



10/100 Compact USB 2.0



**User Guide** 





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**WARNING:** This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. *Wash hands after handling.* 

#### How to Use this User Guide

The user guide to the Compact USB 2.0 10/100 Network Adapter has been designed to make understanding networking with the Adapter easier than ever. Look for the following items when reading this User Guide:



This checkmark means there is a note of interest and is something you should pay special attention to while using the Adapter.



This exclamation point means there is a caution or warning and is something that could damage your property or the Adapter.



This question mark provides you with a reminder about something you might need to do while using the Adapter.

In addition to these symbols, there are definitions for technical terms that are presented like this:

word: definition.

Also, each figure (diagram, screenshot, or other image) is provided with a figure number and description, like this:

Figure 0-1: Sample Figure Description

Figure numbers and descriptions can also be found in the "List of Figures" section.

USB200Mv2-UG-505123A BW

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# **Chapter 1: Introduction**

#### Welcome

Thank you for choosing the Compact USB 2.0 10/100 Network Adapter. This Compact USB 2.0 10/100 Network Adapter will allow you to network better than ever.

How does the Compact USB 2.0 10/100 Network Adapter do all of this? A Compact USB 2.0 10/100 Network Adapter allows you to connect to any 10/100Mbps or Gigabit hub or switch without having to open your PC. The Gigabit USB Network Adapter from Linksys allows you to instantly connect to a network from a USB-enabled desktop or notebook PC running Windows Millennium, 2000, or XP. The Plug-and-Play compatible device attaches to your PC's USB port via a USB Type A connector. Simply connect a standard UTP Category 5 network cable into the Gigabit USB Network Adapter's RJ-45 port, install the included network software driver, and you are networked.

The Gigabit USB Network Adapter is bus-powered, drawing power from the host PC and requires no external power cords. The Adapter features the maximum throughput supported by USB, easy-to-read LEDs, and compact design.

Use the instructions in this Guide to help you connect the Compact USB 2.0 10/100 Adapter, set it up, and configure it to bridge your different networks. These instructions should be all you need to get the most out of the Compact USB 2.0 10/100 Adapter.

#### What's in this Guide?

This user guide covers the steps for setting up and using the Compact USB 2.0 10/100 Adapter.

- Chapter 1: Introduction
  - This chapter describes the Adapter's applications and this User Guide.
- Chapter 2: Getting to Know and Connecting the Compact USB 2.0 10/100 Adapter
   This chapter describes the physical features and explains the connection of the Adapter.
- Chapter 3: Setup Utility for the Compact USB 2.0 10/100 Adapter
   This chapter explains how to install and uninstall the Setup Utility.
- Appendix A: Troubleshooting

This appendix describes some potential problems and solutions, as well as frequently asked questions, regarding installation and use of the Adapter.

- Appendix B: Glossary
  - This appendix gives a brief glossary of terms frequently used in networking.
- Appendix C: Specifications

This appendix provides the Adapter's technical specifications.

- Appendix D: Warranty Information
  - This appendix supplies the Adapter's warranty information.
- Appendix E: Regulatory Information

This appendix supplies the Adapter's regulatory information.

• Appendix F: Contact Information

This appendix provides contact information for a variety of Linksys resources, including Technical Support.

# Chapter 2: Getting to Know and Connecting the Compact USB 2.0 10/100 Network Adapter

#### The Ports and LEDs



Figure 2-1: Ports and LEDs

#### **The Ports**

**USB Port** The USB port is a Type A connector. Connect the USB extension cable from your PC or hub to

this port.

**Ethernet Port** The Ethernet port connects the Adapter to a Category 5 Ethernet network cable.

#### **LEDs**

**100/ACT** Green. The LED lights up when there is a connection to a 100Mbps network. It flashes when

the computer is transmitting or receiving data at 100Mbps.

F/H Green. The LED lights up when the Adapter is operating in full-duplex mode. The LED is off

when the Adapter is operating in half-duplex mode.

10/ACT Green. The LED lights up when there is a connection to a 10Mbps network. It flashes when the

computer is transmitting or receiving data at 10Mbps.

With these, and many other Linksys products, your networking options are limitless. Go to the Linksys website at www.linksys.com for more information about products that work with the Compact USB 2.0 10/100 Adapter.

#### **USB Icon and Ports**

The USB Icon (below) generally indicates where a USB port is located on a desktop or notebook computer.



The picture below shows two USB ports as they might be found on your computer. Note the two USB icons above the port.



#### **Connecting the Adapter**

- 1. With your PC turned off, insert the Adapter's USB end into your PC's USB port or USB hub.
- 2. Insert one end of an Ethernet network cable into the Adapter's RJ-45 port.
- 3. Insert the other end of the Ethernet network cable into an Ethernet networking device.

#### The hardware installation is complete.

To install the Adapter's driver, proceed to "Chapter 3: Driver Installation for the Compact USB 2.0 10/100 Network Adapter" and to the section for the Windows operating system that your PC uses.

With these, and many other Linksys products, your networking options are limitless. Go to the Linksys website at www.linksys.com for more information about products that work with the Compact USB 2.0 10/100 Network Adapter.

# Chapter 3: Driver Installation for the Compact USB 2.0 10/100 Network Adapter

#### **Overview**

This chapter will take you through all the steps necessary to install the driver for the Compact USB 2.0 10/100 Network Adapter. After physically connecting the Adapter to your computer's USB port or hub, follow these instructions to install the hardware device driver. The installation procedures for the hardware device driver vary depending on your PC's operating system, so make sure to follow the instructions for your operating system. The instructions also may vary slightly depending on your current operating system's configuration. If at any time during the installation you encounter problems, consult "Appendix A: Troubleshooting."

