

TOSHIBA

Toshiba P000233790 Owner's Manual

Wireless cable modem gateway

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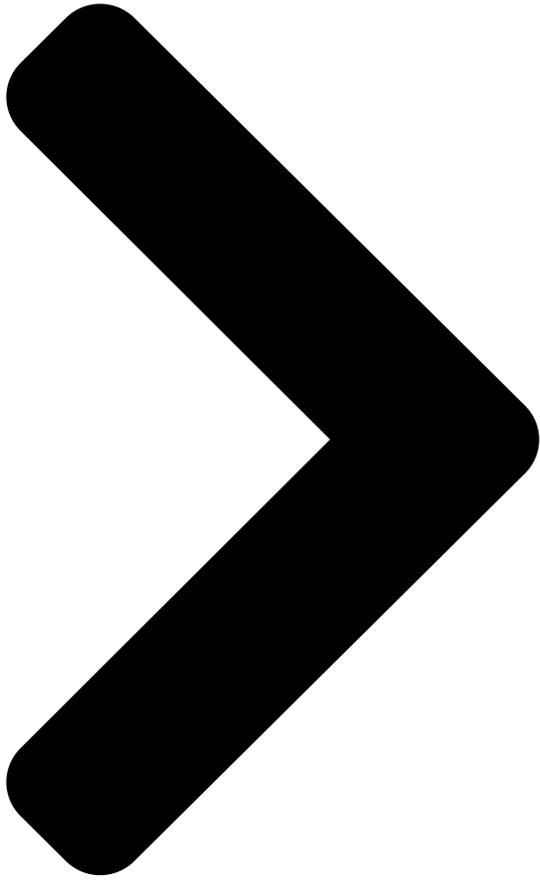
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Docsis cable modem (22 pages)

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Summary of Contents for Toshiba P000233790

[Page 1](#) PCX5000 Wireless Cable Modem Gateway Owner's Manual...

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[Page 4: Introduction](#)

Introduction Congratulations on your new purchase! Your new Toshiba DOCSIS Wireless Cable Modem Gateway will provide you with high-speed access to the Internet through your cable TV (CATV) network, allowing you to access your favorite sites at a fraction of the time it takes traditional telephone modems. In addition, your service will be always connected and Internet access may be shared with multiple computers.

[Page 5: Important Rules For Safe Operation](#)

Heed Warnings - Comply with all warnings on the PCX5000 and in the operating instructions. Use the Recommended AC Adapter - You must use the adapter that comes with your Toshiba PCX5000. Check Power Sources - The AC adapter for your Toshiba PCX5000 must be used with a AC100V-120V 50Hz/60Hz supply outlet.

[Page 6: Use And Maintenance](#)

Important Information! Do not disconnect the RF cable from your PCX5000 while the power to your modem is on. Wait at least 10 seconds between disconnecting and reconnecting the PCX5000 with the AC power adapter. Unplug the PCX5000 from the wall outlet carefully, as the AC adapter may be hot. Use and Maintenance Unplug Power Before Cleaning - Do not use liquid or aerosol cleaners.

[Page 7: Overview](#)

Overview The PCX5000 provides you with high-speed data communications over the television cable network by following the widely accepted DOCSIS standard. This standard, as defined by CableLabs™, offers a combination of high performance and interoperability among all major cable system operators in North America.

[Page 8: Getting Started](#)

Please keep in mind that you will need to notify your cable internet provider before using the new Toshiba PCX5000, even if you have a cable modem that is currently functioning with your computer. Package Contents for the PCX5000 Wireless Cable Modem Gateway Make sure that you have received the following items.

[Page 9: Pcx5000 Front And Rear View](#)

PCX5000 Front and Rear View Indicators for 10/100Base-T interface Indicator for Wireless LAN interface Connector for an 802.11b external antenna Indicator for USB interface Note: The external antenna is optional. Indicator for TEST function Indicator for Cable interface Power indicator Front View (figure 1) 10/100Base-T interface connectors ports 1 through 4 DC IN...

[Page 10: Cd-Rom Contents](#)

CD-ROM Contents The included CD-ROM contains: Owner's Manual (PDF) USB Drivers for Windows 98SE, 2000, Me and XP Acrobat(R)Reader Software This CD-ROM is readable by Windows and Macintosh computers. Important Information! DO NOT insert this CD-ROM into a music CD player, as that may cause damage to your ears or the music CD player.

