

A Connect the Broadband Router

IMPORTANT: Before you begin, disconnect any computers that are connected to your broadband service. Although other computers can use the router to share your broadband service, they must be connected either with an Ethernet cable or a wireless connection.

A connection using a USB cable is not supported.

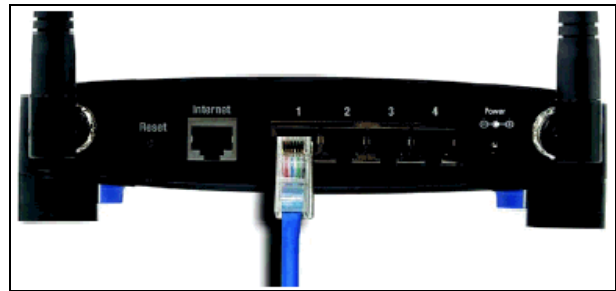
- A1.** Make sure you have the setup information for your specific type of Internet connection. If using DSL, you will typically need the username and password assigned by your ISP and may have been provided a modem/router combination device. The installation technician from your ISP should have left this information with you after installing your broadband connection. If not, you can call your ISP to request the settings.
- A2.** If using a modem/router combination device or are unsure if using this type of device please skip to **Section I** of this document. These devices may not be compatible with the FTS router solution.
- A3.** Make sure that all of your network's hardware is powered off, including the router, your computer, and cable or DSL modem. Power down modem for at least two minutes before proceeding.
- A4.** Connect one end of the blue Ethernet cable (that came in the router box) to one of the ports (labeled 1-4) on the back of the router, and the other end to the Ethernet port on the back of your Merck laptop.
- A5.** Connect a second Ethernet network cable from your cable or DSL modem to the **Internet** port on the router's back panel (this cable should have been provided with the broadband modem). This is the only router port that will work for your modem connection.
- A6.** Power on your DSL or cable modem and wait for the lights to stop blinking to indicate the startup process is complete.
- A7.** Power on the Linksys router.
Note: The router is powered on as soon as it is plugged in to an outlet – there is no power switch. The Power LED will flash green for a few seconds when the router goes through its self diagnostic test. This LED will stay solid when the self-test is complete.
- IMPORTANT:** Make sure to use the power adapter that is supplied with the router. Use of a different power adapter could damage the router.
- A8.** Power on your Merck laptop and log in to Windows.
- A9.** If the Internet light on the front of the router is not lit, **proceed to Section B** to configure your Internet connection. If the Internet light is lit, test the connection using Internet Explorer by trying to access an Internet web page like www.yahoo.com. **If successful, proceed to Section C.**

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Package contents:

- Linksys WRT54G wireless router
- Power supply for router
- Blue Ethernet cable



A4



A5



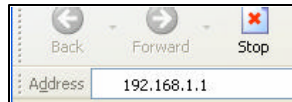
A6

B Configure the Broadband Router

Connect the router, the Merck laptop and broadband modem as per instructions described in **Section A**. You should only need to configure the router once using your Merck laptop. You can ignore all the other router settings that are not specifically referred to in this section.

- B1.** Open Internet Explorer (an error page may appear).

Enter **192.168.1.1** in the Address field and press the Enter key on the keyboard.



- B2.** The password request screen will be displayed. Leave the **User name** field empty, and enter the password, **adminxx**, in lowercase letters in the **Password** field. Leave the **Remember my password** box unchecked. Click the **OK** button.
- B3.** The web-based utility will be displayed with the Setup tab selected. For the **Internet Connection Type** setting, four connections types are offered through the drop down menu. Depending on which connection type you select, each **Internet Setup** screen and available features will differ. Depending on your Internet connection type. Use one of the following configurations (see figures **B3a – B3c**):

a. PPPoE (Most DSL connections): Select **PPPoE** from the drop down menu. Enter the **User Name** and **Password** supplied by your ISP.

b. Static IP: Select **Static IP** from the drop-down menu. Enter the **Internet IP Address**, **Subnet Mask**, **Gateway**, and **DNS** fields. You need to enter at least one DNS address. This information should be supplied by your ISP.

c. Automatic Configuration - DHCP (Most cable connections): No changes are necessary.