#### **Driver Installation for Windows XP**



**NOTE:** Do not click Cancel at any time during the installation process. Doing so will prevent your driver from being properly installed on your PC.

- 2. Windows XP will automatically detect the Adapter connected to your computer and display the Welcome to the Found New Hardware Wizard screen. Select **Install from a list or specific location (Advanced)**, and insert the Driver CD into the CD-ROM drive. Then click the **Next** button.
- 3. Select **Search for the best driver in these locations**. Only select **Include this location in the search**:, and enter **D:\winxp** in the field provided. Then click the **Next** button.



**NOTE:** Throughout this user guide, it is assumed that "D" is the letter of your CD-ROM drive.



Figure 3-1: Welcome



Figure 3-2: Choose your Search and Installation Options

4. Windows will notify you that the driver has not passed Windows Logo testing. This is normal, and it has been verified that the Adapter does work with Windows XP. Click the **Continue Anyway** button.



Figure 3-3: Windows Logo Testing

2. The Completing the Found New Hardware Wizard screen will appear. Click the Finish button. Then remove the Driver CD from the CD-ROM drive.

Congratulations! The installation of the Compact USB 2.0 10/100 Network Adapter is complete.

For more information about networking under Windows XP, refer to your Microsoft Windows XP documentation.

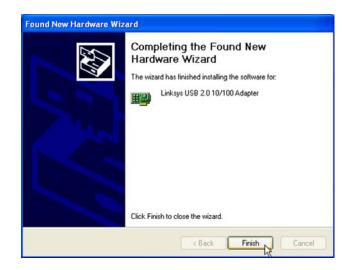


Figure 3-4: Installation Complete

#### **Driver Installation for Windows 2000**



**NOTE:** Do not click Cancel at any time during the installation process. Doing so will prevent your driver from being properly installed on your PC.

- 1. If you haven't already, start your computer.
- 2. Windows 2000 will automatically detect the Adapter connected to your computer. When the Welcome to the Found New Hardware Wizard screen appears, insert the Driver CD into the CD-ROM drive. Then click the **Next** button.
- 3. Select Search for a suitable driver for my device (recommended). Click the Next button.
- 4. Select **Specify a location** to find the correct driver. Click the **Next** button to continue.



**NOTE:** Throughout this user guide, it is assumed that "D" is the letter of your CD-ROM drive.

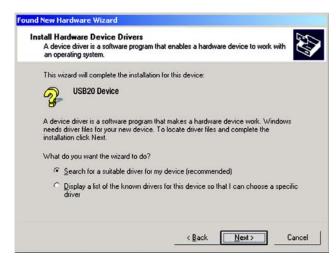
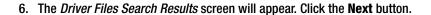


Figure 3-5: Install Hardware Device Drivers



Figure 3-6: Locate Driver Files

5. In the Copy manufacturer's files from: field, enter D:\win2000. Then click the OK button.



- 7. For Windows 2000, you may be informed that a digital signature has not been found. This is normal, and it has been verified that the Adapter does work with Windows 2000. Click the **Yes** button to continue.
- 8. The *Completing the Found New Hardware Wizard* screen will appear. Click the **Finish** button, and remove the Driver CD from the CD-ROM drive.

Congratulations! The installation of the Compact USB 2.0 10/100 Network Adapter is complete.

For more information about networking under Windows 2000, refer to your Microsoft Windows 2000 documentation.



Figure 3-7: Ready to Install Driver

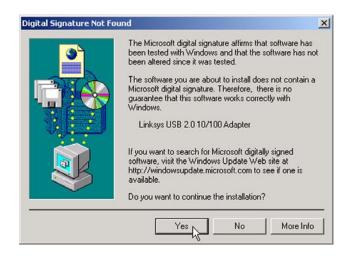


Figure 3-8: Digital Signature

#### **Driver Installation for Windows Millenium**



**NOTE:** Do not click Cancel at any time during the installation process. Doing so will prevent your driver from being properly installed on your PC.

2. Windows Millennium will automatically detect the Adapter connected to your PC. When the Add New Hardware Wizard screen appears, insert the Driver CD into your CD-ROM drive, and select Specify the location of the driver (Advanced). Click the Next button.



Figure 3-9: Hardware Found

3. Select **Search for the best driver for your device (Recommended)**. You MUST remove the checkmark from the box next to Removable Media. Select **Specify a location**:, and enter D:\winME in the field provided. Then click the **Next** button.



**NOTE:** Throughout this user guide, it is assumed that "D" is the letter of your CD-ROM drive.

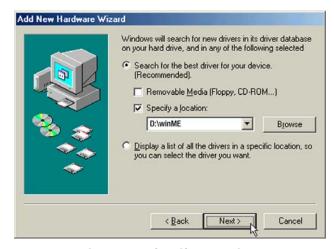


Figure 3-10: Specify a Location

4. When Windows notifies you that it is ready to install the driver files, click the Next button to continue.



Figure 3-11: Ready to Install Driver

- 5. When Windows has completed copying the driver files, click the **Finish** button.
- 6. When asked if you want to restart your computer, remove the Driver CD from the CD-ROM drive, and click the Yes button. If Windows does not ask you to restart your PC, click Start. Click Shut Down, and select Restart. Then click the OK button.

Congratulations! The installation of the Compact USB 2.0 10/100 Network Adapter is complete.

To enable file and printer sharing, go to the next section, "Windows Millennium Network Configuration."

