



# 3G/4G Dual Band AC WiFi Router



4GM3W-01  
USER GUIDE

#### Copyright

Copyright©2014 NetComm Wireless Limited. All rights reserved.

The information contained herein is proprietary to NetComm Wireless Limited. No part of this document may be translated, transcribed, reproduced, in any form, or by any means without prior written consent of NetComm Wireless Limited.



Note: This document is subject to change without notice.

#### Save Our Environment

When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separately from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this device can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste. You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

Please be responsible and protect our environment.

This manual covers the following products:

NetComm Wireless 4GM3W 3G/4G Dual Band AC WiFi Router

DOCUMENT VERSION	DATE
1.0 - Initial document release	November2013
1.1 – Updated Safety and product care section	June 2014

# Table of Contents

Overview .....	5
Introduction .....	5
Target Audience.....	5
Prerequisites .....	5
Notation.....	5
Product Introduction .....	6
Product Overview.....	6
Package Contents.....	6
Product Features .....	6
Physical Dimensions and Indicators .....	7
LED Indicators .....	7
Physical Dimensions.....	8
4GM3W Default Settings .....	8
Interfaces .....	9
Safety and Product Care .....	10
Transport and Handling .....	10
Installation and Configuration of the 4GM3W .....	11
Placement of your 4GM3W.....	11
Avoid obstacles and interference.....	11
Cordless Phones.....	11
Choose the “Quietest” Channel for your Wireless Network .....	11
Hardware installation .....	12
Connecting via Ethernet cable .....	12
Connecting wirelessly .....	12
Web Based Configuration Interface .....	13
First-time Setup Wizard .....	13
Basic View .....	18
Status.....	18
Wireless 2.4GHz / 5GHz.....	20
Mobile Broadband.....	21
Advanced configuration .....	22
Network Setup .....	24
DHCP Server .....	28
Wireless 2.4GHz.....	30
Wireless 5GHz.....	31
Forwarding Rules.....	33
Port Triggering .....	34
Miscellaneous .....	35
Security Settings .....	36
Status.....	36
Packet Filters .....	36
Domain Filters.....	38
URL Blocking .....	39
MAC Control .....	40
Miscellaneous .....	41
Advanced Settings.....	42
Status.....	42
System Log.....	43
Dynamic DNS .....	44
QoS.....	45
SNMP.....	50
Routing.....	51
System Time.....	52
Scheduling .....	53
IPv6.....	55
NAS Settings.....	56
Disk Utility .....	56
File Sharing.....	56
Access Control.....	58
Download Assistant .....	59

Download Status.....	61
Web HDD.....	61
Toolbox .....	62
System Info.....	62
Routing Table.....	62
Restore Settings .....	62
Firmware Upgrade .....	63
Backup Settings.....	63
Reset to Default .....	63
Reboot .....	63
Startup Wizard .....	63
Miscellaneous .....	63
Logout.....	63
Additional Product Information.....	64
Establishing a wireless connection .....	64
Windows XP (Service Pack 3) .....	64
Windows Vista .....	64
Windows 7 .....	64
Mac OSX 10.6.....	64
Troubleshooting .....	65
Using the indicator lights (LEDs) to Diagnose Problems .....	65
Technical Data .....	67
Electrical Specifications .....	67
Environmental Specifications / Tolerances .....	67
Legal & Regulatory Information .....	68
Intellectual Property Rights .....	72
Customer Information .....	72
Consumer Protection Laws.....	72
Product Warranty .....	73
Limitation of Liability.....	73
Contact .....	75

# Overview

## Introduction




This guide provides information related to the installation, operation, and use of the 4GM3W.

## Target Audience


The individual reading this guide is presumed to have a basic understanding of telecommunications terminology and concepts.

## Prerequisites

Before continuing with the installation of your 4GM3W, please confirm that you comply with the minimum system requirements below.

-  An activated ADSL, activated 3G/4G, or configured WAN connection.
-  Computer with Windows, Macintosh, or Linux-based operating systems with a working Ethernet adapter with TCP/IP Protocol installed.
-  A Web Browser such as Internet Explorer, Netscape Navigator, Mozilla Firefox, Opera, Safari etc.