- B4.** When you are finished entering your Internet connection settings, scroll down to the bottom of the screen and click the **Save Settings** button to save your changes and then click the **Continue** button when prompted.
- B5.** If you configured the router to use **PPPoE**, you must also verify your connection by clicking on the **Status** tab. Make sure the **Login Status** is **Connected**, if it is **Disconnected** then click the **Connect** button to attempt to login to your ISP service.
- B6.** Verify the laptop is connected to the Internet by using Internet Explorer to go to www.yahoo.com.

The screenshot shows the Linksys WRT54G router setup interface. The 'Internet Setup' tab is active. Under 'Internet Connection Type', 'Automatic Configuration - DHCP' is selected. The 'Router Name' is set to 'WRT54G'. The 'Local IP Address' is '192.168.1.1' and the 'Subnet Mask' is '255.255.255.0'.

- B3.** Use one of the following:

The screenshot shows the 'Internet Setup' screen with 'PPPoE' selected. The 'User Name' is 'myISPusername' and the 'Password' is masked with dots. The 'Keep Alive: Redial Period' is set to 30 seconds.

B3a

The screenshot shows the 'Internet Setup' screen with 'Static IP' selected. The 'Internet IP Address' is '63.205.134.71', the 'Subnet Mask' is '255.255.255.0', and the 'Gateway' is '63.205.135.254'. There are three 'Static DNS' fields, all set to '0.0.0.0'. A note at the bottom says 'EXAMPLE SETTINGS ONLY'.

B3b

The screenshot shows the 'Internet Setup' screen with 'Automatic Configuration - DHCP' selected. The 'Router Name' is 'WRT54G'. The 'Local IP Address' is '192.168.1.1' and the 'Subnet Mask' is '255.255.255.0'.

B3c

C Connecting to the Internet

- C1. Connect to the Internet using an Ethernet wired connection to your router. Alternatively you can use a wireless card to connect. **Do not use a USB cable** to connect to your broadband service.

Note: iPass dial-up is not required for Internet access when connecting via broadband.

- C2. Open Internet Explorer  and attempt to access an Internet site like www.yahoo.com.

- C3. If are able to connect to the Internet, you can now try to connect to the Merck network using the Merck Connect software that is installed on your laptop.

Note: If you are unable to connect to the Internet, go to **Section E** in on **page 4** of this guide and attempt the instructions under “**Troubleshooting your Network Connection**”.

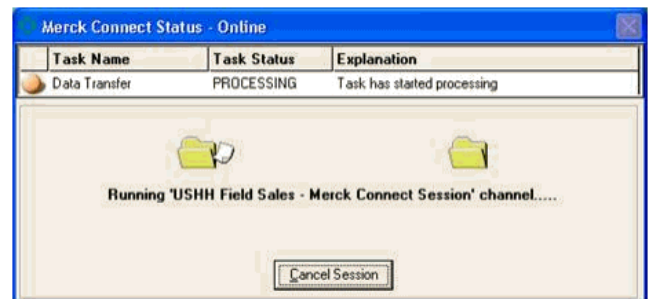
D Connecting to Merck

Merck Connect has been enhanced to allow you to **Connect via the Internet** over broadband. **If you are not connected to your broadband service you can still use Merck Connect over a dial -up connection.**

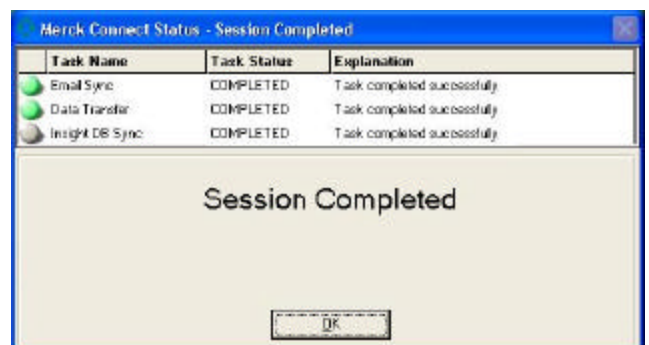
- D1. Make sure your laptop is connected to the Internet.
- D2. Double-click the Merck Connect shortcut on the desktop.
- D3. Enter your **PIN** and choose **Connect via the Internet** default from the **Connection** drop down menu. Select the Merck Connect setup options as normal and click **Start**.



