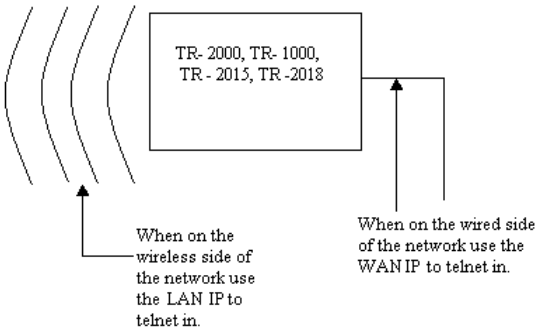


Figure 5

Station Adapter with IP Routing

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. (Fig 6)

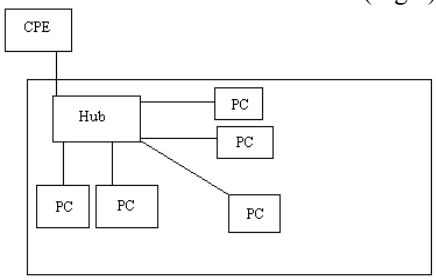


Figure 6

Setup

1. Plug the Cat 5 coming out of the TR-2015/2018/2000 into the port marked CPE on the DC injector. Plug another cable into the PC port on the DC injector and into an Ethernet adaptor for a single PC or into an uplink port on a hub for multiple computers. *Note if no uplink port is available, you must use a crosspatch cable.*
2. Install the Access Point Utility. Execute the utility and double click on the icon of the CPE. Enter the Password. The default password is "default".
3. Click the Configuration tab and then the General tab. Name the Access Point so you can easily identify the unit. (Fig 7)

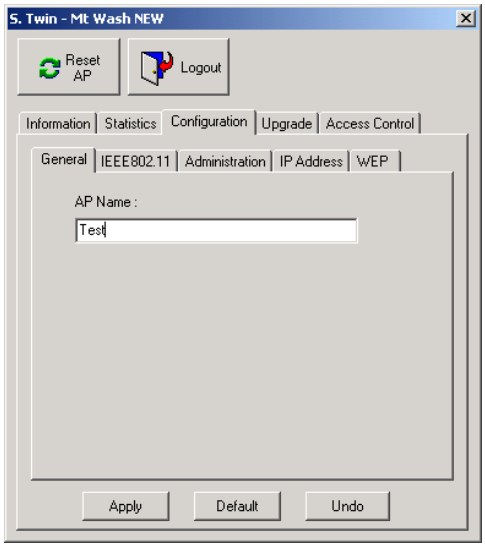


Figure 7

4. Click the IEEE802.11 tab and use the drop down menu to set the Radio Mode to Station Adapter – Infrastructure (SAI). (Fig 8)

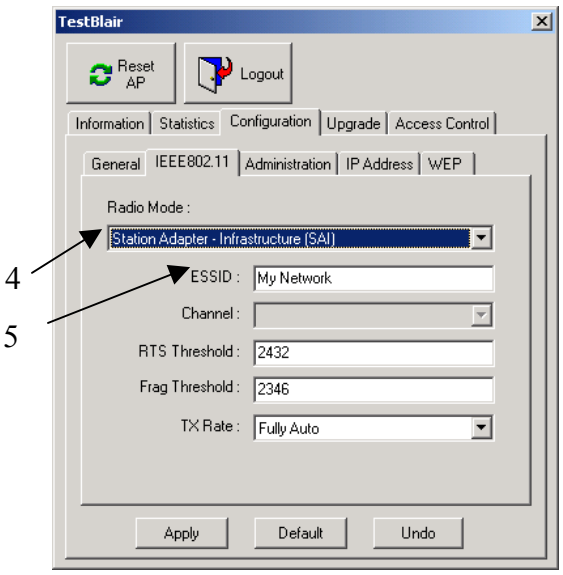


Figure 8

5. 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.
6. Hit Apply. Click OK to reset.
7. For privacy on the network and/ or sharing the connection for multiple computers you need to do the following: (Fig 9)
    a. Click the IP Address tab and change the TCP/IP Mode from Bridge-Only to IP Router.
    b. Select WAN on the WLA (Wide Area Network on Wireless LAN) radio button.

