User's Manua/



FW-C703B 802.11b WLAN/Flash Disk USB Adapter

Copyright statement

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, whether electronic, mechanical, photocopying, recording, or otherwise without the prior writing of the publisher.

Note

Information in this manual is subject to change without notice.

Federal Communications Commission Compliance Notice

To ensure continued compliance, use only shielded interface cables when connecting to the computer or peripheral devices. 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.

Federal Communication Commission (FCC) 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 or more 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 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 a minimum distance of 20 cm between the radiator and your body.
- This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Contents

| 4 | | | |
|---|------------|---|----|
| 1 | Intro | oduction | 4 |
| | 1.1 | About 802.11b WLAN/Flash Disk USB Adapter | 4 |
| | 1.2 | Features and Benefits | 4 |
| | 1.3 | Product View | 5 |
| 2 | a . | | ſ |
| | Gett | ing Started | 6 |
| | 2.1 | Package Contents | 6 |
| | 2.2 | System Requirements | 6 |
| | 2.3 | LED Indicators | 7 |
| | 2.4 | Safety Precautions | 7 |
| | 2.5 | Site Selection | 8 |
| 3 | Inst | all & Uninstall the 802.11b WLAN/Flash Disk USB Adapter for Windows | 10 |
| | 3.1 | Windows XP Installation & Uninstallation | 10 |
| | 3.2 | Windows 2000 Installation & Uninstallation | 14 |
| | 3.3 | Windows 98SE/ME Installation & Uninstallation | 18 |
| 4 | Vert | iying the 802.11b WLAN/Flash Disk USB Adapter for Windows | 22 |
| | 4.1 | Inserting the 802.11b WLAN/Flash Disk USB Adapter | 22 |
| | 4.2 | Verifying Driver Installation | 22 |
| | | Verifying Driver Installation under Windows XP | 22 |
| | | Verifying Driver Installation under Windows 2000 | 23 |
| | | Verifying Driver Installation under Windows 98SE/Me | 23 |
| | 4.3 | Verifying Utility Installation | 23 |
| | 4.4 | Removing the WLAN Adapter | 24 |
| 5 | Usii | ng the Configuration & Monitor Utility | 26 |
| | 5.1 | Configure 802.11b WLAN/Flash Disk USB Adapter Under Windows XP | 26 |
| | 5.2 | Usage of the Configuration & Monitor Utility | 28 |
| | | Status | 29 |
| | | Statistics | 31 |
| | | Site Survey | 32 |
| | | Encryption | 33 |
| | | Advanced | 34 |
| | | About | 35 |

| | 5.3 | Usage of the Change Region Tool | . 36 |
|-----|-------|---|------|
| 6 | Insta | Il the USB Flash Driver for Windows (Optional Function) | . 37 |
| | 6.1 | Installation Driver Under Windows XP, 2000, ME | .37 |
| | 6.2 | Installation Driver Under Windows 98SE | .37 |
| | 6.3 | Safety Removing the USB Flash Storage | . 39 |
| | 6.4 | Using the Flash Configuration & Monitor Utility | . 40 |
| 7 | Trou | bleshooting | . 46 |
| Арр | endix | A WLAN USB Adapter Specification | . 49 |



This chapter introduces the features and functions of the product.

1.1 About 802.11b WLAN/Flash Disk USB Adapter

Congratulations on purchasing this 802.11b WLAN/Flash Disk USB Adapter. FW-C703 802.11b WLAN/Flash Disk USB Adapter includes both wireless communications and Flash storage (optional). You can select either one of function to use it. The USB Wireless LAN Card's 11 Mbps data rate provides an equivalent Ethernet speed to access corporate networks or the Internet in a wireless environment. It also provides optional function about the memory storage that you only can store your personal files and read you data, plug on any computer with USB interface. When installed, the WLAN Card is able to communicate with any 802.11b-compliant product, allowing you to work anywhere in the coverage area, enjoying its convenience and mobility.

1.2 Features and Benefits

- IEEE 802.11b and Wi-Fi-compliant 11 Mbps WLAN access solution
- Direct Sequence Spread Spectrum (DSSS) standard
- Built-in antenna
- Wired Equivalent Privacy (WEP) 128-bit data encryption
- Frequency range at 2.4 GHz ISM band
- Automatic data rate selection at 11 Mbps, 5.5 Mbps, 2 Mbps, and 1 Mbps (automatic data rate fallback under noisy environment)
- The Flash disk device is a removable hard dick with USB connection. (Optional)

1.3 Product View



802.11b WLAN/Flash Disk USB Adapter

| | Component | Description |
|---|---|---|
| 0 | USB WLAN Adapter Connector | Connects to your computing device. The interface is USB slot. |
| 0 | Wireless LED Indicator (👬) | Glows red when the WLAN Card has successfully linked with an Access Point (<i>Infrastructure</i> mode) or with another wireless station (<i>Ad-Hoc</i> mode). |
| € | Integrated Antenna | Allows the WLAN Card to receive and transmit wireless data. |
| | Flash Storage LED Indicator (��option) | Glows red when the Flash Storage has successfully work. Works like a removable hard disc on any desktop or laptop with a USB interface. |

2 Getting Started

This chapter provides the information that you need before you start to install the 802.11b WLAN/Flash Disk USB Adapter.

