Introduction

The ALLNET ALL1686 Power Line + Wireless 11g Access Point is like 2 devices in one box! The Power Line 802.11g Wireless AP functions lets you to securely expand the range of your local area network, while Power Line utilizes the electric cord as the transfer media, the 11G utilizes the electric wave.
The ALLNET ALL1686 Power Line + Wireless 11g Access Point offers a convenient way to create a simple network through the existing power line of a home or office with the additional ability to provide you with access to your network without wires. Offering several levels of security, the ALL1686 is built with 128-bit WEP encryption and 802.11i (WPA / TKIP, AES, PSK) for the wireless pass-through and 56-bit DES encryption for the Power line pass-through. There are also some Enhanced Security Management Functions: Wireless/Wired 802.1x, and Embedded RADIUS Server so your data will always be secured—guaranteed.
The ALLNET ALL1686 Power Line + Wireless 11g Access Point has the latest IEEE 802.11g spec, which provide data rate at 54Mbps. Because of the high data rate and power line around everywhere, you can enjoy the high quality video or any service in any place.
For the latest product information, please visit us on the web at
http://www.allnet.de

Important Safety Information

This product is intended for connection to the AC power. The following precautions should be taken when using this product.
- Read all instructions before installing and operating this product.
- Follow all warnings and instructions marked on the product.
- Do not operate this product near water.
- This product relies on a building's electrical installation for short-circuit (over current) protection.
- Do not allow anything to rest on the product.
- The Power Line 802.11g Wireless Access Point should be plugged directly into an AC wall outlet.
- Only a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks. (Note: Opening or removing the covers will void your product warranty).
- Unplug the Power Line 802.11g Wireless Access Point from the AC wall outlet and refer the product to a qualified service representative for the following conditions:
- If liquid has been spilled onto the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally when the operating instructions have been followed.
- If the product exhibits a distinct change in performance.

Getting start with your Power Line Device

Before installing your Power Line networking device, please examine and familiarize yourself with it. Below is a diagram of the ALL1686 along with a brief description of what each LED and slot represent.

LED	LED STATUS	NDICATION
Collisions (COL)	Blinking	Collisions Detected
	OFF	No Collisions Detected
Activity (ACT)	Blinking	Looking for Powerline Devices
	Fast Blinking	Transmit/receive data
	OFF	No Network Traffic
Power	ON	Power On
	Off	Power Off
WLAN	ON	Wireless Connection
	Blinking	Transmitting/Receiving wireless data traffic

What This Package Contains?

Upon you receive your wireless access point, please check that the following contents are packaged:
- Power Line 802.11g Wireless Access Point (ALL1686)
- CD
- User's manual
- Quick Install Guide

Necessary Equipment?

- One or more computers with wireless device, and it's software already installed
- Microsoft TCP/IP networking protocol installed on each PC
- Web browser installed on each PC

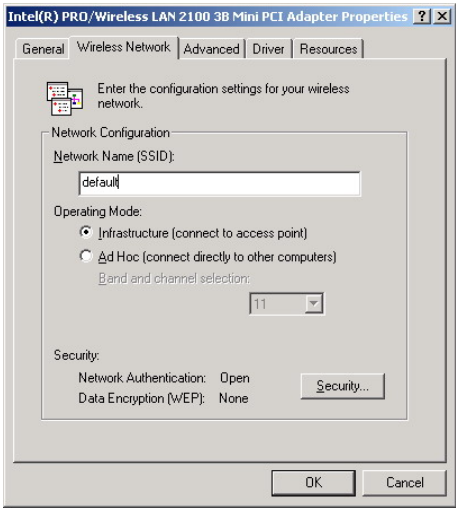
Equipment that can be used with the ALL1686?

- Broadband modem
- ALL1681 Broadband router
- Additional PCs with a wireless or Power Line Device Important: After receiving the wireless access point, please check for any shipping damages to the carton and camera before proceeding with any installations.

PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop so far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.
To configure the Wireless device to work with your ALL1686,
please follow the following steps:

1. Plug ALL1686 into an outlet.
2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.



PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop So far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.

To configure the Wireless device to work with your ALL1686, please follow the following steps:

1. Plug ALL1686 into an outlet.
2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.
3. Make sure Infrastructure is selected.
4. In the SSID field, type in the following: default (This is case sensitive)
5. Make sure Fully Automatic is selected.
6. Click OK to exit the configuration window.

Note: If you are using Win XP you will not need to configure the PCMCIA card because XP has an auto sense function included in the operating system.

