USER MANUAL DHP-342

VERSION 1.0

D-Link





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Package Contents

- D-Link DHP-342 Powerline HD 4-Port Switch
- CAT5 Ethernet Cable
- Power Cord
- CD-ROM with Software and User Manual
- Quick Install Guide



System Requirements

- Windows Vista®, XP (with Service Pack 2) or 2000 (with Service Pack 4)
- PC with 233MHz Processor, 64MB Memory
- Ethernet Adapter (100MBit/s)

Introduction

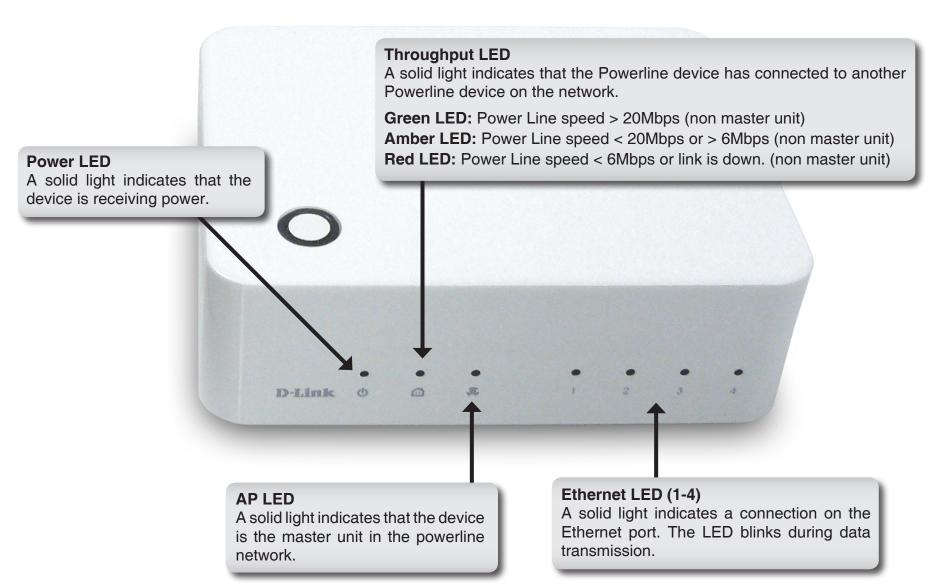
D-Link announces a fast, 200Mbps* Powerline HD 4-Port Switch which allows you to connect your home computers, networking devices and gaming devices through the most pervasive medium in your house - the electric powerlines - and share Internet connections, printers, transfer files, play games, and more. This adapter can be used to network multiple Ethernet-enabled devices with a 10/100Base-T adapter through powerlines.

Features

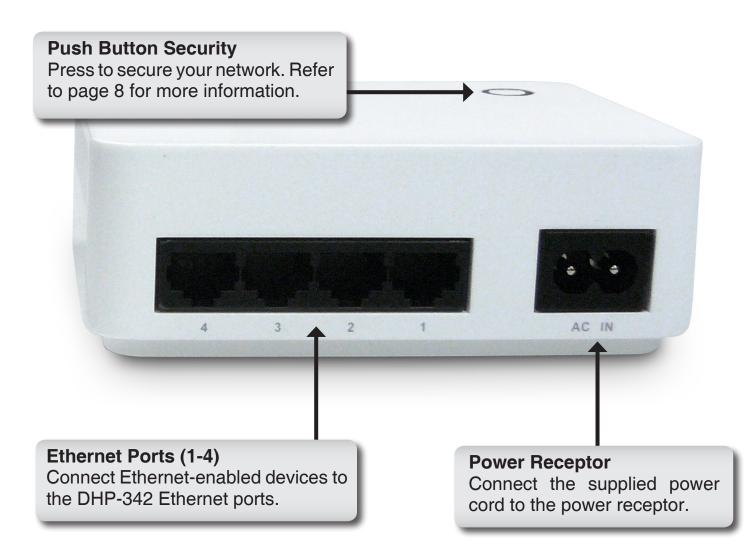
- Provides Ethernet to Powerline Connection
- Fast Data Transfer Rate of Up to 200Mbps*
- Four 10/100 Ethernet ports
- Plug & Play, Easy Installation
- Easy to use Management Utility
- Configurable QoS for video streaming, VoIP and Gaming
- Firmware Upgrade Support
- Push button security
- Throughput LED
- Power Saving mode
- LLTD Support (Windows Vista®)

* Maximum throughput based on theoretical transmission PHY rate. Actual date throughput will vary. Network conditions and environmental factors, including volume of traffic and network overhead, may lower actual data throughput rate. Interference from devices that emit electrical noise, such as vacuum cleaners and hair dryers, may adversely affect the performance of this product. This product may interfere with devices such as lighting systems that have a dimmer switch, short wave radios, or other powerline devices that do not follow the Universal Powerline Association (UPA) standard.