2.1 Package Contents

The shipment should contain the following items. Please check each item below and ensure that all items listed in below are included in the shipment. If any of the listed items are damaged or missing, please notify your local dealer.

802.11b WLAN/Flash Disk USB Adapter should contain:

- FW C703 802.11b WLAN/Flash Disk USB Adapter
- CD-ROM (containing Drivers and Manual)
- Quick Installation Guide

2.2 System Requirements

Before installing the FW-C703 802.11b WLAN/Flash Disk USB Adapter, the following equipments may be required in order to install the adapter properly:

- Operating system: Windows 98SE, Windows Me, Windows 2000, or Windows XP
- Desktop or laptop computer with CD-ROM drive
- USB 1.1 or 2.0 card slot in case of desktop or laptop

Caution!

Do not insert your WLAN Adapter into the USB slot at this stage until you have finished installation.

2.3 LED Indicators

The 802.11b WLAN/Flash Disk USB Adapter has two LEDs indicators, which will glow or blink to reflect operation status. The described as below:

- Wireless Link Activity LED (+) If you switch to WLAN function, the LED blinks fast when the USB Wireless LAN function is linking with the network and LED blink slowly when the USB Wireless LAN function is receiving or transmitting data.
- Flash Storage LED (�)- If you switch to Flash Storage function, the LED lights up when the Card is receiving power.

2.4 Safety Precautions

- Be sure to read and follow all warning notices and instructions.
- In order to extend the life of the device it is advised to store it in a protective casing whenever carrying the computing device on travel and not operating the device.
- Never use abrasive materials or rinse the device with liquids.
- At all times, it will be the responsibility of the end-user to ensure that an outdoor antenna installation complies with local radio regulations.
- Do not service the product by yourself. Refer all servicing to qualified service personnel.
- In order to limit Radio Frequency (RF) exposure, the following rules should be applied:
 - 1. Install the antenna in a location where a distance of 20 cm from the antenna may be maintained.
 - 2. While installing the antenna in the location, please do not turn on power of the device.
 - 3. While the device is working (transmitting or receiving), please do not touch or move the antenna.
 - 4. Do not operate a portable transmitter near unshielded blasting caps or in an explosive environment unless it is a type especially qualified for such use.

• For Laptop (notebook) computer users, in order to comply with the FCC RF exposure limits, it is recommended when using a laptop with a wireless device that the device's integrated antenna should not be positioned closer than 5 cm (2 inches) from your body or nearby persons for extended periods of time while it is transmitting (or operating). If the antenna is positioned less than 5 cm (2 inches) from the user, it is recommended that the user limit exposure time.

2.5 Site Selection

Typical outdoor operating range:

| | 11 Mbps (High speed) | 5.5 Mbps (Medium speed) | 2 Mbps (Standard speed) | 1 Mbps (Low speed) |
|-------|-------------------------|-------------------------------|-------------------------------|-----------------------|
| Range | 200 M | 270 M | 330 M | 400 M |

The range of the wireless signal is related to the Transmit Rate of the wireless communication (Tx Rate on the Status utility of **the Configuration & Monitor Application utility**). Communications at lower transmit range may travel larger distances.

If you intend to use the WLAN function as part of an outdoor antenna installation, the range of the outdoor antenna installation will be related to clearance of the radio signal path.

The typical conditions when used indoors in "office environments" can be described as follows:

- In **Open Office environments**, there should be no physical obstructions between two antennas. This is an ideal indoor antenna installation.
- In **Semi-open Office environments**, workspace is divided by shoulder-height, hollow wall elements; antenna are at desktop level. This describes the typical indoor antenna installation.
- In **Closed Office environments**, workspace is separated by floor-to-floor ceiling and walls are made of out brick or concrete. This type of indoor antenna installation is not applicable to your WLAN card.

NOTE 1: The range values listed above are typical distances measured. These values may provide a rule of thumb and may vary according to the actual radio conditions at the location where the WLAN function will be installed.

