NUSKOPE internet

USER GUIDES

TP-LINK ARCHER C2 USER GUIDE

INDEX

COPYRIGHT & TRADEMARKS

ROUTER SPECIFICATIONS

For full device specifications including device standards, and device layout, please visit the Archer C2 product page located at **http://www.tp-link.com.au/products/details/Archer-C2.html**

The full TP-Link product overview, datasheet, quick installation guide, and user guide can be located at **http://www.tp-link.com.au/download/Archer-C2.html**

DISCLAIMER

The configuration settings and instructions in this guide are intended for NuSkope customers that have a NuSkope Fixed Wireless, or a NuSkope NBN (FTTP/ Fixed Wireless) internet service and will only cover the basic router settings required to achieve an internet connection, and local WiFi connectivity. The configuration settings and instructions may be adapted and followed for routers other than the TP-Link Archer C2, however it is suggested to follow the user-guide or quick-installation-guide of your respective router, or contact your router manufacturer for assistance.

For further advanced TP-Link Archer C2 features, you may follow the official TP-Link Archer C2 user guide located on the TP-Link website.

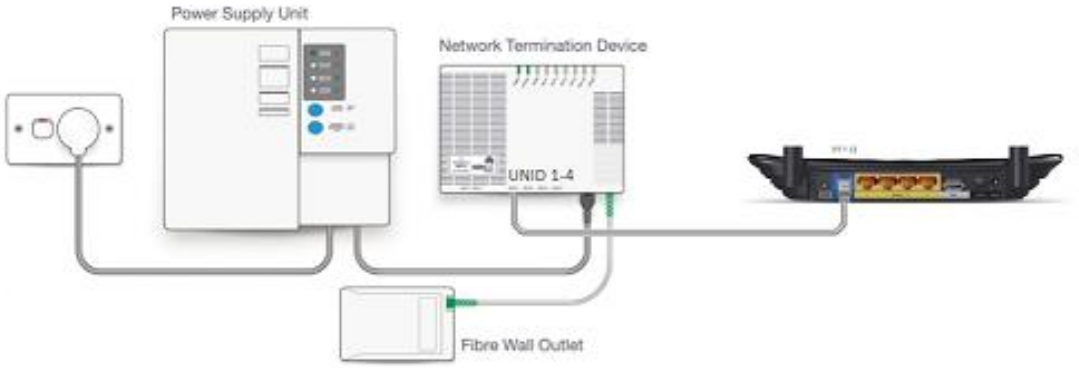
1 ROUTER INSTALLATION

Please connect the TP-Link Archer C2 as per one of the below internet technology type diagrams that applies to the type of service you have.

1.1 NuSkope Fixed Wireless

Please ensure that you have an Ethernet LAN Cable connecting the LAN / Gigabit Data port of the Power over Ethernet (PoE) adapter to the blue Ethernet WAN port of the TP-Link Archer C2. Please also ensure that you have an Ethernet LAN Cable connecting the PoE / Gigabit Data + Power port of the PoE adapter to the data socket of the wall-plate that was installed during your Fixed Wireless installation.

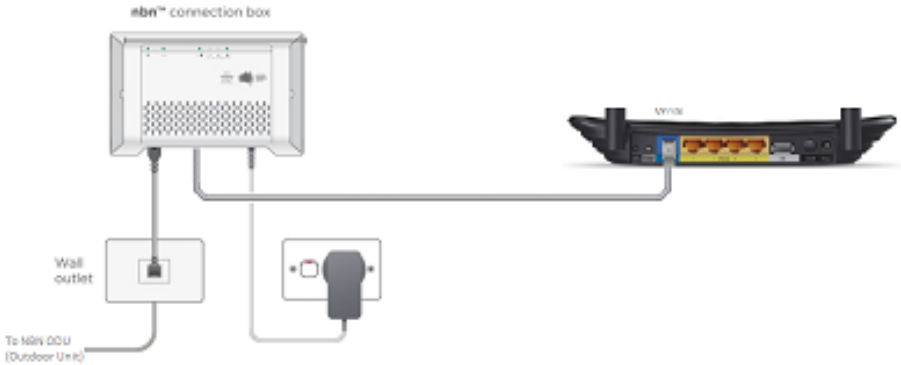
1.2 NBN Fibre-to-the-Premises



(Not all NBN Installations will have a Power Supply Unit / Battery Backup Unit. This does not affect the setup)

