

N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN

User Manual



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Support

Contact your Internet service provider for technical support.

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

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Hardware Setup

The N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN provides an easy and secure way to set up a wireless home network with fast access to the Internet through a gateway.

If you have not already set up your new access point using the installation guide that comes in the box, this chapter walks you through the hardware setup.

This chapter contains the following sections:

- Unpack Your Access Point
- Hardware Features
- Attach the Stand
- Position Your Access Point
- Cable Your Access Point
- Verify the Cabling

Unpack Your Access Point

Your box contains the following items:

- N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN
- Access point stand
- AC power adapter (plug varies by region)
- Category 5E (Cat 5E) Ethernet cable
- Resource CD
- Installation guide with cabling and access point setup instructions

If any parts are incorrect, missing, or damaged, contact your Internet service provider.

Hardware Features

Before you cable your access point, take a moment to become familiar with the label and the front and back panels. Pay particular attention to the LEDs on the front panel.

Front Panel

The access point front panel has the status LEDs and icons shown in the following figure. The Wireless and WPS icons are buttons.



Figure 1. Front panel LEDs and icons

The following table describes the LEDs, icons, and buttons on the front panel from left to right.

Item	Description
Power	 Solid amber. The access point is starting after being powered on. Solid green. The access point is ready to use. Off. The access point does not have power. Blinking green. The firmware is corrupted. Blinking amber. The firmware is upgrading, or someone pressed the Restore Factory Settings button.
2.4 GHz	 Solid green. The access point has 2.4 GHz wireless radio connectivity. Off. The 2.4 GHz wireless radio is off.
5 GHz	 Solid blue. The access point has 5 GHz wireless radio connectivity. Off. The 5 GHz wireless radio is off.
LAN 1 - 4	 Solid green. The LAN port detected a 1 Gbps link with an attached device. Solid amber. The LAN port detected a 10/100 Mbps link with an attached device. Off. The gateway does not detect a link on this port.
Wireless button	 Pressing this button for more than one second turns the wireless radios on and off. On. The 2.4 GHz and 5 GHz wireless radios are on. Off. The 2.4 GHz and 5 GHz wireless radios are off, and the 2.4 GHz and 5 GHz LEDs are off.
WPS button	Pressing this button allows you to use Wi-Fi Protected Setup (WPS) to add a wireless device or computer to your network (see <i>Wi-Fi Protected Setup (WPS) Method</i> on page 12). The WPS LED blinks for two minutes during this process.

Back Panel

The back panel has the On/Off button and port connections as shown in the figure.



Figure 2. Back panel

Label

The label on the access point shows the Restore Factory Settings button, login information, MAC address, and serial number.



Figure 3. Label on access point

For information about restoring factory settings, see Factory Settings on page 43.

Attach the Stand

For optimal wireless network performance, use the stand (included in the package) to position your access point upright.

> To attach the stand:

1. Orient your access point vertically.

2. Insert the tabs of the stand into the slots on the bottom of your access point as shown.



Position Your Access Point

The access point lets you access your network from anywhere within the operating range of your wireless network. However, the operating distance or range of your wireless connection can vary significantly depending on the physical placement of your access point. For example, the thickness and number of walls the wireless signal passes through can limit the range. For best results, place your access point in a location that follows these guidelines:

- Near the center of the area where your computers and other devices operate, and preferably within line of sight to your wireless devices.
- Accessible to an AC power outlet and near Ethernet cables for wired computers.
- In an elevated location such as a high shelf, keeping the number of walls and ceilings between the access point and your other devices to a minimum.
- Away from electrical devices that are potential sources of interference, such as ceiling fans, home security systems, microwaves, computers, or the base of a cordless phone or 2.4 GHz cordless phone.
- Away from any large metal surfaces, such as a solid metal door or aluminum studs. Large expanses of other materials such as glass, insulated walls, fish tanks, mirrors, brick, and concrete can also affect your wireless signal.

Cable Your Access Point

> To cable your access point:

- 1. Connect the Ethernet cable to your gateway.
- 2. Connect the other end of the Ethernet cable to one of the LAN ports on the access point.



- 3. Plug the power adapter into an electrical outlet.
- 4. Plug the other end of the power cable into the access point.

Verify the Cabling

Verify that your access point is cabled correctly by checking the access point LEDs. Turn on the access point by pressing the **On/Off** button on the back.

- (10) The Power LED lights amber when the access point is turned on.
- 1 The LAN port LEDs light green for each computer cabled to the access point.
- (••) The 2.4 GHz LED is lit, and the 5.0 GHz LED is lit.

Verify that the LAN (1) LEDs (1 through 4) are lit for any computers cabled to the access point by an Ethernet cable.

Note: The preset SSID (WiFi network name) and preset WiFi password for your access point are unique. This information is on the label on your access point.

NETGEAR genie Basic Settings

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This chapter contains the following sections:

- BASIC Home Screen
- Join Your Wireless Network
- BASIC Wireless Settings
- Attached Devices

BASIC Home Screen

The BASIC Home screen has a dashboard that lets you see the status of your Internet connection and network at a glance. You can click either of the two sections of the dashboard to view more detailed information. The left column has both menus and tabs. Use the ADVANCED tab to access more menus and screens.



Figure 4. BASIC Home screen with dashboard, language, and online help

The following selections are available on this screen:

- Home. This dashboard screen displays when you log in to the access point.
- Wireless. View or change the wireless settings for your access point.
- Attached Devices. View the devices connected to your network.
- **ADVANCED tab.** Set the access point up for unique situations such as when you need remote access by IP or by domain name from the Internet. See *Chapter 3, NETGEAR genie ADVANCED Home*. You need a solid understanding of networking protocols to use the options available on this tab.

Join Your Wireless Network

You can use either the manual or the WPS method to join your wireless network.

Manual Method

With the manual method, choose the network that you want and type its password to connect.

> To connect manually:

1. On your computer or wireless device, open the software that manages your wireless connections.

This software scans for all wireless networks in your area.

2. Look for your network and select it.

The unique WiFi network name (SSID) and password are on the access point label. If you changed these settings, look for the network name that you used.

3. Enter the access point password and click the Connect button.

Wi-Fi Protected Setup Method

Wi-Fi Protected Setup (WPS) lets you connect to a secure WiFi network without typing its password. Instead, press a button or enter a PIN.