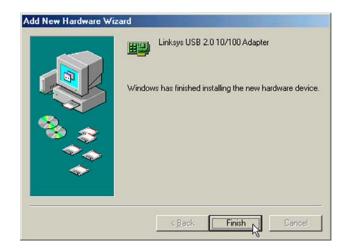


Figure 3-12: Installation Complete

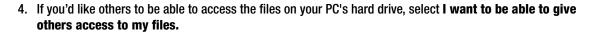
#### **Windows Millennium Network Configuration**



**NOTE:** Linksys does not provide technical support or troubleshooting for network configuration.

- 1. From the Windows Millennium desktop, right-click the My Network Places icon. Then click Properties.
- 2. The Network window will appear. Click the **Configuration** tab.





If you'd like to share your printer with other users on the network, select I want to be able to allow others to print to my printer(s).

Click the **OK** button. File and printer sharing for Microsoft Networks should now appear in the list of installed components.



**NOTE:** If you do not enable file and printer sharing, your PC will be invisible on the network and inaccessible to other users.

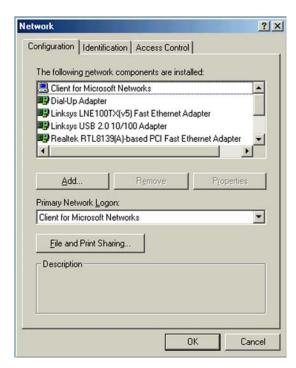


Figure 3-13: Network Screen



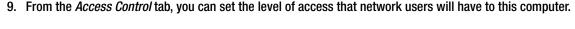
Figure 3-14: File and Printer Sharing

- 5. From the the Network screen's drop-down box, select Client for Microsoft Networks.
- 6. Click the *Identification* tab. Type the name of your computer in the *Computer name* field. Choose a name that is different from the other computer names on the network.
- 7. Type the name of your workgroup in the *Workgroup* field. The workgroup name should be the same workgroup name used by all of the other PCs on the network.



**NOTE:** Your Computer and Workgroup Names must each have fewer than 15 alphanumeric characters.

8. If you wish, enter a description of your computer in the Computer Description field.



Click the **OK** button.

- 10. Your system may ask for your Windows Millennium CD-ROM or the location of the Windows Millennium installation files. If it does, direct Windows to the appropriate location (e.g., C:\windows\options\cabs or D:\win9x if you have the Windows Millennium CD-ROM and "D" represents your CD-ROM drive).
- 11. After Windows has copied the necessary files, the System Settings Change window will appear. Remove all disks and CDs from your PC, and click the **Yes** button to restart your PC. If you don't see this window, simply shut down Windows Millennium and restart your PC.

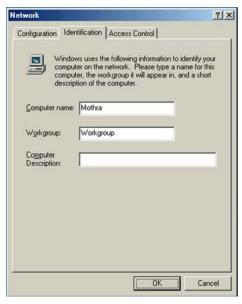


Figure 3-15: Indentification Tab

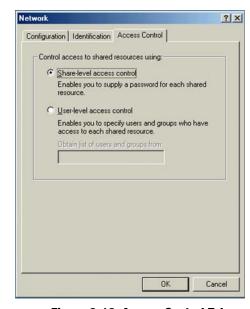


Figure 3-16: Access Control Tab

- 12. A Logon screen will appear and require you to enter a User Name and Password. Make up a user name and password (if you haven't already), and click the **OK** button. Do not click the Cancel button, or press the Escape [ESC] key, because this will prevent you from logging into the network. If the logon does not appear or if it does not allow you to log on, refer to the "Appendix A: Troubleshooting."
- 13. When you are at the Windows Millennium desktop, double-click on the Network Neighborhood icon. You should see one icon for the entire network and the names of the other PCs on the network.
  - If you can see your computer along with all the other computers on the network in Network Neighborhood, then the Windows Millennium network configuration is complete.



**NOTE:** Refer to the "Appendix A: Troubleshooting" if you run into any problems, such as:

- If you don't see anything at all in Network Neighborhood after pressing the F5 key on your keyboard a few times to refresh the screen.
- If you only see your own computer in Network Neighborhood.
- If you see all computers on the network except yours after pressing the F5 key a few times.
- If you only see computers that are running the same operating system as you and you don't see any other computers.

#### **Driver Installation for Windows 98**



**NOTE:** Do not click Cancel at any time during the installation process. Doing so will prevent your driver from being properly installed on your PC.

- 1. If you haven't already, start your computer.
- 2. Windows 98 will automatically detect the Adapter connected to your PC. When the first *Add New Hardware Wizard* screen appears, insert the Driver CD into your CD-ROM drive, and click the **Next** button.
- 3. Select Search for the best driver for your device (Recommended), and click the Next button.

4. Select **Specify a location:** to find the correct driver, and enter **D:\win98** in the field provided. Click the **Next** button to continue.



**NOTE:** Throughout this user guide, it is assumed that "D" is the letter of your CD-ROM drive.



Figure 3-17: Search for Driver



Figure 3-18: Specify a Location

5. When Windows notifies you that it is ready to install the driver files, click the Next button to continue.

6. Windows will begin copying the driver files to your computer. If Windows asks you for the original Windows CD-ROM, insert the CD-ROM, and direct Windows to the proper location for the CD-ROM (e.g., D:\). If you have the Windows 98 setup files already installed in a directory, click **OK**, and enter C:\windows\options\cabs (if "C" is the letter of your hard drive) in the windows that appears.