Wireless Computer System Requirements:

-  Computer with a working 802.11b, 802.11g or 802.11n wireless adapter.

## Notation

The following symbols are used in this guide:



Indicates a note requiring attention.



Indicates a note providing a warning.



Indicates a note providing useful information.

# Product Introduction

## Product Overview

- ◆ Stylish and compact mobile broadband router
- ◆ Creates an instant WiFi hotspot to share the Internet connection of a 3G/4G USB<sup>1</sup> modem or DSL/Cable modem
- ◆ Supports 802.11ac WiFi with data speeds up to 433Mbps<sup>1</sup>
- ◆ Supports 802.11n WiFi standard with data speeds up to 300Mbps<sup>1</sup>
- ◆ 1 x Gigabit Ethernet port that can operate as a WAN or LAN port
- ◆ USB 2.0 host port supports 3G and 4G modems
- ◆ Supports file sharing from a USB hard drive
- ◆ Ensures connectivity and business continuity with auto Internet failover from WANport to 3G/4G USB modem

## Package Contents

The 4GM3W package consists of:

- ◆ 1x 4GM3W 3G/4G Dual Band AC WiFi Router
- ◆ 1 x Power supply
- ◆ 1 x Ethernet cable
- ◆ 1 x WiFi security card
- ◆ 1 x Warranty sheet
- ◆ 1 x Quick start guide

If any of these items are missing or damaged, please contact NetComm Wireless Support immediately by visiting the NetComm Wireless Support website at: <http://www.netcommwireless.com/contact-forms/support>

## Product Features

The pocket-sized 4GM3W is packed with the latest connection, sharing and security features for reliable broadband access without boundaries. Ideal for travel, the device offers flexible 3G/4G or ADSL2+ broadband Internet connection options. Sharing the connection is easy. Create a fast, instant and portable dual band WiFi zone for multiple devices such as laptops, PCs, gaming consoles, tablets and smart phones from public areas using a 3G/4G USB modem; or connect to an in-room service via the Ethernet port. When connecting your USB modem you are able to position the router in your home where you get the best possible signal and can also share the connection with multiple devices with the WiFi capability.

This router, with its small size and ability to work with the fastest available mobile broadband modems will appeal to many users. Some practical applications include:

- ◆ Ideal for sharing with family and friends on holidays
- ◆ Share a 3G/4G connection with colleagues on a business trip
- ◆ Temporary Internet connectivity at events and functions
- ◆ Use the Ethernet port to connect to a hotel room cable to create your own WiFi hotspot

---



<sup>1</sup>Maximum wireless signal rate and coverage values are derived from IEEE Standard 802.11g, 802.11n and 802.11ac specifications. Actual wireless speed and coverage are dependent on network and environmental conditions included but not limited to volume of network traffic, building materials and construction/layout.

# Physical Dimensions and Indicators

## LED Indicators

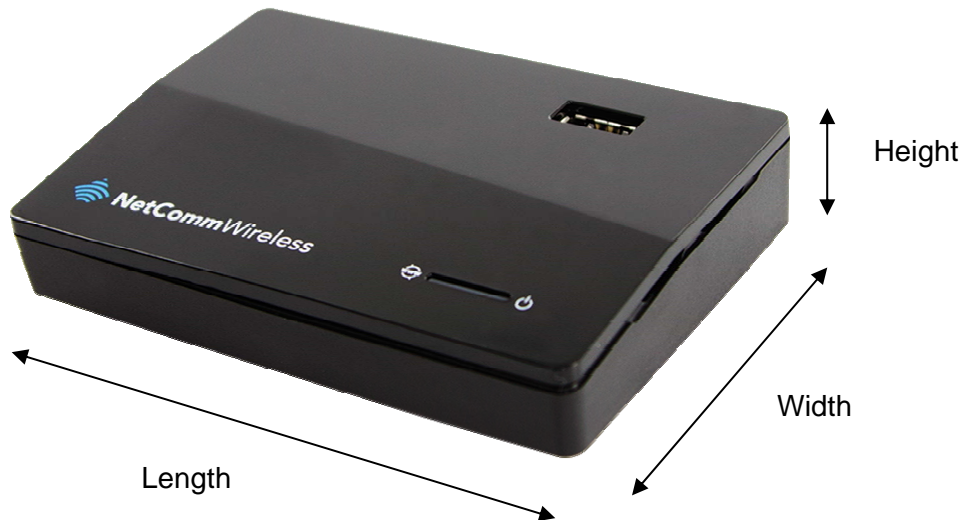
The 4GM3W has been designed to be placed on a desktop. All of the cables exit from the rear for easy organization. The display is visible on the front of the 4GM3W to provide you with information about network activity and the device status. See below for an explanation of each of the indicator lights.