Some older WiFi equipment is not compatible with WPS. WPS works only with WPA2 or WPA wireless security.

> To use WPS to join the wireless network:

- 1. Press the **WPS** button on the side of the access point.
- 2. Within two minutes, press the **WPS** button on your wireless device, or follow the WPS instructions that came with the device.

The WPS process automatically sets up your wireless computer with the network password and connects you to the wireless network.

BASIC Wireless Settings

You can view or configure the wireless network setup.

The access point comes with preset security. This means that the WiFi network name (SSID), network key (password), and security option (encryption protocol) are preset in the factory. You can find the preset SSID and password on the label of the access point.

Note: The preset SSID and password are uniquely generated for every device to protect and maximize your wireless security.

Best practice is not to change your preset security settings. If you change your preset security settings, make a note of the new settings and store it in a safe place where you can easily find it.

If you use a wireless computer to change the SSID or other wireless security settings, you are disconnected when you click the Apply button. To avoid this problem, use a computer with a wired connection to access the access point.

> To view or change basic wireless settings:

1. Select **BASIC > Wireless**.

The Wireless Settings screen displays.

x Cancel Apply Region Selection kegion: Europe Wireless Network(2.4GHz b/g/n) Image: Auto Vireless Network(2.4GHz b/g/n) Image: Auto Image: Auto Image: Auto Image: BiGIN ∨ Image: BiGIN ∨ Image: BifSilfoc1319 Image: Auto ∨ Image: Auto ∨ Image: Auto ∨ Image: Auto ∨ Auto view	Wireless Setti	ngs	
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Channel: Auto Channel Width: Auto Wifi standard: AVN	Name (SSID):		telenet-apn-7040F
Channel Width: Auto v Nifi standard: A/N v	Channel:		Auto 🗸
Wifi standard:	Channel Width:		Auto 🗸
	Wifi standard:		A/N 🗸

The screen sections, settings, and procedures are explained in the following sections.

2. Select the location where the access point is used.

In the United States, the region is fixed to United States and is not changeable.

- 3. Make any additional changes that are needed.
- 4. Click the **Apply** button.

Your settings are saved.

Set up and test your wireless devices and computers to make sure that they can connect wirelessly. If they do not, check the following:

- Is your wireless device or computer connected to your network or another wireless network in your area? Some wireless devices automatically connect to the first open network (without wireless security) that they discover.
- Does your wireless device or computer display on the Attached Devices screen? If it does, it is connected to the network.
- If you are not sure what the SSID or password is, look on the label on your access point.

Wireless Network

There is a separate section for each band, 2.4 GHz b/g/n and 5 GHz. The b/g/n notation references the 802.11 standards of conformance for the 2.4 GHz radio frequency.

The following fields appear on the Wireless Settings screen:

- Enable SSID Broadcast. This setting allows the access point to broadcast its SSID so wireless stations can see this wireless name (SSID) in their scanned network lists. This check box is selected by default. To turn off the SSID broadcast, clear the Enable SSID Broadcast check box. You click the Apply button for any of these.
- **Name (SSID)**. The SSID is also known as the wireless network name. Enter a 32-character (maximum) name in this field. This field is case-sensitive. The default SSID is randomly generated, and *best practice is not to change this setting.*
- **Channel**. This setting is the wireless channel the access point uses. Enter a value from 1 through 13. For products in the North America market, only Channels 1 through 11 can be operated. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.
- **Channel Width**. Select either **Auto** or **20 MHz**. If you select Auto, the access point works at either 40 MHz or 20 MHz. For a channel width of either 40 MHz or 20 MHz, specify the following parameters:
 - Channel Width. Select Auto.
 - WiFi Standard. Select N.
 - 5 G to **A/N** or 2.4 G to **B/G/N**.
- If the WiFi standard is set to A in 5 GHz or B/G in 2.4 GHz the access point works at 20 MHz.
- **WiFi Standard**. The WiFi standard determines the link rate. You can set access points with 2.4 GHz connectivity to the following values:
 - B/G. Link rate of 54 Mbps
 - **B/G/N**. Link rate of 130 Mbps–300 Mbps (depending on the channel width value)
- You can set access points with 5.0 GHz connectivity to these values:
 - A. Link rate of 54 Mbps
 - A/N. Link rate of 216 Mbps–450 Mbps (depending on the channel width value)

Security Options Settings

A security option is the type of security protocol applied to your wireless network. The security protocol in force encrypts data transmissions and ensures that only trusted devices receive authorization to connect to your network. Wi-Fi Protected Access (WPA) has several options including pre-shared key (PSK) encryption.

WPA encryption is built into all hardware that has the Wi-Fi-certified seal. This seal means that the product is authorized by the Wi-Fi Alliance (*http://www.wi-fi.org/*) because it complies with the worldwide single standard for high-speed wireless local area networking.

WPA uses a passphrase for authentication and to generate the initial data encryption keys. Then it dynamically varies the encryption key. WPA-PSK uses Temporal Key Integrity Protocol (TKIP) data encryption, implements most of the IEEE 802.11i standard, and works with all wireless network interface cards, but not all wireless access points. WPA2-PSK is stronger than WPA-PSK. It is advertised to be theoretically indecipherable due to the greater degree of randomness in encryption keys that it generates. WPA2-PSK gets higher speed because it is implemented through hardware, while WPA-PSK is usually implemented through software. WPA2-PSK uses a passphrase to authenticate and generate the initial data encryption keys. Then it dynamically varies the encryption key.

WPS-PSK + WPA2-PSK mixed mode can provide broader support for all wireless clients. WPA2-PSK clients get higher speed and security, and WPA-PSK clients get decent speed and security. For help with WPA settings on your wireless computer or device, see the instructions that came with your product.

You can change the security option and password. **Best practice is not change the security option or password. Do not disable security**.

You can change the security settings for your access point. If you do so, write down the new settings and store them in a secure place for future reference.

> To change the WPA settings:

1. Select **BASIC > Wireless**.

The Wireless Settings screen displays.

2. Under Security Options, select the WPA option you want.

```
Security Options

None

WPA-PSK [TKIP]

WPA2-PSK [AES]

WPA2-PSK [TKIP] + WPA2-PSK [AES]
```

3. In the password field that displays when you select a WPA security option, enter the network password that you want to use.