[Page 11: Setting Up Your Pcx5000 And Computers](#)

Setting Up Your PCX5000 and Computers The steps for connecting your PCX5000 to your home computer network are as follows: 1. Install the PCX5000 in your cable TV and home computer network. 2. Configure your computers' Ethernet, USB or wireless interfaces. 3.

[Page 12](#) Once the AC adapter is connected to the modem, the power indicator LED on the PCX5000 front panel will light. The PCX5000 will start operating once power is connected. No additional operator intervention is required. The PCX5000 will perform its self-test, and then automatically find the data channel and register itself on the cable provider's system.

[Page 13: Mounting The Pcx5000 On A Wall](#)

Mounting the PCX5000 on a Wall You may hang the PCX5000 on a wall with two mounting screws. Pick a site on the wall while noting the following: Position the unit where it is easy to see the LEDs. Select a place where the AC power adapter may rest on a flat surface. Do not allow the AC adapter to hang from the cord! Position the mounting screws as follows, referring to figure 5 below: Place the screws level with each other at a distance of 4-3/4 inches.

[Page 14: Configuring Your Computers](#)

Configuring Your Computers The following sections describe the typical steps needed to configure your computer network to communicate with the PCX5000. These procedures apply to all of the interfaces (Ethernet, USB, and wireless) which you will connect to the PCX5000. Examples of the network configuration steps for Windows 98SE, Me, 2000 and XP are explained with screen shots in the "Windows Network Configuration"...

[Page 15: Installing The Usb Drivers](#)

Installing the USB Drivers If you are using the USB (Universal Serial Bus) interface to connect the PCX5000 to your Windows PC via the USB, you must install the "USB Driver" in your computer. The USB Driver for your operating system is located in the CD-ROM shipped with the PCX5000. Please note that these USB Drivers only support a computer running Microsoft Windows 98SE, 2000, Me and XP.

[Page 16: Configuring The Computer For Wireless Operation](#)

Press the "Next" button again. Step 4: The process will repeat for installing the "Toshiba PCX5000 Cable Modem networking support". When the installation is complete, you should see the following window on the left: Step 5: Press the "Finish"...

[Page 17: Windows Network Configuration](#)

Windows Network Configuration Network Configuration for Windows 98SE and Windows Me: The following is an example of how to configure a Windows 98SE and Me PC for TCP/IP network settings: Step 1: At the Windows Desktop, click "Start", then select "Settings", and click "Control Panel"...

[Page 18: Network Configuration For Windows 2000](#)

Network Configuration for Windows 2000: The following is an example of how to configure the Windows 2000 TCP/IP network settings: Step 1: At the Windows 2000 Desktop, click "Start", then select "Settings", and click on the "Control Panel" as shown in the screen below.

[Page 19: Network Configuration For Windows Xp](#)

Network Configuration for Windows XP: The following is an example of how to configure the Windows XP TCP/IP network settings: Step 1: At the Windows XP Desktop, click "Start", then select and click on the "Control Panel" item as shown in the screen below.

[Page 20: Macintosh Ethernet And Wireless Network Configuration](#)

Macintosh Ethernet and Wireless Network Configuration The following screens describe how to configure the network settings for a Macintosh OS 9 computer. Macintosh OS 9 Configuration Ethernet Settings Step 1: At the Macintosh desktop, click the Apple icon at the top left of the screen, select "Control Panel", and then click on the "TCP/IP"...

[Page 21](#) Macintosh OS 9 AirPort Settings If you are using the AirPort wireless connection, first verify the PCX5000 wireless link is turned on. Refer to the "PCX5000 Wireless Configuration" page in this manual. Step Using same described previously to set the Ethernet TCP/IP configuration, navigate...

[Page 22: Macintosh Os X Configuration](#)

Macintosh OS X Configuration Ethernet Settings The following screen shots give an example of how to configure the network settings for a Macintosh OS X computer. Step 1: At the Macintosh desktop, select the Apple icon at the top left of the screen, click on "System Preferences", then select and click on the "Network"...

[Page 23: Configuring The Pcx5000 Gateway](#)

Macintosh OS X AirPort Settings If you are using the AirPort wireless connection, first verify the PCX5000 wireless link is turned on. Refer to the "PCX5000 Wireless Configuration" page in this manual. Step 1: In the Macintosh OS X toolbar (located at the top of the desktop) select the AirPort broadcast icon and choose "Turn AirPort On".

[Page 24](#) The following sections describe how to configure the network and security settings for the PCX5000. You should be able to access these settings once you have completed the Ethernet or USB installation for your computer. In most cases, you will not need to change the default settings of the PCX5000.

