



# Cisco Aironet wireless 802.11b Mini PCI by IBM

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*User's Guide*

**ATTENTION**

Refer to the documentation that comes with your computer before installing the product.

**Note**

Be sure to keep your proof of purchase, because it might be required for warranty services. (For more information, refer to the *Product warranty and notices for Cisco Aironet Wireless 802.11b Mini PCI by IBM.*)

**First Edition (July 2002)**

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## Safety: Read first

Before installing this product, read the Safety Information.

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Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 **Safety Information**  
(安全信息)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安裝本產品之前，請先閱讀「安全資訊」。

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## About the Cisco Aironet Wireless 802.11b Mini PCI by IBM®

This section provides information on registering, installing, and using the Cisco Aironet Wireless 802.11b Mini PCI by IBM.

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### Product registration

Thank you for purchasing this IBM product. Please take a few moments to register your product and provide us with information that will help IBM to serve you better in the future. Your feedback is valuable to us in developing products and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the IBM Web site at:

[www.ibm.com/pc/register](http://www.ibm.com/pc/register)

IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

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### Product description

If you are using a wireless upgradable model of an IBM ThinkPad® R32 Series computer, X30 Series computer, or T30 Series computer, you can install the Cisco Aironet Wireless 802.11b Mini PCI by IBM (hereafter called the Mini-PCI Card) in a Mini-PCI Card slot on your computer.

The option kit includes:

- Mini-PCI Card
- CD-ROM (device drivers and User's Guide)
- Mini-PCI guide
- Product warranty and notices for Cisco Aironet Wireless 802.11b Mini PCI by IBM

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## Installing the Mini-PCI Card

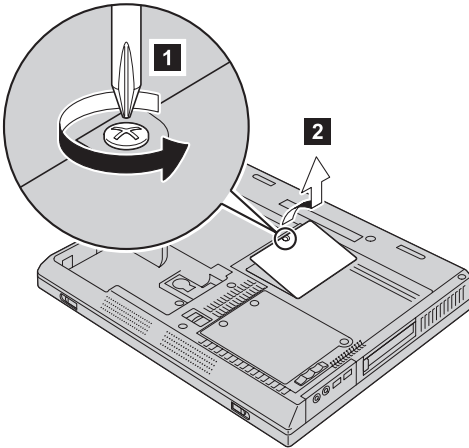
**Note:** Use only the Mini-PCI Card provided by IBM.

If your computer is a wireless upgradable model, and you are installing the Mini-PCI Card for the first time, follow the procedure below.

### For ThinkPad R32 series computer

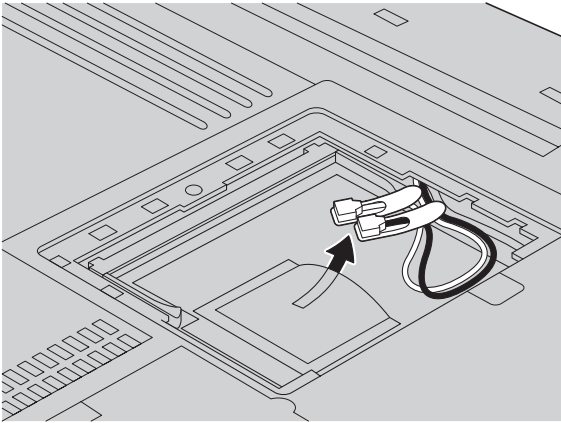
If you are using ThinkPad R32 Series computer, do as follows:

1. Turn off the computer; then disconnect the ac adapter and all cables from the computer.
2. Close the computer display, and turn the computer over.
3. Remove the battery. (For information on removing the battery, refer to the *ThinkPad R32 Series Service and Troubleshooting Guide*.)
4. Loosen the screw on the cover of the Mini-PCI Card slot **1**; then remove the cover **2**.