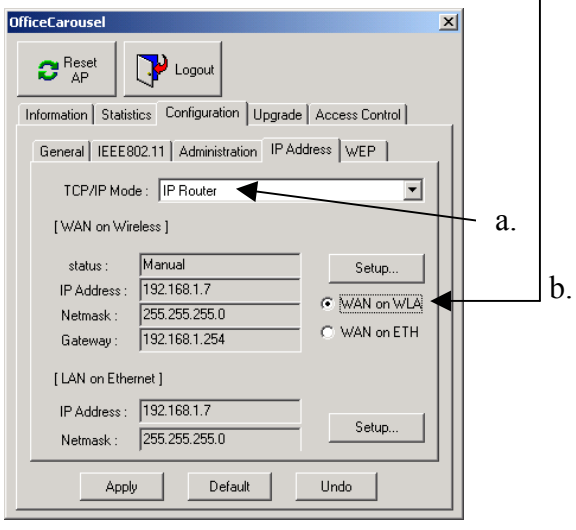


Figure 9

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

IF You Choose Manual then:

1. Click on the Setup Button above the WAN on WLA and WAN on ETH (Wide Area Network on Ethernet) radio buttons.
    a. Set the Obtain radio buttons to "Manual" and set the IP Address (for management purposes e.g. telnet, pining etc…), netmask, and gateway.
    b. Check the NAT (IP Sharing) through this port box. (Fig 10 a)
    c. Turn off PPPoE by clicking the no.

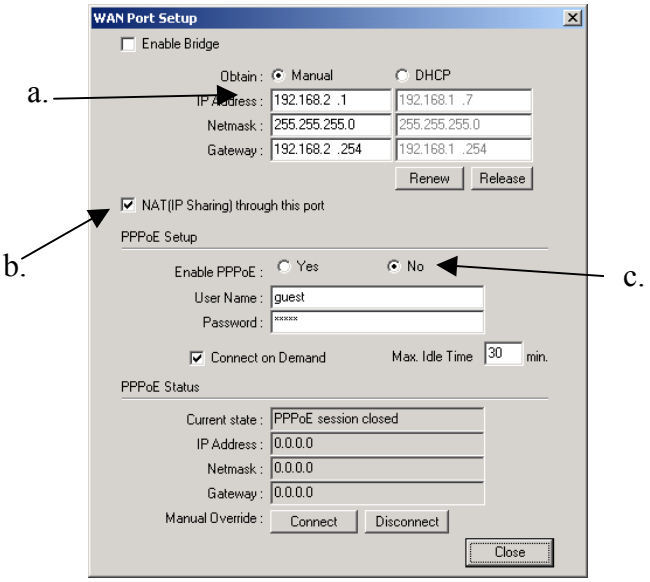


Figure 10 a

2. Close the window by hitting the close button.

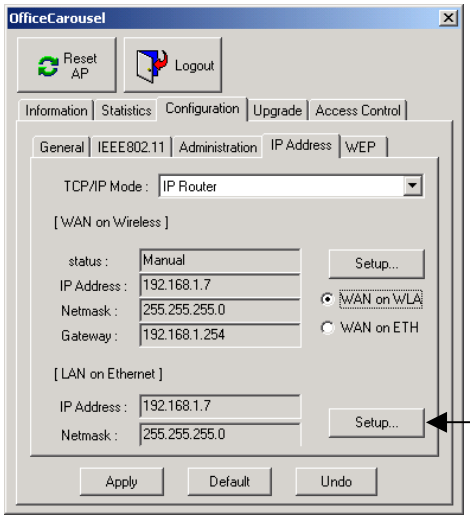


Figure 11

3. Click the LAN on Ethernet setup button.
    a. Enter the IP Address into the box marked IP Address.
    i. 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 number in the IP Address).

If you wish the have a DHCP server on the LAN side to assign DNS values etc… follow the steps below: (Follow the steps outlined after this section if you wish to manually configure those units)

    a. Check the box
    b. Set the range of IP's that you want to have given out to the multiple computers that can be connected to this CPE.