Figure 3-19: Ready to Install Driver

- 7. When Windows has completed copying the files, click the **Finish** button.
- 8. When asked if you want to restart your computer, remove the Driver CD from the CD-ROM drive, and click the **Yes** button. If Windows does not ask you to restart your PC, click **Start**. Choose **Shut Down**, and select **Restart**. Then click the **OK** button.

Congratulations! The installation of the Compact USB 2.0 10/100 Network Adapter is complete.

To enable file and printer sharing, go to the next section,

"Windows 98 Network Configuration."



Figure 3-20: Installation Complete

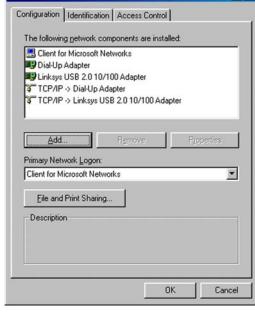
#### **Windows 98 Network Configuration**



**NOTE:** Linksys does not provide technical support or troubleshooting for network configuration.

If you are installing the Adapter in a Windows 98 PC that is used in an NT domain, go to "Appendix B: Client for Microsoft Setup for Windows 98."

- 1. From the Windows 98 desktop, right-click the **Network Neighborhood** icon. Then click **Properties**.
- 2. The Network screen will appear. Click the Configuration tab.



? X

Network

Figure 3-21: Configuration Tab

- 3. Click the File and Print Sharing button. The File and Print Sharing screen will appear.
- 4. If you'd like others to be able to access the files on your PC's hard drive, select I want to be able to give others access to my files.

If you'd like to share your printer with other users on the network, select I want to be able to allow others to print to my printer(s).

Click the **OK** button. File and printer sharing for Microsoft Networks should now appear in the list of installed components.



**NOTE:** If you do not enable file and printer sharing, your PC will be invisible on the network and inaccessible to other users.



Figure 3-22: File and Print Sharing

5.	From the Network screen's Primar	y Network Logon drop-down box	t, select Client for Microsoft Networks.
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- 6. Click the **Identification** tab. Enter the name of your computer in the *Computer name* field. Choose a name that is different from the other computer names on the network.
- 7. Enter the name of your workgroup in the *Workgroup* field. The workgroup name should be the same workgroup name used by all of the other PCs on the network.
- 8. If you wish, enter a description of your computer in the Computer Description field.

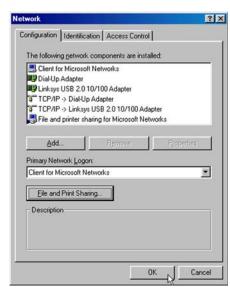


Figure 3-23: Configuration Tab

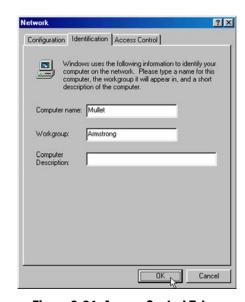


Figure 3-24: Access Control Tab

- 9. From the Access Control tab, you can set the level of access that network users will have to this computer.
- 10. Click the **OK** button. Your system may ask you for your Windows 98 CD-ROM or the location of the Windows 98 installation files. If it does, direct Windows to the appropriate location (e.g., C:\windows\options\cabs or D:\win98 if you have the Windows 98 CD-ROM and "D" represents your CD-ROM drive).
- 11. After Windows has copied the necessary files, the *System Settings Change* screen will appear. Remove all disks and CDs from your PC, and click the **Yes** button to restart your PC. If you don't see this screen, simply shut down Windows 98, and restart your PC.
- 12. A Logon screen will appear and require you to enter a User Name and Password. Make up a user name and password (if you haven't already), and click the **OK** button. Do not click the Cancel button or press the Escape [ESC] key, because this will prevent you from logging into the network. If the logon does not appear or if it does not allow you to log on, refer to "Appendix A: Troubleshooting."
- 13. When you are at the Windows 98 desktop, double-click the **Network Neighborhood** icon. You should see one icon for the entire network and the names of the other PCs on the network.
  - If you can see your computer along with all the other computers on the network in Network Neighborhood, then the Windows 98 network configuration is complete.



**NOTE:** Refer to the "Appendix A: Troubleshooting" if you run into any problems, such as:

- If you don't see anything at all in Network Neighborhood after pressing the F5 key on your keyboard a few times to refresh the screen.
- If you only see your own computer in Network Neighborhood.
- If you see all computers on the network except yours after pressing the F5 key a few times.
- If you only see computers that are running the same operating system as you and you don't see any other computers.

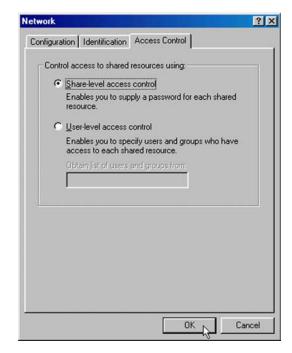


Figure 3-25: Access Control Tab

# **Appendix A: Troubleshooting**

This appendix consists of two parts: "Common Problems and Solutions" and "Frequently Asked Questions." This appendix provides solutions to problems that may occur during the installation and operation of this product. Read the description below to solve your problems. If you can't find an answer here, check the Linksys website at www.linksys.com.

#### **Common Problems and Solutions**

- 1. Windows doesn't detect new hardware with the Gigabit USB Network Adapter hardware connected, or it continues to detect the adapter each time I restart the PC.
  - You might not have correctly or securely installed the adapter into your computer. Check that the adapter
    is securely inserted into the appropriate USB Port.
  - The system BIOS might not be USB compatible, your PC's USB settings may not be enabled, or the
    motherboard may have USB options not supported by Windows Millennium, Windows 2000, or Windows
    XP. If you are not sure, contact your PC's manufacturer.
  - Refer to the PC's User Guide.