It is a text string from 8 to 63 characters.

4. Click the Apply button.

Your settings are saved.

Attached Devices

The Attached Device screen shows all computers or devices that are currently connected to your network.

- > To view the Attached Devices screen:
 - 1. From the BASIC Home screen, select Attached Devices.

Attached Devic	es		
Wired Devices			
#	IP Address	MAC Address	Device Name
1	192.168.0.10	F0:DE:F1:9A:96:1C	ANG-WIN7
Wireless Devices (Wi	ireless intruders also show up	here)	
#	IP Address	MAC Address	Device Name
		Refresh	

Wired devices are connected to the access point with Ethernet cables. Wireless devices have joined the wireless network.

The following fields provide information about connected devices:

- **# (number)**. The order in which the device joined the network.
- **IP Address**. The IP address that the access point assigned to this device when it joined the network. This number can change if a device is disconnected and rejoins the network.
- **MAC Address**. The unique MAC address for each device does not change. The MAC address is typically shown on the product label.
- **Device Name**. If the device name is known, it is shown here.
- 2. To update this screen, click the **Refresh** button.

NETGEAR genie ADVANCED Home

This chapter contains the following sections:

- NETGEAR genie ADVANCED Home Screen
- WPS Wizard
- Setup Menu
- LAN Setup

Some selections on the ADVANCED Home screen are described in separate chapters:

- Security. See Chapter 4, Security.
- Administration. See Chapter 5, Administration.
- ADVANCED Setup. See Chapter 6, Advanced Settings.

NETGEAR genie ADVANCED Home Screen

The genie ADVANCED Home dashboard presents status information. The content is the same as what is on the Access Point Status screen available from the Administration menu. The genie ADVANCED Home screen is shown in the following figure:

BASIC ADVANCED					English	~	
ADVANCED Home	ss Point Infe	ormation	LAN Port				
WPS Wizard Hardware Setup Firmware Security Operation Administration Advanced Setup	e Version Version uage Version 1 Mode	WNDR4300-TN V1.0.0.14TN V1.0.0.160 AP	MAC Address IP Address IP Subnet Mask	00:30:AB:37:04:0F 192.168.0.51 255.255.255.0			
wire	Reboo	s <u> (2.4GHz)</u>	Show S	tatistics	-	+	This screen is also displayed through
Name (SS	SID)	telenet-apn-7040F	Name (SSID)	telenet-apn-7040F			the Administration
Region		Europe	Region	Europe			
Channel		Auto (6)	Channel	Auto (40(P)+36 (S))			menu.
Wifi stan	dard	B/G/N	Wifi standard	A/N			
Wireless	AP	On	Wireless AP	On			
Broadcas	t Name	On	Broadcast Name	On			
Wireless	isolation	Off	Wireless isolation	Off			
Wi-Fi Pro	tected Setup	Configured	WI-FI Protected Setu	p Configured			

WPS Wizard

The WPS Wizard helps you add a WPS-capable client device (a wireless device or computer) to your network. On the client device, either press its **WPS** button or locate its WPS PIN.

- > To use the WPS Wizard:
 - 1. Select ADVANCED > WPS Wizard.

The following screen displays.

Add WPS Client
New and easy way to connect to the wireless access point using Wi-Fi Protected Setup (WPS)
A wireless client has to support the WPS function if you want to use this wizard to add the client to your WPS-enabled wireless access point. Please check the user manual and gift box of your wireless client to see whether it supports the WPS function. If your wireless client does not support the WPS function, you have to configure your wireless client manually so that it has the same SSID and wireless security settings as this access point.
Next

- 2. Click Next.
- 3. To add a WPS client (a wireless device or computer), select the **Push Button** radio button.
- 4. Either click the **WPS** button on this screen, or press the **WPS** button on the side of the access point.
- 5. Within two minutes go to the wireless client and press its **WPS** button to join the network without entering a password.

The access point attempts to add the WPS-capable device. The WPS LED () on the front of the access point blinks green. When the access point establishes a WPS connection, the LED is solid green and the access point WPS screen displays a confirmation message.

6. Repeat Step 2 and Step 3 to add another WPS client to your network.

Setup Menu

> To modify wireless, LAN, and jumbo frames options:

Select **ADVANCED > Setup** to display the Setup menu.

The following selections are available:

- **Wireless Setup**. Go to the same Wireless Settings screen that you can access from the dashboard on the BASIC Home screen. See *Join Your Wireless Network* on page 12.
- LAN Setup. Local area network (LAN) setup. See LAN Setup on page 20.
- **Jumbo frames Setup**. Jumbo frames are Ethernet frames with more than 1500 bytes of data. The Jumbo frames feature is disabled by default.

LAN Setup

The access point is shipped preconfigured to use private IP addresses on the LAN side. The access point has the following default LAN IP configuration:

- LAN IP address. 192.168.0.51
- Subnet mask. 255.255.255.0

If the default LAN IP address is used in the network, the access point selects the next available address starting from 192.168.0.51 and ending at 192.168.0.59.

These addresses are part of the designated private address range for use in private networks and are suitable for most applications. If your network requires a different IP addressing scheme, you can change these settings in the LAN Setup screen.

Note: If you change the LAN IP address of the access point, you are disconnected. To use the access point menus, you must use a browser to connect to the new IP address and log in again.

> To change the LAN settings:

1. Select **ADVANCED > Setup > LAN Setup** to display the following screen:

LAN Setup							
	×	Cancel	Apply				
LAN TCP/IP Setup							
IP Address				192	. 168	. 0	. 51
IP Subnet Mask				255	. 255	. 255	. 0

- 2. Enter the settings that you want to customize:
 - IP Address. The LAN IP address of the access point.
 - **IP Subnet Mask**. The LAN subnet mask of the access point. Combined with the IP address, the IP subnet mask allows a device to know which other addresses are local to it, and which addresses must be reached through a gateway or access point.
- 3. Click the Apply button.

Your changes are saved.

Security

4

This chapter explains how to use daylight saving time settings and security event email notifications.

This chapter includes the following sections:

- Daylight Savings Time
- Security Event Email Notifications

Daylight Savings Time

You can specify the use of daylight saving time.

- > To specify the use of daylight saving time:
 - 1. Select ADVANCED > Security > Schedule.

