



QUICK INSTALL GUIDE

DXN-220

VERSION 1.0

ETHERNET COAXIAL BRIDGE

System Requirements

- Windows® Vista™ or XP (with Service Pack 2)
- 233MHz processor and at least 64MB of RAM
- An available Ethernet Adapter (100MBit/s)

Package Contents



DXN-220 Ethernet
Coaxial Bridge



CD-ROM with Manual and
Installation Wizard



CAT5 Ethernet Cable

If any of the above items are missing, please contact your reseller.

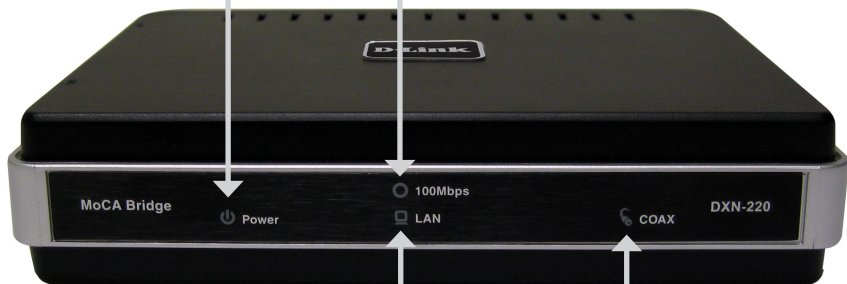
Front Panel

Power LED

A solid light indicates that the device is receiving power.

100Mbps LED

A solid light indicates that the device has detected a 100 Mbps connection.



LAN LED

A solid light indicates a connection on the Ethernet port. The LED blinks during data transmission

COAX LED

A solid light indicate that the device has formed a network over the coaxial cable with at least one other DXN-220

Rear Panel

Configuration Switch

Configuration Switch put DXN-220 in either MoCA mode or Config mode. Default mode is MoCA mode.

TV OUT

Connect one end of a coaxial cable to the DXN-220 TV out port and the other end to your television.

Power

Connect the power adapter included in the product package of the DXN-220.



LAN

Connect one end of the CAT5 Ethernet cable to DXN-220 LAN port and the other end to your Ethernet device.

COAX IN/OUT

Connect one end of a coaxial cable to the DXN-220 Coax Input/Output port and the other end to your cable outlet.

Reset

Press and hold at least 10 seconds to restore device back to the factory default settings. Press 1 second for system reboot.

Installation Planning Overview

The proper cable installation, placement of filter/amplifier, frequency planning and home preparation for signal coexistence should be planned out thoroughly before deploying the DXN-220. Inadequate planning will not only affect the DXN-220 network but also cause unwanted interference with other existing services. The following section discusses these installation considerations in more detail.

Proper Cable Installation

The rooms qualified to be part of the DXN-220 network should have an existing coaxial connection and the following characteristics:

- The room is capable of receiving good quality analog television service (no set-top box required) over the coaxial cable.
- The room is capable of receiving digital television services using a set-top box.

If the room cannot receive digital or good quality analog television services, the Ethernet-Coaxial network capabilities may be compromised to this location.

Amplifier Bypassing

An electronic amplifier is a device that boosts a weak signal. The typical amplifier cannot pass DXN-220 network signal because they are designed to be unidirectional devices. Hence, the amplifier should be uninstalled or bypassed if possible. To bypass an amplifier, user will need to install Diplexers to separate the DXN-220 signal and other signal first and only install the amplifier between the paths of none DXN-220 network signal.

Frequency Planning

The DXN-220 is capable of operating between frequency bands of 800MHz and 1500MHz. In order to avoid interference between the DXN-220 device and other devices on the same cable network, DXN-220 device must operate at a frequency spectrum that is different from other devices.

- 5-42MHz (High-speed Internet Access Upstream)
- 42-850MHz (High-speed Internet Access downstream)
- 50-806MHz (Off-Air TV)
- 50-860MHz (Cable TV)
- 950-2150MHz (Satellite L-Band)

One common scenario is where DXN-220, cable television and high-speed Internet service need to coexist. The cable television in United States operates between 50-860MHz while high-speed Internet service upstream and downstream operate between 5-42MHz and 42-850 MHz respectively. Hence, the logical choice for DXN-220 frequency would be between 940-1500MHz. Similar frequency planning approach should be taken into consideration when dealing with Satellite and off-air antenna.

Terrestrial Television (Off-Air)

If you are receiving terrestrial television service using a broadband antenna, then additional components may have to be installed in order to be compliant with governmental regulations. DXN-220 network signals operating in the 800 to 1500 MHz range should be prevented from radiating out of the antenna by using a small, in-line Low Pass Filter (LPF-860Mhz). This filter will prevent DXN-220 network signals from reaching the antenna.

Cable Television (CATV)

For a cable television subscriber, there are no additional components required to be installed to work with the DXN-220 on the same cable network. The user may choose to install the DXN-220 on the network and use it as-is if data rate is acceptable. Also, the user may improve DXN-220 network performance by inserting a Low Pass Filter (LPF-860Mhz) at Point of Entry (POE) where the drop cable enters the house.