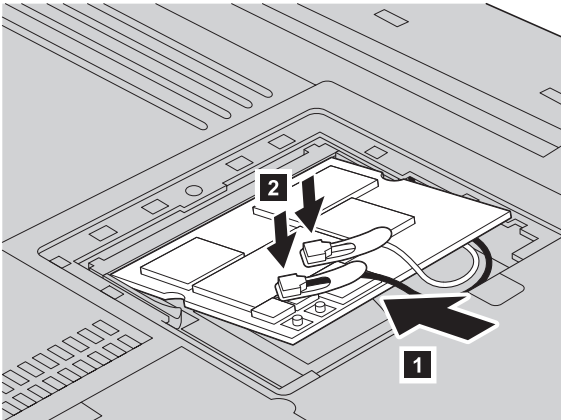


5. Take the cables out of the cable holder as shown.

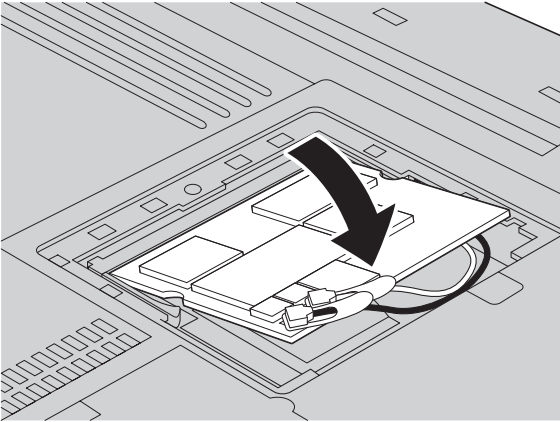


**Note:** If a Mini-PCI Card has been installed in your computer, and you remove the Card and do not install a new one, put the cables in the cable holder after disconnecting them from the Card.

6. Align the contact edge of the Mini-PCI Card with the corresponding socket contact of the computer **1**. Connect the cables to the new Mini-PCI Card **2**.



- Pivot the card until you can snap it into place by pressing the upper side of the connectors as shown.



Make sure that the card is firmly fixed in the slot and does not move easily.

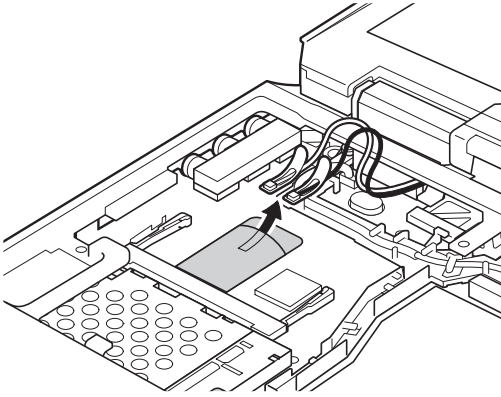
- Align the tabs of the Mini-PCI Card slot cover with the corresponding slots; then press the cover flat.
- Tighten the screw of the cover.  
**Attention:** After you install a Mini-PCI Card, do not use your computer until you have closed the cover. Never use the computer with the cover open.
- Reinstall the battery. (For information on reinstalling the battery, refer to the *ThinkPad R32 Series Service and Troubleshooting Guide*.)
- Turn the computer over again. Connect the ac adapter and cables to the computer; then turn it on.

#### For ThinkPad X30 Series computer

If you are using ThinkPad X30 Series computer, do as follows:

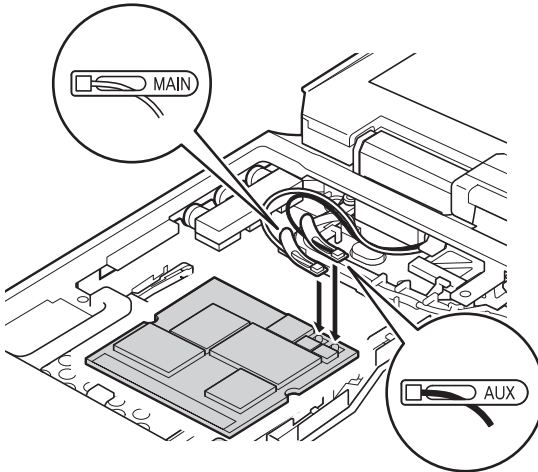
- Turn off the computer. Then disconnect the ac adapter and all cables from the computer.
- Remove the battery and the keyboard. (For information on removing the battery and keyboard, refer to the *ThinkPad X30 Series Service and Troubleshooting Guide*.)

