

WLAN USB ADAPTER

WUBI-100GW

User Guide



Version 1.0 - Oct. 2003

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1 Windows XP

This chapter describes how to connect a Gemtek wireless Ethernet USB adapter to your Windows XP computer and configure Windows XP for a wireless Ethernet network.

Complete these tasks in sequence:

“Step 1: Installing the hardware and software”.

“Step 2: Configuring the USB adapter”.

“Step 3: Configuring the TCP/IP protocol”.

If you need to install and configure the USB adapter for “Windows 2000” on page

Step 1: Installing the hardware and software Connecting the USB adapter

Use the following instructions to connect the USB adapter to your computer.

1. Connect the USB cable to the USB adapter.

Step 1: Installing the hardware and software



2 Connect the other end of the USB cable to a USB port in your computer.



If this is the first time you have connected this USB adapter to your computer, the Found New Hardware Wizard opens. To complete the USB adapter installation, go to “Installing the USB adapter driver”.

Installing the USB adapter driver

Use the following instructions to install the USB adapter driver for Windows XP.

To install the USB adapter driver

1 When the Found New Hardware Wizard opens, insert the installation CD in the CD drive.

2 Click **Install the software automatically (Recommended)**, then click **Next**. The wizard displays a list of recommended drivers to install.

3 Click the **Gemtek Wireless 802.11G USB adapter** located in the **d:\driver\winxp** folder on the installation CD, then click **Next**.

4 When a message tells you that the driver has not passed Windows Logo testing, click **Continue Anyway**. The device driver files are copied to the hard drive.

5 Click **Finish** to complete the installation.

Step 2: Configuring the USB adapter Naming the computers and the workgroup

The first time you use networking in your computer, you need to use the Windows XP Network Setup Wizard to name each computer and the workgroup and to select other network settings in Windows XP.

Important

The network setup procedure uses the Windows XP Network Setup Wizard. The example screens show the screens that typically appear in the course of using the wizard. If your network situation differs from that used in this example, you may encounter additional screens or screens with different selections. Make sure that you read each screen in the wizard and make your selections based on your particular network situation.

To run the Windows XP Network Setup Wizard:

1 Click the Network Setup Wizard icon on the Windows XP taskbar. The Network Setup Wizard opens.

- OR -

Click **Start, All Programs, Accessories, Communications**, then click **Network Setup Wizard**. The Network Setup Wizard opens.



2 Click **Next** to continue through the wizard.

3 Click **Next**. *The wizard found disconnected network hardware* screen opens.

4 Click to select the **Ignore disconnected network hardware** check box, then click **Next**. *The Select a connection method* screen opens.

5 Click **This computer connects to the Internet through another computer on my network or through a residential gateway**, then click **Next**.

6 If the *Your computer has multiple connections* screen opens, click **Let me choose the connections to my network**, then click **Next**.

7 On the *Select the connections to bridge* screen, click to select the **Wireless Network Connection** check box.

8 Click **Next**. *The Give this computer a description and name* screen opens.

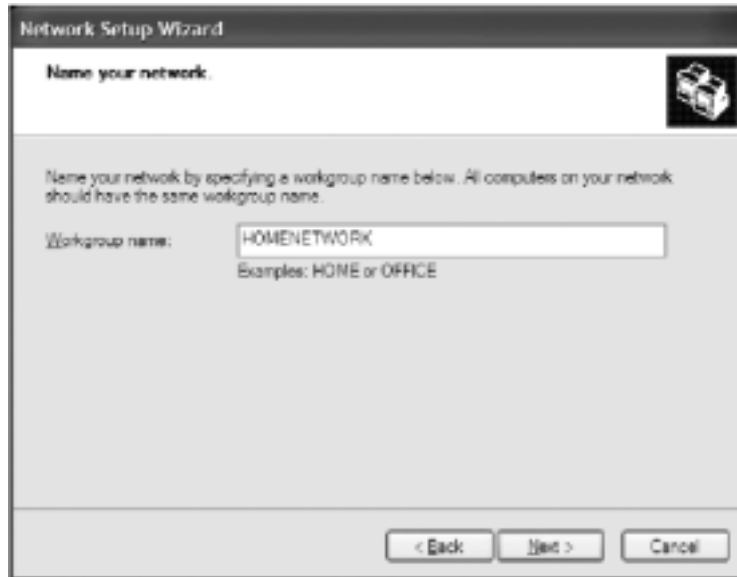
9 Type a description of the computer in the **Computer description** box.