FRONT PANEL	ICON	COLOUR	ACTIVITY	DEFINITION
POWER		Green	Blinking Slowly	Router is powered on
			Blinking Quickly	Device is in WPS mode
		None	Off	Router is powered off
WWW		Red	Solid	Power on with connection configuration problem
		Green	Solid	Connected to internet successfully
		None	N/A	Power off

## Physical Dimensions

The following table lists the physical dimensions of the 4GM3W.



4GM3W DIMENSIONS	
Length	98mm
Width	68mm
Height	20.5mm
Weight	74grams

## 4GM3W Default Settings

The following tables list the default settings for the 4GM3W.

LAN (MANAGEMENT)	
Static IP Address	192.168.20.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.20.1

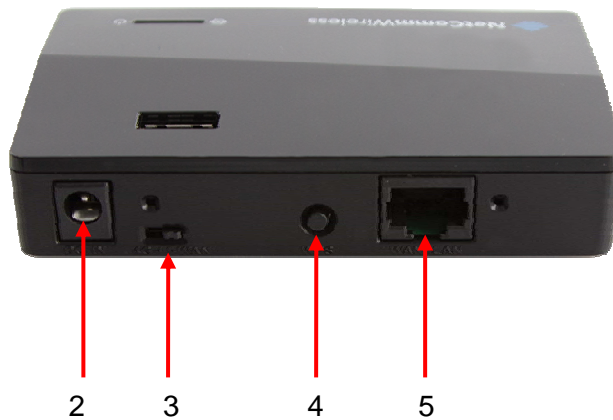
WIRELESS (WIFI)	
SSID	(Refer to the included Wireless Security Card)
Security	WPA2-PSK (AES)
Security Key	(Refer to the included Wireless Security Card)

4GM3W WEB INTERFACE ACCESS	
Username	admin
Password	admin



# Interfaces




BOTTOM PANEL		DESCRIPTION
1	Reset button (not pictured)	By using a paper clip, hold this button down for more than 10 seconds to reset to factory defaults.



REAR PANEL		DESCRIPTION
2	DC IN	Power connector, connects to a DC 5V 2.0A Power Adapter
3	4G/WAN switch	Toggles the function of the Ethernet port between LAN and WAN mode. Switch to 4G for LAN connection or to WAN for WAN connection
4	WPS	Hold this button down for 3 seconds and then release to enable the WPS push-button connect function.
5	Ethernet port	RJ45 LAN port for wired Ethernet clients (computers, laptops, etc)

# Safety and Product Care

With reference to unpacking, installation, use and maintenance of your electronic device, the following basic guidelines are recommended:

-  Do not use or install this product near water to avoid fire or shock hazard. For example, near a bathtub, kitchen sink, laundry tub, or near a swimming pool. Also, do not expose the equipment to rain or damp areas (e.g. a wet basement).
-  Do not connect the power supply cord on elevated surfaces. Allow it to lie freely. There should be no obstructions in its path and no heavy items should be placed on the cord. In addition, do not walk on, step on or mistreat the cord.
-  To safeguard the equipment against overheating, make sure that all openings in the unit that offer exposure to air are unobstructed.



## WARNING

Disconnect the power line from the device before servicing.

# Transport and Handling

When transporting the 4GM3W, it is recommended to return the product in the original packaging. This ensures the product will not be damaged.