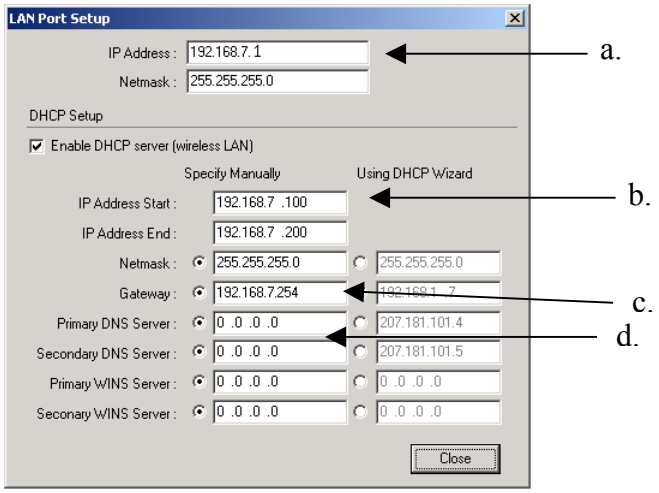


Figure 12 a

    c. Set the Gateway to XXX.XXX.XXX.254 or XXX.XXX.XXX.1
        i. Ensure that the subnets are the same.
    d. 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 PC automatically.

4. Hit Apply.

For multiple computers do the following:

    a. Follow steps 1-4 and then follow below.
    b. Plug the Cable coming out of the CPE into the port marked CPE on your DC Injector.
    c. Plug a cable into the port marked PC on the DC Injector into the uplink port on the hub or if uplink port is not available use a crosspatch cable.
    d. Plug another Ethernet cable into an available port on the hub and put the other end into the

Ethernet card in your PC. (Fig 12 a)

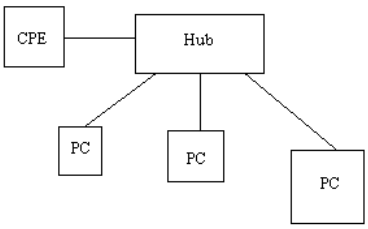


Figure 13 a

e. Check the connection by opening a web page (that isn't cached) in your browser.
f. Repeat step d. for more computers.

To check signal strength start a telnet session by going to the Start Menu and select Run. Type in "telnet" and the IP of the unit. Enter password. Type "stat" and hit enter. Signal Strength is displayed across the top.

To manage the CPE from inside your network use the gateway's address to telnet or when using your browser. To remotely manage the CPE (from an outside location) use the IP address of the CPE. (Fig 13 a)

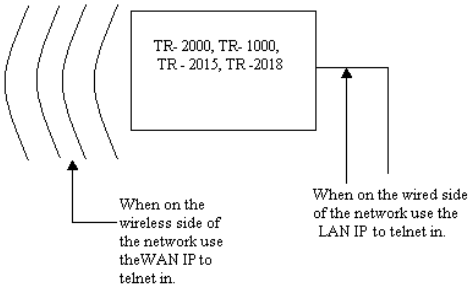
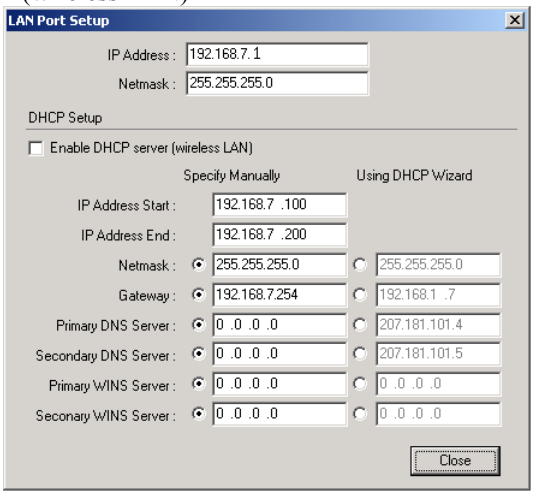