3. Take the cables out of a cable holder.



**Note:** If a Mini-PCI Card has been installed in your computer, and you remove the Card and do not install a new one, put the cables in the cable holder after disconnecting them from the Card.

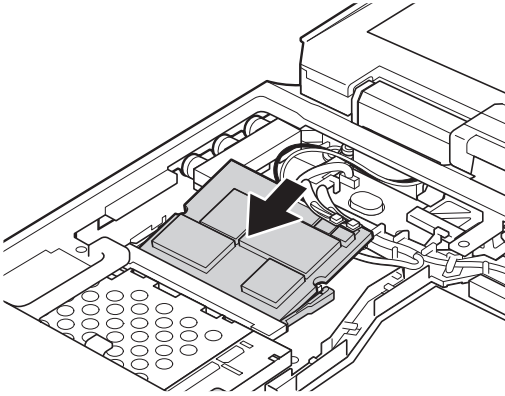
4. Connect the cables to the new Mini-PCI Card.



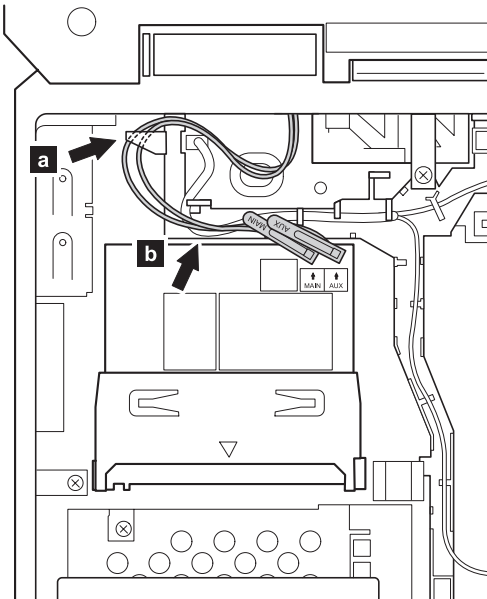
**Note:** Plug the gray cable with the tab marked **MAIN** into jack *J1*, and the black cable with the tab marked **AUX** into jack *J2*.

5. Align the contact edge of the Mini-PCI Card with the corresponding socket contact of the computer.

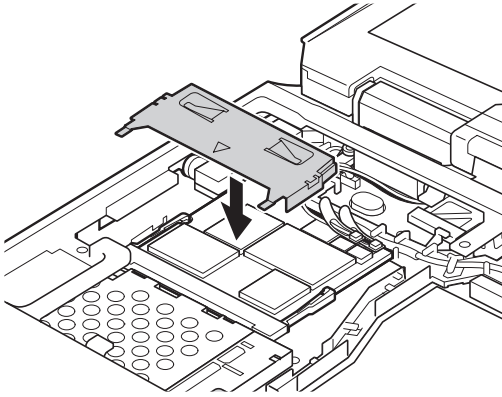
- Pivot the Card until you can snap it into place by pressing the upper side of the connectors. Make sure that the card is firmly fixed in the slot and does not move easily.



When attaching the Card, route the antenna cables to go under the cable guide as in **a**, and place the tabs as indicated by arrow **b** as in this figure.



7. Attach the Mini-PCI guide that comes with the option package.



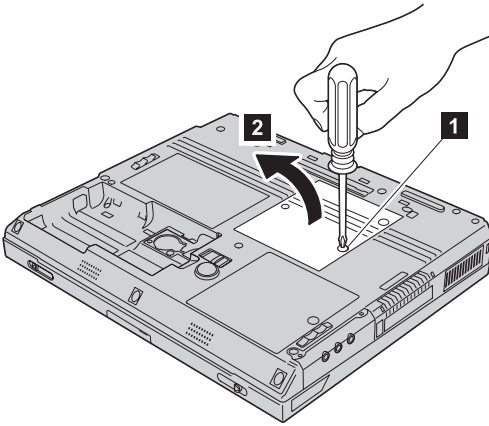
8. Reinstall the battery and the keyboard. (For information on reinstalling the battery and the keyboard, refer to the *ThinkPad X30 Series Service and Troubleshooting Guide*.)