Hardware Overview LEDs



Hardware Overview Connection



Hardware Installation

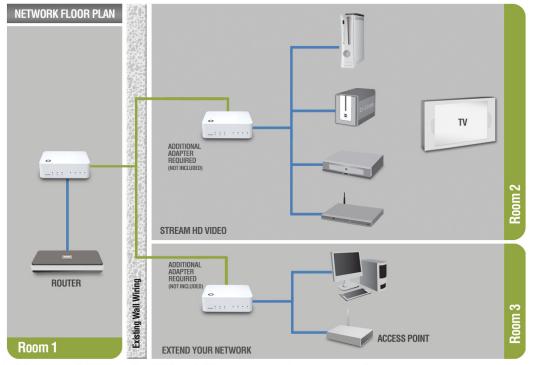
Power

Plug in the DHP-342 into an AC wall outlet or power strip.

Note: Power source is confirmed when the green LED Power Indicator on the DHP-342 is illuminated.

Connect the Ethernet Cable

Connect the included Ethernet cable to the network cable connector located on the DHP-342 and attach the other end of the Ethernet cable to the network or PC. Network Connectivity is confirmed when the Throughput and Ethernet LED Indicators on the DHP-342 are illuminated.



*A minimum of two D-Link PowerLine HD Network Adapters are required to create a network.

Push Button Security

1. All Adapters

Plug in all the adapters to be configured.

2. First Adapter

Select the first adapter to be configured as the AP(Access Point). Press and hold the button until the AP LED starts flashing.

Note: It is recommended to choose a Powerline adapter directly connected to a router or a Media Center PC to be the master unit. There must be only one master unit in the network.

The adapters memorize their security settings even after power is removed from the units. The security settings of any adapter can be cleared by pressing the button until its AP LED is off. This will reset the unit back to the factory default settings.

3. First Adapter

Wait until the AP LED stops flashing (up to 30 seconds).

4. First Adapter

The AP LED remains on and is now ready to start registering new adapters.

5. First Adapter

Press the button until its AP LED starts flashing and continue to the new adapter.

6. New Adapter

Press and hold the button in the new adapter until the AP LED starts flashing.

7. New Adapter

The new adapter's AP LED will turn off indicating that it is securely configured and its throughput LED will indicate the link quality.

8. First Adapter

After registering the new adapter, the AP LED of the first adapter remains on and its throughput LED will indicate the link quality.

Note: When adding more adapters, repeat steps 5 to 8. At the end of this process, only one adapter should have the AP LED on.

Using the Setup Wizard

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

Insert the **D-Link DHP-342** 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:\DHP342.exe", where D: represents the drive letter of your CD-ROM. If it does start, proceed to the next screen.



×	D-Link Powerline HD Utility - InstallShield Wizard
NZA.	Choose Destination Location Select folder where setup will install files.
ig folder.	Setup will install D-Link Powerline HD Utility in the following folder.
folder, click Browse and select	To install to this folder, click Next. To install to a different folder, click another folder.
	Destination Folder
Browse	C:\\D-Link\D-Link Power Line HD Utility\
	nstallShield
ck Next > Cancel	< Back
+	· · · · · · · · · · · · · · · · · · ·

InstallShield Wizard Complete D-Link Powerline HD Utility installation is complete.	D-Link Powerline HD Utility - InstallShield Wizard InstallShield Wizard Complete	
Launch D-Link Powerline HD Utility	D-Link Powerline HD Utility installation	n is complete.
	Launch D-Link Powerline HD Util	ity

Click Finish

Configuration

After you have completed the D-Link Powerline Utility installation wizard, double-click the *D-Link Powerline HD Utility* icon on your desktop to start the configuration of the DHP-342.