Figure 14 a

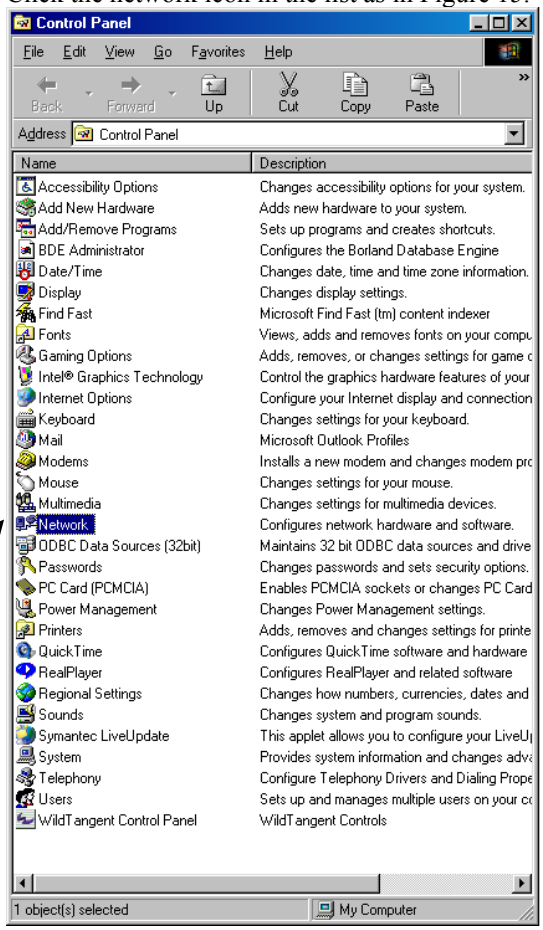
If you do not wish to have a DHCP server on the LAN side assigning DHCP follow the steps below for EACH computer on the CPE:

1. Un check the box labeled "Enable DHCP Server (wireless LAN)"



For Windows 98 Users:

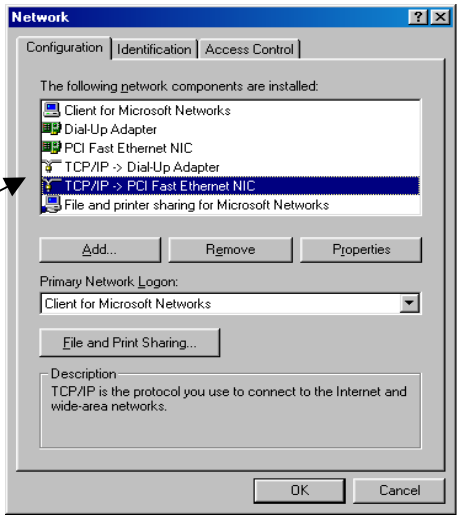
1. Click Start button, then Settings, then Control Panel.
2. Click the network icon in the list as in Figure 15.



2.

Figure 15

3. Select the TCP/IP icon in the list and click properties. *(Note: there is usually only one TCP/IP icon in the list but if there is two or more select your Ethernet card.)*



3.

Figure 16

For all information to enter into the boxes, contact your network administrator.