In the event the product needs to be returned, ensure it is securely packaged with appropriate padding to prevent damage during courier transport.

# Installation and Configuration of the 4GM3W

## Placement of your 4GM3W

The wireless connection between your 4GM3W and your WiFi devices will be stronger the closer your connected devices are to your 4GM3W. Your wireless connection and performance will degrade as the distance between your 4GM3W and connected devices increases. This may or may not be directly noticeable, and is greatly affected by the individual installation environment.

If you have concerns about your network's performance that might be related to range or obstruction factors, try moving the computer to a position between three to five meters from the 4GM3W in order to see if distance is the problem.



Note: While some of the items listed below can affect network performance, they will not prohibit your wireless network from functioning; if you are concerned that your network is not operating at its maximum effectiveness, this checklist may help.

If you experience difficulties connecting wirelessly between your WiFi Devices and your 4GM3W, please try the following steps:

- In multi-storey homes, place the 4GM3W on a floor that is as close to the centre of the home as possible. This may mean placing the 4GM3W on an upper floor.
- Try not to place the 4GM3W near a cordless telephone that operates at the same radio frequency as the 4GM3W (2.4GHz).

## Avoid obstacles and interference

Avoid placing your 4GM3W near devices that may emit radio "noise," such as microwave ovens. Dense objects that can inhibit wireless communication include:

- Refrigerators
- Washers and/or dryers
- Metal cabinets
- Large aquariums
- Metallic-based, UV-tinted windows
- If your wireless signal seems weak in some spots, make sure that objects such as those listed above are not blocking the signal's path (between your devices and the 4GM3W).

## Cordless Phones

If the performance of your wireless network is impaired after considering the above issues, and you have a cordless phone:

- Try moving cordless phones away from your 4GM3W and your wireless-enabled computers.
- Unplug and remove the battery from any cordless phone that operates on the 2.4GHz band (check manufacturer's information). If this fixes the problem, your phone may be interfering with the 4GM3W.
- If your phone supports channel selection, change the channel on the phone to the farthest channel from your wireless network. For example, change the phone to channel 1 and move your 4GM3W to channel 11. See your phone's user manual for detailed instructions.
- If necessary, consider switching to a 900MHz or 5GHz cordless phone.

## Choose the "Quietest" Channel for your Wireless Network

In locations where homes or offices are close together, such as apartment buildings or office complexes, there may be wireless networks nearby that can conflict with your wireless network. Use the Site Survey capabilities found in the Wireless Utility of your wireless adapter to locate any other wireless networks that are available (see your wireless adapter's user manual), and switch your Router and computers to a channel as far away from other networks as possible.

Experiment with more than one of the available channels, in order to find the clearest connection and avoid interference from neighbouring cordless phones or other wireless devices.

## Hardware installation

1. Connect the power adapter to the Power socket on the back of the 4GM3W.
2. Plug the power adapter into the wall socket and switch on the power.
3. Wait approximately 60 seconds for the 4GM3W to power up.

## Connecting via Ethernet cable

1. Connect the yellow Ethernet cable provided to the port marked 'WAN/LAN' at the back of the 4GM3W.
2. Connect the other end of the yellow Ethernet cable to your computer.
3. Wait approximately 30 seconds for the connection to establish.
4. Open your Web browser, and enter <http://192.168.20.1> into the address bar and press enter.
5. Follow the steps to set up your 4GM3W.

## Connecting wirelessly

1. Ensure Wi-Fi is enabled on your device (e.g. computer/laptop/smartphone).
2. Scan for wireless networks in your area and connect to the network name that matches the Wireless network name configured on the 4GM3W.



Note: Refer to the included Wireless Security Card for the default SSID and wireless security key of your 4GM3W

3. When prompted for your wireless security settings, enter the Wireless security key configured on the 4GM3W. If you have already configured your 4GM3W and changed the WiFi password, enter it here instead of the default password provided on the wireless security card.
4. Wait approximately 30 seconds for the connection to establish.
5. Open your Web browser, and enter <http://192.168.20.1> into the address bar and press Enter.
6. Follow the steps to set up your 4GM3W.