NOTE 2: The range of your wireless devices can be affected when the antennas are placed near metal surfaces and solid high-density materials.

NOTE 3: Obstacles in the signal path of the radio that may either absorb or reflect the radio signal also affect the range.

3 Install & Uninstall the 802.11b WLAN/Flash Disk USB Adapter for Windows

This chapter provides the instructions that guide you through the driver installation or uninstallation of the USB Wireless LAN function for the Windows XP\2000\98SE\ME operating systems. The installation processes for Windows XP, please refer to 3.1 Windows XP Installation; for Windows 2000 refer to 3.2 Windows 2000 Installation; for Windows98SE/ME, please refer to 3.3 Windows 98SE/ME Installation.

3.1 Windows XP Installation & Uninstallation

Follow the instructions below to install the driver and utility on a computer running Windows XP.

1. Turn on the computer and insert the driver CD into the appropriate drive.

Do not insert your WLAN Adapter into the USB slot until you have finished the software installation.

2. The install will automatically appear.



3. The installation will start.

| FW-C703 Wireless LAN Setup | |
|---|------------------|
| Preparing Setup Please wait while the InstallShield Wizard prepares the setup. | K |
| FW-C703 Wireless LAN Setup is preparing the InstallShield Wizard, which will g the rest of the setup process. Please wait. | uide you through |
| | |
| InstallShield | Cancel |

4. Click "Next" button to continue installation.

| hoose Destination Location Select folder where setup will install files | c ³ . | and the second s |
|--|----------------------------------|--|
| | | |
| Setup will install FW_C703 Wireless LAN | N in the following folder. | |
| To install to this folder, click Next. To in: another folder | stall to a different folder, cli | ick Browse and select |
| | | |
| | | |
| | | |
| | | |
| | | |
| □ Destination Folder | | |
| ⊂ Destination Folder E:\\FW_C703 Wireless LAN | | Browse |
| Destination Folder E:\\FW_C703 Wireless LAN | | Browse |

5. Finish the installation.



If the AutoRun function on your computer does not automatically start, the select your CD-ROM driver and double-click the file, *SETUP.EXE* under the Windows directory.

6. Find the location of the USB slot on your desktop or laptop.



7. Insert the 802.11b WLAN/Flash Disk USB Adapter into the USB slot on your desktop or laptop. (As shown)



8. After inserting the WLAN Adapter into your computer, Windows will automatically detect that new hardware has been installed. Depending on

which operating system you are using, the steps and screens may differ slightly. Click "Next" to continue installing.



9. For Windows XP, the following screen may appear. Click "Continue Anyway".

| Har dwa | re Installation |
|---------|---|
| 1 | The software you are installing for this hardware: USB Wireless LAN Driver has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing |
| | Continue Anyway STOP Installation |

10. Click "Finish" to finalize the installation.



Follow the instructions below to uninstall the driver and utility on a computer running Windows XP.

| • | |
|------|---|
| | |
| | |
| | |
| A | |
| 2210 | 1 |
| | |

1. Exit the Configuration & Monitor Utility icon. If it is currently active, this icon is loaded on the system tray of Windows task bar, right click to exit then eject the WLAN Adapter.

- 2. Select the "Uninstall USB Wireless LAN" option by clicking on Start, then Programs \rightarrow USB Wireless LAN and the uninstall wizard will guide you through the uninstall process.
- 3. The other way to uninstall is that you can go to the Windows Control Panel and select the *"Add/Remove Programs"* option and follow the instructions to uninstall.

If during the uninstall process you receive an error message, insert the driver CD and try to uninstall again.

3.2 Windows 2000 Installation & Uninstallation

Follow the instructions below to install the driver and utility on a computer running Windows 2000.

1. Turn on the computer and insert the driver CD into the appropriate drive.

Do not insert your WLAN Adapter into the USB slot until you have finished the software installation. 2. The install will automatically appear.



3. The installation will start.

| -C703 Wireless LAN Setup | |
|--|------------------------------|
| Preparing Setup | and the |
| Please wait while the InstallShield Wizard prepares the setup. | |
| FW-C703 Wireless LAN Setup is preparing the InstallShield Wizard, the rest of the setup process. Please wait. | which will guide you through |
| | |
| | |
| | |
| | |
| tallShield | |
| | Canaal |

4. Click "Next" button to continue installation.

| C703 Wireless LAN | | | |
|--|--------------------------------|------------------|----------|
| hoose Destination Location Select folder where setup will install files | 81 | | 2 |
| Setup will install FW_C703 Wireless LAN | I in the following folder. | | |
| To install to this folder, click Next. To ins another folder. | stall to a different folder, o | click Browse and | l select |
| | | | |
| | | | |
| Destination Folder | | | |
| Destination Folder D:\\FW_C703 Wireless LAN | | | Browse |
| Destination Folder D:\\Fw_C703 Wireless LAN | | | Browse |

