

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a Belkin Wireless Router (or Belkin Access Point) for a home network.

Solution:

1. From the “Security Mode” drop-down menu, select “WPA-PSK (no server)”.
2. For “Encryption Technique”, select “TKIP” or “AES”. This setting will have to be identical on the clients that you set up.
3. Enter your pre-shared key. This can be from eight to 63 characters and can be letters, numbers, symbols, or spaces. This same key must be used on all of the clients that you set up. For example, your PSK might be something like: “Smith family network key”.
4. Click “Apply Changes” to finish. You must now set all clients to match these settings.

Problem:

I am having difficulty setting up Wi-Fi Protected Access (WPA) security on a Belkin Wireless Card for a home network.

Solution:

Clients must use the same key that the Wireless Router (or Access Point) uses. For instance, if the key is “Smith Family Network Key” in the Wireless Router (or Access Point), the clients must also use that same key.

1. Double-click the Signal Indicator icon to bring up the “Wireless Network” screen. The “Advanced” button will allow you to view and configure more options of your Card.
2. Once the “Advanced” button is clicked, the Belkin Wireless Utility will appear. This Utility will allow you to manage all the advanced features of the Belkin Wireless Card.
3. Under the “Wireless Network Properties” tab, select a network name from the “Available networks” list and click the “Properties” button.
4. Under “Network Authentication”, select “WPA-PSK (no server)”.
5. Type your WPA key in the “Network key” box.

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Important: WPA-PSK is a mixture of numbers and letters from A-Z and 0-9. For WPA-PSK you can enter eight to 63 characters. This network key needs to match the key you assign to your Wireless Router (or Access Point).

Click “OK, then “Apply” to save the settings. I am NOT using a Belkin Wireless Card for a home network and I am having difficulty setting up Wi-Fi Protected Access (WPA) security.

If you are not using a Belkin Wireless Desktop or Wireless Notebook Network Card that is not equipped with WPA-enabled software, a file from Microsoft called “Windows XP Support Patch for Wireless (Wi-Fi) Protected Access” is available for free download. Download the patch from Microsoft by searching the knowledge base for Windows XP WPA.

Note: The file that Microsoft has made available works only with Windows XP. Other operating systems are not supported at this time. You also need to ensure that the wireless card’s manufacturer supports WPA and that you have downloaded and installed the latest driver from their support site.

Supported Operating Systems:

- Windows XP Professional
- Windows XP Home Edition

Problem:

Enabling WPA-PSK (no server)

Solution:

1. Under Windows XP, click “Start > Control Panel > Network Connections”.
2. Right-click on the “Wireless Networks” tab. Ensure the “Use Windows to configure my wireless network settings” check box is checked.
3. Under the “Wireless Networks” tab, click the “Configure” button.
4. For a home or small business user, select “WPA-PSK” under “Network Administration”.

Note: Select WPA (with radius server) if you are using this computer to connect to a corporate network that supports an authentication

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server such as a radius server. Please consult your network administrator for further information.

5. Select “TKIP” or “AES” under “Data Encryption”. This setting will have to be identical to the Wireless Router (or Access Point) that you set up.
6. Type in your encryption key in the “Network Key” box.
Important: Enter your pre-shared key. This can be from eight to 63 characters and can be letters, numbers, or symbols. This same key must be used on all of the clients that you set up.
7. Click “OK” to apply settings.

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What's the difference between 802.11b, 802.11g, 802.11a, and Pre-N?

Currently there are four levels of wireless networking standards, which transmit data at very different maximum speeds. Each is based on the designation 802.11(x), so named by the IEEE, the board that is responsible for certifying networking standards. The most common wireless networking standard, 802.11b, transmits information at 11Mbps; 802.11a and 802.11g work at 54Mbps or 108Mbps. Pre-N, the precursor to the upcoming 802.11n release, promises speeds that exceed 802.11g, and up to 800% the wireless coverage area. See the following chart for more detailed information.