# Web Based Configuration Interface

## First-time Setup Wizard

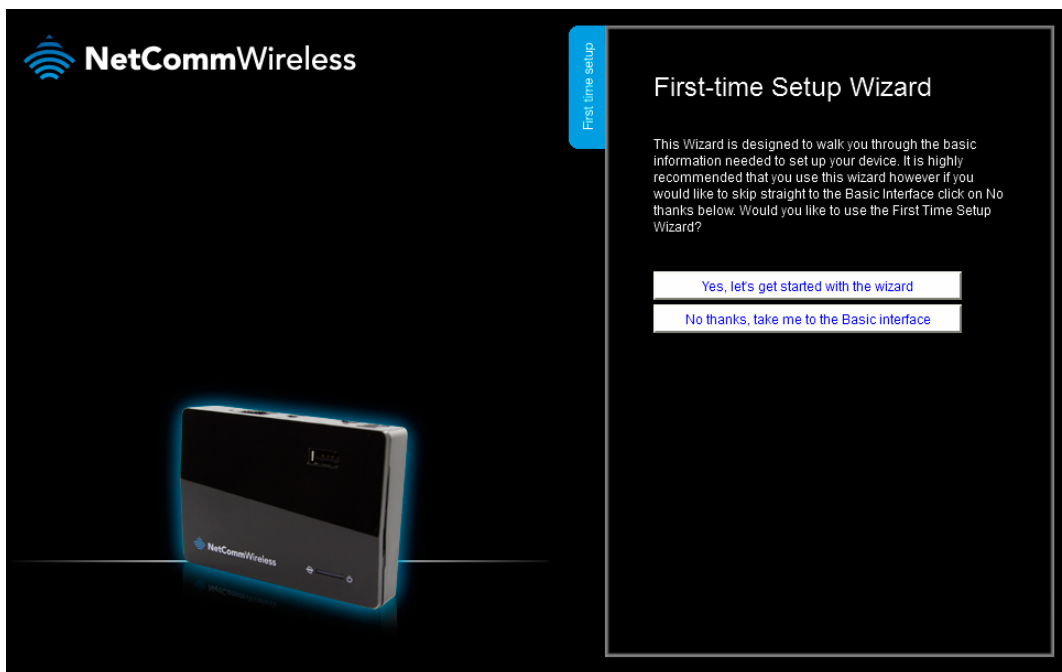
Please follow the steps below to configure your 4GM3W Wireless router via the web based configuration wizard.

Open your web browser (e.g. Internet Explorer/Firefox/Safari) and type <http://192.168.20.1/> into the address bar at the top of the window.

At the login screen, type **admin** in the username and password field, then click the **Login** button.



Note: admin is the default username and password of the router.



Click **Yes, let's get started with the wizard** to begin configuring your 4GM3W router.

### Step 1

Use the drop down menus to select the country and service provider with which you will be using your router. In the **PIN** and **Confirm PIN** fields, enter the PIN number provided to you by your carrier to unlock the SIM card.

**Note:** If you are using the BigPond service in Australia, you are required to enter the username and password provided to you by BigPond to access the service.

Click the **Next** button to continue.



## Step 2

In this step, you are able to configure the 2.4GHz WiFi network. By default, the 2.4GHz wireless radio is on but you may turn it off by setting the **Wireless 2.4GHz (WiFi)** option to **Off**. If you intend to use the wireless function, set the **SSID Broadcast** option to **Enable** if you want the wireless network to show up when devices perform a network scan when in range, or set it to **Disable** to hide the network from scans. Finally, if you wish to customise the network name, enter it into the **SSID Broadcast Name** field. The network name may not exceed 32 characters.