DBS Satellite Television with Terrestrial Television (Off-Air)

The Direct Broadcast Satellite (DBS) uses proprietary satellite channel-stacking switch or Low-Noise Block (LNB) to distribute the resulting signal (usually 950 to 2150 MHz) in the same cable network that carries the lower-frequency terrestrial television from an outdoor antenna. Another Diplexer then separates the signals to the receiver of the TV set and the DBS set-top box (STB).

Most of the satellite switches are not designed to pass the DXN-220 network signal and prevents it from forming a network. It is recommended that satellite signal and the DXN-220 network signal should remain on separate cable networks. If separate wiring cannot be done, then additional components have to be installed:

1. Install Triplexer to separate UHF/VHF, DXN-220, and DBS signals.
2. Install MoCA Coupler switch before the satellite switch.

Existing OSP installed MoCA network

The DXN-220 will automatically scan for an available channel and form Ethernet-Coaxial network. This may cause issue with the existing OSP MoCA network. It will not be permitted to join the OSP MoCA network unless utilizing the same frequency and password.

The remediation in this situation is to use the DXN-220 software utility to configure the DXN-220 to be on the same frequency with the same privacy network as the existing OSP MoCA network.

Hardware Installation

Power

Plug the DXN-220 into an AC wall outlet or power strip.

Note: Power source is confirmed when the green LED Power indicator on the DXN-220 is illuminated.

Connect the Ethernet Cable

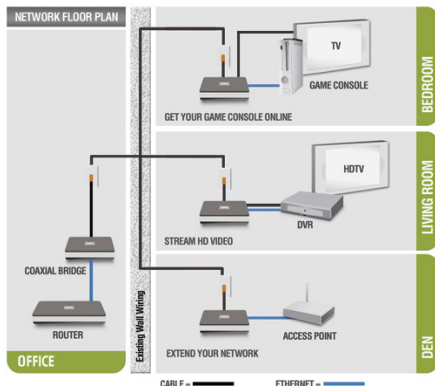
Connect the included Ethernet cable to the LAN port located on the DXN-220 and attached the other end of the Ethernet cable to the network or PC.

Connect the Coaxial Cable

Connect coaxial cable to the Coax I/O port located on DXN-220 and attached the other end of the coax cable to your cable jack inside the house.

Note: Please make sure the DXN-220's configuration switch is in **MoCA mode**. Coaxial Network Connectivity is confirmed when the green LED COAX indicator on the DXN-220 is illuminated.

If there is TV service being received in the room and you wish to continue viewing the service, connect the other coax cable to the TV Out port on the DXN-220 and attach the other end of the coax cable to your television, Set-top Box (STB), or VCR as desired.



Software Installation

D-Link DXN-220 comes with software utility to allow control over certain coaxial networking parameter. The unit is shipped with default parameters that will allow operation on most coaxial network without any additional configuration. However, if a special network security password is required or if a specific channel operating frequencies is required, then the default parameters will need to be modified.

Follow the simple steps below to run the Setup Wizard to guide you quickly through the installation process.

Insert the D-Link DXN-220 Ethernet Coaxial Bridge CD into your CD-ROM drive. If the CD Autorun function does not automatically start on your computer, click **Start > Run**.

In the Run command box type “D:\DXN220.exe” where D: represents the drive letter of your CD-ROM and press **Enter**.

Click on **Install Utility**

D-Link

- ◀ Install Utility
- ◀ Adobe Reader
- ◀ View Manual
- ◀ View Quick Install Guide
- ◀ Visit support.dlink.com



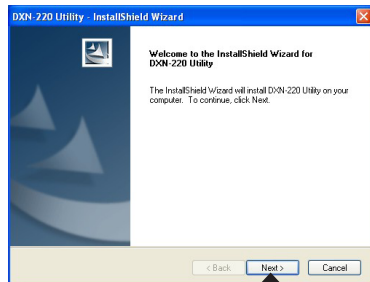
The Quick Setup Guide and Manual are in Adobe .pdf format. If you do not have a .pdf viewer installed on your system, install Adobe® Reader® to view these files.

DXN-220

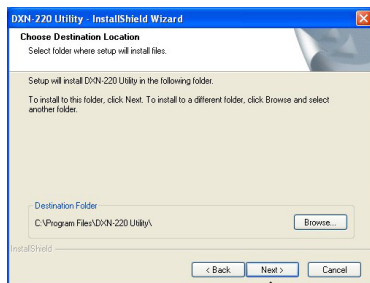
ETHERNET COAXIAL BRIDGE

Exit

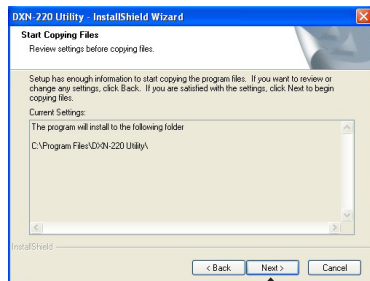
The InstallShield Wizard will begin the DXN-220 software installation.