The following screen displays:

Schedule		
	🗙 Cancel 🛛 🗛 Apply 🕨	
Time Zone	Complete Nedrid Daile	
Automatically adjust	for daylight savings time	
	Current Time: Thursday, Jan 01, 1970 00:53:57	

- 2. Check the Automatically adjust for daylight savings time check box.
- 3. Click the Apply button.

Your settings are saved.

Security Event Email Notifications

To receive logs and alerts by email, provide your email information in the E-mail screen, and specify when you want to receive alerts.

- > To set up email notifications:
 - 1. Select ADVANCED > Security > E-mail.

The following screen displays.

E-mail	
🗙 Cancel 🛛 🖌 Apply 🕨	
Turn E-mail Notification On	
Send alerts and logs through e-mail	
Your Outgoing Mail Server:	
Send to This E-mail Address:	
My mail server requires authentication	
User Name	
Password	
Send logs according to this schedule When log is full V Day Sunday V Time 0:00 V @ a.m. p.m.	

- 2. To receive email logs and alerts from the access point, select the Turn E-mail Notification On check box.
- **3.** In the Your Outgoing Mail Server field, enter the name of your ISP outgoing (SMTP) mail server (such as mail.myISP.com).

You might be able to find this information in the configuration screen of your email program. If you leave this field blank, no log and alert messages are sent.

4. Enter the email address to which logs and alerts are sent in the Send to This E-mail Address field.

This email address is also used for the From address. If you leave this field blank, log and alert messages are not sent.

- 5. If your outgoing email server requires authentication, select the **My mail server requires** authentication check box. Fill in the User Name and Password fields for the outgoing email server.
- 6. Indicate when you want the gateway to send alerts.

If you select the Weekly, Daily, or Hourly option and the log fills up before the specified period, the log is emailed to the specified email address. After the log is sent, the log is cleared from the access point's memory. If the access point cannot email the log file, the log buffer might fill up. In this case, the access point overwrites the log and discards its contents.

7. Click the Apply button.

Your settings are saved.

Administration

5

This chapter describes the settings for administering and maintaining your access point and home network.

This chapter includes the following sections:

- Upgrade the Firmware
- View Access Point Status
- View Logs of Web Access or Attempted Web Access
- Manage the Configuration File
- Set Password

Upgrade the Firmware

The access point firmware (routing software) is stored in flash memory. You can update the firmware from the Administration menu, which you access from the ADVANCED tab. You might see a message at the top of the genie screens when new firmware is available for your product.

- > To update your access point:
 - 1. Select ADVANCED > Administration > Firmware upgrade.

Firmware Upgrade	
Locate and select the upgrade file on your ha	ard disk.
× Cancel	Upload 🕨

2. Click the **Browse** button.

Locate and select the firmware file you downloaded (the file ends in .img).

3. Click the Upload button.

The access point begins the update.



WARNING:

To avoid the risk of corrupting the firmware, do not interrupt the upgrade. For example, do not close the browser, click a link, or load a new page. Do not turn off the access point.

When the upload is complete, your access point restarts. The upgrade process typically takes about one minute. Read the new firmware release notes to find out if you need to reconfigure the access point after upgrading.

View Access Point Status

> To view access point status and usage information:

Select Administration > Access Point Status.

The following screen displays:

ardware Version	WNDR4300-TN	MAC Address	00:30:AB:37:04:0F
irmware Version	V1.0.0.14TN	IP Address	192.168.0.51
UI Language Version	V1.0.0.160	IP Subnet Mask	255.255.255.0
Operation Mode	AP		
Wireless Setting	s (2.4GHz)	Show	v Statistics tings (5.0GHz)
Reboo	s (2.4GHz) telenet-apn-7040F Furone	Show Wireless Set Name (SSID) Region	v Statistics tings (5.0GHz) telenet-apn-7040F Europe
Reboo Wireless Setting Name (SSID) Region Channel	s (2.4GHz) telenet-apn-7040F Europe Auto (6)	Show Wireless Set Name (SSID) Region Channel	v Statistics tings (5.0GHz) telenet-apn-7040f Europe Auto (40(P)+36 (S))
Reboo Wireless Setting Name (SSID) Region Channel Wifi standard Wiislass AD	s (2.4GHz) telenet-apn-7040F Europe Auto (6) B/G/N	Show Wireless Set Name (SSID) Region Channel Wifi standard	tings (5.0GHz) telenet-apn-7040 Europe Auto (40(P)+36 (S)) A/N
Reboo Wireless Setting Name (SSID) Region Channel Wifi standard Wireless AP	s (2.4GHz) telenet-apn-7040F Europe Auto (6) B/G/N On	Show Wireless Set Name (SSID) Region Channel Wifi standard Wireless AP	v Statistics tings (5.0GHz) telenet-apn-7040 Europe Auto (40(P)+36 (S)) A/N On
Reboo Wireless Setting Name (SSID) Region Channel Wifi standard Wireless AP Broadcast Name Winolocs isolation	s (2.4GHz) telenet-apn-7040F Europe Auto (6) B/G/N On On On	Show Wireless Set Name (SSID) Region Channel Wifi standard Wireless AP Broadcast Name	v Statistics tings (5.0GHz) telenet-apn-7040f Europe Auto (40(P)+36 (S)) A/N On On
Reboo Wireless Setting Name (SSID) Region Channel Wifi standard Wireless AP Broadcast Name Wireless isolation Wireless isolation	s (2.4GHz) telenet-apn-7040F Europe Auto (6) B/G/N On On Off Castieurod	Show Wireless Set Name (SSID) Region Channel Wifi standard Wireless AP Broadcast Name Wireless isolation	tings (5.0GHz) telenet-apn-7040f Europe Auto (40(P)+36 (S)) A/N On On On Off

Access Point Information

The following information displays:

- Hardware Version. The access point model.
- **Firmware Version**. The version of the access point firmware. It changes if you upgrade the access point firmware.
- **GUI Language Version**. The localized language of the user interface.
- **Operation Mode**. The operation mode of this device. The device is an access point (AP).

LAN Port

The following information displays:

- **MAC Address**. The Media Access Control address. This is the unique physical address that the Ethernet (LAN) port of the access point uses.
- **IP Address**. The IP address that the Ethernet (LAN) port of the access point uses. The default is 192.168.0.51.
- **IP Subnet Mask**. The LAN subnet mask of the access point. Combined with the IP address, the IP subnet mask allows a device to know which other addresses are local to it, and which addresses must be reached through a gateway or access point.

