



# User Manual

## Powerline AV Mini Adapter

DHP-208AV/DHP-209AV

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# Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

## Manual Revisions

Revision	Date	Description
2.0	May 08, 2014	• Initial release for hardware revision B1
2.10	September 16, 2014	• add Power Usage

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## Power Usage

This device is an Energy Related Product (ErP) with High Network Availability (HiNA), and automatically switches to a power-saving Network Standby mode within 1 minute of no packets being transmitted. If it is not needed during certain periods of time, it can be unplugged to save energy.

**Network Standby:** 2.00 watts

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# Package Contents

## **DHP-208AV**

- D-Link DHP-208AV Powerline AV Mini Adapter
- Ethernet Cable
- Quick Install Guide

## **DHP-209AV**

- D-Link DHP-208AV Powerline AV Mini Adapter x2
- Ethernet Cable x2
- Quick Install Guide



# Introduction

D-Link announces a fast, 200Mbps\* Powerline AV Mini Adapter which allows you to connect your computers, networking devices and gaming devices through the most pervasive medium in your house - the electric wiring - and share Internet connections, share printers, transfer files, play games, and more.

## Features

- Provides Ethernet to Powerline Connection
- Fast Data Transfer Rate of Up to 200Mbps\*
- One Ethernet port
- Plug & Play, Easy Installation
- Push Button Security
- Power Saving mode

\* Maximum throughput based on theoretical transmission PHY rate. Actual data 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 HomePlug AV and IEEE1901 standard.

# Hardware Overview

## LEDs



### Power LED

- **Solid.** The device is receiving electrical power.
- **Blinking.** The device is setting itself up after reset or simple connect button was pressed or power saving mode enabled.
- **Off.** The device is not receiving electrical power.

### Powerline LED

- **Solid.** The device is connected to a Powerline network.
- **Off.** The device has not found any other compatible Powerline devices using the same encryption key.

The color indicates the Powerline link rate:

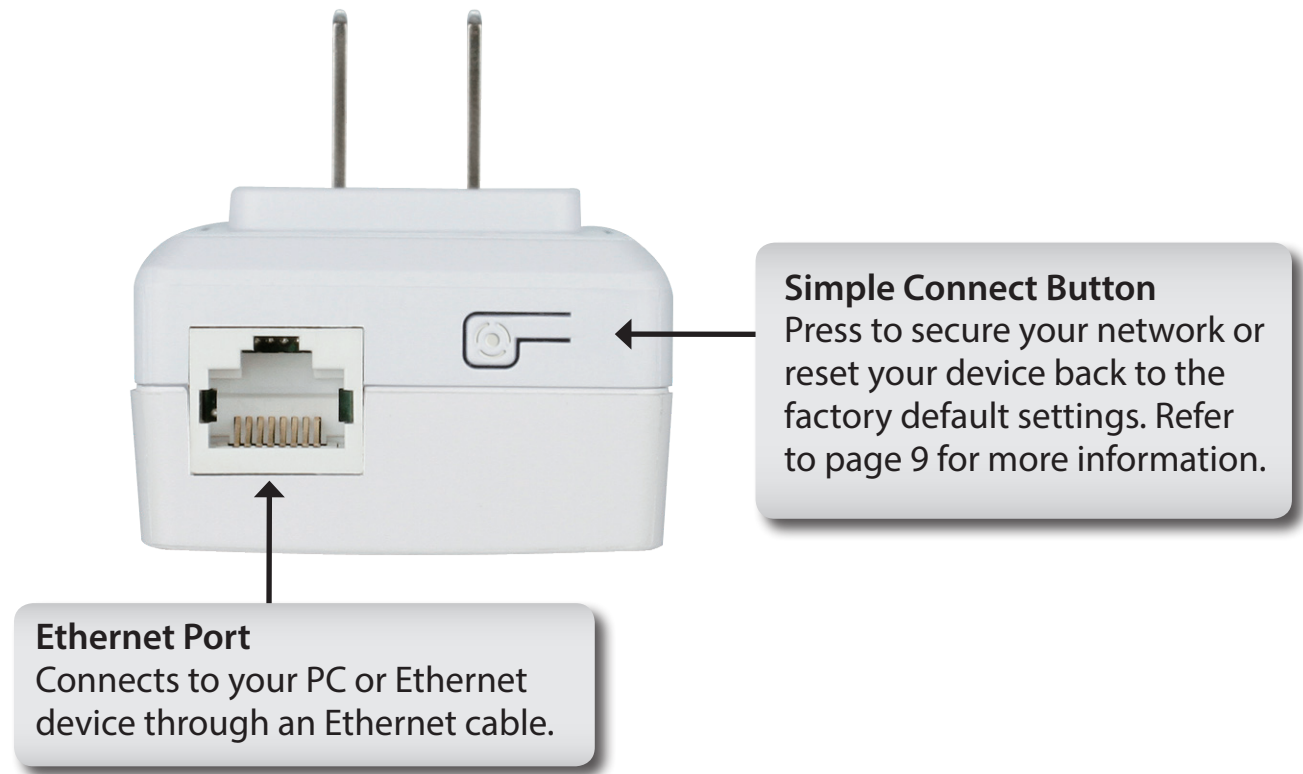
- **Green.** The Powerline link rate is excellent.
- **Amber.** The Powerline link rate is good
- **Red.** The Powerline link rate is fair.