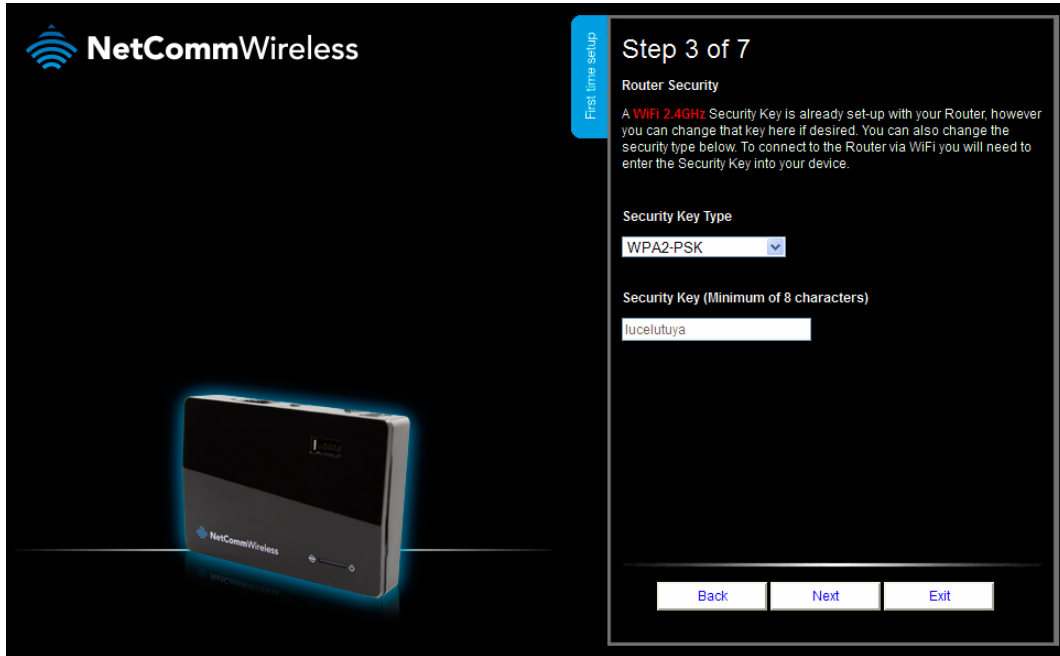
Click the **Next** button to continue.



### Step 3

The router is preconfigured with wireless security on the 2.4GHz radio but if you wish to change these settings use the **Security Key Type** drop down menu to select a wireless security key type and then enter a security key in the **Security Key** field.

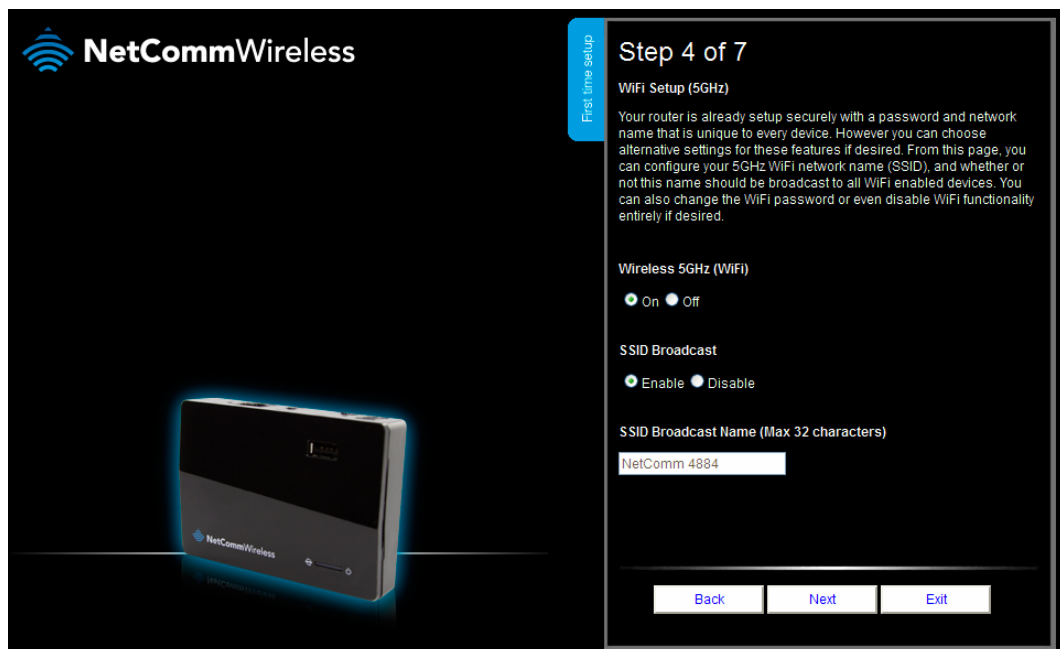
Click the **Next** button to continue.