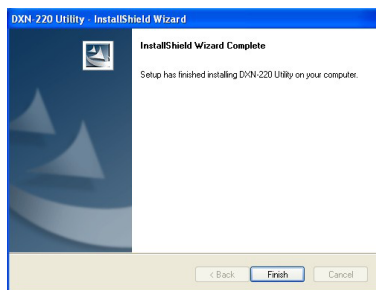
Click **Next**



Click **Next**



Click **Next**



Click **Finish**



Configuration

After you have completed the D-Link DXN-220 Ethernet Coaxial Bridge Utility installation wizard, double-click the D-Link DXN-220 Utility icon on your desktop to start the configuration of the DXN-220.

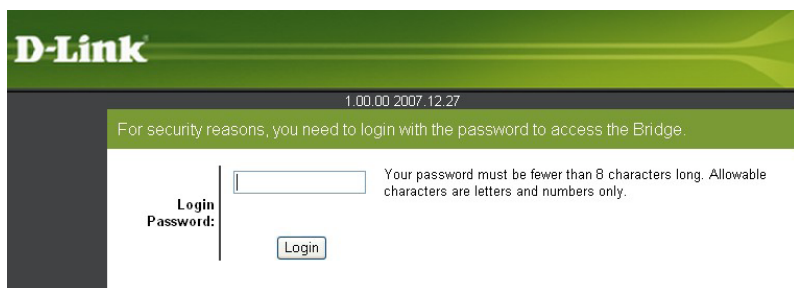
Note: Please make sure the locally connected DXN-220's configuration switch is in Config mode before you click on the D-Link DXN-220 Utility Icon. When the device is in Config mode, it will lose coaxial network connectivity temporarily until the device is switched back to MoCA mode.

Double-click the **DXN-220 Utility** icon.



Enter **admin** on the Login Password field and click **Login**.

Note: The default login password is **admin**.

The image shows the login screen of the D-Link DXN-220 Utility. At the top, there is a green header with the 'D-Link' logo on the left. Below the header, there is a dark grey bar with the time '1.00.00 2007.12.27' in the center. Below the dark grey bar, there is a green bar with the text 'For security reasons, you need to login with the password to access the Bridge.' Below the green bar, there is a white area with a login form. On the left, the text 'Login Password:' is displayed. To the right of this text is a text input field. Below the input field is a 'Login' button. To the right of the input field, there is a note: 'Your password must be fewer than 8 characters long. Allowable characters are letters and numbers only.'

The utility provides you with the option of setting your own unique Network Privacy Password and the ability to observe the coaxial network information.

The screenshot shows the D-Link DNX-220 utility interface. At the top is the D-Link logo. Below it is a navigation bar with tabs: DNX-220, SETUP, PASSWORD, STATUS, and HELP. The SETUP tab is active. On the left is a sidebar with 'Coax' and 'Privacy' sections. The main area is titled 'SETUP' and contains instructions: 'This section allow user to configure coaxial network and privacy setting. Select the setting you would like to make and click the **Apply** button to save any changes.'

Under the 'Coax' section, there are two settings:

- Channel:** A dropdown menu currently set to 'SCAN'.
- Diplexer Mode:** A dropdown menu currently set to 'MoCA D Band'. A warning message states: 'Warning! Selecting "All Pass" mode will cause the television signal at the TV Out connector to be unavailable'.

Under the 'Privacy' section, there is a 'Password' setting:

- Radio buttons for 'Enable' and 'Disable'. The 'Disable' option is selected.
- A text input field containing '999999999988888888' with a note '(17 Digits Max, 12 Digits Min)'.

At the bottom of the main area are four buttons: 'Apply', 'Cancel', 'Restore Defaults', and 'Help'.

The bottom of the interface has a dark bar with the word 'WIRED' on the left.

Note: After you finished configuring the DNX-220, close the utility application and switch the DNX-220 back to **MoCA mode** to reestablish the coaxial network connectivity again.

Setup section allows user to configure coaxial network and privacy setting:

Channel: Select the specific channel frequency to use or select “SCAN” to automatically scan for available channel frequency.

Diplexer mode: Select either “MoCA D Band” mode or “All Pass” mode. “MoCA D Band” mode allow channel frequency range from 1150 – 1500 MHz. “All pass” mode allow channel frequency range from 875 – 1500 MHz.

Privacy Password: Select to turn the coaxial network security mode on (Enable) or off (Disable). Type in the password to use for the network. Your password must be 12 to 17 numeric characters long, and it cannot contain any letters. The password must be the same for all nodes on the coaxial network to ensure connectivity. The factory default for the password is “99999999988888888”.

Restore Default: Click the “Restore Default” button to restore the system settings to factory default.

Note: *When you restore to factory default settings, all previous settings will be lost.*

Notes

Technical Support

D-Link's website contains the latest user documentation and software updates for D-Link products.

U.S. and Canadian customers can contact D-Link Technical Support through our website or by phone.

United States

Telephone

(877) 453-5465

World Wide Web

<http://support.dlink.com>

Canada

Telephone

(800) 361-5265

World Wide Web

<http://support.dlink.com>



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