[Page 25: The Pcx5000 Administration Pages](#)

The PCX5000 Administration Pages This section describes how to access the PCX5000 settings through the browser interface. Login for the first time: If you are accessing the PCX5000 for the first time, or have reset the modem to its factory defaults, you will be prompted for a login password.

[Page 26](#) PCX5000 Welcome Page Once the correct password has been entered, you may access each of the PCX5000 administration pages. The Main Menu Side Bar, located on the left side of the web page, is used to navigate to a particular configuration section.

[Page 27: Important Information](#)

The Security pages are used for configuring the firewall. The Firewall page displays the state of the firewall. The default setting for the firewall is "On". This setting is recommended for connecting to the Internet for most typical home installations. When the firewall is turned "On": The Stateful Inspection firewall engine will be enabled.

[Page 28](#) The Security/Allow page is used to allow network applications such as a peer-to-peer

music file sharing program to work with your firewall. PCX5000 utilizes a Stateful Inspection Firewall that in most cases will recognize those applications that need access through the firewall, and will automatically configure the modem appropriately. If you experience problems with network access in using an application, refer to the application documentation for "port numbers"...

[Page 29](#) The Security/Reports page provides the Firewall statistics. By clicking the "Show me more" button, you will get more information regarding the enhanced firewall functionality available through the SofaWare upgrade. The SofaWare upgrade provides more detailed reports on intrusion statistics for your firewall. The Systems/Internet page shows the current Internet connection status.

[Page 30](#) If a host name is required, click the "Advanced Setup" button on the PCX5000 System/Internet page. The following screen will appear that will allow you to enter the host name: The Get configuration automatically (using DHCP) check box should be left checked. When enabled, the PCX5000 will automatically configure its routing settings based on the information provided by the Cable Service Provider.

[Page 31](#) Preferred DNS Server - This is the address of the Domain Name System (DNS) server. The DNS server translates an address name like "yahoo.com" into a numerical address. Your CSP should supply this address. Alternate DNS Server - This is the address of an alternate DNS server, if available. This optional setting is supplied by your CSP.

[Page 32](#) The System/Password page is used to change the login password for accessing the PCX5000 configuration Web pages. System/Upgrade page is used to upgrade the PCX5000 security features. Additional security features are available through the SofaWare upgrade option. button upgrade options. To upgrade your PCX5000, 1.

[Page 33](#) 3. Then the new screen appears. 4. Enter your product key that you bought beforehand at the SofaWare Web site. 5. Click "Next". 6. Then the new screen appears. 7. Click "Finish". 8. The new screen appears. For more information upgrade options, please access the following Web site: <http://www.sofaware.com/pc...>

[Page 34: Pcx5000 Wireless Configuration](#)

PCX5000 Wireless Configuration The PCX5000 includes an embedded 802.11b wireless access point to provide wireless connectivity to the Internet. The Wireless Settings page is used to set the parameters needed for a wireless network. Wireless Enabled check box - When checked, the wireless 802.11b network is on. unchecked, the wireless 802.11b network is off.

[Page 35](#) When wireless encryption is enabled, the Wireless Settings page expands to include encryption options. Exclude Unencrypted check box: When checked, only wireless devices with matching encryption keys will be allowed to connect to the PCX5000. When unchecked, wireless devices with matching encryption keys and wireless devices with no encryption will be allowed to connect.

[Page 36](#) The Status page summarizes basic information useful for installation and diagnostics. PCX5000 Information - Hardware and software version information RF MAC Address - MAC address of the RF interface USB MAC Address - MAC address for the USB interface LAN MAC Address -...

[Page 37: Sofaware Advanced Security Features](#)

SofaWare Advanced Security Features This section explains the extended security capabilities available through the SofaWare upgrade. You may purchase this upgrade by clicking on the link in the PCX5000 Welcome page or visiting the site: <http://www.SofaWare.com/pcx5000/upgrade>. After entering the upgrade key set, you should see this Welcome page. Note the "Safe@Home" title in the banner indicating you are running the upgraded security software.

[Page 38](#) The Active Computers page lists all computers on your home network that have been recognized by the PCX5000 and are allowed to access the internet. Pressing the "Licenses" button will list the number of licensed users authorized with SofaWare Safe@Home upgrade.

[Page 39](#) The Active Connections page displays all active sessions between your home network and the Internet. Information displayed includes the IP addresses of active computers,

the IP addresses of the sites they are connected with, ports used for the connection, and the protocols. WHOIS information dialog: The Destination IP address on 'Active Connection' is linked to WHOIS dialog.

