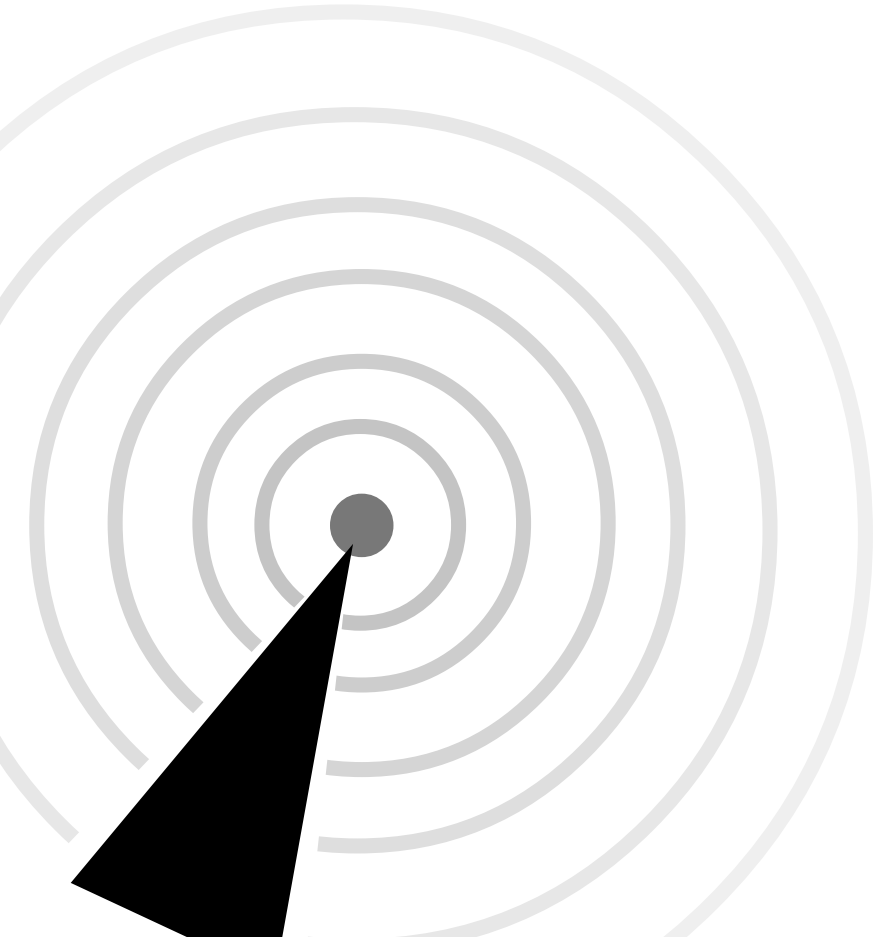
Appendix

The appendix contains sections for troubleshooting and information on IEEE 802.11b channels and frequencies.



A.1 Troubleshooting

This troubleshooting guide provides answers to some common problems which you may encounter while installing and/or using ASUS Wireless LAN card products. These problems requires simple troubleshooting that you can perform by yourself. Contact the Wireless LAN Technical Support if you encounter problems not mentioned in this section.

Problem	Action
My system does not recognize the installed WiFi-b™ card.	Verify if the WiFi-b™ card drivers are properly installed by following these instructions: 1. Open the Control Panel window from the Windows® desktop. 2. Double-click on the **System** icon. 3. *Windows® 98SE/Me users*: Select the **Device Manager** tab. *Windows® 2000/XP users*: Select the **Hardware** tab then click the **Device Manager** button. 4. Click the "+" symbol preceeding the **Network Adapters** item, then check the **ASUS 802.11b** or **ASUS 802.11g Network Adapter** item. A yellow exclamation point or a red plus sign preceeding the network adapter means that the drivers are not properly installed. Refer to the next solution to re-install the WiFi-b™ driver.
A yellow exclamation point or a red plus sign appears before the	The WiFi-b™ driver is not properly installed. Follow these instructions in uninstall and re-installing the driver. 1. Insert the Support CD into the CD-ROM drive. 2. When the ASUS WiFi-b™ installation window appears, click the **Uninstall ASUS WLAN Card Utilities/Driver** item.

Problem	Action
	3. Restart your computer and repeat the WiFi-b™ software installation provided in this User Guide.
I cannot connect to an Access Point.	• Check if the **Network Type** of the WiFi-b™ card is set to **Infrastructure** mode. • Check if the WiFi-b™ has the same **Service Set Identifier (SSID)** with that of the AP. • Check if the WiFi-b™ card and the AP have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the WiFi-b™ card and the AP. • Check if the MAC address of the WiFi-b™ card is added in the AP Authorization Table. Inquire this with your LAN administrator. • There is poor signal reception. Re-orient the WiFi-b™ antenna.
I can connect to an Access Point but I cannot connect to the Internet.	• Check if the WiFi-b™ card and the AP have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the WiFi-b™ card and the AP. • Make sure the network protocol parameters (IP address, subnet mask, gateway, and DNS) of your computer are correctly set. • Check the proxy settings of the web browser.

Problem	Action
I cannot connect to another Station with a wireless LAN device.	• Check if the **Network Type** of the WiFi-b™ card is set to **Ad Hoc** mode. • Check if the WiFi-b™ has the same **Service Set Identifier (SSID)** with that of the other station. • Check if the WiFi-b™ card and the other station have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for both stations. • There is poor signal reception. Place the WiFi-b™ antenna nearer to the other station.
I cannot connect to other computers linked via an Access Point or Ad Hoc network.	• Check if the WiFi-b™ card and the other APs and/or clients have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the WiFi-b™ card and the other AP/s and/or clients. • Check the TCP/IP settings (IP address, subnet mask, gateway, and DNS) of your computer. • Enable file and printer sharing in each client computer to allow file sharing.
I always have poor link quality and signal strength	You may achieve better link quality and stronger signal by: • Keeping the WiFi-b™ away from microwave ovens and large metal objects to avoid radio interference. • Reorienting the WiFi-b™ antenna. • Shortening the distance between the WiFi-b™ card and the AP/ another station.

A.2 Channels

The IEEE 802.11b standard for Wireless LAN allocated the 2.4 GHz frequency band into 14 overlapping operating **channels**. Each channel corresponds to a different set of frequencies. The table below shows the center frequencies of each channel.

Channel	Center Frequency	Channel	Center Frequency
1	2.412 GHz	8	2.447 GHz
2	2.417 GHz	9	2.452 GHz
3	2.422 GHz	10	2.457 GHz
4	2.427 GHz	11	2.462 GHz
5	2.432 GHz	12	2.467 GHz
6	2.437 GHz	13	2.472 GHz
7	2.442 GHz	14	2.484 GHz

If several WiFi devices are operating in the same vicinity, the distance between the center frequencies of channels used must be at least 25 MHz to avoid interference.

The number of channels available for the WiFi-b™ varies by country/region. Refer to the table below to determine the number of channels available in your location.

Country/Region	Available Channels
United States (FCC) and Canada (IC)	Channels 1 to 11
Europe (ETSI)	Channels 1 to 13
Japan (MKK)	Channels 1 to 14

Channels 1,6 and 11 are independent and do not overlap each other. It is recommended to tune your WiFi-b™ card to these channels.