Double-click the **D-Link Powerline HD Utility** icon



The utility provides you with the option of setting your own unique Network ID and the ability to prioritize traffic passing through the network. The color of text on the **Device Name**, **Network ID**, **MAC**, and **Location** columns represent the status of powerline network.

- Green text Powerline network is encrypted with a non-default Network ID.
- **Red text** Powerline network is encrypted with the default Network ID.
- Grey text Powerline network is not connected due to a different Network ID.

Powerline	Setup	Security	QoS	System	Helpful Hint
	- Network Info- Device Name	Network ID	Auto MAC Lo	Scan Finished	The assistant has detected th following nodes in the electric network. If γου
	Device3	D-Link (018E7488386 Lo		think more nod should be show make sure the nodes are connected and click Scan bu Check AutoSc box to scan all nodes within t network periodia For better signa strength, plug t device directly a wall outlet avoiding the us
		Reset	Sc	an	of power strips and extension cords.

Section 3 - Configuration

Red text on the **Device Name**, **Network ID**, **MAC** & **Location** columns mean that the powerline network is encrypted with the default Network ID (D-Link). Follow the steps below to encrypt the network with a non-default Network ID:

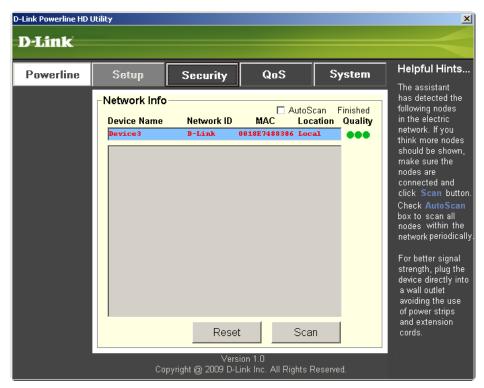
D-Link Powerline HD Utility

- Single-click on the nodes that you want to change.
- Once all the nodes you want to encrypt with a non-default Network ID are highlighted, click the **Security** page.
- Change to different Network ID.
- Press Save Settings.

Link					
Powerline	Setup	Security	QoS	System	Helpful Hints
	PLC Node co Device Device3	Name:			configuration of selected PLC node. Complete the information for selected PLC node and then clic Save Settings button. It's recommended
	Netword D-Link * Each PLC		or Use Def		to create your own Network ID for network security purpose. The Network ID allows you to protect your network from unauthorized access via the Powerline network
		Save	Settings		
		Vers	ion 1.0		

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Setup



This screen shows the current configuration of the DHP-342.

Device Name: Show name of devices that have been discovered. Default is Device 1, Device 2 etc (Max 16 characters, 0-9, A-Z, case sensitive) ie. Living room, Bedroom, etc.

Network ID: Powerline Network Name. The default ID is D-Link (Max 10 characters, 0-9, A-Z, case sensitive).

MAC: MAC Address of detected node.

Location: Local or Remote nodes.

Quality: Network connection quality of the connected node.

- Three circles Best powerline connection. Suitable for HD video stream connection.
- Two circles Better powerline connection. Suitable for SD video stream connection.
- One circle Good powerline connection. Suitable for data and Internet activity connection.

Scan: Scan the powerline network for PLC nodes. Check the AutoScan box to scan the network periodically.

Note: Network ID can be changed to prevent unauthorized access to your powerline network. Make sure the **Network ID** of the devices within your powerline network are the same to enable data transmission.

Security

This section shows the security configuration of the DHP-342. You can modify any of the parameters and click **Save Setting** to save your configuration.

D-Link Powerline HD	Utility				×
D-Link					
Powerline	Setup	Security	QoS	System	Helpful Hints
	Device Device3 Networ D-Link	k ID: C node in the netwo	or Use Def ork must use the sar		 This is the current configuration of selected PLC node. Complete the information for selected PLC node and then click Save Settings button. It's recommended to create your own Network ID for network security purpose. The Network ID allows you to protect your network from unauthorized access via the Powerline network.
			sion 1.0 Link Inc. All Rights F	Dacanvad	
		ipyngni @ 2009 D-	LINK INC. All RIGHTS F	teselveu.	

Device Name: Show name of devices that have been discovered. Default is Device 1, Device 2 etc (Max 16 characters, 0-9, A-Z, case sensitive) ie. Living room, Bedroom, etc.

