



# ALLNET ALL168208

**200Mbps Powerline 4-Port HUB**

**Powerline Network**

***Instant Networks for Internet Access...and More!***

***Solution for SOHO, SMALL OFFICE AND HOME OFFICE***

## QUICK SETUP GUIDE

## PREFACE

This document describes installation of the ALLNET ALL168208.

Please read this document before installing the product.

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## To the Installer

This publication contains the following sections:

- Important safety instructions
- The first thing you need to know before you begin to install
- Product installation guide
- Specification

## IMPORTANT SAFETY INSTRUCTIONS

This product is intended for connection to the AC power line. For installation instructions, refer to the Installation section. For removing the device, refer to the Unplug section. The following precautions should be taken when using this product.

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- Please read all instructions before installing and operating this product.
  - Please keep all instructions for later reference.
  - Please follow all warnings and instructions marked on the product.
  - **Unplug the AC coupler from the wall outlet before cleaning. Use a damp cloth for cleaning. DO NOT use liquid cleaners or aerosol cleaners.**
  - **DO NOT** operate this product near water.
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- This product should **never** be placed near or over a radiator, or heat register.
  - This product relies on the building's electrical installation for short-circuit (over current) protection.
  - Ensure that a fuse or circuit breaker **no larger than 120 VAC 20A or 240 VAC 16A** is used on the phase conductors (all current-carrying conductors).
  - **DO NOT** allow anything to rest on the product interconnect cords. **DO NOT** locate this product where people may walk on the cords.
  - Because the product sends data over the powerline, it is recommended that you plug directly into a power outlet. Do not plug the device into a UPS or power strip with surge protection. The product has its own power filter for protection against surges.
  - The product can be operated at an ambient temperature of 40°C.
  - For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
  - **Only** a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks.
  - Unplug the AC coupler from the wall outlet and refer the product to qualified service personnel for the following conditions:
    - When the interconnect cords are damaged or frayed.
    - If liquid has been spilled into the product.
    - If the product has been exposed to rain or water.
    - If the product does not operate normally when the operating instructions are followed.
    - If the product exhibits a distinct change in performance.

### THE FIRST THING YOU NEED TO KNOW BEFORE YOU BEGIN TO INSTALL...

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#### 1. Before installing, make sure your PC meets these requirements for hardware installation:

- Microsoft Windows\* 98SE, ME, NT, 2000, XP, Vista 32-bit, MAC, or Linux OS
  - Pentium® III or better, clock rate faster than 2.0GHz recommended
  - Resource on your PC
    - At least one free Ethernet port for ALLNET ALL168208
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#### 2. Your PC must not be configured for another network. This means that:

- **No network clients** except for Microsoft Network\*, Client for Netware\* Networks, or Microsoft Family Logon\* are installed
  - **No network services** except file and printer sharing for Microsoft Networks or Personal Web Server\* are installed
  - **No network protocols** except Microsoft's TCP/IP, IPX/SPX, NetBEUI, or Net BIOS support for IPX/SPX are installed
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#### 3. Network installation requires two steps:

1. Install the ALLNET ALL168208
  2. For each PC to be added to the network, repeat the process
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#### 4. Check that you have the following parts for each PC on the network:

##### Product installation guide for the ALLNET ALL168208

1. ALLNET ALL168208
2. Power Cord \* 1



#### 5. Familiarize yourself with the Powerline device connections:



#### 6. Limitation of the Powerline device:

To meet the safety regulation, the longest distance between powerline carrier devices will be limited at 100 meter and for in-house use only. More than 100 meter will cause the signal reduction or data loss.

### Product installation guide

#### Important:

**Do not plug the device into a power strip or surge protector because these devices may consist of filter and impair signal. Also avoid plugging the device right next to noisy sources such as cell phone charger, Halogen light, Energy saving bulb, noisy desktop computer, vacuum cleaner, etc. Both cases result in poor transmission speed.**

#### To install for the PC local Powerline network

1. Put the ALLNET ALL168208 on a smooth, horizontal surface.
2. Use the Category 5 Ethernet cable to connect the ALLNET ALL168208 and your PC's Ethernet port.
3. You can repeat steps 2 to connect another PC.
4. Insure that all cable connected properly. Turn on the power by attaching the power cord to ALLNET ALL168208 and plug in the power outlet.



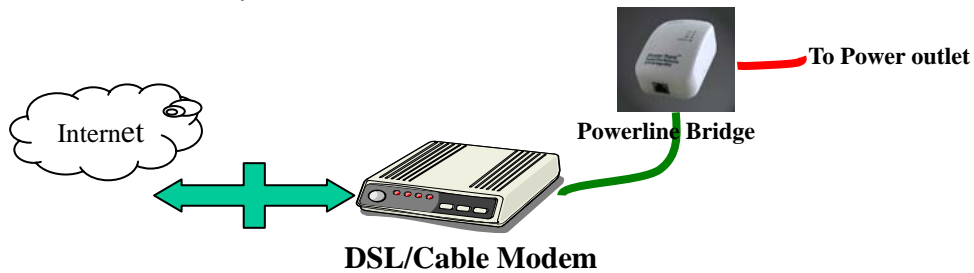
5. The Power (⏻), and Ethernet port (🔌) LED indicator light up when you complete the above connection.
6. The Powerline LINK/ACT (🏠) LED indicator starts blinking when the data communication proceeds on power line.