Wireless Comparison Chart

Wireless Technology	802.11b	802.11g	802.11a+g
Speed	11Mbps	54Mbps	108Mbps
Frequency	Common household devices such as cordless phones and microwave ovens may interfere with the unlicensed band 2.4GHz	Common household devices such as cordless phones and microwave ovens may interfere with the unlicensed band 2.4GHz	Uses the uncrowded 5GHz band which is not susceptible to common household devices such as microwaves and cordless phones that use the 2.4GHz band
Compatibility	Compatible with 802.11g	Compatible with 802.11b	Compatible with 802.11a, 802.11b, or 802.11g
Coverage	Depends on interference - typically 100–200 ft. indoors	Depends on interference - typically 100–200 ft. indoors	Less interference in 802.11a - typically 100–200 ft. indoors
Adoption	Mature – widely adopted	Expected to continue to grow in popularity	Popular in media devices and business environments

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Technical Support

You can find technical support information at <http://www.belkin.com/networking> or www.belkin.com through the tech support area. If you want to contact technical support by phone, please call:

US: 877-736-5771 or

310-898-1100 ext. 2263

Europe: 00 800 223 55 460

Australia: 1800 235 546

New Zealand: 0800 235 546

Singapore: 800 616 1790

Wi-Fi® Interoperability Certificate

Wi-Fi® Interoperability Certificate

Certification ID: W003108



This certificate represents the capabilities and features that have passed the interoperability testing governed by the Wi-Fi Alliance. Detailed descriptions of these features can be found at www.wi-fi.org/certificate

Certification Date: December 30, 2004
Category: Access Point
Company: Belkin Corporation
Product: BELKIN Dual-Band Wireless A+G Router
Model/SKU#: F8D3230-4

This product has passed Wi-Fi certification testing for the following standards:

IEEE Standard	Security		
802.11b 802.11g	WPA™ - Personal		

For more information: www.wi-fi.org/certified_products

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Information

Belkin declares that F6D3230-4, (FCC ID: PD5E804WAG) is limited in CH1~CH11 for 2.4 GHz by specified firmware controlled in U.S.A.

FCC Statement

DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin Corporation, of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product,

F6D3230-4

to which this declaration relates, complies with Part 15 of the 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.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

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

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Information

This equipment generates, uses, and can radiate radio frequency energy. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the

following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to 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.

Modifications

The FCC requires the user to be notified that any changes or modifications to this device that are not expressly approved by Belkin Corporation may void the user's authority to operate the equipment.

Canada-Industry Canada(IC)

Operation is subject to the following two conditions:□

1) this device may not cause interference and□

2) this device must accept any interference, including interference that may cause □ undesired operation of the device.□

This device has been designed to operate with an antenna having a maximum gain of 1 dB.□

Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The □ required antenna impedance is 50 ohms.□

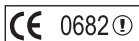
To reduce potential radio interference to other users, the antenna type and its gain should □ be so chosen that the EIRP is not more than required for successful communication.□

To prevent radio interference to the licensed service (i.e. co-channel Mobile Satellite □ systems) this device is intended to be operated indoors and away from windows to provide □ maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject □ to licensing.□

Because high power radars are allocated as primary users (meaning they have priority) in 5250-5350 MHz, these radars could cause interference and/or damage to license exempt □ LAN devices.□

Europe-European Union Notice

Radio products with the CE 0682 or CE alert marking comply with the R&TTE Directive (1995/5/EC) issued by the



Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 60950 (IEC60950) – Product Safety
- EN 300 328 Technical requirement for radio equipment
- ETS 300 826 General EMC requirements for radio equipment.

Belkin product.



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Information

Products with the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (72/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 55022 (CISPR 22) – Electromagnetic Interference
- EN 55024 (IEC61000-4-2,3,4,5,6,8,11) – Electromagnetic Immunity
- EN 61000-3-2 (IEC610000-3-2) – Power Line Harmonics
- EN 61000-3-3 (IEC610000) – Power Line Flicker
- EN 60950 (IEC60950) – Product Safety



Products that contain the radio transmitter are labeled with CE 0682 or CE alert marking and may also carry the CE logo.

Belkin Corporation Limited Lifetime Product Warranty

Belkin Corporation warrants this product against defects in materials and workmanship for its lifetime. If a defect is discovered, Belkin will, at its option, repair or replace the product at no charge provided it is returned during the warranty period, with transportation charges prepaid, to the authorized Belkin dealer from whom you purchased the product. Proof of purchase may be required.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Belkin; or if any Belkin serial number has been removed or defaced.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESSED OR IMPLIED. BELKIN SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

No Belkin dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

BELKIN IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN, OR USED WITH, BELKIN PRODUCTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions of implied warranties, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

BELKIN®

Dual-Band Wireless A+G Router

BELKIN®

www.belkin.com

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