ALL1686 Setup Guide

You will need to temporarily change the IP address of your PC/laptop to setup your ALL1686. Follow these steps depending on your operating system.
Note: If you have not changed the default Power Line password (Power Line) or you get the same subnet (10.0.0.1/16) on your network then there is no need to continue this setup.

Windows 98 SE / ME

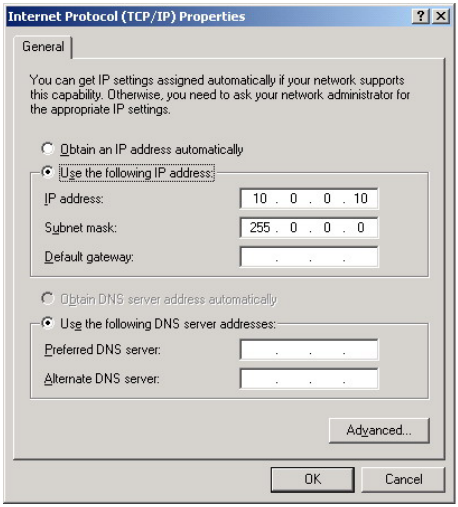
1. Click on Start, then Settings, and then Control Panel.
2. Double click on the Network icon.
3. Select the TCP/IP Protocol entry.
4. Click on the Properties button.
5. Select the IP Address tab.
6. Select Specify an IP address.
7. Type in the following address: 10.0.0.10.
8. For the Subnet Mask, type: 255.255.255.0.
9. Click OK to close the TCP/IP properties panel.
10. Click OK to close the Network panel.
11. Restart the PC

Windows 2000 / XP

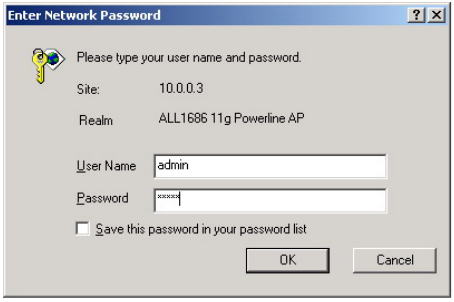
1. Open Network Connections.

- Win 2000: Click on Start, Settings, then Network, and Dial-up Connections.
- Win XP: Click on Start, Connect To, then Show All Connections.

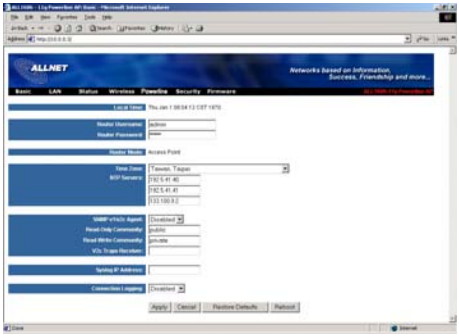
2. Right click on Local Area Connection and then select Properties.
3. Select Internet Protocol (TCP/IP) and then click on Properties.
4. Click on Use the following IP address.
5. Type in the following IP address: 10.0.0.10.
6. For the Subnet Mask, type: 255.255.255.0.
7. Click OK to close the TCP/IP properties panel.
8. Click OK to close the Network panel and the changes will take effect when this panel is closed.



1. Open a web browser and type in the following address: 10.0.0.1.
2. A login screen should appear. Type the login name: admin and the password: admin.



3 The basic information screen should now appear in the browser window.



4. Click on the Powerline Tab.
5. The default Power Line password is Power Line. If your existing Power Line password is different, change this password accordingly.

Setting up the IP address on the ALL1686

1. Click on the LAN Tab.
2. The default IP address of ALL1686 is 10.0.0.1. You can change this IP address to matches your network configuration (Example: 192.168.1.10).
3. You can change the Subnet mask and Gateway values as well.

At this point, you will need to change the PCs IP address back to it's original settings. Follow these steps depending on your operating system.

Windows 98 SE / ME

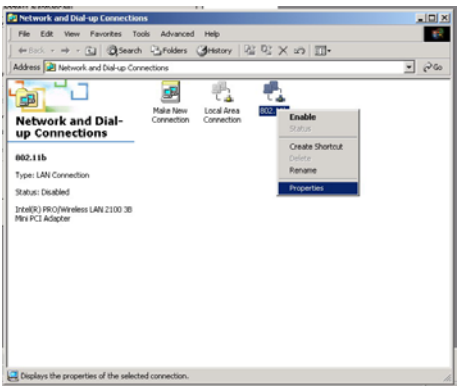
1. Click on Start, then Settings, and then Control Panel.
2. Double click on the Network icon.
3. Select the TCP/IP Protocol entry.
4. Click on the Properties button.
5. Select the IP Address tab.
6. Select Obtain an IP Address Automatically.
7. Click OK to close the TCP/IP properties panel.
8. Click OK to close the Network panel.
9. Restart the PC.

