

# NETGEAR ProSafe Dual Band Wireless Access Point WAG302v2 Reference Manual



**NETGEAR®**

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202-10182-01  
May 2006

## Technical Support

**Please register to obtain technical support.** Please retain your proof of purchase and warranty information.

To register your product, get product support or obtain product information and product documentation, go to <http://www.NETGEAR.com>. If you do not have access to the World Wide Web, you may register your product by filling out the registration card and mailing it to NETGEAR customer service.

You will find technical support information at: <http://www.NETGEAR.com/> through the customer service area. If you want to contact technical support by telephone, see the support information card for the correct telephone number for your country.

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## Statement of Conditions

**NOTE:** In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice. NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

**NOTE:** Modifications made to the product, unless expressly approved by NETGEAR, could void the user's authority to operate the equipment. NETGEAR does not assume any liability that may occur due to such condition.

## Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

**ProSafe 802.11a/g Dual Band Wireless Access Point**



Tested to Comply  
with FCC Standards  
FOR HOME OR OFFICE USE

FCC ID: PY3WAG302v2

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

## FCC Statement

### Declaration of Conformity

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We NETGEAR,

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declare under our sole responsibility that the product(s)

**WAG302v2** (*Model Designation*)

**802.11a/g ProSafe™ Dual Band Wireless Access Point** (*Product Name*)

complies with Part 15 of FCC Rules.

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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.

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To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

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## FCC Requirements for Operation in the United States

### Radio Frequency Interference Warnings & Instructions

**NOTE:** 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. 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 and correct the interference by one or more of the following measures:

- Reorient or locate 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.

### Placement and Range Guidelines

Indoors, computers can connect over 802.11 wireless networks at a maximum range of several hundred feet for 802.11b/g devices. However, the operating distance or range of your wireless connection can vary significantly, based on the physical placement of the wireless access point.

For best results, identify a location for your wireless access point according to these guidelines:

- Away from potential sources of interference, such as PCs, large metal surfaces, microwaves, and 2.4 GHz cordless phones.
- In an elevated location such as a high shelf that is near the center of the wireless coverage area for all mobile devices.

Failure to follow these guidelines can result in significant performance degradation or inability to wirelessly connect to the wireless access point.

## RF Exposure Warning for North America, and Australia

**WARNING!** To meet FCC and other national safety guidelines for RF exposure, the antennas for this device (see below) must be installed to ensure a minimum separation distance of 20cm (7.9 in.) from persons. Further, the antennas shall not be colocated with other antenna or radio transmitter.

## Antenna Statement for North America and Australia

In addition to its own antenna, the WAG302v2 device has been approved for use with the following detachable antennas and antenna cables:

Approved Antennas	Antenna Gain and type	Approved Antenna Cable	Antenna Cable Length	Maximum Transmitted Power <sup>a</sup>
NETGEAR ANT24D18v2	14.5 dBi, directional outdoor/indoor	NETGEAR ACC-10314-01 thru 05	1.5 m to 30 m	18 dBm + 14.5 dBi ant.
NETGEAR ANT2409	9 dBi, omnidirectional outdoor/indoor	NETGEAR ACC-10314-01 thru 05	1.5 m to 30 m	18 dBm + 9 dBi ant.
NETGEAR ANT24O5	5 dBi, ceiling/wall indoor	NETGEAR ACC-10314-01 thru 05	1.5 m to 30 m	18 dBm + 5 dBi ant.

a. WAG302v2 maximum radiated power in North America and Australia: 19 dBm – cable loss + antenna gain

Please see the product specifications at <http://kbserver.netgear.com/products/wag302.asp> for an updated list of wireless accessories approved to be used with the WAG302v2.

## Industry Canada Compliance Statement

This Class B Digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations ICES 003.

Cet appareil numérique de classe B respecte les exigences du règlement du Canada sur le matériel brouilleur NMB-003.

The device is certified to the requirements of RSS-210 for 2.4 GHz spread spectrum devices. The use of this device in a system operating either partially or completely outdoors may require the user to obtain a license for the system according to the Canadian regulations. For further information, contact your local Industry Canada office.