5. Finish the installation.

| Cetup Status | | 24 |
|------------------------------|--------------------------------|-----------|
| FW_C703 Wireless LAN Setup i | s performing the requested ope | erations. |
| Installing | | |
| D:\\FW_C703 Wireless LAN\ | BK_USB_Monitor.exe | |
| | 68% | |
| | | |
| | | |
| | | |
| | | |
| allShield — | | |

If the AutoRun function on your computer does not automatically start, the select your CD-ROM driver and double-click the file, *SETUP.EXE* under the Windows directory.

6. Find the location of the USB slot on your desktop or laptop.



7. Insert the 802.11b WLAN/Flash Disk USB Adapter into the USB slot on your desktop or laptop. (As shown)



8. After inserting the WLAN Adapter into your computer, Windows will automatically detect that new hardware has been installed. It also will install the driver automatically. Depending on which operating system you are using, the steps and screens may differ slightly.



9. A Digital Signature Not Found message will appear. Click "Yes" to continue setup.



10. Finish the installation.

| Found Ne | w Hardware | | |
|----------|------------|--|--|
| | USB WLAN | | |
| Please v | vait | | |

Follow the instructions below to uninstall the driver and utility on a computer running Windows 2000.

- 1. Exit the Configuration & Monitor Utility icon. If it is currently active, this icon is loaded on the system tray of Windows task bar, right click to exit then eject the WLAN Adapter.
- 2. Select the *"Uninstall USB Wireless LAN"* option by clicking on **Start**, then **Programs** \rightarrow USB Wireless LAN and the uninstall wizard will guide you through the uninstall process.

3. The other way to uninstall is that you can go to the Windows Control Panel and select the *"Add/Remove Programs"* option and follow the instructions to uninstall.

If during the uninstall process you receive an error message, insert the driver CD and try to uninstall again

3.3 Windows 98SE/ME Installation & Uninstallation

Follow the instructions below to install the driver and utility on a computer running Windows 98SE/ME.

1. Turn on the computer and insert the driver CD into the appropriate drive.

Do not insert your WLAN Adapter into the USB slot until you have finished the software installation.

2. The install will automatically appear.



3. The installation will start.



4. Click "Next" button to continue installation.

| oose Destination Location | |
|---|--|
| Select folder where setup will install files. | |
| etup will install FW_C703 Wireless LAN | N in the following folder. |
| o install to this folder, click Next. To inst mother folder. | stall to a different folder, click Browse and select |
| | |
| | |
| | |
| | |
| Destination Folder | |
| | |
| C:\\FW_C703 Wireless LAN | B <u>r</u> owse |
| C:\\FW_C703 Wireless LAN | Browse |

5. Finish the installation.

| √_C703 Wireless LAN | |
|--|--------|
| Setup Status | XX |
| FW_C703 Wireless LAN Setup is performing the requested operations. | |
| Installing | |
| C:\\FW_C703 Wireless LAN\BK_USB_Monitor.exe | |
| 72% | |
| | |
| | |
| | |
| taliShield | |
| | [Canad |
| | Lancel |

6. Restart the computer.



If the AutoRun function on your computer does not automatically start, then select your CD-ROM driver and double-click the file, SETUP.EXE under the Windows directory.

7. Find the location of the USB slot on your desktop or laptop.



8. Insert the 802.11b WLAN/Flash Disk USB Adapter into the USB slot on your desktop or laptop. (As shown)



- 9. After inserting the WLAN Adapter into your computer, Windows will automatically detect that new hardware has been installed and it will install automatically. Depending on which operating system you are using, the steps and screens may differ slightly.
- 10. Finish the installation.

Follow the instructions below to uninstall the driver and utility on a computer running Windows 98SE/ME.

- 1. Exit the Configuration & Monitor Utility icon. If it is currently active, this icon is loaded on the system tray of Windows task bar, right click to exit then eject the WLAN Adapter.
- 2. Select the *"Uninstall USB Wireless LAN"* option by clicking on **Start**, then **Programs** \rightarrow USB Wireless LAN and the uninstall wizard will guide you through the uninstall process.
- 3. The other way to uninstall is that you can go to the Windows Control Panel and select the *"Add/Remove Programs"* option and follow the instructions to uninstall.