4. Click the Specify an IP Address radio button.
    a. Enter the IP address and the Subnet mask.

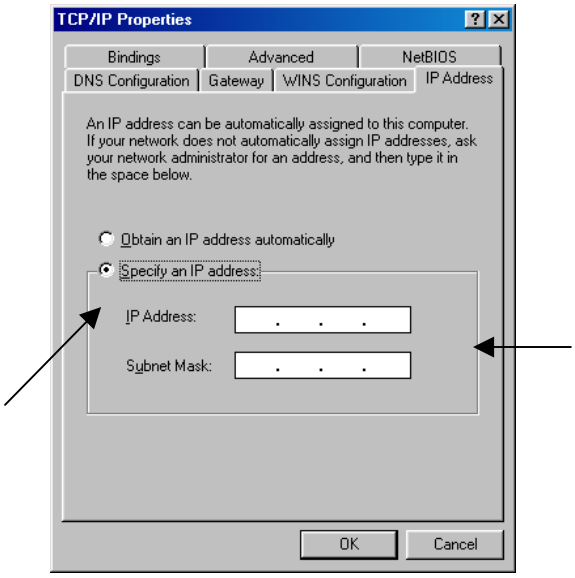


Figure 17

5. Click the Gateway tab
    a. Enter the gateway.
    b. Click the Add button.

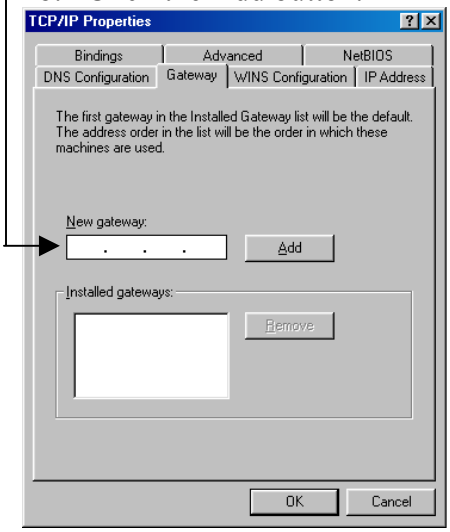


Figure 18

6. Click the DNS Configuration tab.
    a. Click the Enable DNS.
        i. Enter the host.
        ii. Enter the DNS into the box and click Add.
        *iii. Enter the Domain **ONLY** if there is one.*

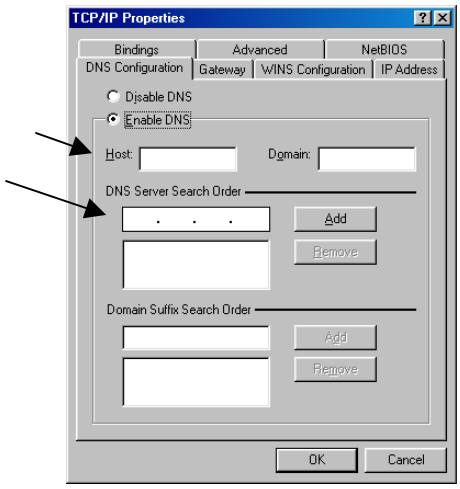


Figure 19

For Windows 2000 users:

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.

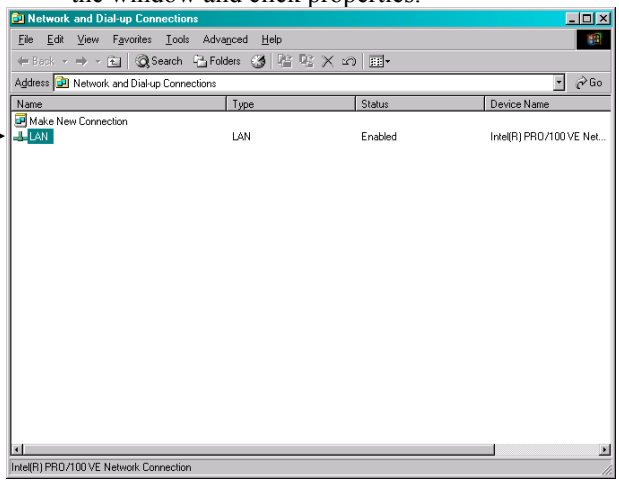


Figure 20

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

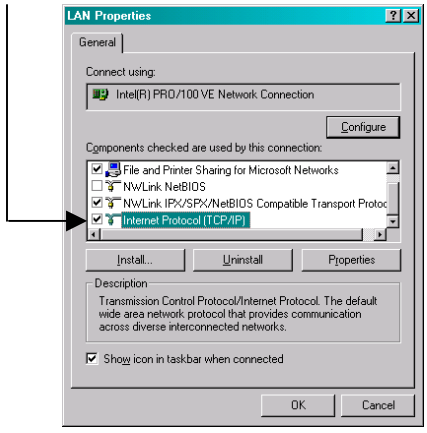


Figure 21

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

For all information to enter into the boxes, 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.

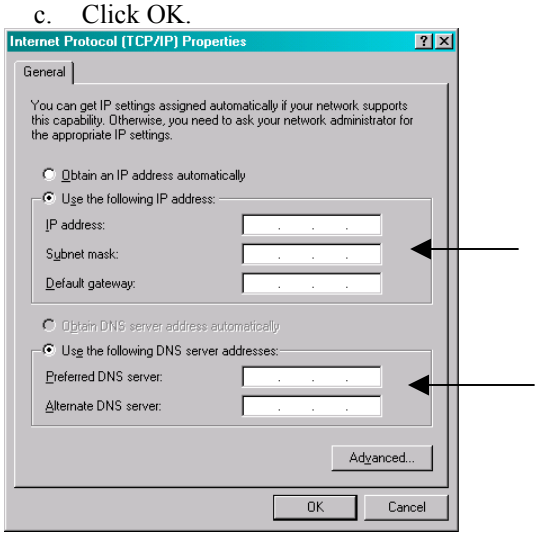


Figure 22

For Windows XP users:

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.