#### 2. Windows can't locate the driver for the Compact USB 2.0 10/100 Adapter

- You may have inserted the wrong Driver CD into your PCs CD-Rom drive.
- The Driver CD may be defective or files may be missing, or you may be pointing Windows to the wrong drive. Ensure that the driver CD includes the files "USB1000.inf" and "USB1000.sys".

#### 3. The Windows Logon screen doesn't appear after restarting the computer.

- Click on Start, then Log Off. Log back in. If this doesn't solve the problem, your PCs manufacturer may have disabled Windows' networking. Contact your computer's manufacturer for help. If using Windows 2000, refer to your Microsoft documentation.
- 4. On the Access Control Tab, User Level Access is selected, but Shared Level Access is grayed out and not accessible.
  - You previously had your primary network logon set to Client for NetWare Networks. On the Configuration tab of the Network Properties window, ensure that your primary network logon is set to Client for Microsoft Networks.
  - Your personal web server PC or Microsoft Front Page may require you to choose a user level for security reasons.

#### 5. In Network Neighborhood I can see myself but no other computers.

- Make sure that the cables are connected correctly. Make sure you are getting Link or Activity lights on both the Compact USB 2.0 10/100 Network Adapter and your hub if you are using one. Try changing to a new cable that you know is working.
- Make sure that the other PC is turned on.

### 6. I've decided that I don't want to share a drive or printer anymore, or I have decided to physically remove a drive or printer from my network.

- You're going to have to manually reconfigure your File and Printer Sharing settings. To do so, double-click
  on your My Computer icon. Click on the Printers folder. A window of available printers will appear. Using
  your right mouse button, click once on the printer that you want to disable on the network. Click on
  Sharing, followed by the Sharing tab. Click on Not Shared. When you're done, click on the Apply button,
  followed by OK.
- You can disable shared drives in the same way. In Windows Explorer, right-click on the drive you want to stop sharing. Click on Sharing, followed by the Sharing tab. Click on Not Shared. When you're done, click on the Apply button, followed by OK.

#### 7. In Network Neighborhood, I can only see some of the computers.

- Choose Start, Find, Computer and type the name of the computer in the window that comes up and click Find Now.
- Now make sure that you are using the same protocol(s) and workgroup name on all other computers. To
  do this, click Start, Settings, Control Panel on two computers running different Windows operating
  systems. Click on the Network icon, choose the Configuration tab, then click on the Identification tab for
  Workgroup name. Compare the protocols on both computers and make sure that they are the same. If
  any protocols are missing, refer to Windows Help.
- Ensure that File & Print sharing is enabled on every computer.

#### 8. Network Neighborhood is empty.

- Verify that your Microsoft Client is installed. See the Windows 98 setup instructions in this guide for directions.
- Verify that you have logged in correctly. Refresh the screen by pressing F5 several times.

### 9. On some notebook PCs, the Compact USB 2.0 10/100 Network Adapter fails to configure correctly after the drivers have been loaded.

After loading the software drivers, it may be necessary to do the following:

- 1. Log off and unplug the device from your PC's USB port.
- 2. Turn off your PC.
- 3. Plug the device back in and reboot.
- 4. Log on after the PC reboots.

### 10. If you are connecting the Adapter to a hub, switch, or other network device, and the Adapter is experiencing difficulties, you may need to check the Advanced properties of the Adapter.

For Windows 98 and Millennium, do the following:

- 1. Right-click Network Neighborhood or My Network Places.
- 2. Select Properties.
- 3. Click the Configuration tab.
- 4. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 5. Click the **Properties** button.
- 6. Click the Advanced tab.
- 7. Select Properties.
- 8. Select **Connection Type**. Select the appropriate value for your network device. In most cases, **AutoSense** should be selected.
- Select Flow Control. Select the appropriate value for your network device. In most cases, Enable should be selected.
- 10.Select **Remote Wakeup** (Wake-on-LAN). Select the appropriate value for your network device. In most cases, **Link up** or **Magic Packet** should be selected.
- 11.Click the **OK** button.

For Windows 2000, do the following:

- 1. Right-click My Computer.
- 2. Select **Properties**.
- 3. Click the **Hardware** tab.
- 4. Click the **Device Manager** button.
- 5. Click the + sign next to Network adapters.
- 6. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 7. Select Properties.
- 8. Click the Advanced tab.
- Select Connection Type. Select the appropriate value for your network device. In most cases, AutoSense should be selected.
- 10.Select **Flow Control**. Select the appropriate value for your network device. In most cases, **Enabl**e should be selected.
- 11.Select **Remote Wakeup** (Wake-on-LAN). Select the appropriate value for your network device. In most cases, **Link up** or **Magic Packet** should be selected.
- 12.Click the **OK** button.

#### For Windows XP, do the following:

- 1. Click Start, and right-click My Computer.
- 2. Select Properties.
- 3. Click the **Hardware** tab.
- 4. Click the **Device Manager** button.
- 5. Click the + sign next to Network adapters.
- 6. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 7. Select **Properties**.
- 8. Click the Advanced tab.
- Select Connection Type. Select the appropriate value for your network device. In most cases, AutoSense should be selected.
- 10.Select Flow Control. Select the appropriate value for your network device. In most cases, Enable should be selected.
- 11.Select **Remote Wakeup** (Wake-on-LAN). Select the appropriate value for your network device. In most cases, **Link up** or **Magic Packet** should be selected.
- 12.Click the **OK** button.