10 Type a unique computer name in the **Computer name** box. This name identifies the computer to other users on the network. Use a computer name of up to 15 characters with no blank spaces. Each computer name must be unique on your network. All-numeric computer names are not allowed. Names must contain some letters.

Important

You must give each computer on the network a unique Computer Name and the same Workgroup Name.

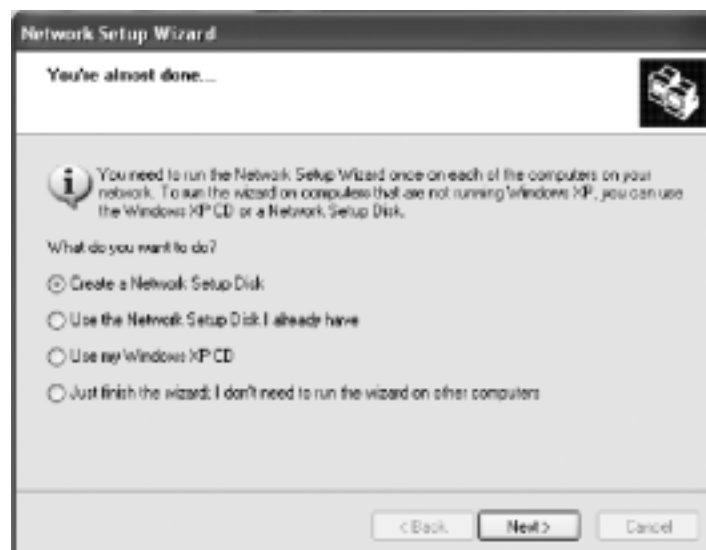
11 Click **Next**. The *Name your network* screen opens.



12 Type a name for your workgroup in the **Workgroup name** box. Use a workgroup name of up to 15 characters with no blank spaces. The workgroup name must be the same for all computers in your network workgroup, and the name must be different than any computer name on your network.

13 Click **Next**. The *Ready to apply network settings* screen opens.

14 Click **Next** to apply the network settings. The *You're almost done* screen opens.



15 If you are setting up an Ethernet network on other computers, you may want to use the Network Setup Wizard to do so. Click a method for installing and configuring the network on your other computers or click **Just finish the wizard; I don't need to run the wizard on other computers.**

16 Click **Next**.

17 Click **Finish**. After you name each computer and assign it to your workgroup, go to “**Step 3: Configuring the TCP/IP protocol**”.

Help and Support

For more information about using the Network Setup Wizard in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **Network Setup Wizard** in the HelpSpot **Search** box , then click the arrow.

Step 3: Configuring the TCP/IP protocol

A *networking protocol* is a language computers use to talk to each other. One of several available protocols must be set up on each computer you plan to use on your network. We recommend you use the Transmission Control Protocol/Internet Protocol (TCP/IP), which is widely accepted and compatible for local area networks (LANs), as well as for Internet communications. When networking is set up in Windows XP, TCP/IP is automatically installed as the default protocol.

Terms you should know

DHCP - Dynamic Host Configuration Protocol (DHCP) lets a router automatically assign an IP address to a computer on the network.

IP Address - Internet Protocol (IP) address is a number that uniquely identifies a computer on the network.

Setting up a DHCP IP address for each computer

In order to use the TCP/IP protocol on each computer, you must either set the protocol to **Obtain an IP address from a DHCP server**

or make the IP address settings manually. If you use a wireless access point router that can act as the DHCP server, you can select **Obtain an IP address from a DHCP server**. Obtaining an IP address automatically using DHCP is one of the most common methods for setting up wireless network devices. If your network configuration requires a static IP address (one that does not change), you must set the IP address manually. This means that you need to enter an IP address and a subnet mask. For more information about setting the IP address manually, see the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device. If you are connecting to a home Ethernet network, have a cable or DSL modem, and a wireless access point router that automatically assigns IP addresses to computers on the network, follow the instructions in “To set up a DHCP IP address:”

To set up a DHCP IP address:

1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Network and Internet Connections**. The *Network and Internet Connections* window opens.