### Ethernet LED

- **Solid.** The Ethernet port is linked.
- **Off.** There is no Ethernet connection.

# Hardware Overview

## Connection



# Hardware Installation

## Power

Plug in the DHP-208AV into an AC wall outlet. Note that it is not recommended to connect the DHP-208AV to a power strip or UPS.

**Note:** Power source is confirmed when the Power LED on the DHP-208AV is illuminated.

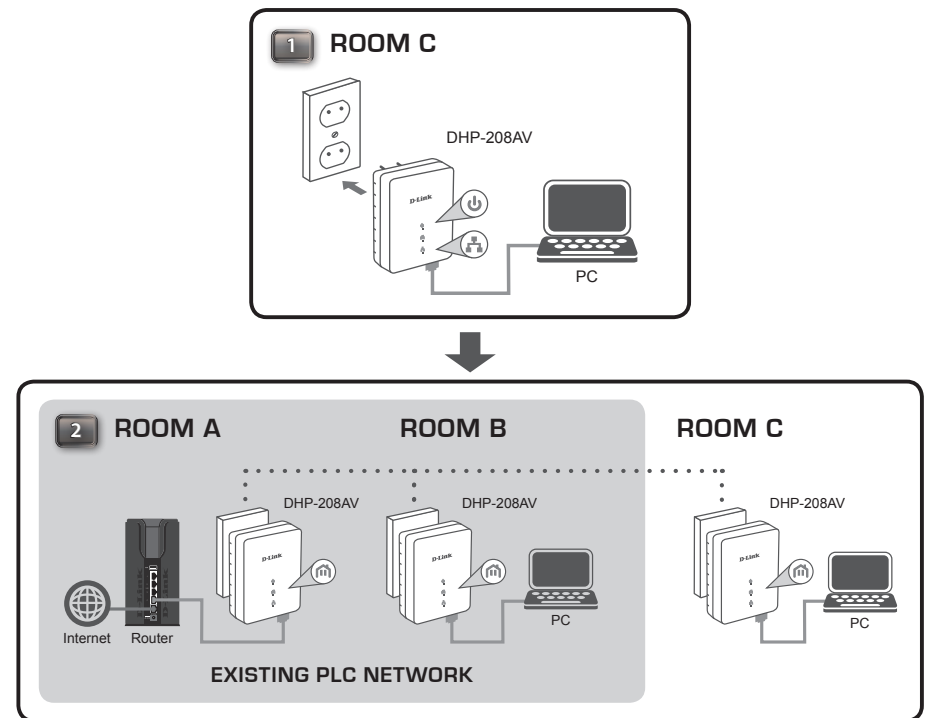
## Connect the Ethernet Cable

Connect the included Ethernet cable to the Ethernet port located on the DHP-208AV and attach the other end of the Ethernet cable to your PC or Ethernet device. Network Connectivity is confirmed when the Ethernet LED on the DHP-208AV is illuminated.