### 11. If you are having difficulty installing the Adapter, you may need to remove the Adapter and re-install it from scratch.

For Windows 98, go to "Appendix C: Starting Over in Windows 98."

#### For Windows Millennium, do the following:

- 1. Right-click the My Computer icon, and select Properties.
- 2. Click the **Device Manager** tab.
- 3. Click the + sign next to Network adapters.
- 4. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 5. Select Remove.
- 6. When you see the *Confirm Device Removal* screen, click **OK**.
- 7. When you are asked if you want to restart your computer, click Yes.
- 8. Go to "Chapter 6: Windows Millennium Installation and Setup" for installation instructions.

#### For Windows 2000, do the following:

- 1. Right-click the My Computer icon, and select Properties.
- 2. Click the **Hardware** tab.
- 3. Click the **Device Manager** button.
- 4. Click the + sign next to Network adapters.
- 5. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 6. Select Uninstall.
- 7. When you see the Confirm Device Removal screen, click **OK**.
- 8. Go to "Chapter 7: Windows 2000 Installation" for installation instructions.

#### For Windows XP, do the following:

- 1. Click Start, and right-click the My Computer icon.
- 2. Select Properties.
- 3. Click the **Hardware** tab.
- 4. Click the **Device Manager** button.
- 5. Click the + sign next to Network adapters.
- 6. Highlight Linksys Compact USB 2.0 10/100 Network Adapter, and right-click it.
- 7. Select Uninstall.
- 8. When you see the Confirm Device Removal screen, click OK.
- 9. Go to "Chapter 8: Windows XP Installation" for installation instructions.

### **Appendix B: Glossary**

**802.11a** - A wireless networking standard that specifies a maximum data transfer rate of 54Mbps and an operating frequency of 5GHz.

**802.11b** - A wireless networking standard that specifies a maximum data transfer rate of 11Mbps and an operating frequency of 2.4GHz.

**802.11g** - A wireless networking standard that specifies a maximum data transfer rate of 54Mbps, an operating frequency of 2.4GHz, and backward compatibility with 802.11b devices.

**Access Point** - A device that allows wireless-equipped computers and other devices to communicate with a wired network. Also used to expand the range of a wireless network.

**Adapter** - A device that adds network functionality to your PC.

**Ad-hoc** - A group of wireless devices communicating directly with each other (peer-to-peer) without the use of an access point.

AES (Advanced Encryption Standard) - A security method that uses symmetric 128-bit block data encryption.

**Backbone** - The part of a network that connects most of the systems and networks together, and handles the most data.

**Bandwidth** - The transmission capacity of a given device or network.

**Beacon Interval** - Data transmitted on your wireless network that keeps the network synchronized.

Bit - A binary digit.

**Boot** - To start a device and cause it to start executing instructions.

Bridge - A device that connects different networks.

**Broadband** - An always-on, fast Internet connection.

**Browser** - An application program that provides a way to look at and interact with all the information on the World Wide Web.

**Buffer** - A shared or assigned memory area that is used to support and coordinate different computing and networking activities so one isn't held up by the other.

Byte - A unit of data that is usually eight bits long

**Cable Modem** - A device that connects a computer to the cable television network, which in turn connects to the Internet.

**CSMA/CA** (Carrier Sense Multiple Access/Collision Avoidance) - A method of data transfer that is used to prevent data collisions.

CTS (Clear To Send) - A signal sent by a wireless device, signifying that it is ready to receive data.

**Daisy Chain** - A method used to connect devices in a series, one after the other.

**Database** - A collection of data that is organized so that its contents can easily be accessed, managed, and updated.

**DDNS** (**D**ynamic **D**omain **N**ame **S**ystem) - Allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (e.g., www.xyz.com) and a dynamic IP address.

**Default Gateway** - A device that forwards Internet traffic from your local area network.

**DHCP** (**D**ynamic **H**ost **C**onfiguration **P**rotocol) - A networking protocol that allows administrators to assign temporary IP addresses to network computers by "leasing" an IP address to a user for a limited amount of time, instead of assigning permanent IP addresses.

**DMZ** (**Dem**ilitarized **Z**one) - Removes the Router's firewall protection from one PC, allowing it to be "seen" from the Internet.

**DNS** (Domain Name Server) - The IP address of your ISP's server, which translates the names of websites into IP addresses.

**Domain** - A specific name for a network of computers.

**Download** - To receive a file transmitted over a network.

**DSL** (Digital Subscriber Line) - An always-on broadband connection over traditional phone lines.

**DSSS** (Direct-Sequence Spread-Spectrum) - Frequency transmission with a redundant bit pattern resulting in a lower probability of information being lost in transit.

**DTIM** (Delivery Traffic Indication Message) - A message included in data packets that can increase wireless efficiency.

**Dynamic IP Address** - A temporary IP address assigned by a DHCP server.

**EAP** (Extensible Authentication Protocol) - A general authentication protocol used to control network access. Many specific authentication methods work within this framework.

**EAP-PEAP** (Extensible Authentication Protocol-Protected Extensible Authentication Protocol) - A mutual authentication method that uses a combination of digital certificates and another system, such as passwords.

**EAP-TLS** (Extensible Authentication Protocol-Transport Layer Security) - A mutual authentication method that uses digital certificates.

**Encryption** - Encoding data transmitted in a network.

**Ethernet** - A networking protocol that specifies how data is placed on and retrieved from a common transmission medium.