- D4. Merck Connect will connect to the Merck network and perform the tasks specified like email sync or the data transfer session.



- D5. Once your session has completed you will see a screen similar to the one below.



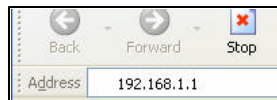
Note: In order to stay connected to the Merck network for extended periods you must initiate a Merck Connect FSNet session.

E Trouble-Shooting your Network Connection

IMPORTANT: No ISP software should be loaded on the Merck laptop. If software is required by the ISP, then this should be loaded on your home PC or on a loaner laptop that can be provided by FTS.

E1. First test to confirm that your Internet connection is not working. Close all open programs and then use Internet Explorer (an error page may appear on opening IE) to attempt a connection to www.yahoo.com or another Internet site.

E2. If you cannot connect to the Internet then test to see if you can connect to the router. Attempt to open the Linksys router configuration interface as described in **Section B**. Using Internet Explorer, type **192.168.1.1** in the Address field and press enter.



E3. If you cannot get to the router login screen, check that you are physically connected to the router with the blue cable provided per **Section A**. Then follow the instructions below to attempt to release and then renew your IP address from the router.

- Go to a Command Prompt (Start...Programs...Accessories...Command Prompt)
- Type **ipconfig /release** and press Enter, then wait for IP address to be released.
- Type **ipconfig /renew** and press Enter and a new IP address will be assigned.
- Type **exit** to close window.

```
C:\WINNT>ipconfig /release
Windows 2000 IP Configuration
IP address successfully released for adapter "Local Area Connection"
C:\WINNT>ipconfig /renew
Windows 2000 IP Configuration
Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.6
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1
C:\WINNT>
```

E4. If no IP address is assigned from step **E3** (this will show as **0.0.0.0**), or if you receive an IP address beginning with **169.XXX.XXX.XXX**, power the router off and on and reboot your laptop and then attempt to re-establish your connection to your router interface in **E2**. If you are trying to connect using a wireless adapter, try connecting with the Ethernet cable instead.

E5. If in **E4** you are assigned an IP address that begins **192.168.1.XXX** then you are connected to the router. You should go back to **Section B** and configure the router for your Internet Service.

E6. If you continue to have problems getting the router to connect to your ISP then make sure any other computers are disconnected from your broadband service. Also, **confirm that no other home computers are connecting to the modem using a USB cable**. Unplug the power to the broadband DSL or cable modem, power off and unplug the router, and leave everything unplugged for at least one full minute. Reconnect power to the broadband DSL or cable modem and then to the router and retry step **E1** to get to an Internet site. If successful, you can retry your Merck Connect VPN connection. If not successful, contact your ISP to confirm that the service is functioning properly.

IMPORTANT: The use of modem/router combinations that are sometimes provided by the ISP may conflict with the use of the router provided by FTS. If you are using a modem/router you should refer to **Section J** of this document.

E7. If your Internet Service Provider utilizes PPPoE to connect and you have changed your ISP connection password or username, you will need to update this information in your router configuration. Refer to **Section B** to reset your ISP User Name or Password.

E8. If you are experiencing problems using a wireless adapter that you purchased yourself, remember that you **MUST** have the following:

- the appropriate software drivers for your card loaded on the Merck laptop.
- the card must be configured with the same 128-bit WEP key that you generated in the router.
- you must choose the network SSID of **Linksysxx**

E9. If you are using a wireless adapter card and have confirmed all the prerequisites in **E8** and have completed all the steps in **Sections F, G** and **H** but still cannot connect to the router, you should contact the adapter card vendor for support. If your HP Tablet PC, ThinkPad T40 or T30 has an internal wireless adapter then you should contact the FTS Helpline for support.