## Power Saving Mode Enabled

When the Ethernet link activity has been down for 5 minutes, the DHP-208AV will automatically go into power saving mode. The Power LED will blink intermittently.

**WARNING!** D-Link powerline devices cannot be configured while in Power Saving Mode.





# Push Button Security

## Understanding Powerline AV Mini Adapter Security

Powerline AV Mini Adapters must use the same encryption key in order to be on the same network. The default encryption key of each Powerline AV Mini Adapter is **HomePlug AV**. All Powerline AV Mini Adapters with default encryption key can communicate with each other.

It's recommended to create a private encryption key for network security purposes. The private encryption key allows you to protect your network from unauthorized access via the Powerline network. To create a private encryption key, please follow the steps below:

### 1. All Adapters

Plug in all the adapters to be configured and make sure each device's encryption key is set to **HomePlug AV** (default value). If the encryption key is not set to the default value, press the Simple connect button for 10 seconds to reset it to the default value.

### 2. First Adapter

Press the Simple Connect Button of the first adapter for no more than three seconds.

The Power LED will start blinking after you release the button. The adapter will create a private, randomly generated encryption key that each Powerline AV Mini Adapter will use.

### 3. Second Adapter

Within two minutes of pushing the Simple connect button of the first adapter, press the Simple Connect Button on the second adapter in your Powerline network for no more than three seconds. The Power LED will start blinking after you release the button.

Note: Both Simple connect buttons must be pressed within two minutes.

Your Powerline network is now securely configured with the same network encryption key. The adapters will remember the security settings even if they are unplugged.

Note: To change the private encryption key, please reset the adapter back to its default value by pressing the Simple Connect button for 10 seconds and then follow the security setup procedure above.