Finger - A program that tells you the name associated with an e-mail address.

**Firewall** - A set of related programs located at a network gateway server that protects the resources of a network from users from other networks.

Firmware - The programming code that runs a networking device.

**Fragmentation** -Breaking a packet into smaller units when transmitting over a network medium that cannot support the original size of the packet.

**FTP** (File Transfer Protocol) - A protocol used to transfer files over a TCP/IP network.

Full Duplex - The ability of a networking device to receive and transmit data simultaneously.

**Gateway** - A device that interconnects networks with different, incompatible communications protocols.

**Gigabit** - One billion bits.

**Half Duplex** - Data transmission that can occur in two directions over a single line, but only one direction at a time.

**Hardware** - The physical aspect of computers, telecommunications, and other information technology devices.

**HTTP** (HyperText Transport Protocol) - The communications protocol used to connect to servers on the World Wide Web.

**Infrastructure** - A wireless network that is bridged to a wired network via an access point.

**IP** (Internet **P**rotocol) - A protocol used to send data over a network.

**IP Address** - The address used to identify a computer or device on a network.

**IPCONFIG** - A Windows 2000 and XP utility that displays the IP address for a particular networking device.

IPSec (Internet Protocol Security) - A VPN protocol used to implement secure exchange of packets at the IP layer.

**ISM band** - Radio bandwidth utilized in wireless transmissions.

**ISP** (Internet Service Provider) - A company that provides access to the Internet.

**LAN** - The computers and networking products that make up your local network.

**LEAP** (Lightweight Extensible Authentication Protocol) - A mutual authentication method that uses a username and password system.

MAC (Media Access Control) Address - The unique address that a manufacturer assigns to each networking device.

Mbps (MegaBits Per Second) - One million bits per second; a unit of measurement for data transmission.

mIRC - An Internet Relay Chat program that runs under Windows.

Multicasting - Sending data to a group of destinations at once.

**NAT** (Network Address Translation) - NAT technology translates IP addresses of a local area network to a different IP address for the Internet.

**NAT** (Network Address Translation) **Traversal** -A method of enabling specialized applications, such as Internet phone calls, video, and audio, to travel between your local network and the Internet. STUN is a specific type of NAT traversal.

**Network** - A series of computers or devices connected for the purpose of data sharing, storage, and/or transmission between users.

NNTP (Network News Transfer Protocol) - The protocol used to connect to Usenet groups on the Internet.

**Node** - A network junction or connection point, typically a computer or work station.

**OFDM** (Orthogonal Frequency Division Multiplexing) - Frequency transmission that separates the data stream into a number of lower-speed data streams, which are then transmitted in parallel to prevent information from being lost in transit.

**Packet** - A unit of data sent over a network.

**Passphrase** - Used much like a password, a passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for Linksys products.

**PEAP** (Protected Extensible Authentication Protocol) - A mutual authentication method that uses a combination of digital certificates and another system, such as passwords.

Ping (Packet INternet Groper) - An Internet utility used to determine whether a particular IP address is online.

**POP3** (Post Office Protocol 3) - A standard mail server commonly used on the Internet.

Port - The connection point on a computer or networking device used for plugging in cables or adapters.

Power over Ethernet (PoE) - A technology enabling an Ethernet network cable to deliver both data and power.

**PPPoE** (Point to Point Protocol over Ethernet) - A type of broadband connection that provides authentication (username and password) in addition to data transport.

**PPTP** (Point-to-Point Tunneling Protocol) - A VPN protocol that allows the Point to Point Protocol (PPP) to be tunneled through an IP network. This protocol is also used as a type of broadband connection in Europe.

**Preamble** - Part of the wireless signal that synchronizes network traffic.

**RADIUS** (Remote Authentication Dial-In User Service) - A protocol that uses an authentication server to control network access.

RJ-45 (Registered Jack-45) - An Ethernet connector that holds up to eight wires.

**Roaming** - The ability to take a wireless device from one access point's range to another without losing the connection.

**Router** - A networking device that connects multiple networks together.

**RTP** (Real-time Transport Protocol) - A protocol that enables specialized applications, such as Internet phone calls, video, and audio, to occur in real time.

RTS (Request To Send) - A networking method of coordinating large packets through the RTS Threshold setting.

**Server** - Any computer whose function in a network is to provide user access to files, printing, communications, and other services.

**SMTP** (Simple Mail Transfer Protocol) - The standard e-mail protocol on the Internet.

SNMP (Simple Network Management Protocol) - A widely used network monitoring and control protocol.

**Software** - Instructions for the computer. A series of instructions that performs a particular task is called a "program".

SOHO (Small Office/Home Office) - Market segment of professionals who work at home or in small offices.

**SPI** (Stateful Packet Inspection) **Firewall** - A technology that inspects incoming packets of information before allowing them to enter the network.

Spread Spectrum - Wideband radio frequency technique used for more reliable and secure data transmission.

SSID (Service Set IDentifier) - Your wireless network's name.

Static IP Address - A fixed address assigned to a computer or device that is connected to a network.

Static Routing - Forwarding data in a network via a fixed path.

**STUN** (Simple Traversal of UDP through NATs) - A protocol that enables specialized applications, such as Internet phone calls, video, and audio, to travel between your local network and the Internet. STUN is a specific type of NAT traversal.

**Subnet Mask** - An address code that determines the size of the network.

**Switch** - 1. A data switch that connects computing devices to host computers, allowing a large number of devices to share a limited number of ports. 2. A device for making, breaking, or changing the connections in an electrical circuit.