F Configuring the Router for Wireless Connections

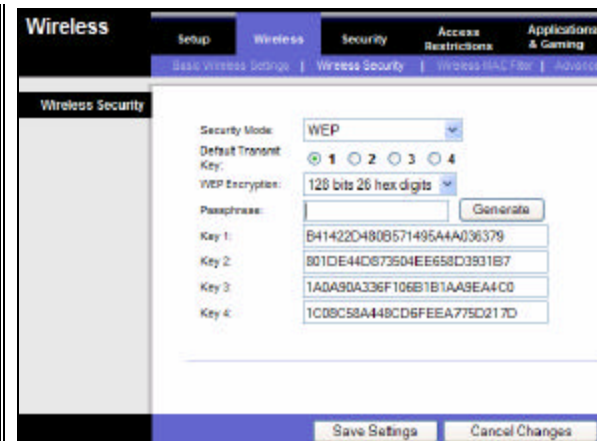
Although no wireless card is provided with the router and **wireless connectivity is not supported by FTS**, wireless connectivity is still an allowed usage. The **Linksys WRT54G** router is compatible with both **802.11b** and **802.11g** wireless standards and can be used in conjunction with most other compatible wireless devices. Should you choose to purchase a wireless adapter and follow the instructions below, the wireless card recommended by FTS is the **Linksys WPC54G**.

IMPORTANT: If you decide to connect over wireless **is it required that you configure for 128-bit WEP encryption on the router as a minimum security precaution**. This will help protect your Merck laptop and any other computers that you might connect to the router.

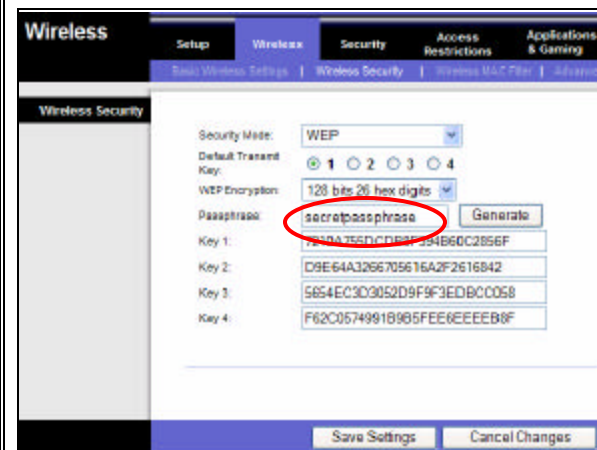
- F1. Connect to the router using an Ethernet cable.
- F2. Open Internet Explorer. Enter **192.168.1.1** in the Address field and click the **Go** button.
- F3. The password request screen will be displayed. Leave the **User Name** field empty, and enter **adminxx** in lowercase in the **Password** field and click the **OK** button.
- F4. The router interface will be displayed with the **Setup** tab selected. Click the **Wireless** tab and then click the **Wireless Security** link under the Wireless tab.
- F5. Replace the **Passphrase** with one of your own choice (this can be any phrase using numbers or letters) and click the **Generate** button.
- F6. Scroll down and click the **Save Settings** button, then when prompted click the **Continue** button.
- F7. Double click the text in the **Key 1** box to highlight it.

Key 1: 7210A75DCDB8F394B60C2856F
- F8. Right click on the 26 hex digit highlighted text in the **Key 1** box and select **Copy**. **Paste** this 128 bit WEP encryption key into a Word doc for reference later.

Note: You will need to copy this WEP Key into the Wireless Network Connection interface in **Section H**.
- F9. Close the Internet Explorer window and disconnect the Ethernet cable from the back of your Merck laptop. You are now ready to install and configure your wireless adapter card.



F4



F5

G Installing your Wireless Adapter

Follow the installation instructions provided by your wireless card vendor. If required, make sure the software drivers for the wireless card are installed, and the card is inserted in the machine before proceeding. Follow instructions in **Section H** to configure your adapter card to connect to your wireless network with the SSID of **Linksysxx**.