## Europe – EU Declaration of Conformity



Marking by the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:

EN300 328, EN301 489-17, EN60950

## Europe – Declaration of Conformity in Languages of the European Community

Ěesky [Czech]	<i>NETGEAR Inc.</i> tímto prohlašuje, _e tento Radiolan je ve shodě se základními po_adavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede <i>NETGEAR Inc.</i> erklærer herved, at følgende udstyr Radiolan overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erklárt <i>NETGEAR Inc.</i> , dass sich das Gerät Radiolan in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab <i>NETGEAR Inc.</i> seadme Radiolan vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, <i>NETGEAR Inc.</i> , declares that this Radiolan is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente <i>NETGEAR Inc.</i> declara que el Radiolan cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Äëçíéêþ [Greek]	ME THN ΠΑΡΟΥΣΑ <i>NETGEAR Inc.</i> ΔΗΛΩΝΕΙ ΟΤΙ Radiolan ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
Français [French]	Par la présente <i>NETGEAR Inc.</i> déclare que l'appareil Radiolan est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Íslenska [Icelandic]	Hér með lýsir <i>NETGEAR Inc.</i> yfir því að Radiolan er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.
Italiano [Italian]	Con la presente <i>NETGEAR Inc.</i> dichiara che questo Radiolan è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo <i>NETGEAR Inc.</i> deklarē, ka Radiolan atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuviø [Lithuanian]	Šiuo <i>NETGEAR Inc.</i> deklaruoja, kad šis Radiolan atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart <i>NETGEAR Inc.</i> dat het toestel Radiolan in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti [Maltese]	Hawnhekk, <i>NETGEAR Inc.</i> , jiddikjara li dan Radiolan jikkonforma mal-htigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, <i>NETGEAR Inc.</i> nyilatkozom, hogy a Radiolan megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Norsk [Norwegian]	<i>NETGEAR Inc.</i> erklærer herved at utstyret <i>Radiolan</i> er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.
Polski [Polish]	Niniejszym <i>NETGEAR Inc.</i> oświadcza, że Radiolan jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	<i>NETGEAR Inc.</i> declara que este Radiolan está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	<i>NETGEAR Inc.</i> izjavlja, da je ta Radiolan v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>NETGEAR Inc.</i> týmto vyhlasuje, _e Radiolan spĺňa základné po_jadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	<i>NETGEAR Inc.</i> vakuuttaa täten että Radiolan tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar <i>NETGEAR Inc.</i> att denna Radiolan står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

## Countries of Operation & Conditions of Use in the European Community

This device is intended to be operated in all countries of the European Community. Requirements for indoor vs. outdoor operation, license requirements and allowed channels of operation apply in some countries as described below.

**Note: The user must use the configuration utility provided with this product to ensure the channels of operation are in conformance with the spectrum usage rules for European Community countries as described below.**

This device requires that the user or installer properly **enter the current country of operation** in the 5GHz Radio Configuration Window as described in the user guide, **before operating this device.**

This device will automatically limit the allowable channels determined by the current country of operation. Incorrectly entering the country of operation may result in illegal operation and may cause harmful interference to other system. The user is obligated to ensure the device is operating according to the channel limitations, indoor/outdoor restrictions and license requirements for each European Community country as described in this document.

This device employs a **radar detection feature** required for European Community operation in the 5GHz band. This feature is automatically enabled when the country of operation is correctly configured for any European Community country. The presence of nearby radar operation may result in temporary interruption of operation of this device. The radar detection feature will automatically restart operation on a channel free of radar.

The **5GHz Turbo Mode** feature is not allowed for operation in any European Community country. The current setting for this feature is found in the 5GHz Radio Configuration Window as described in the user guide.

This device may be operated **indoors or outdoors** in all countries of the European Community using the 2.4GHz band: Channels 1 – 13, except where noted below:

- In **Italy** the end-user must apply for a license from the national spectrum authority to operate this device outdoors.

- In **France** outdoor operation is only permitted using the 2.4 – 2.454 GHz band: Channels 1 – 7.
- **Belgium** requires notifying spectrum agency if deploying >300meter wireless links in outdoor public areas using 2.4GHz band.