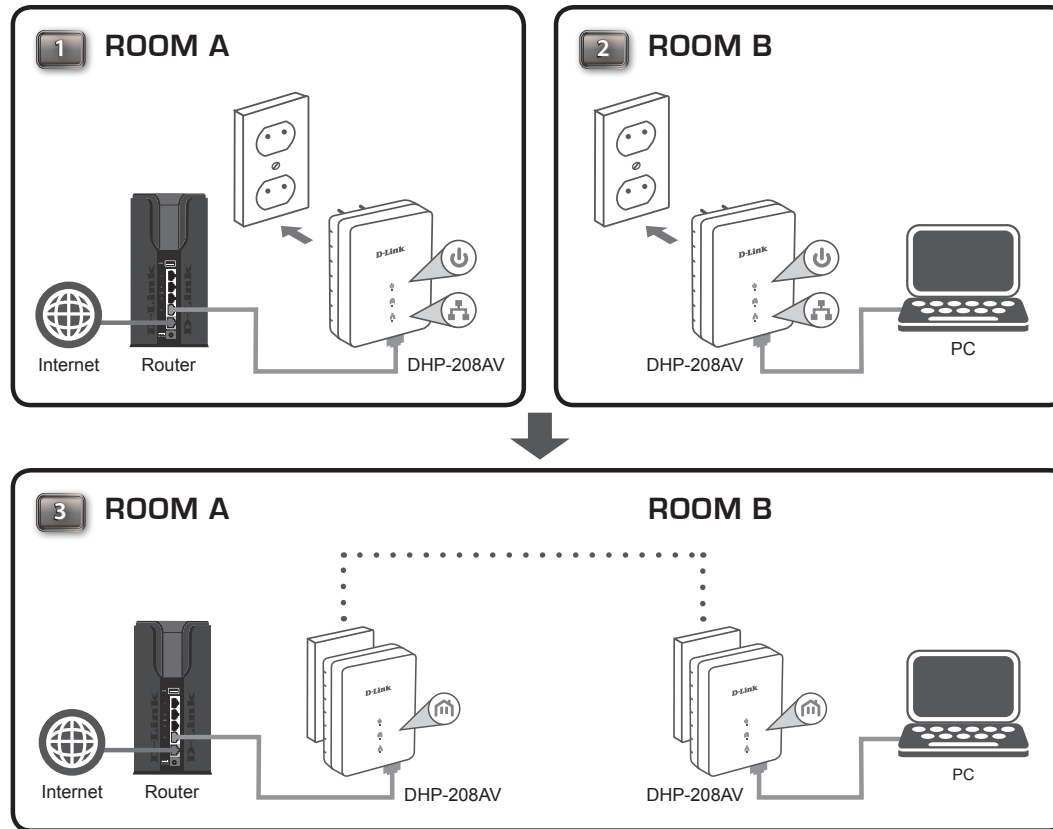
#### **4. Adding More Adapters**

If you would like to add more than two adapters, press the Simple Connect Button on the additional adapter for no more than three seconds. The Power LED will start blinking after you release the button.

press the Simple Connect Button on any adapter in your existing Powerline network for no more than two seconds. The Power LED will start blinking after you release the button.

Note: Both Simple connect buttons must be pressed within two minutes.

Now your new adapter will be able to connect to your existing Powerline network.



# Powerline Installation Considerations

Plan the location of your Powerline devices:

1. Connect Powerline devices to electrical outlets that are not controlled by a wall switch to avoid accidentally turning off power to the device.
2. Do not connect the Powerline devices to an extension cord, surge protector, or power strip as this might prevent it from working correctly, or reduce network performance.
3. Avoid using the Powerline devices in an electrical outlet that is located near an appliance that uses a lot of power, such as a washer or dryer, microwave, or a refrigerator. This may prevent the adapter from working correctly, or negatively impact network performance.
4. Verify that your Powerline devices are electrically rated to operate with the power available in your location.
5. To help prevent against electrical shock, be sure to plug the power cables into properly grounded electrical outlets.
6. The Powerline device is equipped with a three-pronged plug to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from the cable.



## **7. Important safety instructions**

Please read all of the safety and operating instructions before using your device:

1. Do not open the device or attempt to repair or service the device.
2. Only use the included power adapter to power your device.
3. Ensure that the device is plugged into the wall in a vertical position, with the ports facing down.
4. Use the device in a dry location, and avoid placing it in humid environments.
5. Do not submerge the device in liquid or attempt to clean it with liquids or solvents. To clean the device, disconnect it from the power outlet and use a damp towel.
6. Keep the device out of direct sunlight.
7. Do not cover or block the vents on the device.
8. Make sure that the device has adequate room for ventilation.
9. Avoid placing the device near a heater or radiator.
10. The device should be located only where sufficient ventilation can be ensured.

# Troubleshooting

- **I can't configure the Powerline AV Mini Adapter, an error is shown when I try to configure it:**  
Please make sure you have not unplugged the Powerline AV Mini Adapter while configuring it.
- **I changed the Ethernet cable to another Network adapter and now the utility does not work correctly:**  
Please restart the utility each time you disconnect the Ethernet cable.
- **I'm having problems configuring my network:**  
If you are having problems configuring the network with two or more Powerline AV Mini Adapters, please make a reset all of the Network adapters and start configuring the adapters again. Please see page 9 for more details.

# Technical Specifications

## Network Ports

- One Ethernet port

## AC Input

- 100-240V, 50/60Hz, 0.1A

## Standard

- Compatible with IEEE1901
- Homeplug AV

## EMC

- CE Class B / FCC

## Safety

- CE LVD / UL

## Encryption

- 128-bit AES

## Operation Temperature

- 0°C ~ 40°C

## Storage Temperature

- -10°C ~ 70°C

## Humidity

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