### Step 4

In this step, you are able to configure the 5GHz WiFi network. By default, the 5GHz wireless radio is on but you may turn it off by setting the **Wireless 5GHz (WiFi)** option to **Off**. If you intend to use the wireless function, set the **SSID Broadcast** option to **Enable** if you want the wireless network to show up when devices perform a network scan when in range, or set it to **Disable** to hide the network from scans. Finally, if you wish to customise the network name, enter it into the **SSID Broadcast Name** field. The network name may not exceed 32 characters.

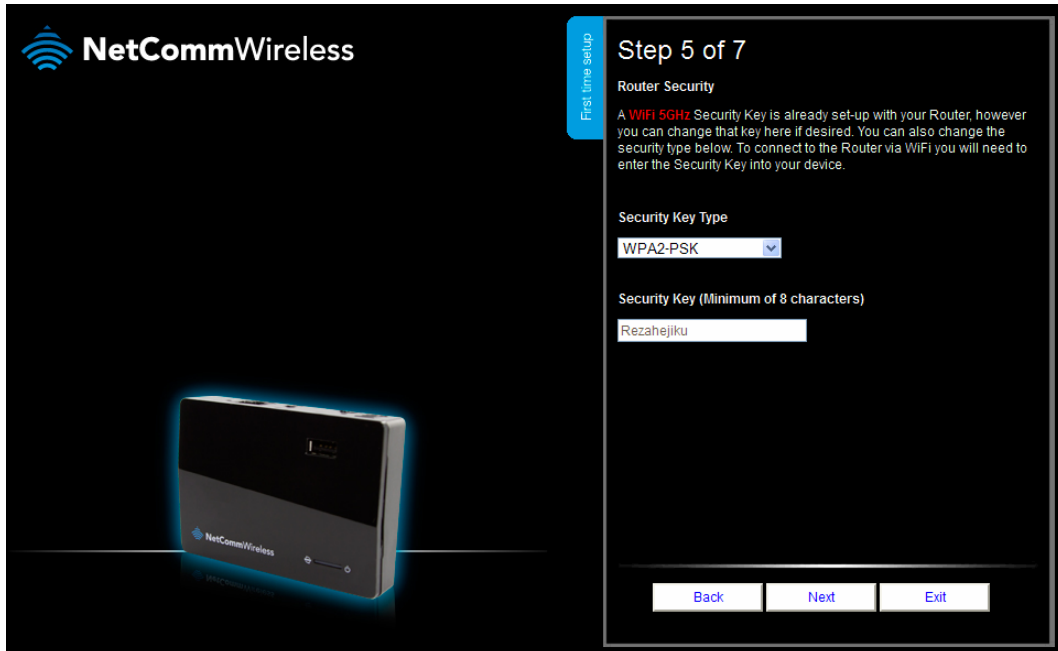
Click the **Next** button to continue.



## Step 5

The router is preconfigured with wireless security on the 5GHz radio but if you wish to change these settings use the **Security Key Type** drop down menu to select a wireless security key type and then enter a security key in the **Security Key** field.

Click the **Next** button to continue.



**NetCommWireless**

First time setup

### Step 5 of 7

Router Security

A **WiFi 5GHz** Security Key is already set-up with your Router, however you can change that key here if desired. You can also change the security type below. To connect to the Router via WiFi you will need to enter the Security Key into your device.