Note: **HP Tablet PC's**, **ThinkPad T40** and some **ThinkPad T30** laptops have a built in wireless adapter and **do not require a separate wireless card**. You will need to enable the built in wireless adapter before attempting steps in **Section H**.

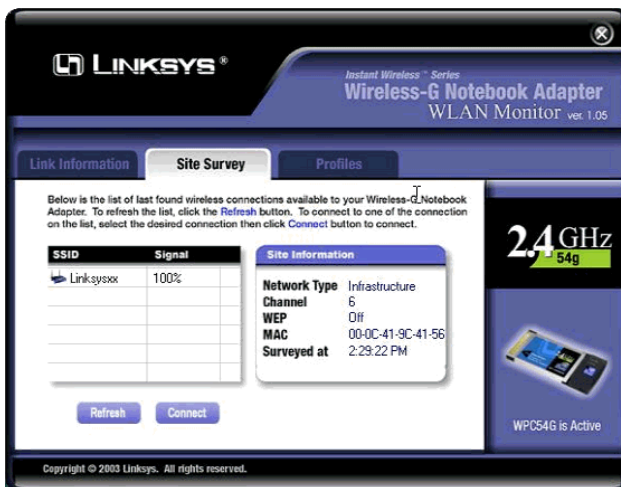
H Connecting to your Wireless Network

Windows 2000

- H1. Launch the Linksys wireless configuration utility by double-clicking the icon in the system tray.



- H2. Click on the Site Survey tab and make sure your router's SSID (**Linksysxx**) appears in the Site Survey box and click **Connect**. Since WEP is enabled on the router, the **Need Encryption Key for Connection** box will appear.



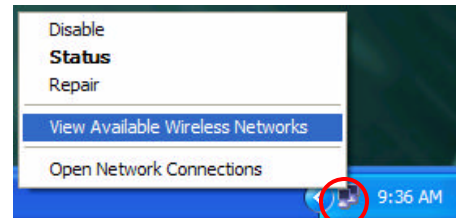
- H3. Change **WEP** to **128 bits**, enter the **Passphrase** that you typed in the router in **step F5** and click **OK**.



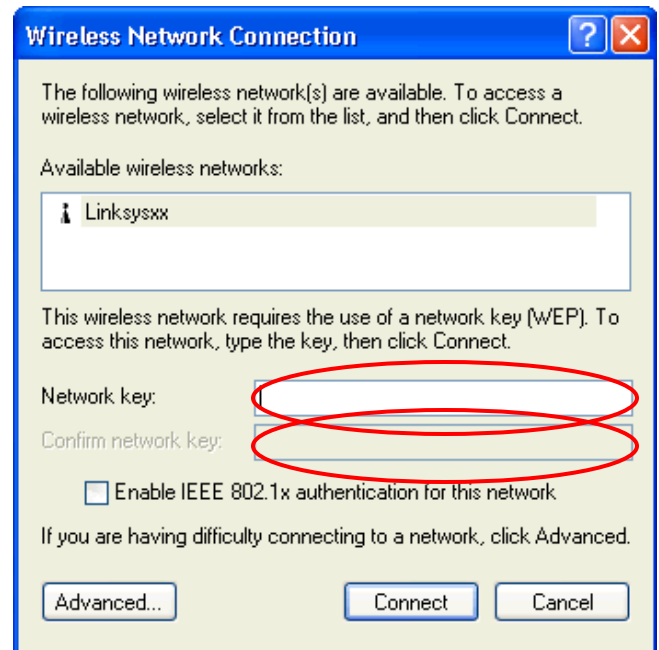
- H4. Verify laptop is connected to the Internet by double-clicking the Internet Explorer icon and going to www.yahoo.com. Go to **Section D** for instructions to connect to Merck.

Windows XP

- I7. Right click the wireless network connection icon and select **View Available Wireless Networks**



- I7. Make sure your router's SSID (**Linksysxx**) shows in the available wireless networks window and is highlighted. Paste the network key you copied from the router in **step F8** into **both** the **Network Key** and **Confirm Network Key** boxes (right click in the boxes and select **Paste**). Leave the **Enable IEEE 802.1x authentication for this network box unchecked** and then click the **Connect** button.