#### **For ThinkPad T30 Series computer**

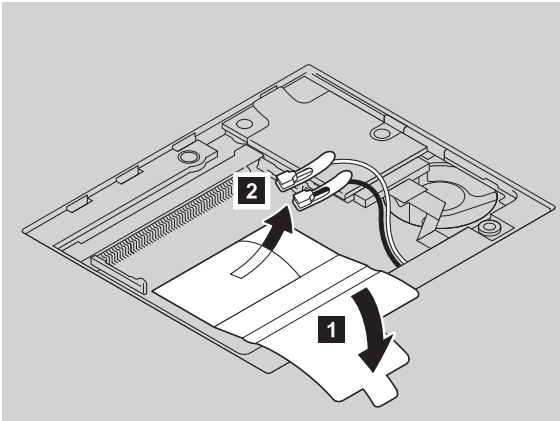
If you are using ThinkPad T30 Series computer, do as follows:

1. Turn off the computer; then disconnect the ac adapter and all cables from the computer.
2. Close the computer display, and turn the computer over.
3. Remove the battery. (For information on removing the battery, refer to the *ThinkPad T30 Series Service and Troubleshooting Guide*.)

- Loosen the screws on the cover of the Mini-PCI Card slot **1**; then remove the cover **2**.

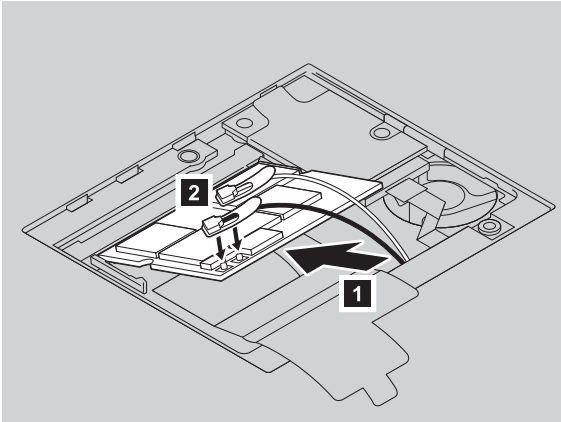


- Open the insulation sheet **1**, and take the cables out of the cable holder **2**.

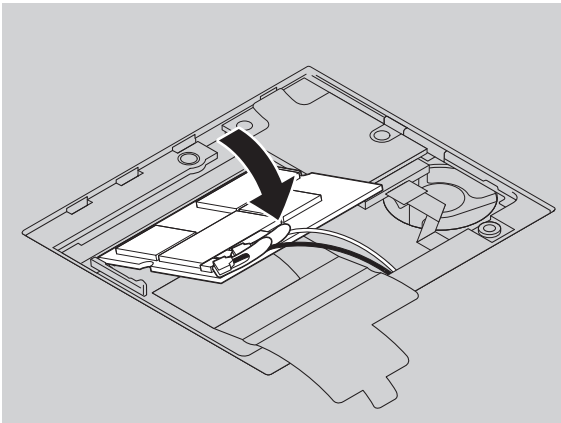


**Note:** If a Mini-PCI Card has been installed in your computer, and you remove the Card and do not install a new one, put the cables in the cable holder after disconnecting them from the Card.

- Align the contact edge of the Mini-PCI Card with the corresponding socket contact of the computer **1**. Connect the cables to the Mini-PCI Card **2**.