Security Key Type

WPA2-PSK

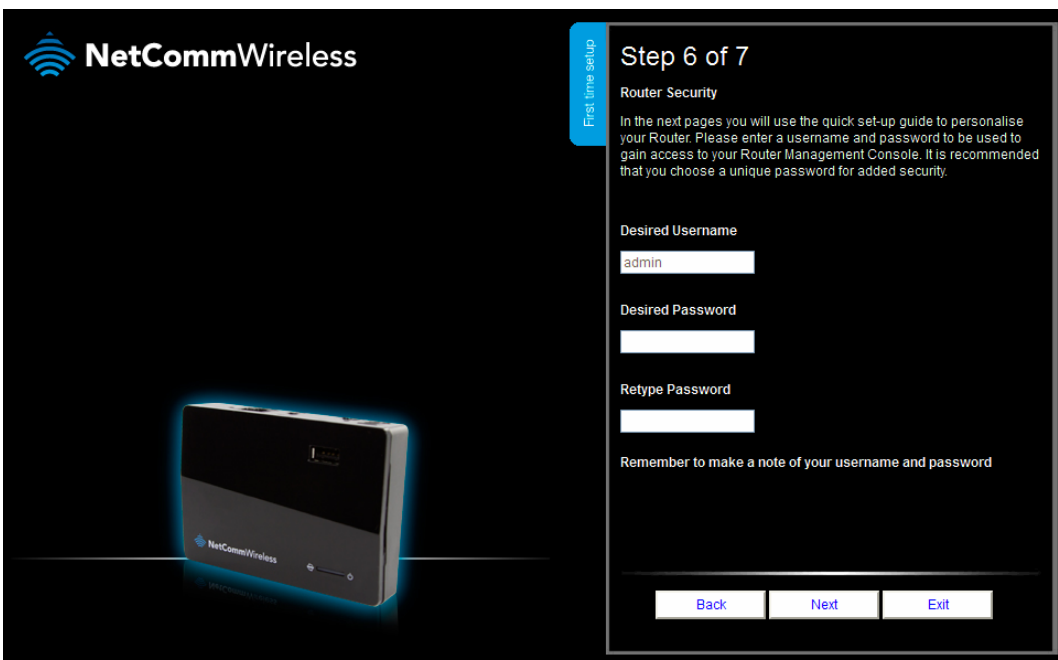
Security Key (Minimum of 8 characters)

Rezahejiku

Back Next Exit

## Step 6

For security, we recommend that you change the username and password used to access the administration settings of the router. Enter the desired username and password. Remember to make a note of your chosen username and password and click the **Next** button to continue.



**NetCommWireless**

First time setup

### Step 6 of 7

Router Security

In the next pages you will use the quick set-up guide to personalise your Router. Please enter a username and password to be used to gain access to your Router Management Console. It is recommended that you choose a unique password for added security.

Desired Username

admin

Desired Password

Retype Password

Remember to make a note of your username and password

Back Next Exit



## Step 7

A summary of the settings you have chosen is displayed. If you are happy with these settings, click the **Finish** button, otherwise, click the **Back** button to make the necessary changes or to cancel the wizard, click the **Exit** button.

The Internet light on the router illuminates green indicating a successful connection to the Internet. If the Internet light is red or not illuminated, check your settings and try again.

The router setup is complete.



## Basic View

When you have completed the First time setup wizard, you are presented with the login screen. If you have not changed the administrator account details, type **admin** in the Username and Password fields then click the **Login** button, otherwise, enter your new login credentials and click the **Login** button. The Basic view of the web configuration interface gives you a summary of the most important information about your router and its connections.



## Status

When you log in to the router, the Status page is displayed in Basic view, displaying WAN type, IP Address, Subnet Mask, Gateway, 3G/4G Status, 3G/4G Signal Strength and the number of clients connected to both the 2.4GHz and 5GHz wireless networks.





## Wireless 2.4GHz / 5GHz

The Wireless 2.4GHz and Wireless 5GHz tabs in Basic view display the status of the WiFi radio, the status of SSID Broadcasting, the WiFi network name and the Wireless security key. You can enable or disable the WiFi radio, broadcast/hide the SSID of your network, set the wireless network name and set the wireless security key using these tabs.



If you make any changes to the Wireless configuration, Click the, **Save and apply the changes** button to make these changes active.