- > To view connection statistics:
 - 1. Select Administration > Access Point Status.
 - 2. Click the Show Statistics button.

The following screen displays:

System Up Time 00:04:56							
Port	Status	TxPkts	RxPkts	Collisions	Tx B/s	Rx B/s	Up Time
WAN	1000M/Full	808	1702	0	253	4012	00:04:32
LAN 1	Link Down						00:00:00
LAN 2	Link Down	2210	1015		9000	566	00:00:00
LAN 3	Link Down	2310	1815	6	8099	500	00:00:00
LAN 4	1000M/Full	/					00:04:32
WLAN b/g/n	130M	135	0	0	182	0	00:03:30
WLAN ain	450M	95	0	0	120	0	00:03:30
Poll Interval : 5 (sec	s)	Set	Interval	Stop)		

The following information displays:

- System Up Time. The time elapsed since the access point was last restarted.
- **Port**. The statistics for the LAN (Ethernet) ports. For each port, the screen displays:
 - Status. The link status of the port.
 - **TxPkts**. The number of packets transmitted on this port since reset or manual clear.
 - **RxPkts**. The number of packets received on this port since reset or manual clear.
 - Collisions. The number of collisions on this port since reset or manual clear.
 - **Tx B/s**. The current transmission (outbound) bandwidth used on the WAN and LAN ports.
 - **Rx B/s**. The current reception (inbound) bandwidth used on the WAN and LAN ports.
 - **Up Time**. The time elapsed since this port acquired the link.
 - **Poll Interval**. The interval at which the statistics are updated in this screen.
- **3.** To change the polling frequency, enter a time in seconds in the Poll Interval field, and click the **Set Interval** button.
- 4. To stop the polling entirely, click the **Stop** button.

Wireless Settings

Name (SSID)	telenet-apn-7040F	Name (SSID)	telenet-apn-7040
Region	Europe	Region	Europe
Channel	Auto (6)	Channel	Auto (40(P)+36
Wifi standard	B/G/N	Wifi standard	(C) / N
Wireless AP	On		8/11
Broadcast Name	On	Wireless AP	On
Wireless isolation	Off	Broadcast Name	On
Wi Ei Drotoctod Cotup	Configurad	Wireless isolation	Off
wi-ri Protected Setup	Configured	Wi-Fi Protected Setup	Configured

The following information displays for the 2.4 GHz and 5 GHz bands:

- Name (SSID). The wireless network name (SSID) that the access point uses.
- **Region**. The geographic region where the access point is being used. It might be illegal to use the wireless features of the access point in some parts of the world.
- **Channel**. Identifies the operating channel of the wireless port being used. The default channel is Auto. When Auto displays, the access point finds the best operating channel available.
- WiFi Standard. For 2.4 GHz, either B/G (54 Mpbs) or B/G/N (130–300 Mbps). For 5.0 GHz, either A (54 Mpbs) or A/N (216–450 Mbps).
- Wireless AP. Indicates whether the radio feature of the access point is enabled. If this feature is not enabled, the 2.4 GHz and 5 GHz LEDs on the front panel are off.
- Broadcast Name. Indicates whether the access point is broadcasting its SSID.
- **Wireless Isolation**. Wireless clients cannot communicate directly with each other or see each other's private information.
- Wi-Fi Protected Setup. Indicates whether Wi-Fi Protected Setup is configured for this network.

View Logs of Web Access or Attempted Web Access

The log is a detailed record of the websites you have accessed or attempted to access. Up to 256 entries are stored in the log.

- > To view and manage the log:
 - 1. Select ADVANCED > Administration > Logs.

The Logs screen displays.



The Logs screen shows the following information:

- Date and time. The date and time the log entry was recorded.
- Source IP. The IP address of the initiating device for this log entry.
- Action. Whether the access was blocked or allowed.
- 2. Click the check boxes indicating the information you want the log to include.
 - Connections to the Web-based interface of this Access Point
 - Access Point operation (startup, get time etc)
- 3. To refresh the log screen, click the **Refresh** button.
- 4. To clear the log entries, click the **Clear Log** button.
- 5. To email the log immediately, click the **Send Log** button.

Manage the Configuration File

The configuration settings of the access point are stored within the access point in a configuration file. You can back up (save) this file to your computer, restore it, or reset it to the factory default settings.

Back Up Settings

- > To back up the access point's configuration settings:
 - 1. Select ADVANCED > Administration > Backup Settings.

The following screen displays:

Backup Settings		
Save a copy of current settings		
	Back Up	
Restore saved settings from a file		
	Browse	
	Restore	
Revert to factory default settings		

- 2. Click the Back Up Settings button.
- Specify a location to store the .cfg file that is on a computer on your network. A copy of the current settings is saved.

Restore Configuration Settings

- > To restore configuration settings that you backed up:
 - 1. Select ADVANCED > Administration > Backup Settings.
 - 2. Click the Browse button to find and select the .cfg file.
 - 3. Click the Restore button.

The file is uploaded to the access point and the access point reboots.



WARNING:

Do not interrupt the reboot process.

Erase the Current Configuration Settings

You can use the Erase button to erase the configuration and restore the factory default settings. You might want to do this if you move the access point to a different network or if you changed the password and have forgotten what it is. (The default password is on the product label.)

You can also use the Restore Factory Settings button on the back of the access point to erase the configuration and restore the factory settings. (See *Factory Settings* on page 43).

> To erase the configuration settings:

- 1. Select ADVANCED > Administration > Backup Settings.
- 2. Click the Erase button.

The factory default settings are restored. The user name is admin, the password to password, and the LAN IP address is 192.168.0.51. DHCP is enabled.

Set Password

You can change the default password that is used to log in to the access point with the user name admin.

This is not the same as changing the password for wireless access. The label on the bottom of your access point shows your unique wireless network name (SSID) and password for wireless access (see *Label* on page 8).

- > To set the password for the user name admin:
 - 1. Select ADVANCED > Administration > Set Password.

Set Password						
	×	Cancel		- 1	\pply	•
			_			
Old Password						
Set Password						
Repeat New Password						
Enable Password Recovery						

- 2. Type the old password and type the new password twice.
- 3. If you want to be able to recover the password, select the **Enable Password Recovery** check box.
- 4. Click the Apply button.

