Installation

NETGEAR ProSAFE Dual Band Wireless AC Access Point

WAC740

Package Contents

Unpack the box and verify the contents:

- WAC740 ProSAFE Dual Band Wireless AC Access Point
- Category 5e Ethernet cable
- Ceiling mount kit

NETGEAR®

Set Up the Access Point

Before mounting the access point in a high location, first set up and test the access point to verify WiFi network connectivity.

IMPORTANT: **You can deploy the WAC740 access point only in a WiFi network that is managed by a ProSAFE wireless controller.**

➢ **To cable the access point:**

1. Connect an Ethernet cable from LAN port 1 on the access point to a LAN port on a PoE+ switch, that is, an 802.3at-compatible switch.
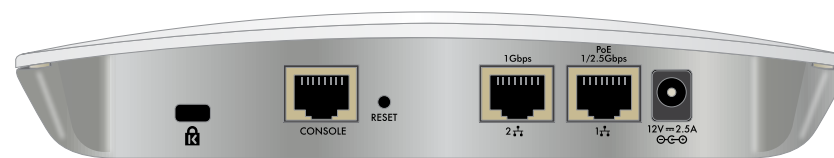
2. Connect an Ethernet cable from the PoE+ switch to an Ethernet port on the computer.
3. Check the LEDs to verify that the access point is set up correctly.

LED	Description
Power LED	•**Off**. Power is off. •**Solid green**. Power is on. •**Alternating green and amber**. The access point receives insufficient PoE power. •**Solid amber, then blinking amber**. A self-test is running or firmware is being loaded. During startup, the Power LED first light solid amber, then goes off, and then blinks amber before turning solid green after about one minute. If after two minutes the Power LED remains solid amber or continues to blink amber, it indicates a system fault.
Activity LED	•**Off**. No link with the network is detected. •**Solid green**. A link with the network is detected. •**Blinking green**. Network traffic is detected.

LED	Description
LAN LED 1	•**Off**. A 10 Mbps Ethernet link is detected or no Ethernet link is detected. •**Solid green**. A 2.5 Gbps or 1 Gbps Mbps Ethernet link is detected. If both LAN LED 1 and LAN LED 2 light solid green, the LAN ports are members of a link aggregation group (LAG). •**Solid amber**. A 100 Mbps Ethernet link is detected.
LAN LED 2	•**Off**. A 10 Mbps Ethernet link is detected or no Ethernet link is detected. •**Solid green**. A 1 Gbps Ethernet link is detected. If both LAN LED 1 and LAN LED 2 light solid green, the LAN ports are members of a link aggregation group (LAG). •**Solid amber**. A 100 Mbps Ethernet link is detected.
2.4G WLAN LED	•**Off**. The 2.4 GHz WiFi radio is off. •**Solid green**. The 2.4 GHz WiFi radio is on. •**Blinking green**. WiFi activity is detected on the 2.4 GHz WiFi radio.
5G WLAN LED	•**Off**. The 5 GHz WiFi radio is off. •**Solid green**. The 5 GHz WiFi radio is on. •**Blinking green**. WiFi activity is detected on the 5 GHz WiFi radio.

The access point uses a DHCP client that is enabled by default. If your network includes a DHCP server, the access point obtains an IP address from the DHCP server. If your network does not include a DHCP server, the access point sets its IP address to a static IP address of 192.168.0.160.

If your network includes a DHCP server, note the following:

- Make sure that option 43 is enabled on the DHCP server.
- Make sure that the DHCP server specifies the IP address of the wireless controller.
- We recommend that you reserve an IP address for the access point on the DHCP server.

If your network does not include a DHCP server, configure a computer with a static IP address of 192.168.0.210 and a subnet mask of 255.255.255.0 so you can connect to the access point at IP address 192.168.0.160.

➢ **To verify that the access point's obtained IP address information, or if your network does not include a DHCP server, to configure the access point's IP address information:**

1. Open a web browser from a computer that is connected to the same network as the access point or to the access point directly through an Ethernet cable.
2. In the address bar, enter the IP address of the access point.

   The default IP address is **192.168.0.160**.

   A login window displays.
3. Enter the user name and password.

   The user name is **admin**. The default password is **password**. The user name and password are case-sensitive.
4. Select **Configuration > System > Basic > Network Settings > IP Settings**.
5. Verify or configure the IP settings for your network.
6. Select **Configuration > System > Network Settings > Controller Settings** .
7. Verify or configure the IP address for the wireless controller in the network.

   For more information, see the ProSAFE wireless controller user manual.

➢ **To let the wireless controller discover the access point:**

1. Access the wireless controller at its network IP address.
2. Select **Access Point > Discovery Wizard**.
3. Follow the steps onscreen to discover the access point and review the discovery results.
4. In the table with discovered access points, select the check box for the access point, and click the **Add** button.

   The access point is added to the Managed AP List and is now ready for further configuration and management by the wireless controller.

   For more information, see the ProSAFE wireless controller user manual.

Deploy the Access Point

The best location for the access point is elevated such as wall or ceiling mounted, at the center of the WiFi coverage area, and within line of sight of all mobile devices.

For information about mounting the access point, see the ceiling and wall installation guide for the WAC720, WAC730, and WAC740.

➢ **To deploy the access point:**

1. Disconnect the access point and position it where you will deploy it.
2. Connect an Ethernet cable from the access point to a LAN port on a PoE + switch.
3. Make sure that the PoE+ switch and the wireless controller are connected.
4. Using a WiFi device, verify connectivity by connecting to the access point and use a browser to connect to the Internet.