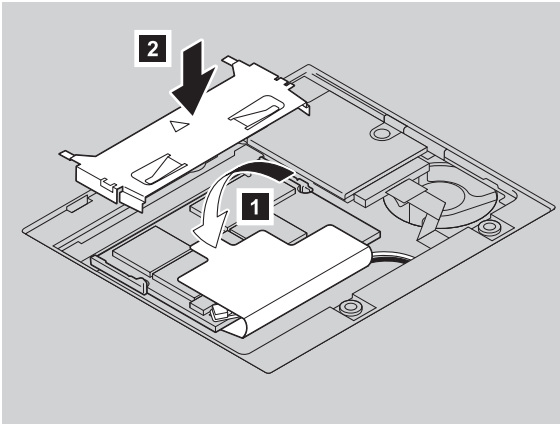


- Pivot the card until you can snap it into place by pressing the upper side of the connectors as shown.



Make sure that the card is firmly fixed in the slot and does not move easily.

8. Cover the Mini-PCI Card with the insulation sheet **1**, and attach the Mini-PCI guide **2** that comes with the option package.



9. Align the tabs of the Mini-PCI Card slot cover with the corresponding slots; then press the cover flat.
10. Tighten the screws of the cover.  
**Attention:** After you install a Mini-PCI Card, do not use your computer until you have closed the cover. Never use the computer with the cover open.
11. Reinstall the battery. (For information on reinstalling the battery, refer to the *ThinkPad T30 Series Service and Troubleshooting Guide*.)
12. Turn the computer over again. Connect the ac adapter and cables to the computer; then turn it on.

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## Installing the device driver

If your computer is a wireless upgradable model, and you are installing the Mini-PCI Card for the first time, you need to install the device driver for the Card. To install the driver, refer to the following instructions.

**Note:** If you are using ThinkPad X30 Series computer, attach the X3 UltraBase™ and then install a CD drive in the Ultrabay™ Plus, or attach a USB CD drive to the USB connector.

### Installing the device driver in Windows XP

To install the device driver in Microsoft® Windows® XP, do the following:

1. Turn off the computer, and then install the Mini-PCI Card, using instructions given in “Installing the Mini-PCI Card” on page 1-2.
2. Turn on the computer.



3. The operating system automatically detects the client adapter and briefly opens the Found New Hardware window.
4. Click **Next**.
5. Select **Install From A List or Specific Location**.
6. Select **Don't search. I will choose the Driver to Install**. Click **Next**.
7. Click **Network adapters**, and click **Next**.
8. Click **Have Disk**.
9. Insert the Cisco Aironet Wireless LAN Client Adapters CD into the CD or DVD drive.
10. Type D:\DRIVER\WINXP where *D* corresponds to the letter of your CD or DVD drive, or browse to the path where the driver is located.
11. Click **OK**.
12. Select **Adapter**, and click **OK**. Start Device Driver Installation, and click **Next**.
13. When the installation is complete, click **Finish**. When asked to restart, click **Yes**.
14. Click **Start** → **Run**.
15. Type D:\UTILITY\SETUP.EXE where *D* corresponds to the letter of your CD or DVD drive.
16. Click **OK**. The Aironet Client Utility Setup window and the InstallShield Wizard window open.
17. Follow the instructions in the installation wizard window (for default installation options, click **Next** until the Install Shield Wizard Complete window opens). After the software has been installed, click **Finish** to restart the computer.
18. **Hardware Configuration:** This section is used to perform your Wireless Network Configuration. You might need information from your network administrators, such as SSID name and encryption information.
19. Click **Start** → **Connect To** → **Wireless Network Connections**.
20. Click **Advanced**. The Wireless Network Properties window opens.
21. Click **Add**.
22. Enter Network Name (SSID), and configure any encryption or security information that might be part of the network configuration. Click **OK**.
23. Click **OK**. Your ThinkPad computer will now be configured and operational.

### Installing the device driver in Windows 2000

To install the device driver in Windows 2000 Professional, do the following:

1. Turn off the computer, and then install the Mini-PCI Card, using instructions given in "Installing the Mini-PCI Card" on page 1-2.