2 Click/Double-click **Network Connections**. The *Network Connections* window opens.

3 Right-click **Wireless Network Connection**, then click **Properties**. The *Wireless Network Connection Properties* dialog box opens.

4 Click to select the **Internet Protocol (TCP/IP)** check box in the **This connection uses the following items** list. If you do not see TCP/IP, drag the scroll bar to see more choices.

5 Click **Properties**. The *Internet Protocol (TCP/IP) Properties* dialog box opens.

6 Click the **General** tab.



7 Click **Obtain an IP address automatically**.

8 Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.

9 Click **OK** to close the *Wireless Network Connection Properties* dialog box.

10 Click **X** to close the *Network Connections* window.

11 Repeat this procedure for every computer on your network.

12 After you set up the IP addresses on all your computers, go to “Where to go from here”.

Turning the wireless emitter off

You can turn off the wireless emitter to conserve the battery charge on your notebook computer or to make a computer unavailable on the network. There are times, such as when you are flying in an aircraft, when you should turn off your wireless emitter. For more safety and regulatory information, see “Safety, Regulatory, and Legal Information”

To turn the wireless emitter off:

Click the remove hardware icon in the taskbar, the USB adapter name, then click

Stop.

- OR -

Turn off your computer.

Warning Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11a, IEEE 802.11b, and IEEE 802.11g communication devices are examples of devices that provide wireless communication.

Important

If the remove hardware icon does not appear on the taskbar in Windows XP, click the show hidden icons button.

Where to go from here Creating your wireless Ethernet network

Now that you have configured your wireless Ethernet network, you are ready to create a wireless network. Go to the creating a wireless access point network or creating a peer-to-peer wireless network section in the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device.

Using your wireless Ethernet network

After you create and configure your wireless Ethernet network and you know how to turn your wireless emitter on and off, you are ready to use the network. Go to the sharing your resources section in the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device.

Troubleshooting your wireless Ethernet network

If you cannot get your wireless Ethernet network to work, go to the troubleshooting section in the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device.

2 Windows 2000

This chapter describes how to connect a Gateway wireless USB adapter to your Windows 2000 computer and configure your computer for a wireless Ethernet network. Complete these tasks in sequence:

“Step 1: Installing the hardware and software”.

“Step 2: Configuring the USB adapter” .

“Step 3: Configuring the TCP/IP protocol”.

If you need to install and configure the USB adapter for Windows XP, see “Windows XP”.

Step 1: Installing the hardware and software Installing the Gateway Wireless Monitor

Use the following instructions to install the Gateway Wireless Monitor program.

To install the Gateway Wireless Monitor:

1 Insert the CD that came with your PC Card into your computer’s CD or DVD drive. If the program starts automatically, go to Step 5.

- OR -

If the program does not start automatically, go to Step 2.

2 Click **Start**, then click **Run**. The *Run* dialog box opens.

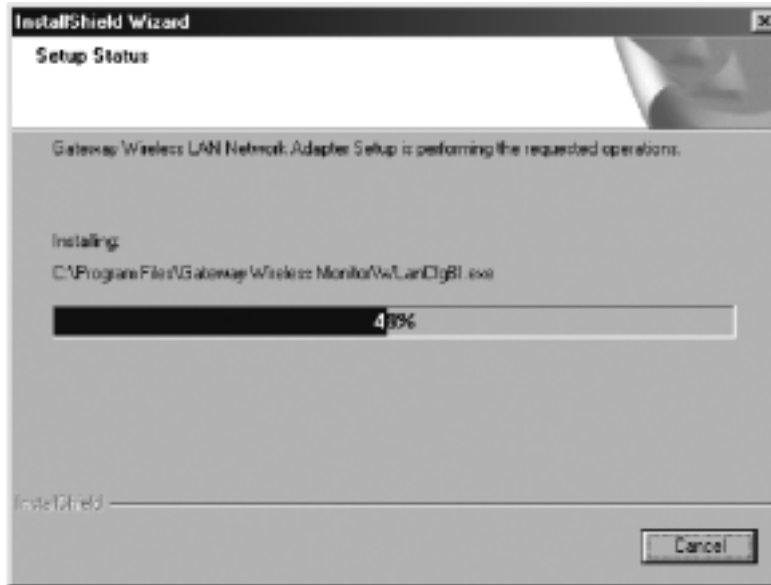
3 In the **Open** text box, type **d:\app\setup.exe** (where **d** is the drive letter of your CD or DVD drive).