Your changes take effect.

Password Recovery

It is a good idea to enable password recovery if you change the password for the access point's user name of admin. Then if you forget the password, you can recover it. This recovery process is supported in Internet Explorer, Firefox, and Chrome browsers, but not in the Safari browser.

- > To set up password recovery:
 - 1. Select ADVANCED > Administration > Set Password.
 - 2. Select the Enable Password Recovery check box.
 - 3. Select two security questions and provide answers to them.
 - 4. Click the Apply button.

Your changes are saved.

> To recover your password:

1. In the address field of your browser, type www.routerlogin.net.

A login window displays.

2. Click Cancel.

If password recovery is enabled, you are prompted to enter the serial number of the access point. The serial number is on the product label.

- 3. Enter the serial number of the access point.
- 4. Click the **Continue** button.

A screen displays requesting the answers to two security questions.

- 5. Enter the saved answers to the security questions.
- 6. Click the **Continue** button.

A screen displays confirming a successful recovery of your password.

7. Click the Login again button.

A login screen displays.

8. With your recovered password, log in to the access point.

Advanced Settings

6

This chapter describes the advanced features of your access point. The information is for users with advanced networking knowledge who want to set the access point up for unique situations.

This chapter includes the following sections:

- Advanced Wireless Settings
- Restrict Wireless Access by MAC Address

Advanced Wireless Settings

- > To specify advanced wireless settings:
 - 1. Select ADVANCED > Advanced Setup > Wireless Settings.

Advance	l Wireless Se	ettings			_		
		×	Cancel	Apply			
Advanced W	ireless Settings (2	2.4GHz b/g/	/n)				~
🗹 Enable Wir	eless Access Point F	Radio					
Enable Wir	eless Isolation						
✓ Enable WM	IM (Wi-Fi multimedi	a) settings (2	.4GHz b/g/n)				
Fragmentatio	n Length (256-2346)		2346			
CTS/RTS Thre	shold (1-2347)			2347			
Preamble Mod	e			Autom	atic 🗸		
Transmit Pow	er Control			100%	✓		
Turn off v	vireless signal by	schedule					
The wireless	signal is schedul	ed to turn o	ff during the follo	owing time period	:	_	
Period	Start	End	Recurre	nce Pattern			
		Add	a new period	Edit Delete			
Advanced W	ireless Settings (!	5GHza/n)					- 1
Enable Wir	eless Access Point F	Radio					
Enable Wir	eless Isolation						
✓ Enable WM	IM (Wi-Fi multimedi	a) settings (5	iGHz a/n)				
Fragmentatio	Length (256-2346)		2346			
CTS/RTS Thre	shold (1-2347)			2347			
Preamble Mod	le			Autom	atic 🗸		
Transmit Pow	er Control			100%	v		
Turn off y	vireless signal by	schedule					
The wireless	signal is schedul	ed to turn o	ff during the folle	owing time period	:		
Period	Start	End	Recurre	nce Pattern		7	
		Add	a new period	Edit Delete			~

- 2. Specify the following settings:
 - Enable Wireless Access Point Radio. You can completely turn off the wireless portion of the wireless access point by clearing this check box. Select this check box again to enable the wireless portion of the access point. When the wireless radio is disabled, other members of your household can use the access point by connecting their computers to the access point with an Ethernet cable.
 - Enable Wireless Isolation. Enabling this feature prevents associated wireless clients from communicating with each other. Clients in the same wireless network cannot access other clients' private information.
 - Enable WMM (Wi-Fi Multimedia) Settings. Select this check box to enable 11n performance.

Note: The Fragmentation Length, CTS/RTS Threshold, and Preamble Mode options are reserved for wireless testing and advanced configuration only. Do not change these settings.

Transmit Power Control. You can change the transmit power of each wireless radio. Lower transmit power reduces the power consumption of the access point, but also reduces the wireless coverage.

Turn off wireless signal by schedule. You can use this feature to turn off the wireless signal from your access point at times when you do not need a wireless connection. For example, you could turn it off for the weekend if you leave town.

Restrict Wireless Access by MAC Address

You can set up a list of computers and wireless devices that are allowed to join the wireless network. This list is based on the unique MAC address of each computer and device.

Each network device has a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, and separated by colons (for example, 00:09:AB:CD:EF:01). Typically, the MAC address is on the label of the wireless card or network interface device. If you do not have access to the label, you can display the MAC address using the network configuration utilities of the computer. You might also find the MAC addresses in the Attached Devices screen.

> To restrict access based on MAC addresses:

- 1. Select ADVANCED > Advanced Setup > Wireless Settings.
- 2. Click the Setup Access List button to display the Wireless Card Access List screen.
- 3. Click the Add button to add a wireless device to the Wireless Access Control List.

The Wireless Card Access Setup screen opens and displays a list of currently active wireless cards and their Ethernet MAC addresses.

4. If the computer or device you want is in the Available Wireless Cards list, select that radio button; otherwise, type a name and the MAC address.

You can usually find the MAC address on the label of the wireless device.

- **Tip:** You can copy and paste the MAC addresses from the Attached Devices screen into the MAC Address field of this screen. To do this, use each wireless computer to join the wireless network. The computer should then appear in the Attached Devices screen.
- Click the Add button to add this wireless device to the Wireless Card Access List. The screen changes back to the list screen.
- 6. Add each computer or device you want to allow to connect wirelessly.
- 7. Select the Turn Access Control On check box.
- 8. Click the Apply button.

Troubleshooting

This chapter provides information to help you diagnose and solve problems you might have with your access point.

7

This chapter contains the following sections:

- Quick Tips
- Troubleshoot with the LEDs
- Cannot Log In to the Access Point
- Changes Not Saved
- Incorrect Date or Time
- Wireless Connectivity
- Wireless Signal Strength

Quick Tips

This section describes tips for troubleshooting some common problems.

Power LED

Check the Power LED (1) to verify correct access point operation.

If the Power LED does not turn solid green within two minutes after you turn the access point on, reset the access point according to the instructions in *Factory Settings* on page 43.