Network ID: Powerline Network Name. The default ID is D-Link (Max 10 characters, 0-9, A-Z, case sensitive).

Use Default button: Select to reset the Network ID to the default value

D-Link Powerline HD (Jtility				×
D-Link					_
Powerline	Setup	Security	QoS	System	Helpful Hints The Quality of
	Quality of So Application None Advanced Rule 1: No prior	n QoS QoS itization			Service will allow you to set priorities for traffic passing through your network. Adopt Application QoS or Advanced QoS and then click Save Settings button. Multimedia applications use UDP(User Datagram Protocol)for data transfer, while database applications use
	* Rule 1 priority	is higher than Rule 2 Save S	Settings		TCP(Transmission Control Protocol) for data transfer.
	C	Versi opyright @ 2009 D-Li	on 1.0 nk Inc. All Rights	Reserved.	

Application QoS

The Quality of Service (QoS) screen will allow you to set priorities for traffic passing through your network. By default all types of traffic are assigned the same priority. Multimedia applications use UDP (User Datagram Protocol) for data transfer, while database applications use TCP (Transmission Control Protocol) for data transfer.

Application QoS: Select an application from the drop-down menu of predefined QoS rules to apply QoS automatically. Click the **Save Settings** button to apply your settings.

D-Link Powerline HD I D-Link	Utility				×
D-Link Powerline		QoS t QoS tination port XXX Pri 882 6883 6884 5 V 6 V 6		System	Helpful Hints The Quality of Service will allow you to set priorities for traffic passing through your network. Adopt Application QoS or Advanced QoS and then click Save Settings button. Multimedia applications use UDP(User Datagram Protocol)for data transfer, while database
			Settings on 1.0	Reserved	applications use TCP(Transmission Control Protocol) for data transfer.

Advanced QoS

Rule: Select the traffic type (UDP or TCP) to have priority. 802.1p use prioritization bits in Layer-2 frames.

Port: Input the port number to have priority.

Priority: Input port priority from 1 to 6. The highest priority is 6, and the lowest is 1.

Note: Rule 1 has priority over Rule 2

System

D-Link Powerline HD	Utility				×
D-Link					
Powerline	Setup	Security	QoS	System	Helpful Hints
	-Power Savin ⊠ E	ng Enable Power Sa	wing S	ave	To enable power saving mode, check the box and click Save button. Click Reset button to reset the node to initial factory
	- Factory Res	et Res	set		settings. All previously defined settings will need to be re-configured.
	- Upgrade Firr Firmware Versi Firmware File:	mware	9_fw_v1.00	Browse	To upgrade the firmware, click Browse button and then locate the firmware file. Finally click Upgrade Firmware button
			Firmware ion 1.0 ink Inc. All Rights	Reserved.	to proceed.

With the power saving mode enabled and the ethernet link activity being down for 15 minutes, the DHP-342 will automatically go into stand-by mode. When the master unit is in stand-by mode, the throughput LED will blink red intermittently.

To reset your configuration password, please click **Reset** to restore the password to the factory default value.

Troubleshooting

- **Powerline HD utility does not start correctly:** Reinstall the utility.
- Powerline HD utility does not detect the PowerLine HD Network Adapter:

Please make sure your Powerline HD Network Adapter is correctly plugged and connected to the computer or network device.

• I can't configure any parameter of the PowerLine HD Network Adapter, an error is shown when I try to configure it:

Please make sure you have not unplugged the PowerLine HD Network Adapter while configuring it.

• I changed the connection cable to another Network adapter and now the utility does not work correctly: Please restart the utility each time you disconnect the connection cable.

• I'm having a lot of problems configuring my network:

If you are having many problems configuring the network with two or more PowerLine HD Network Adapter, please make a reset to all of the Network adapters, reset the utility and start configuring the adapter again.

Technical Specifications

Network Ports

• Four 10/100 Ethernet ports

EMC

- FCC Part 15 Class B
- CE Class B
- C-Tick

AC Input

• 100 ~ 240VAC 50~60Hz

Safety

• UL 60950

Encryption3DES

Operation Temperature

• $0^{\circ}C \sim 40^{\circ}C$

Storage Temperature

• -10°C ~ 70°C

Humidity

- Operation: 10% ~ 90% RH
- Storage: 5% ~ 90% RH