4 Click **OK**. The Gateway Wireless Monitor wizard starts.

5 Click **Next**. The *License Agreement* screen opens.

6 Click **Yes** to accept the License Agreement. The *Choose Destination Location* screen opens.

7 Click **Next**. The wizard installs the program on your computer.



Connecting the USB adapter

Use the following instructions to connect the USB adapter to your computer.

To connect the USB adapter to your computer:

1 Connect the USB cord to the USB adapter.



2 Connect the other end of the USB cable to a USB port in your computer.



3 If this is the first time you have connected this USB adapter to your computer, the Add

New Hardware Wizard opens. To complete the USB adapter installation, go to “Installing the USB adapter driver”

Installing the USB adapter driver

The following instructions tell you how to install the USB adapter driver using the Add New Hardware Wizard.

To install the USB adapter driver

1 When the Add New Hardware Wizard opens, insert the installation CD into the CD drive.

Important

The instructions for installing the wireless device driver use the Add New Hardware Wizard. The example screens show the screens that typically appear in the course of using the wizard. If your operating system situation differs from that used in this example, you may encounter additional screens or screens with different selections. Make sure that you read each screen in the wizard and make your selections based on your particular network situation.

2 Click **Next**. The search for new drivers screen opens.



3 Click to select the **CD-ROM drive** and **Specify a location** check boxes. Make sure that all other check boxes are cleared.

4 Click **Browse**. The *Browse for Folder* dialog box opens.

5 Navigate to the *Driver* folder located on the installation CD. Click to highlight the **Win2000** folder located under the *Driver* folder on the installation CD.

6 Click **OK**. The Add New Wizard locates the USB adapter driver.

7 Click **Next**. The device driver files are copied to the hard drive.

8 Click **OK** to restart your computer and complete the

Step 2: Configuring the USB adapter Naming the computers and the workgroup

The first time you use networking on your computer, you need to give each computer a unique name and assign each computer to the same workgroup.

To identify a Windows 2000 computer on the network:

1 Click **Start, Settings**, then click **Control Panel**. The *Control Panel* window opens.

2 Double-click the **System** icon. The *System Identification* dialog box opens.

3 Click the **Network Identification** tab.

4 Click **Properties**. The *Identification Changes* dialog box opens.

5 Type a unique computer name in the **Computer name** box. This name identifies the computer to other users on the network. Use a computer name of up to 15 characters with no blank spaces. Each computer name must be unique on your network. All-numeric computer names are not allowed. Names must contain some letters.

6 Type a name for your workgroup in the **Workgroup** box. Use a workgroup name of up to 15 characters with no blank spaces. The workgroup name must be the same for all computers in your network workgroup, and the name must be different than any computer name on your network.

7 Click **OK** to close the *Identification Changes* dialog box.

8 Click **OK** to close the *System Identification* dialog box.

9 After you name each computer and assign it to your workgroup, go to “Step 3: Configuring the TCP/IP protocol”.

Important

You must give each computer on the network a unique Computer Name and the same Workgroup Name.

Step 3: Configuring the TCP/IP protocol

A *networking protocol* is a language computers use to talk to each other. One of several available protocols must be set up on each computer you plan to use on your network. We recommend you use the Transmission Control Protocol/Internet Protocol (TCP/IP), which is widely accepted and compatible for local area networks (LANs), as well as for Internet communications. When networking is set up in Windows, TCP/IP should automatically be installed as the default protocol. If it is not installed, see the Windows help.

Terms you should know

DHCP - Dynamic Host Configuration Protocol (DHCP) lets a router automatically assign an IP address to a computer on the network.

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Setting up a DHCP IP address for each computer

In order to use the TCP/IP protocol on each computer, you must either set the protocol to **Obtain an IP address from a DHCP server** or make the IP address settings manually. If you use a wireless access point router that can act as the DHCP server, you can select **Obtain an IP address from a DHCP server**. Obtaining an IP address automatically using DHCP is one of the most common methods for setting up wireless network devices. If your network configuration requires a static IP address (one that does not change), you must set the IP address manually.