Check Ethernet Cable Connections

Make sure that the Ethernet cables are securely plugged in:

- The LAN port LED on the access point is lit if the Ethernet cable connecting the access point and the gateway router is plugged in securely and the gateway router and access point are turned on.
- For each powered-on computer connected to the access point by an Ethernet cable, the corresponding numbered access point LAN port LED is lit.

Wireless Settings

Make sure that the wireless settings in the computer and access point match exactly:

- For a wirelessly connected computer, the wireless network name (SSID) and wireless security settings of the access point and wireless computer must match exactly.
- If you set up an access list in the Advanced Wireless Settings screen, you must add each wireless computer's MAC address to the access point's access list.

Network Settings

Make sure that the network settings of the computer are correct:

- Wired and wirelessly connected computers must have network (IP) addresses on the same network as the access point. The simplest way to do this is to configure each computer to obtain an IP address automatically using DHCP.
- Some cable modem service providers require you to use the MAC address of the computer initially registered on the account. You can view the MAC address in the Attached Devices screen.

Troubleshoot with the LEDs

After you turn on power to the access point, the following sequence of events occurs:

- 1. When power is first applied, verify that the Power LED (1) lights.
- 2. After two minutes, verify the following:
 - The Power LED lights solid green.
 - The LAN port LED lights.
 - The 2.4 GHz and 5 GHz LEDs light.

You can use the LEDs on the front panel of the access point for troubleshooting.

Power LED Is Off or Blinking

- Make sure that the power cord is securely connected to your access point and that the power adapter is securely connected to a functioning power outlet.
- Check that you are using the 12 V-DC, 2.5A power adapter that NETGEAR supplied for this product.
- If the Power LED blinks slowly and continuously, the access point firmware is corrupted. This can happen if a firmware upgrade is interrupted, or if the access point detects a problem with the firmware. If the error persists, you have a hardware problem.

LEDs Never Turn Off

When the access point is turned on, the LEDs light for about 10 seconds and then turn off. If all the LEDs stay on, there is a fault within the access point.

If all LEDs are still lit one minute after power-up, do the following:

- Cycle the power to see if the access point recovers.
- To return the access point to its factory settings, press and hold the **Restore Factory Settings** button. For more information, see *Factory Settings* on page 43.

If the error persists, you might have a hardware problem.

2.4 GHz and 5 GHz LEDs Are Off

If these LEDs stay off, check to see if the wireless button on the access point has been pressed. This button turns the wireless radios in the access point on and off. The 2.4 GHz and 5 GHz LEDs are lit when the wireless radios are turned on.

Cannot Log In to the Access Point

If you are unable to log in to the access point from a computer on your local network, check the following:

- If you are using an Ethernet-connected computer, check the Ethernet connection between the computer and the access point. For more information, see *Check Ethernet Cable Connections* on page 38.
- Make sure that your computer's IP address is on the same subnet as the access point.
- If your computer's IP address is shown as 169.254.x.x, recent versions of Windows and Mac OS generate and assign an IP address if the computer cannot reach a DHCP server. These autogenerated addresses are in the range of 169.254.x.x. If your IP address is in this range, check the connection from the computer to the access point, and reboot your computer.
- If your access point's IP address was changed and you do not know the current IP address, clear the access point's configuration to factory defaults. This sets the access point's IP address to 192.168.0.51. See *Factory Settings* on page 43.
- Make sure that your browser has Java, JavaScript, or ActiveX enabled. If you are using Internet Explorer, click the **Refresh** button to be sure that the Java applet is loaded.
- Try quitting the browser and launching it again.
- Make sure that you are using the correct login information. The factory default login name is admin and the password is password. Make sure that Caps Lock is off when you enter this information.

Changes Not Saved

If the access point does not save the changes you make in the access point interface, check the following:

- When entering configuration settings, always click the **Apply** button before moving to another screen or tab, or your changes are lost.
- Click the **Refresh** or **Reload** button in the web browser. The changes might have occurred, but the old settings might be in the web browser's cache.

Incorrect Date or Time

To display the current date and time, select **ADVANCED > Security > Schedule**. The access point uses the Network Time Protocol (NTP) to obtain the current time from one of several network time servers on the Internet. Each entry in the log is stamped with the date and time of day. Problems with the date and time function can include the following:

• Date shown is January 1, 1970. This means the access point has not yet successfully reached a network time server. Check that your Internet access is configured correctly.

• Time is off by one hour. The access point does not automatically sense daylight savings time. In the Schedule screen, select the **Automatically adjust for daylight savings time** check box.

Wireless Connectivity

If you are having trouble connecting wirelessly to the access point, try to isolate the problem:

• Does the wireless device or computer that you are using find your wireless network?

If not, check the 2.4 GHz and 5 GHz LEDs on the front of the access point. They should be lit. If they are not, you can press the **Wireless** button on the front of the access point to turn the access points wireless radios back on.

If you disabled the access point's SSID broadcast, then your wireless network is hidden and does not display in your wireless client's scanning list. (By default, SSID broadcast is enabled.)

- If your wireless device finds the network but you cannot join the network, check to make sure that your wireless device is compatible with the network that you selected (2.4 GHz or 5 GHz).
- Does your wireless device support the security that you are using for your wireless network (WPA or WPA2)?
- If you want to check the wireless settings for the access point, use an Ethernet cable to connect a computer to a LAN port on the access point. Then log in to the access point and select **Setup > Wireless Settings** (see *BASIC Wireless Settings* on page 13).

Note: Note: Be sure to configure both sections (for 2.4 GHz b/g/n and 5 GHz a/n) on the Wireless Settings screen and to click the **Apply** button if you make changes.

Wireless Signal Strength

If your wireless device finds your network, but the signal strength is weak, check these conditions:

- Is your access point too far from your computer, or too close? Place your computer near the access point, but at least 6 feet (1.8 meters) away, and see if the signal strength improves.
- Is your wireless signal blocked by objects between the access point and your computer?

Supplemental Information



This appendix provides factory default settings and technical specifications for the N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN.

The appendix includes the following sections:

- Factory Settings
- Technical Specifications

Factory Settings

You can return the access point to its factory settings. Use the end of a paper clip or a similar object to press and hold the **Restore Factory Settings** button on the back of the access point for at least five seconds. The access point resets and returns to the factory configuration settings shown in the following table.