## Powerline

### To share a xDSL/Router or cable modem with Internet access service

1. Connect one 85M HomePlug Ethernet Bridge to the broadband router
  - Plug one Ethernet Bridge into an AC outlet.
  - Plug the Ethernet cable into the RJ45 connector of the Bridge and plug the other end of the cable into an available Ethernet port of the Router.



2. Follow the section **“To install for the PC local Powerline network”**, to connect your PC to the ALLNET ALL168208. You will be able to access the Internet from anywhere through the power line or wireless by using ALLNET ALL168208..



## Powerline

### As wireless AP (Access Point) Extender




1. Connect the other Ethernet port to the AP
  - Plug the Ethernet cable into the any RJ45 connector of the ALLNET ALL168208 and plug the other end of the cable into the Ethernet port on the AP.



## Specification

Items	Description
<b>PHY Rate</b>	200Mbps
<b>Effect Data Rate</b>	TCP: Up to 65 Mbps effective throughput UDP: Up to 85 Mbps effective throughput
<b>Frequency Band</b>	2~28 MHz (With Mask)
<b>Access Methods</b>	CSMA/CA channel-access schemes
<b>Qos</b>	<ul style="list-style-type: none"> <li>Four-level priority based contention access, and multi segment bursting</li> <li>8-levels VLAN priority field</li> </ul>
<b>Modulation</b>	OFDM (QAM 8/16/64/256/1024, QPSK, BPSK, ROBO)
<b>Nodes</b>	Maximum logical network members is 16 including the CCo Maximum of 4 neighboring networks, 64 bridged devices per station
<b>IGMP</b>	IGMP v3 snooping with multicast to multiple unicast support in CSMA - Maximum of 6 IGMP streams from a single server to a single client - Maximum of 8 distinct destinations for a single IGMP stream - Maximum of 16 IGMP streams from one server to a maximum of 15 clients
<b>Encryption</b>	128-bit AES Link Encryption with key management
<b>Standards</b>	IEEE 802.3, IEEE 802.3U, Design for HomePlug AV
<b>Operating System</b>	Microsoft Windows® 98SE, ME, NT, 2000, XP, Vista 32-bit, MAC, Linux
<b>Port</b>	Four RJ45 for 10/100 Base-T Ethernet
<b>Distance</b>	AC Wire : 100 meter
<b>LEDs</b>	Power Powerline Activity/Link 4 * Ethernet Port LED
<b>Environment</b>	Temperature
	Operating : 0~40°C
	Storage : -20~60°C
	Relative Humidity
	Operating : 10~85% Non-Condensing
	Storage : 5~90% Non-Condensing
<b>Power Source</b>	100~240 VAC, 50/60 Hz
<b>Certification</b>	CE

## LEDs

	Power	On: Power on Off: Power off
	Powerline Activity/Link	On: Powerline Link Detected Blinking: Powerlin traffic detected (*1) Off: No Powerline traffic detected
	Ethernet Port	On: Ethernet Link Detected Blinking: Ethernet traffic detected Off: No Ethernet Link detected

\*1 : The PLC-ACT LED indicator turns "ON" when powerline link is detected. If the device is serving as a STATION, the LED indicator will flash to indicate transmit or receive powerline activity. If the device is serving as a CCo, the LED indicator will light steadily ON, even in the presence of powerline activity







## **CE --- Declaration of conformity**

For the following equipment:

### **Powerline Switch Hub Device**

#### **ALL168208 (200 Mbps PLC Switch Hub)**



The safety advice in the documentation accompanying the products shall be obeyed. The conformity to the above directive is indicated by the CE sign on the device.

The ALLNET ALL168208 (200 Mbps PLC Switch Hub) conforms to the Council Directives of 73/23/EEC and Amendment Directive of 93/68/EEC.

This equipment meets the following conformance standards:

**EMI: EN 55022 :1998 +A1 :2000+A2 :2003**

**EMS: EN 55024 :1998 +A1 :2001+A2 :2003**  
**IEC 61000-4-2 :1995+A1 :1998+A2 :2000**  
**IEC 61000-4-3 :2002+A1 :2002**  
**IEC 61000-4-4 :1995+A1 :2000+A2 :2001**  
**IEC 61000-4-6 :1996+A1 :2000**  
**EN 60950-1:2001**

This equipment is intended to be operated in all countries.

This declaration is made by

ALLNET Computersysteme GmbH

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and can be downloaded from <http://www.allnet.de/ce-certificates/>.