Windows 2000 / XP

1. Open Network Connections.

- Win 2000: Click on Start, Settings, then Network and Dial-up Connections.
- Win XP: Click on Start, Connect To, then Show All Connections.

2. Right click on Local Area Connection and then select Properties.



3. Select Internet Protocol (TCP/IP) and then click on Properties.
4. Select Obtain an IP Address Automatically and Obtain a DNS server automatically.
5. Click OK to close the TCP/IP properties panel.
6. Click OK to close the Network panel.

The changes will take a few minutes.

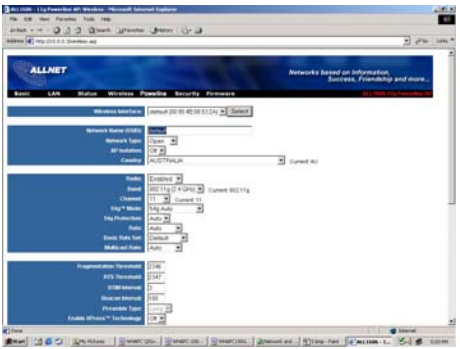
Open a new web browser and type in the new IP address of ALL1686 to ensure the changes worked.

Other Features

Wireless Tab

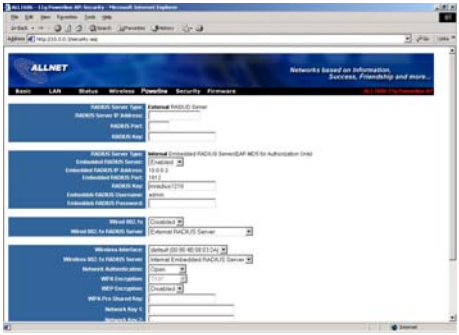
- Change the value for the SSID (Note: If you change the value here, you will also need to change the value on each PC.)
- Change the Country where you are
- Change the Band
- Change the Channel
- Change the transmission Mode
- Change the Transmission Mb rates

- Change the Multicast rates
- Enable XPress Technology
- Enable Afterburner Technology
- Change WDS Operation Mode (Note: It depend on you network environment)
- Enable MAC Restrict Mode (Note: Type the MAC address of devices you want to restrict here)



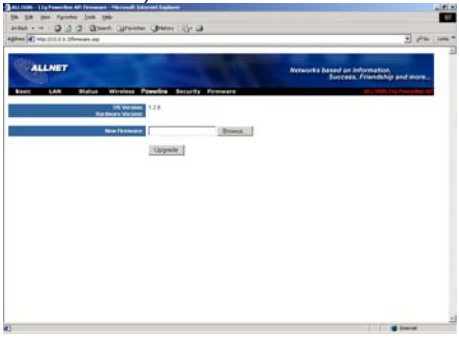
Security Tab

Here you can adjust the following:
- Setup the information of External/ Internal RADIUS Server
- Enable Wired 802.1x
- Open the Network Authentication
- Enable WEP Encryption
- Setup WPA Pre-Shared Keys



Firmware Tab

- Here you can update the new firmware. (Note: You should download the new firmware first)



Notes

Appendix A: Features

- Supports 802.11g wireless LAN
- Support Home-Plug 1.0 Power-line network
- Simultaneously operation on 802.11g wireless LAN and Power-line network
- Enhanced Security Management Functions: Wireless/Wired 802.1x, Embedded RADIUS Server
- Supports 64/128 bits WEP Key in wireless 802.11g LAN
- Supports 56-bits DES Key for Power-line network
- The wireless 11g operation provide data rate at 6, 9, 12, 18, 24, 36, 48, 54Mbps with auto fallback at 11b data rate at 1, 2, 5.5, and 11Mbps.
- For 802.11g, support 11 channels for North America, 13 for Europe (ETSI) and 14 for Japan
- Supports Wireless Distribution System (WDS) –Wireless Bridge, Wireless Repeater
- Supports 802.11i – WPA / TKIP, AES, PSK
- Easily Configurable through your networked PC's Web browser
- Administrators can block specific internal users' Internet access with 802.1x
- TCP, UDP, ICMP, IGMP
- IEEE 802.1D (self learning transparent bridge)
- IEEE 802.1D Spanning Tree Protocol
- SNMP V1/V2c Agent
- Remote administration and remote upgrades available over the Internet
- Supports Traffic and Event Logging