This means that you need to enter an IP address and a subnet mask. For more information about setting the IP address manually, see the *Setting Up Your Windows Network* guide included on the installation CD that came with your network device.

If you are connecting to a home Ethernet network, have a cable or DSL modem, and a wireless access point router that automatically assigns IP addresses to computers on the network, follow the instructions in “To set up a DHCP IP address for Windows 2000:”

To set up a DHCP IP address for Windows 2000:

1 Click **Start, Settings**, then click **Network and Dial-up**

Connections. The *Network and Dial-up Connections* window opens. This window has an icon for each networking connection available on your computer. For example, if you have both wired and wireless Ethernet hardware installed on your computer, there will be at least two icons, one for your wired Ethernet hardware and one for your wireless Ethernet hardware.

- 2** Right-click the **Local Area Connection** icon for the wireless Ethernet hardware, then click **Properties**. The *Local Area Connection Properties* dialog box opens.
- 3** Click to select the **Internet Protocol (TCP/IP)** check box in the **Components checked are used by this connection** list. If you do not see TCP/IP, drag the scroll bar to see more choices.
- 4** Click **Properties**. The *Internet Protocol (TCP/IP) Properties* dialog box opens.
- 5** Click **Obtain an IP address automatically**.
- 6** Click **OK** to close the *Internet Protocol (TCP/IP) Properties* dialog box.
- 7** Click **OK** to close the *Local Area Connection Properties* dialog box.
- 8** Click **X** to close the *Network and Dial-up Connections* window.
- 9** Repeat this procedure for every computer on your network.
- 10** After you set up the IP addresses on all your computers, go to “Where to go from here” .

Turning the wireless emitter off

You can turn off the wireless emitter to conserve the battery charge on your notebook computer or to make a computer unavailable on the network. There are times, such as when you are flying in an aircraft, when you should turn off your wireless emitter. For more safety and regulatory information, see “Safety, Regulatory, and Legal Information”

To turn the wireless emitter off:

Click the remove hardware icon in the taskbar, the USB adapter name, then click **Stop**.

- OR -

Turn off your computer.

Warning Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11a, IEEE 802.11b, and IEEE 802.11g communication devices are examples of devices that provide wireless communication.

Where to go from here Creating your wireless Ethernet network

Now that you have configured your wireless Ethernet network, you are ready to create a wireless network. Go to the creating a wireless access point network or creating a peer-to-peer wireless network section in the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device.

Using your wireless Ethernet network

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Troubleshooting your wireless Ethernet network

If you cannot get your wireless Ethernet network to work, go to the troubleshooting section in the *Setting Up Your Wireless Windows Network* guide included on the installation CD that came with your network device.

Appendix

Safety, Regulatory, and Legal Information Regulatory compliance statements Wireless Guidance

The WGU-210 802.11g wireless LAN (low power Radio Frequency, RF, transmitting device) operates in the 2400 - 2483.5 MHz band. The following section is a general overview of considerations while operating the wireless LAN. Limitations, cautions, and concerns are listed below and in the specific country sections (or country group sections). This wireless device is only qualified for use in the countries identified by the Radio Approval Marks on the device rating label. If the country you will be using the wireless device in is not listed, contact that country's local Radio Approval agency for requirements prior to operation. Wireless devices are closely regulated and use may not be allowed.

The power output of the WUBI-100GW wireless LAN device is well below the RF exposure limits as known at this time. Because this wireless device emits less energy than is allowed in radio frequency safety standards and recommendations, Gemtek believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation. Measurements have been performed to show that the RF exposure is below what is considered safe limits; however, care should be taken to make sure that the user or bystanders keep the transmitter away from their bodies when the wireless device is transmitting. The transmitting antenna should be installed and used in a manner to maintain 20 cm (8 inches) from user's or bystanders' bodies. This wireless device is intended to be used indoors. In some areas, use of this device outdoors is prohibited. Some circumstances require restrictions on using wireless devices. Examples of common restrictions are listed below:

Warning Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11b and IEEE 802.11g (also known as wireless Ethernet or Wifi) communication devices are examples of devices that provide wireless communication. For more information about turning off the wireless device, see "Turning the wireless emitter off" on page 16 and "Turning the wireless emitter off".

Warning In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, hospitals, and oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.

Warning Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.

Warning Do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.

Warning Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with

minimum distance 20cm between the radiator & your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.