2. Turn on the computer.
3. The operating system automatically detects the client adapter and briefly opens the Found New Hardware window.
4. Click **Next**.
5. Select **Display a list of the know drivers for this device so that I can choose a specific driver** and click **Next**.
6. Click **Network adapters**, and click **Next**.
7. Click **Have Disk**.
8. Insert the Cisco Aironet Wireless LAN Client Adapters CD into the CD or DVD drive.
9. Enter `D:\DRIVER\WIN2000` where *D* corresponds to the letter of your CD or DVD drive, or browse to the path where the driver is located.
10. Click **OK**.
11. Select **Adapter**, and click **OK**. Start Device Driver Installation, and click **Next**.
12. When the installation is complete, click **Finish**. When asked to restart, click **Yes**.
13. Click **Start** → **Run**.
14. Type `D:\UTILITY\SETUP.EXE` where *D* corresponds to the letter of your CD or DVD drive.
15. Click **OK**. The Aironet Client Utility Setup window and the InstallShield Wizard window open.
16. Follow the instructions in the installation wizard window (for default installation options, click **Next** until the Install Shield Wizard Complete window opens). After the software has been installed, click **Finish** to restart the computer.
17. **Hardware Configuration:** This section is used to perform your Wireless Network Configuration. You might need information from your network administrators, such as SSID name and encryption information.
18. Open Aironet Client Utility (ACU).
19. Click **Profile Manager**.
20. Under Profile Management, click **Add**, and enter your wireless network name in the box. Click **Apply**. The 350 Series Properties Window opens.
21. In the SSID1 box, enter your Network SSID. If additional network information is required, add now. Check with your network administrator for proper information.
22. After all data is entered, click **OK**. Your ThinkPad computer will now be configured and operational.

## Installing the device driver in Windows 98 Second Edition

To install the device driver in Windows 98 Second Edition, do the following:

1. Turn off the computer, and then install the Mini-PCI Card, using instructions given in “Installing the Mini-PCI Card” on page 1-2.
2. Turn on the computer.
3. The operating system automatically detects the client adapter and briefly opens the Found New Hardware window.
4. Click **Next**.
5. Select **Display a list of the know drivers for this device so that I can choose a specific driver**, and click **Next**.
6. Click **Network adapters**, and click **Next**.
7. Click **Have Disk**.
8. Insert the Cisco Aironet Wireless LAN Client Adapters CD into the CD or DVD drive.
9. Type `D:\DRIVER\WIN98` where *D* corresponds to the letter of your CD or DVD drive, or browse to the path where the driver is located.
10. Click **OK**.
11. Select **Adapter**, and click **OK**. Start Device Driver Installation, and click **Next**.
12. When the installation is complete, click **Finish**. When asked to restart, click **Yes**.
13. Click **Start** → **Run**.
14. Type `D:\UTILITY\SETUP.EXE` where *D* corresponds to the letter of your CD or DVD drive.
15. Click **OK**. The Aironet Client Utility Setup window and the InstallShield Wizard window open.
16. Follow the instructions in the installation wizard window (for default installation options, click **Next** until the Install Shield Wizard Complete window opens). After the software has installed, click **Finish** to restart the computer.
17. **Hardware Configuration:** This section is used to perform your Wireless Network Configuration. You might need information from your network administrators, such as SSID name and encryption information.
18. Open the Aironet Client Utility (ACU).
19. Click **Profile Manager**.
20. Under Profile Management, click **Add**. Enter your wireless network name in the box, and click **Apply**. The 350 Series Properties Window opens.
21. In the SSID1 box, enter your Network SSID. If additional network information is required add now. Check with your network administrator for proper information.