[Page 40](#) The enhanced Security pages enable additional flexibility in configuring the firewall. The first page displayed, Fire wall, provides for three levels of security (Low, Medium and High). The default setting is "Medium" security. All outbound traffic is allowed All inbound traffic is blocked except for ICMP echo's ("ping") Medium All outbound traffic is allowed except for Windows file sharing (NBT ports 137, 138, 139 and 445).

[Page 41](#) The Virtual Servers page allows you to specify computers on your home network to serve as web, ftp, mail or other servers. You need not know the port numbers needed for each service. The remaining configuration pages operate in the same manner as the standard version of the PCX5000 software.

[Page 42](#) The Allow/Block Rules provide you with greater flexibility in defining and customizing your security policy. You can allow additional inbound services which are not on the 'Virtual Servers' list, or block outbound communications for specific port ranges. If you wish to permit incoming access from the Internet to your internal network for specific port ranges, you must create a new 'Allow'...

[Page 43: Appendix](#)

CD-ROM packaged with this product. You may download new versions of the USB drivers through the support web site: <http://www.toshiba.com/taisnpd/support/downloads.html> Q: Do I need to turn off the PCX5000? A: No, you can leave PCX5000 powered up, however, you should power down the PCX5000 and your computers during an electrical (lightning) storm.

[Page 44](#) Q: Can I dial into my home network using the PCX5000? A: No, the PCX5000 does not have the capability to dial and connect via the telephone network. Q: Can I dial into my company's VPN using the PCX5000? A: No, the PCX5000 does not have the capability to dial and connect via the telephone network. However, once connected to the Internet via the CATV network, the PCX5000 does support VPN pass through allowing the VPN software in your PC be used to direct connect your PC to your company's VPN via the Internet.

[Page 45](#) Q: What do I need to do in order to host a web or mail server behind the PCX5000? A: To enable remote access to a web server behind the cable modem, you will need to open the firewall for incoming web traffic with these instructions. 1.

[Page 46](#) Q: How will I be notified of new firmware upgrades? A: Your cable operator will automatically apply firmware updates. Q: What is router mode? A: Router mode allows all of your computers to share a single IP address. This single shared IP address (WAN IP) is provided by your CSP.

[Page 47: Led Diagnostics](#)

LED Diagnostics The PCX5000 has 13 status LEDs. The purpose of each LED (left to right) is detailed in the following tabl Function Color POWER Green CABLE Green TEST Amber Green WLAN Green 10/100 Mbps [1-4] Green Link/Act [1-4] Green Definition §...

[Page 48: Specifications](#)

(Note: AC Adapter itself is 100-240V, but AC cord is 120V) DC 5V 2.4A (change connector) 10 Watts (approximately) SNMP/ICMP MIB II / MCNS MIB / Toshiba MIB 32°F (0°C) to 104°F (40°C) 10% to 90%(Non condensing) -4°F (-20°C) to 140°F (60°C)

[Page 49: Regulatory](#)

Regulatory FCC Notice: This equipment has been tested and found to comply with the limits for a Class B personal computer and peripherals, 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.

[Page 50: Glossary](#)

10/100 LAN cable. F connector A type of coaxial connector, labeled RF on the rear of the Toshiba PCX5000 that connects the modem to the cable system.

[Page 51](#) A (software) file included with the Ethernet card. The file is loaded on the computer to allow the computer to recognize the Ethernet card. See Ethernet Card. RJ-45 Connector on the Toshiba PCX5000, labeled 10/100 that connects the modem to a computer or to a HUB. Subscriber A computer user in the home who accesses a data service using the Toshiba PCX5000.

[Page 52: Standard Limited Warranty](#)

What are the terms and duration of this Limited Warranty? Toshiba America Information Systems, Inc. ("TAIS") warrants to the first end-user customer that this Toshiba DOCSIS PCX5000 ("Product") will substantially comply with manufacturer's published specifications under normal use for a period of three (3) years from date of purchase when purchased new from TAIS or a TAIS authorized reseller in the United States of America or Canada.

[Page 53: End-User License Agreement](#)

Install the Software recorded on an external media into the Customer's personal computer(s) and use the Software on and with a single personal computer for the purpose of processing the internal data of the Customer for use of Toshiba PCX5000 (hereinafter "Purpose"), and...

This manual is also suitable for:

[Pcx5000](#)