Troubleshooting Tips

The following table provides some tips for correcting simple problems that you might encounter. For more troubleshooting information, see the troubleshooting chapter in the ProSAFE wireless controller user manual.

Problem	Cause	Possible Solution
No LEDs are lit on the access point	The access point receives no power	• Make sure that the access point is securely connected to a PoE+ switch. • Make sure that the PoE+ switch is connected to a power source.
The Power LED alternates green and amber	The access point receives insufficient PoE power	• Make sure that PoE+ switch is not overloaded. • If you connected the access point to a PoE (802.3af) switch, disconnect it and connect it to a PoE+ (802.3at) switch instead. The access point requires a PoE+ (802.3at) switch.
The LAN port LEDs are off	A hardware connection problem exists	• Make sure that the cable connectors are securely plugged into the access point and switch. • Make sure that the switch is turned on.

Problem	Cause	Possible Solution
The WLAN LEDs are off	The wireless connection does not work	• Make sure the PoE+ switch is providing sufficient power to the access point. • From the wireless controller, verify that the radio or radios are turned on. • If the WLAN LEDs remain off, contact NETGEAR.
You cannot connect to the access point from a browser	Multiple possible causes	• Make sure that your computer is using an IP address in the same range as the access point. The access point default IP address is 192.168.0.160, and the default subnet mask is 255.255.255.0. • Quit the browser, clear the cache, delete the cookies, and launch the browser again.

Technical Specifications

Electrical, Physical, and Environmental Specifications	
PoE+: 802.3at (42V~57VDc, 600mA)	Optional power adapter: 12 VDC, 2.5A The plug is localized to the country of sale.
Safety precaution: PoE may be considered a Network Environment 0 per IEC TR 62101, and thus the interconnected ITE circuits may be considered SELV.	
Height x Width x Depth: 7.76 x 7.76 x 1.57 in (197.3 x 197.3 x 40 mm)	Weight: 1.73 lb. (785 g)
Operating temperature: 32 to 104°F (0 to 40°C)	Operating humidity: 10–90%, noncondensing

Support

Thank you for purchasing this NETGEAR product. You can visit www.netgear.com/support to register your product, get help, access the latest downloads and user manuals, and join our community. We recommend that you use only official NETGEAR support resources.

For the current EU Declaration of Conformity, visit http://support.netgear.com/app/answers/detail/a_id/11621/.

For regulatory compliance information, visit http://www.netgear.com/about/regulatory/.

See the regulatory compliance document before connecting the power supply.

Federal Communication Commission Interference Statement

This device 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.

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 to correct the interference by one 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.

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.

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

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

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 37cm between the radiator & your body.

Industry Canada statement:

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Caution :

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and

(iii) Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;

(iii) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de

haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 47cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 47 cm de distance entre la source de rayonnement et votre corps.

This radio transmitter (IC: 4054A-26200345 / Model: WAC740) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 4054A-26200345 / Model: WAC740) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Antenna list as below.

External Antenna

Transmitter Circuit (For 2.4G)	Transmitter Circuit (For 5G)	Brand	Model	Antenna Gain(dBi) <including cable loss>	Frequency range (MHz ~ MHz)	Antenna Type	Connecter Type	Cable Loss(db)	Cable Length (mm)
Chain (0)	Chain (3)	Master Wave Tech	98364PRSX004	-0.2	2.4~2.4835	Dipole	R-SMA	1	172
				0	5.15~5.25			1.5	
				0.1	5.25~5.35			1.5	
				-0.8	5.47~5.725			1.5	
				-1	5.725~5.85			1.5	
Chain (1)	Chain (2)	Master Wave Tech	98364PRSX004	0	2.4~2.4835	Dipole	R-SMA	0.8	175
				0.1	5.15~5.25			1.4	
				0.2	5.25~5.35			1.4	
				-0.7	5.47~5.725			1.4	
				-0.9	5.725~5.85			1.4	
Chain (2)	Chain (1)	Master Wave Tech	98364PRSX004	0	2.4~2.4835	Dipole	R-SMA	0.8	145
				0.2	5.15~5.25			1.3	
				0.3	5.25~5.35			1.3	
				-0.6	5.47~5.725			1.3	
				-0.8	5.725~5.85			1.3	
Chain (3)	Chain (0)	Master Wave Tech	98364PRSX004	0	2.4~2.4835	Dipole	R-SMA	0.8	135
				0.1	5.15~5.25			1.4	
				0.2	5.25~5.35			1.4	
				-0.7	5.47~5.725			1.4	
				-0.9	5.725~5.85			1.4	

Internal Antenna

Transmitter Circuit	Brand	Model	Antenna Gain(dBi)	Frequency range (MHz ~ MHz)	Antenna Type	Connecter Type
Chain (0)	NA	NA	5	2.4~2.4835	PIFA	i-pex(MHF)
			6	5.15~5.25		
			6	5.25~5.35		
			6	5.47~5.725		
			6	5.725~5.85		
Chain (1)	NA	NA	5	2.4~2.4835	PIFA	i-pex(MHF)
			6	5.15~5.25		
			6	5.25~5.35		
			6	5.47~5.725		
			6	5.725~5.85		
Chain (2)	NA	NA	5	2.4~2.4835	PIFA	i-pex(MHF)
			6	5.15~5.25		
			6	5.25~5.35		
			6	5.47~5.725		
			6	5.725~5.85		
Chain (3)	NA	NA	5	2.4~2.4835	PIFA	i-pex(MHF)
			6	5.15~5.25		
			6	5.25~5.35		
			6	5.47~5.725		
			6	5.725~5.85		