Appendix B: Limited Warranty

ALLNET warrants that (a) the hardware components of the ALLNET product will be free from defects in materials and workmanship under normal use for one (1) year from the date of purchase, and (b) the software components will perform substantially in accordance with ALLNET's published specifications for ninety (90) days from the date of purchase, but does not warrant that the software will be error-free or free of all defects. If a defect or nonconformance exists during the applicable warranty period, at its option ALLNET will repair or replace the defective parts or nonconforming software using new or refurbished replacement parts or media at no additional charge to you. This warranty extends only to you, the original purchaser and is not transferable to any subsequent purchasers.

This Limited Warranty does not extend to any product not purchased or licensed from ALLNET or its authorized resellers or retailers. This Limited Warranty does not apply: (a) to damage caused by accident, abuse, misuse, misapplication, unusual electrical fluctuation, or improper transportation upon return to ALLNET; (b) if you use parts not manufactured or sold by ALLNET; or (c) to damage caused by modification of the product or as a result of service by anyone other than ALLNET or an ALLNET-authorized service provider. EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY STATEMENT, NEITHER ALLNET NOR ITS THIRD PARTY SUPPLIERS MAKE ANY OTHER WARRANTIES AS TO THE PRODUCTS AND SERVICES AND THE PRODUCTS AND SERVICES ARE PROVIDED "AS IS" AND WITH ALL FAULTS. ALLNET AND ITS THIRD PARTY SUPPLIERS DISCLAIM ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS OF A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT AND ACCURACY.

ALLNET'S ENTIRE LIABILITY, AND YOUR EXCLUSIVE REMEDY HEREUNDER, IS LIMITED TO, AT ALLNET'S OPTION AND SOLE DISCRETION, REPAIR OR REPLACEMENT OF THE PRODUCT AS SET FORTH
HEREIN OR A REFUND OF THE PURCHASE PRICE.

Some states do not allow warranty limitations. In such states, the exclusion or limitations of this Limited Warranty may not apply to you and, in such cases, ALLNET asserts the minimum warranty permitted by law.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, NEITHER ALLNET NOR ITS THIRD PARTY SUPPLIERS SHALL BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER, NO MATTER HOW DENOMINATED (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS OR CONFIDENTIAL OR OTHER INFORMATION, FOR BUSINESS INTERRUPTION, FOR PERSONAL INJURY, FOR LOSS OF PRIVACY, FOR FAILURE TO MEET ANY DUTY INCLUDING OF GOOD FAITH OR OF REASONABLE CARE, FOR NEGLIGENCE, AND FOR ANY OTHER PECUNIARY OR OTHER LOSS WHATSOEVER) ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT, THE PROVISION OR FAILURE TO PROVIDE SUPPORT SERVICES, OR OTHERWISE IN CONNECTION WITH ANY PROVISION OF THE ALLNET TERMS AND CONDITIONS OF SALE OR AN END USER LICENSE AGREEMENT, EVEN IN THE EVENT OF THE FAULT, TORT (INCLUDING NEGLIGENCE) STRICT LIABILITY, BREACH OF CONTRACT, OR BREACH OF WARRANTY OF ALLNET OR ANY SUPPLIER, AND REGARDLESS OF WHETHER OR NOT ALLNET HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Appendix C: FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Appendix D: Technical Support

Please contact the ALLNET Service and Support Center at:

ALLNET Deutschland GmbH, Maistrasse 2, 82110 Germering, GERMANY

TEL: 89-89422222, FAX-Nr: 89-89422233

http://www.allnet.de

Appendix E: Troubleshooting

(Wireless)：

Verify that your network adapter is configured to connect to the “default” SSID. For optimal wireless performance, be sure to keep the antenna free from obstructions.

(Power Line 802.11g Wireless)：

- Verify that your Power Line network passwords are identical for all of your Power Line adapters.(Passwords are case sensitive)
- All Power Line 802.11g Wireless adapters need to have the same network password to communicate.
- The default network password for the ALL1686 AP is “HomePlug” How to reset your device to factory defaults.
- There is a small hole on the right side of the device labeled RESET.
- With the end of a paper clip press the button inside the unit. The LEDs on the ALL1686 will flash. Your device is now reset to factory default settings.

Note:

Some wireless adapter has trouble to connect with a Router using "default" as its SSID. So at that time, please modify your SSID to another one.