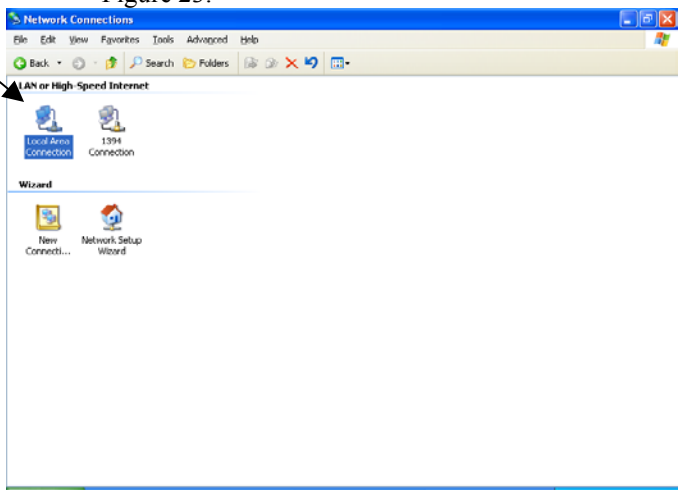


Figure 23

4. Click the Properties button.

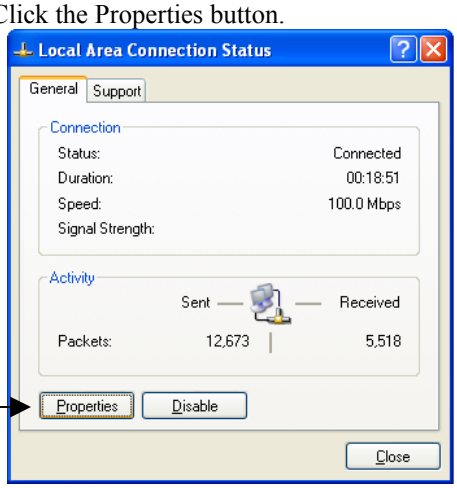


Figure 24

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

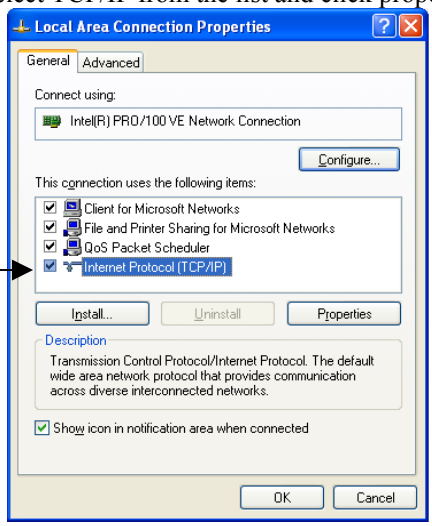


Figure 25

6. Click "Use the following IP Address" radio button.

For all information to enter into the boxes, contact your network administrator.

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

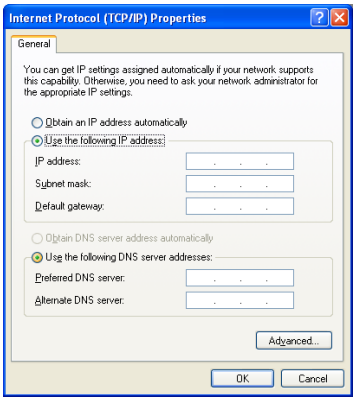


Figure 26

IF You Choose DHCP then:

1. Set the radio buttons to Obtain "DHCP".
   a. Click the "release" button and then click the "renew" button. Reset the unit. Go back to the screen and repeat if the numbers do not show up in the box.
   b. Check the NAT (IP Sharing) through this port box. (Fig 10 b)
   c. Turn off PPPoE by clicking the no.