- I7. Verify laptop is connected to the Internet by double-clicking the Internet Explorer icon and going to www.yahoo.com. Go to **Section D** for instructions to connect to Merck.

WJ

Configuring the Router when ISP provides Modem/Router combination device

*FTS requirements state that Modem/Router combination devices may not be compatible with and should not be utilized in conjunction with the FTS Router solution. Follow instructions in **Section I** to find out if you have a modem/router device. Follow the instructions in **Section J** to configure your FTS router to try to work with this device.

Test to see if your broadband modem is a modem/router combination device:

11. Make sure that all of your network's hardware is powered off, including the router, your computer, and cable or DSL modem. Disconnect any Ethernet or USB cables and power down modem for at least two minutes before proceeding.
12. Connect one end of the blue Ethernet cable (that came in the router box) to your DSL modem, and the other end to the Ethernet port on the back of your Merck laptop.
13. Power on your DSL modem and wait for the lights to stop blinking to indicate the startup process is complete.
14. Power on your Merck laptop and login to Windows.
15.
 - a. Go to a Command Prompt (Start...Programs...Accessories...Command Prompt)
 - b. Type **ipconfig** and press Enter, then wait for an IP address to appear.

```

C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\DOCUMENTS\I\JG>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.1.100
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\DOCUMENTS\I\JG>

```

16. If the IP Address listed begins with 192.x.x.x, 172.x.x.x, or 10.x.x.x your ISP has supplied you with a modem/router combination device that is routing and may not be compatible with the FTS solution.

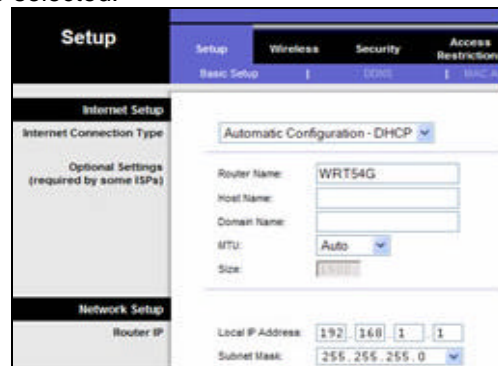
The instructions in **Section J** may be attempted as a workaround but cannot be guaranteed to work with Merck's VPN solution. Should the following configuration not allow a VPN connection into the Merck network the ISP will need to be contacted.

You may need to:

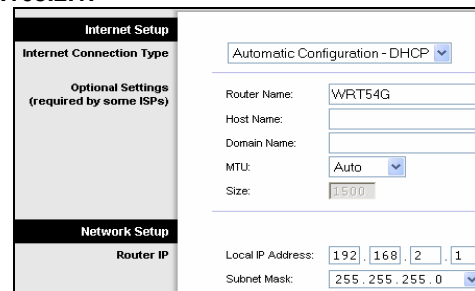
- Ask if "bridging the modem" is supported. If your ISP supports the modem in bridged mode please use this option and follow the router setup instructions for PPPoE settings in **Section B** of this documentation.
- Request a more basic modem device.
- Choose a different ISP.

Configure the router to workaround the IP addressing conflict:

- J1. Take the end of the Ethernet cable currently plugged into the DSL modem, unplug it and connect the end to port number 2 on the Linksys router as shown in picture **A4** on page one. Leave the other end connected to your Merck laptop.
- J2. Make sure the router is powered on and open Internet Explorer (an error page may appear). Enter **192.168.1.1** in the Address field and press the Enter key on the keyboard.
- J3. The password request screen will be displayed. Leave the **User name** field empty, and enter the password, **adminxx**, in lowercase letters in the **Password** field. Leave the **Remember my password** box unchecked. Click the **OK** button.
- J4. The web-based utility will be displayed with the Setup tab selected.



- J5. Under the section Network Setup the Local IP address of the router should be changed to **192.168.2.1**.



- J6. When you are finished entering your Internet connection settings, scroll down to the bottom of the screen and click the **Save Settings** button to save your changes and then click the **Continue** button when prompted. Please shutdown your computer and continue with the instructions in **Section A3**.