If during the uninstall process you receive an error message, insert the driver CD and try to uninstall again

4 Verfiying the 802.11b WLAN/Flash Disk USB Adapter for Windows

This section provides the instructions that guide you to verify proper operation of the driver and utility of your 802.11b WLAN/Flash Disk USB Adapter for the Windows XP\2000\98SE\ME operating systems.

4.1 Inserting the 802.11b WLAN/Flash Disk USB Adapter

To insert the 802.11b WLAN/Flash Disk USB Adapter, please follow the guidelines below:

- 1. Find an available USB 1.1 or 2.0 card slot in your computing device.
- 4. With the WLAN Adapter adapter's connector facing the USB slot, slide the card completely into the slot (refer to your system manual for the correct orientation).
- 5. Your WLAN Adapter should start searching for wireless signals from an AP (*Infrastructure* mode) or another wireless station (*Ad-Hoc* mode).

NOTE: Make sure that the 802.11b WLAN/Flash Disk USB Adapter's driver as well as the Configuration & Monitor Application utility has been properly installed (see previous section).

4.2 Verifying Driver Installation

To verify that you have properly installed the driver of the 802.11b WLAN/Flash Disk USB Adapter, check the 802.11b WLAN/Flash Disk USB Adapter's LED or verify driver installation under Windows XP/2000/98SE/ME operating systems.

Verifying Driver Installation under Windows XP

- Start → Select "Settings" → click "Control Panel" and double-click the "System" icon.
- Click on "My Computer" → select "Properties" from the Windows XP desktop.
- 3. Click on the "Hardware" folder tab and click the "Device Manager" button.
- 4. Click the "Network adapters".
- 5. There should be no yellow exclamation or red cross-sign in the front of the

802.11b WLAN/Flash Disk USB Adapter.

6. Double-click the 802.11b WLAN/Flash Disk USB Adapter and the Device Status windows should indicate that the 802.11b WLAN/Flash Disk USB Adapter is working properly.

Verifying Driver Installation under Windows 2000

- Start → Select "Settings" → click "Control Panel" and double-click the "System" icon.
- Click on "My Computer" → select "Properties" from the Windows 2000 desktop.
- 3. Click on the "Hardware" folder tab and click the "Device Manager" button.
- 4. Click the "Network adapters".
- 5. There should be no *yellow exclamation* or *red cross-sign* in the front of the 802.11b WLAN/Flash Disk USB Adapter.
- 6. Double-click the 802.11b WLAN/Flash Disk USB Adapter and the Device Status windows should indicate that the 802.11b WLAN/Flash Disk USB Adapter is working properly.

Verifying Driver Installation under Windows 98SE/Me

- Start → Select "Settings" → click "Control Panel" and double-click the "System" icon.
- Click on "My Computer" → select "Properties" from the Windows 98SE/ME desktop.
- 3. Click on the "Hardware" folder tab and click the "Device Manager" button.
- 4. Click the "Network adapters".
- 5. There should be no *yellow exclamation* or *red cross-sign* in the front of the 802.11b WLAN/Flash Disk USB Adapter.
- 6. Double-click the 802.11b WLAN/Flash Disk USB Adapter and the Device Status windows should indicate that the 802.11b WLAN/Flash Disk USB Adapter is working properly.

4.3 Verifying Utility Installation

To verify the utility of the 802.11b WLAN/Flash Disk USB Adapter for properly

installation, be sure the Configuration & Monitor Utility icon is loaded on the system tray of Windows task bar every time the card is running. You can open it by double-clicking on this icon. While the station is in infrastructure mode and not associated to an Access Point, the color of the icon is red. As soon as the station associates itself to an Access Point (see 5-2 page 23 "Site Survey"), the icon color automatically turns to blue. In Ad-Hoc mode the color is always blue, except when the card is resetting and initializing where it turns to red during the reset and initialization procedure.

4.4 Removing the WLAN Adapter

This section provides instructions for removing the WLAN Adapter. The USB slot permits "hot swapping" of PC cards, allowing you to insert or remove the 802.11b WLAN/Flash Disk USB Adapter from the slot whenever you like, even when the power to your computer is on. However, you are advised to always disable the 802.11b WLAN/Flash Disk USB Adapter prior to removing it from the USB slot. This allows the Windows operating system to:

- Log off from the network server.
- Disable the driver properly through the Control Panel.
- Disconnect power to the USB slot.

Follow the steps below to stop using the WLAN Adapter:

Click on Unplug or Eject Hardware icon on the system tray of Windows task bar =



2. Select the "Stop USB Wireless LAN"



3. Wait a few seconds until the system pop-up a message to indicate that you can safely remove the WLAN Adapter from the system. Click **OK** and then you may eject WLAN Adapter.