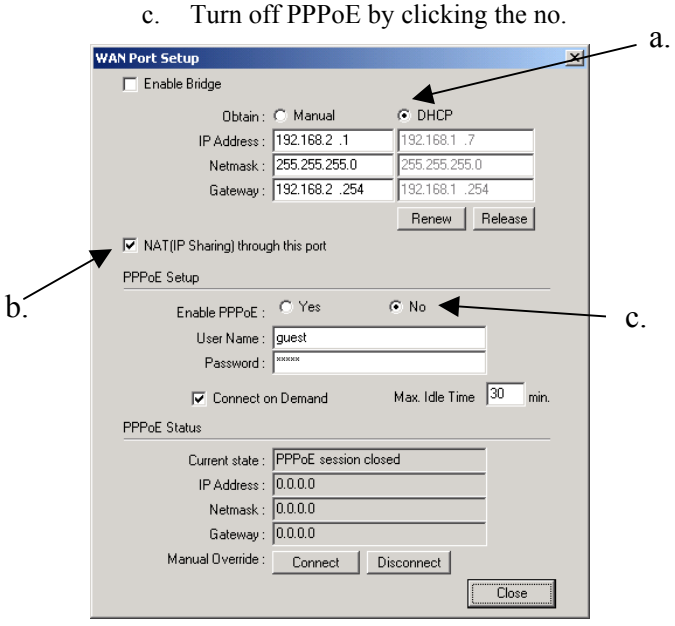


Figure 28 b

2. Close the window by hitting the close button.
3. Click the LAN on Ethernet setup button (bottom right hand corner).

a. Enter the IP Address into the box marked IP Address.
b. Set the range of IP's that you want to have given out to the multiple computers.
   i. Ensure that the subnets are the same in the IP Address and the range of IP's that you wish to have assigned (the third number in the Address).

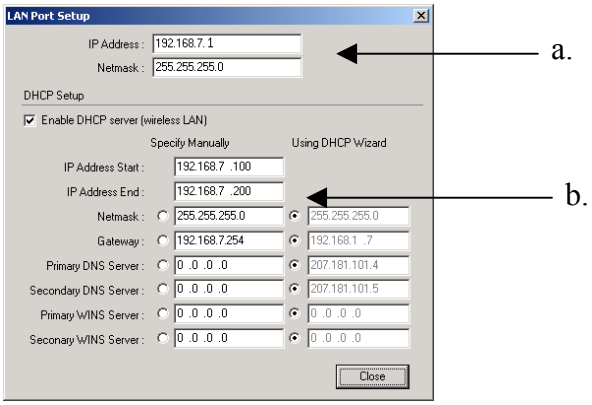


Figure 29 b

If you have a DHCP Server upstream (closer to the internet), DHCP client on the WAN side, DHCP server on the LAN side and the DHCP client turned on on your computer all relevant information (IP address, Gateway etc…) will be passed on.

4. Hit Apply.

For multiple computers do the following:

a. Follow steps 1-4 and then follow below.
b. Plug the Cable coming out of the CPE into the port marked CPE on your DC Injector.
c. Plug a cable into the port marked PC on the DC Injector into the uplink port on the hub
d. Plug another Ethernet cable into an available port on the hub and put the other end into the Ethernet card in your PC. (Fig 30)

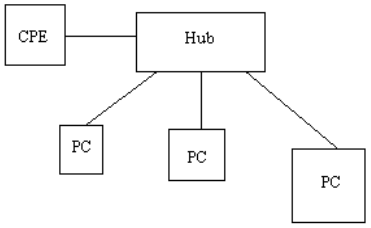


Figure 30

e. Check the connection by opening a web page (that isn't cached) in your browser.
f. Repeat step d. for more computers.

To check signal strength start a telnet session by going to the Start Menu and select Run. Type in "telnet" and the IP of the unit. Enter password. Type "stat" and hit enter. Signal Strength is displayed across the top.