**TCP** (Transmission Control Protocol) - A network protocol for transmitting data that requires acknowledgement from the recipient of data sent.

**TCP/IP** (Transmission Control Protocol/Internet Protocol) - A set of instructions PCs use to communicate over a network.

**Telnet** - A user command and TCP/IP protocol used for accessing remote PCs.

**TFTP** (**T**rivial **F**ile **T**ransfer **P**rotocol) - A version of the TCP/IP FTP protocol that has no directory or password capability.

Throughput - The amount of data moved successfully from one node to another in a given time period.

**TKIP** (Temporal Key Integrity Protocol) - a wireless encryption protocol that provides dynamic encryption keys for each packet transmitted.

**Topology** - The physical layout of a network.

**TX Rate** - Transmission Rate.

**UDP** (User Datagram Protocol) - A network protocol for transmitting data that does not require acknowledgement from the recipient of the data that is sent.

**Upgrade** - To replace existing software or firmware with a newer version.

**Upload** - To transmit a file over a network.

**URL** (Uniform Resource Locator) - The address of a file located on the Internet.

**USB** (Universal Serial Bus) - A hardware interface that allows for hot swapping capability, which allows cables to be plugged in and unplugged without turning off the system. There are two types of USB ports and plugs: Type A and Type B. USB ports on a computer use a rectangular Type A socket. Cables that are permanently attached to a device have a Type A plug. Devices that use a separate cable have a square Type B socket, and the cable that connects them has a Type A plug on one end and a Type B plug on the other end.

**VPN** (Virtual Private Network) - A security measure to protect data as it leaves one network and goes to another over the Internet.

WAN (Wide Area Network)- The Internet.

**WEP** (Wired Equivalent Privacy) - A method of encrypting network data transmitted on a wireless network for greater security.

WINIPCFG - A Windows 98 and Me utility that displays the IP address for a particular networking device.

**WLAN** (Wireless Local Area Network) - A group of computers and associated devices that communicate with each other wirelessly.

**WPA** (Wi-Fi **P**rotected **A**ccess) - a wireless security protocol using TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.

# **Appendix C: Specifications**

Standards IEEE802.3, IEEE802.3u and IEEE 802.3ab

Standards USB 1.0 1.1, and 2.0; IEEE 802.3, IEEE 802.u

Ports One USB Type A, Male Connector

One RJ-45 Port

Speeds (Mbps)

USB 1.5 (Low Speed), 12 (Full Speed),

up to 480 (High Speed)

Ethernet 10 or 100 (Half Duplex)

20 or 200 (Full Duplex)

Cabling Category 5 Ethernet Network, USB

LEDs 100/ACT, F/H, 10/ACT

Dimensions 2.875" x 0.98" x 0.49"

(25 mm x 12 mm x 88 mm)

Unit Weight 2.4 oz. (0.068 kg)

Power 3.3 V low power consumption

Certifications FCC Class B, CE, VCCI

Operating Temp. 32°F to 158°F (0°C to 70°C)

Storage Temp. 32°F to 158°F (0°C to 70°C)

Operating Humidity 10% to 90%, Non-Condensing

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Storage Humidity 10% to 90%, Non-Condensing

Appendix C: Specifications

# **Appendix D: Regulatory Information**

#### **FCC STATEMENT**

This product has been tested and complies with the specifications 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 according to 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 is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

#### **INDUSTRY CANADA (CANADA)**

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### EC DECLARATION OF CONFORMITY (EUROPE)

In compliance with the EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC, and Amendment Directive 93/68/EEC, this product meets the requirements of the following standards:

- EN55022 Emission
- EN55024 Immunity

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# **Appendix E: Warranty Information**

#### LIMITED WARRANTY

Linksys warrants to You that, for a period of one year (the "Warranty Period"), your Linksys Product will be substantially free of defects in materials and workmanship under normal use. Your exclusive remedy and Linksys' entire liability under this warranty will be for Linksys at its option to repair or replace the Product or refund Your purchase price less any rebates. This limited warranty extends only to the original purchaser.

If the Product proves defective during the Warranty Period call Linksys Technical Support in order to obtain a Return Authorization Number, if applicable. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. If You are requested to return the Product, mark the Return Authorization Number clearly on the outside of the package and include a copy of your original proof of purchase. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. You are responsible for shipping defective Products to Linksys. Linksys pays for UPS Ground shipping from Linksys back to You only. Customers located outside of the United States of America and Canada are responsible for all shipping and handling charges.

ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You. This warranty gives You specific legal rights, and You may also have other rights which vary by jurisdiction.

This warranty does not apply if the Product (a) has been altered, except by Linksys, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, or (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident. In addition, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the Product will be free of vulnerability to intrusion or attack.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL LINKSYS' LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided under this Agreement fails of its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to You.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

# **Appendix F: Contact Information**

Need to contact Linksys? Visit us online for information on the latest products and updates to your existing products at:

Can't find information about a product you want to buy on the web? Do you want to know more about networking with Linksys products? Give our advice line a call at: Or fax your request in to:

If you experience problems with any Linksys product, you can call us at:

Don't wish to call? You can e-mail us at:

If any Linksys product proves defective during its warranty period, you can call the Linksys Return Merchandise Authorization department for obtaining a Return Authorization Number at: (Details on Warranty and RMA issues can be found in the Warranty Information section in this Guide.)

http://www.linksys.com or ftp.linksys.com

800-546-5797 (LINKSYS) 949-823-3002

800-326-7114 support@linksys.com

949-823-3000