Feature		Default behavior
Access point login	User name (case-sensitive)	admin
	Login password (case-sensitive)	password
Local network (LAN)	LAN IP address	192.168.0.51
	Subnet mask	255.255.255.0
	Time zone	GMT +01:00
	Time zone adjusted for daylight saving time	Disabled
	Allow a registrar to configure this router	Enabled
Wireless	Wireless communication	Enabled
	SSID name	See access point label
	Network key	See access point label
	Channel width - 2.4 GHz	20 Mhz
	Channel width - 5 GHz	Auto
	Security	WPA-PSK(TKIP) + WPA2-PSK(AES)
	Broadcast SSID	Enabled
	Transmission speed	Auto*
	Country/region	Europe
	RF channel	Auto
	WiFi standard	2.4 GHz: b/g/n 5 GHz: a/n

* Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual throughput can vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.

Technical Specifications

Table 1. WNDR4300-TN Router specifications

Feature	Description
Power adapter	Europe: 230V, 50 Hz, input
Dimensions	1.1 in. x 6.89 in. x 4.68 in. (28 mm x 175 mm x 119 mm)
Weight	0.5 kg (1.2 lb)
Operating temperature	0° to 40°C (32° to 104°F)
Operating humidity	90% maximum relative humidity, noncondensing
Electromagnetic emissions	FCC Part 15 Class B VCCI Class B EN 55 022 (CISPR 22), Class B C-Tick N10947
LAN	10BASE-T or 100BASE-Tx or 1000BASE-T, RJ-45
Wireless	Maximum wireless signal rate complies with the IEEE 802.11 standard. See the footnote for the previous table.
Radio data rates	Auto Rate Sensing
Data encoding standards	IEEE 802.11n IEEE 802.11n, IEEE 802.11g, IEEE 802.11b 2.4 GHz IEEE 802.11n, IEEE 802.11a 5.0 GHz
Maximum computers per wireless network	Limited by the amount of wireless network traffic generated by each node (typically 50–70 nodes).
Operating frequency range	2.4 GHz 2.412–2.462 GHz (US) 2.412–2.472 GHz (Japan) 2.412–2.472 GHz (Europe ETSI) 5 GHz 5.18–5.24 + 5.745–5.825 GHz (US) 5.18–5.24 GHz (Europe ETSI)
802.11 security	40-bit (also called 64-bit) and 128-bit WEP, WPA-PSK, and WPA2-PSK.

Notification of Compliance



Regulatory Compliance Information

This section includes user requirements for operating this product in accordance with National laws for usage of radio spectrum and operation of radio devices. Failure of the end-user to comply with the applicable requirements may result in unlawful operation and adverse action against the end-user by the applicable National regulatory authority.

This product's firmware limits operation to only the channels allowed in a particular Region or Country. Therefore, all options described in this user's guide may not be available in your version of the product.

Europe – EU Declaration of Conformity

Products bearing the **CC** marking comply with the following EU directives:

- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC

If this product has telecommunications functionality, it also complies with the requirements of the following EU Directive:

R&TTE Directive 1999/5/EC

Compliance with these directives implies conformity to harmonized European standards that are noted in the EU Declaration of Conformity.

For indoor use only. Valid in all EU member states, EFTA states, and Switzerland.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

FCC Requirements for Operation in the United States

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for Human Exposure

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

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

FCC Declaration of Conformity

We, NETGEAR, Inc., 350 East Plumeria Drive, San Jose, CA 95134, declare under our sole responsibility that the N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN complies with Part 15 Subpart B of FCC CFR47 Rules. Operation is subject to the following two conditions:

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

FCC Radio Frequency Interference Warnings & Instructions

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 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 methods:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an electrical outlet on a circuit different from that which the radio 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 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.
- For product available in the USA and Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.
- Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités.
 Sélection d'autres canaux n'est pas possible.
- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.
- Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.
- For operation within a 5.15 ~ 5.25 GHz/5.47 ~ 5.725 GHz frequency range, it is restricted to an indoor environment. The band from 5600-5650 MHz will be disabled by the software during the manufacturing and cannot be changed by the end user. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.
- Devices will not permit operations on channels 120-132 for 11a and 11n/a which overlap the 5600 5650 MHz band.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (N750 Wireless Dual Band Gigabit Access Point WNDR4300-TN) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

CAN ICES-3 (B)/NMB-3(B)

Industry Canada

This device complies with RSS-210 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet 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.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

Le dispositif pourrait automatiquement cesser d'émettre en cas d'absence d'informations à transmettre, ou une défaillance opérationnelle. Notez que ce n'est pas l'intention d'interdire la transmission des informations de contrôle ou de signalisation ou l'utilisation de codes répétitifs lorsque requis par la technologie.

Dynamic Frequency Selection (DFS) for devices operating in the bands 5250- 5350 MHz,5470-5600 MHz and 5650-5725 MHz.

Sélection dynamique de fréquences (DFS) pour les dispositifs fonctionnant dans les bandes 5250-5350 MHz, 5470-5600 MHz et 5650-5725 MHz.

The maximum antenna gain permitted (for devices in the bands 5250-5350 MHz and 5470-5725 MHz) to comply with the e.i.r.p. limit.

Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

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 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

Le dispositif pourrait automatiquement cesser d'émettre en cas d'absence d'informations à transmettre, ou une défaillance opérationnelle. Notez que ce n'est pas l'intention d'interdire la transmission des informations de contrôle ou de signalisation ou l'utilisation de codes répétitifs lorsque requis par la technologie.

Caution:

The device for the band 5150-5250 MHz is only for indoor usage to reduce po-tential for harmful interference to co-channel mobile satellite systems.

High power radars are allocated as primary users (meaning they have priority) of 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utili-sation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

IMPORTANT NOTE: Radiation Exposure Statement:

This equipment complies with IC 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.

NOTE IMPORTANTE: Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Interference Reduction Table

The following table shows the recommended minimum distance between NETGEAR equipment and household appliances to reduce interference (in feet and meters).

Household Appliance	Recommended Minimum Distance (in feet and meters)
Microwave ovens	30 feet / 9 meters
Baby monitor - analog	20 feet / 6 meters
Baby monitor - digital	40 feet / 12 meters
Cordless phone - analog	20 feet / 6 meters
Cordless phone - digital	30 feet / 9 meters
Bluetooth devices	20 feet / 6 meters
ZigBee	20 feet / 6 meters