To manage the CPE from inside your network use the gateway's address to telnet or when using your browser. To

remotely manage the CPE (from an outside location) use the IP address of the CPE. (Fig 30)

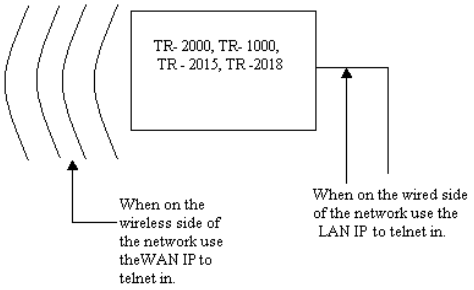


Figure 27

Quick Start For Bridging (PxP)

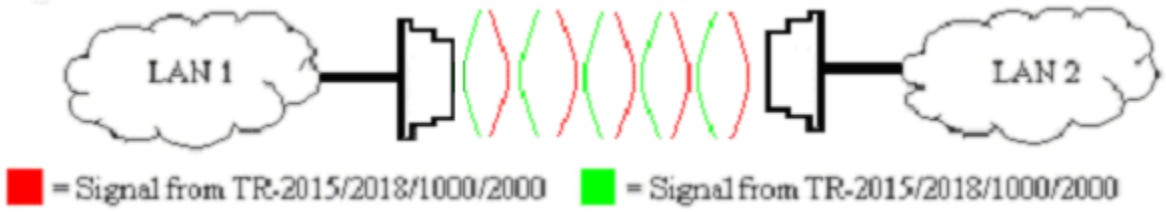


Figure 32

Customer Unit TR-2015/2018/1000/2000

1. Plug the Cat 5 cable coming out of the TR-2015/2018/2000 (the MDI port on the TR–1000) into the port marked CPE on the DC injector. Plug another cable into the PC port on the DC injector and into an Ethernet adaptor for a single PC or an uplink port on a hub for multiple computers. Plug the DC power supply into the DC Injector.
2. Install the Access Point Utility. Execute the utility and double click on the icon of the TR-2015/2018/1000/2000. Enter the Password. The default password is "default".
3. From the Configuration Tab select the General tab. Name the Access Point so you can easily identify the unit.
4. Click the IEEE802.11 tab and use the drop down menu to set the Radio Mode Inter-Building with Repeating (PxP).

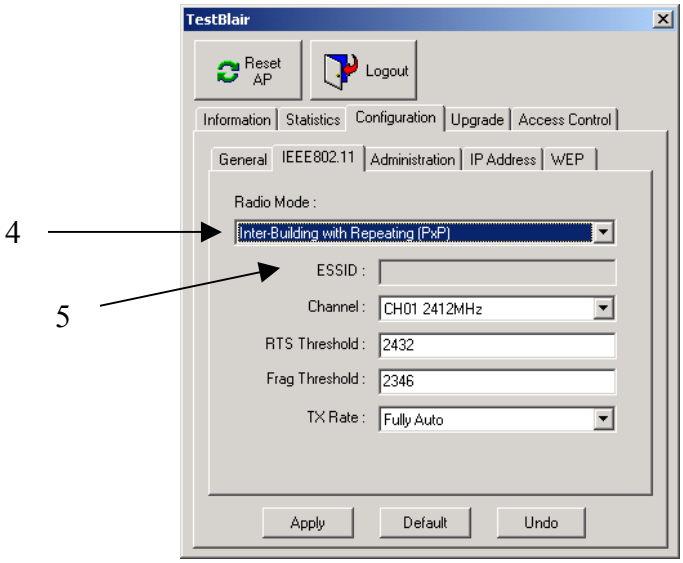


Figure 33

5. Set the channel for your TR-2015/2018/1000/2000.
   Ensure both TR-2015/2018/1000/2000's are set to the same channel.
6. Hit apply. Click OK for reset.
7. Repeat for the other TR-2015/2018/1000/2000.
8. To check signal strength start a telnet session by going to the Start Menu and select Run. Type in "telnet" and the IP of the unit. Enter password. The default password is "default". Type "stat" and hit enter. Signal Strength is displayed across the top.

To manage the TR-2015/2018/1000/2000 from inside your network use the gateway's address to telnet or when using your browser. To remotely manage the TR-2015/2018/1000/2000 (from an outside location) use the IP address of the TR-2015/2018/1000/2000.