22. After all data is entered, click **OK**. Your ThinkPad computer will now be configured and operational.

## Installing the device driver in Windows NT

To install the device driver in Windows NT<sup>®</sup>, do the following:

1. Turn off the computer, and install the Mini-PCI Card, using instructions given in "Installing the Mini-PCI Card" on page 1-2.
2. Turn on the computer.
3. Click **Start** → **Settings** → **Control Panel**.
4. Double click **Network** icon in the Control Panel window.
5. Click **Adapter** tab.
6. Click **Add**.
7. Click **Have Disk**.
8. Insert the Cisco Aironet Wireless LAN Client Adapters CD into the CD or DVD drive.
9. Type D:\DRIVER\WINNT4 where *D* corresponds to the letter of your CD or DVD drive, or browse to the path where the driver is located.
10. Click **OK**.
11. Select **Adapter**, and click **OK**. Start Device Driver Installation, and click **Next**. The Cisco Aironet Wireless LAN Adapter window opens.
12. Click **OK**. The Network window opens.
13. Click **Close**. The Microsoft TCP/IP Properties window opens.
14. Click **OK**. The Microsoft TCP/IP window opens.
15. Click **OK**.
16. Select **Obtain an IP address from a DHCP Server**.

**Note:** Check with your network administrator if you are required to use a Static IP.

17. Click **Yes**.
18. Click **OK**.
19. Click **Yes** to restart the computer.
20. Click **Start** → **Run**.
21. Type D:\UTILITY\SETUP.EXE where *D* corresponds to the letter of your CD or DVD drive.
22. Click **OK**. The Aironet Client Utility Setup window and the InstallShield Wizard window open.

23. Follow the instructions in the installation wizard window (for default installation options, click **Next** until the Install Shield Wizard Complete window opens). After the software has been installed, click **Finish** to restart the computer.
24. **Hardware Configuration:** This section is used to perform your Wireless Network Configuration. You might need information from your network administrators, such as SSID name and encryption information.
25. Open the Aironet Client Utility (ACU).
26. Click **Profile Manager**.
27. Under Profile Management, click **Add**. Enter your wireless network name in the box, and click **Apply**. The 350 Series Properties window opens.
28. In the SSID1 box, enter your Network SSID. If additional network information is required add now. Check with your network administrator for proper information.
29. After all data is entered, click **OK**. Your ThinkPad computer will now be configured and operational.

### Installing the device driver in Windows Me

To install the device driver in Windows Millennium Edition (Me), do the following:

1. Turn off the computer, and install the Mini-PCI Card, using instructions given in "Installing the Mini-PCI Card" on page 1-2.
2. Turn on the computer.
3. The operating system automatically detects the client adapter and briefly opens the Found New Hardware window.
4. Click **Next**.
5. Select **Display a list of all the drivers in a specific location, so you can select the driver you want**. Click **Next**.
6. Click **Network adapters**, and click **Next**.
7. Click **Have Disk**.
8. Insert the Cisco Aironet Wireless LAN Client Adapters CD into the CD or DVD drive.
9. Type D:\DRIVER\WINME where *D* corresponds to the letter of your CD or DVD drive, or browse to the path where the driver is located.
10. Click **OK**.
11. Select **Adapter**, and click **OK**. Start Device Driver Installation, and click **Next**.
12. When the installation is complete, click **Finish**. When asked to restart, click **Yes**.
13. Click **Start** → **Run**.

14. Type `D:\UTILITY\SETUP.EXE` where *D* corresponds to the letter of your CD or DVD drive.
15. Click **OK**. The Aironet Client Utility Setup window and the InstallShield Wizard window open.
16. Follow the instructions in the installation wizard window (for default installation options, click **Next** until the Install Shield Wizard Complete window opens). After the software has been installed, click **Finish** to restart the computer.
17. **Hardware Configuration:** This section is used to perform your Wireless Network Configuration. You might need information from your network administrators, such as SSID name and encryption information.
18. Open Aironet Client Utility (ACU).
19. Click **Profile Manager**.
20. Under Profile Management, click **Add**, enter your wireless network name in the box. Click **Apply**. The 350 Series Properties Window opens.
21. In the SSID1 box, enter your Network SSID. If additional network information is required, add now. Check with your network administrator for proper information.
22. After all data is entered, click **OK**. Your ThinkPad computer will now be configured and operational.

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## Advanced Features

For the advanced configuration information, click the **Help** button in the Aironet Client Utility, and follow the instructions on the screen.





Part Number: 31P8313

Printed in U.S.A.

(1P) P/N: 31P8313