<b>European Spectrum Usage Rules - Effective April 11, 2006</b>				
<b>Country</b>	<b>5.15-5.25 (GHz) Channels: 36,40,44,48</b>	<b>5.25-5.35 (GHz) Channels: 52,56,60,64</b>	<b>5.47-5.725 (GHz) Channels: 100,104,108,112,116, 120,124,128,132,136,140</b>	<b>2.4-2.4835 (GHz) Channels: 1 to 13 (Except Where Noted)</b>
ALL EC Countries	Indoor Only	Indoor Only	Indoor or Outdoor	Indoor or Outdoor
Belgium	Indoor Only	Indoor Only	Indoor or Outdoor	Indoor or Outdoor
France	Indoor Only	Indoor Only	Indoor or Outdoor	Indoor Ch. 1-13 Outdoor 1-7 Only
Greece	Indoor Only	Indoor Only	Indoor Only	Indoor Only
Italy	Indoor Only	Indoor Only	Indoor (Outdoor w/License)	Indoor (Outdoor w/ License)
Turbo Mode	Not Allowed in 5GHz			Same 2.4 GHz rules as above
AdHoc Mode	Not Allowed			Same 2.4 GHz rules as above

## Antenna Statement for the European Community

Please note that the 100mW EIRP limit and regulations could vary in Europe from country to country. Please check the regulations in your country. The antenna cable type and length must comply with European regulations. Refer to the table below for approved antenna and cable accessories.

In addition to its own antenna, the WAG302v2 device has been approved for use with the following detachable antennas and antenna cables:

<b>Approved Antennas</b>	<b>Antenna Gain and type</b>	<b>Approved Antenna Cable</b>	<b>Minimum Antenna Cable Length</b>	<b>Minimum Antenna Cable Attenuation</b>	<b>Maximum Transmitted Power<sup>a</sup></b>
NETGEAR ANT24D18v2	14.5 dBi, directional outdoor/indoor	NETGEAR ACC-10314-05	30 m	18 dB	-3 dBm + 14.5 dBi = 15 dBm EIRP

NETGEAR ANT2409	9 dBi, omnidirectional outdoor/indoor	NETGEAR ACC-10314-04 or ACC-10314-05	10 m	6.1 dB	8.9 dBm + 9 dBi = 17.9 dBm EIRP
NETGEAR ANT2405	5 dBi, ceiling/wall indoor	NETGEAR ACC-10314-01 thru 05	1.5 m	1.1 dB	14 dBm + 5 dBi = 19 dBm EIRP

a. WAG302v2 maximum radiated power in the European Community: 15 dBm – cable loss + antenna gain

Please go to <http://www.NETGEAR.com> and use the search feature to find an updated list of wireless accessories approved to be used with the WAG302v2 in the European Community.

## Bestätigung des Herstellers/Importeurs

Es wird hiermit bestätigt, daß das ProSafe 802.11a/g Dual Band Wireless Access Point WAG302v2 gemäß der im BMPT-AmtsblVfg 243/1991 und Vfg 46/1992 aufgeführten Bestimmungen entstört ist. Das vorschriftsmäßige Betreiben einiger Geräte (z.B. Testsender) kann jedoch gewissen Beschränkungen unterliegen. Lesen Sie dazu bitte die Anmerkungen in der Betriebsanleitung.

Das Bundesamt für Zulassungen in der Telekommunikation wurde davon unterrichtet, daß dieses Gerät auf den Markt gebracht wurde und es ist berechtigt, die Serie auf die Erfüllung der Vorschriften hin zu überprüfen.

## Certificate of the Manufacturer/Importer

It is hereby certified that the ProSafe 802.11a/g Dual Band Wireless Access Point WAG302v2 has been suppressed in accordance with the conditions set out in the BMPT-AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions.

Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

## Product and Publication Details

<b>Model Number:</b>	WAG302v2
<b>Publication Date:</b>	May 2006
<b>Product Family:</b>	Wireless Access Point
<b>Product Name:</b>	ProSafe 802.11a/g Dual Band Wireless Access Point WAG302v2
<b>Home or Business Product:</b>	Business
<b>Language:</b>	English
<b>Publication Part Number:</b>	202-10182-01