Please ensure that you have an Ethernet LAN cable connecting your provisioned **UNI-D** port on the NBN Network Termination Device (NTD) to the blue **WAN** port of the TP-Link Archer C2 *(If you don't know which UNI-D port your service is provisioned to, contact NuSkope technical support).*

1.3 NBN Fixed Wireless



Please ensure that you have an Ethernet LAN cable connecting your provisioned **UNI-D** port on the NBN Connection Box / Indoor Unit (IDU) to the blue **WAN** port of the TP-Link Archer C2 *(If you don't know which UNI-D port your service is provisioned to, contact NuSkope technical support).*

2 CONNECTING TO THE ROUTER

2.1 Physical Connectivity

(a) Wired

Connect an Ethernet LAN cable from the **LAN**  (RJ45) port your Personal Computer (either a Laptop or Desktop) into one of the spare yellow **LAN** ports of the TP-Link Archer C2.

(b) Wireless

Connect your Laptop (or Desktop if you have a Wireless Adapter) to the TP-Link Archer C2s' wireless network signal. If you, or a NuSkope installer, had not previously modified the WiFi network signal name (SSID) or if the TP-Link Archer C2 has been factory reset, the default name (SSID) of the WiFi signal is noted on the underside of the TP-Link Archer C2.

Note: You can actually connect to your router to configure it via a Smart Phone or Tablet, however it is not recommended.

Connect a Windows PC to your wireless network

1. Select the Network  or  icon in the notification area (by default, this is located at the bottom right of your desktop screen near where the time is displayed).
2. In the list of networks, choose the network that you want to connect to, and then select Connect.
3. Type the security key (often called the password or encryption key).

Connect a Mac PC to your wireless network

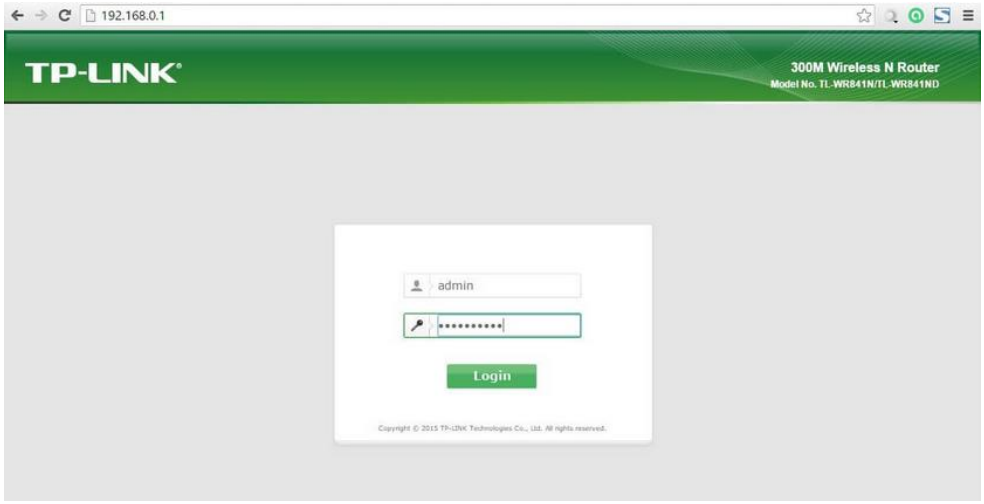
1. Click the Wi-Fi menu icon  airport icon and select your Wi-Fi network from the list of available networks (by default, this is located at the top of your home desktop screen)
2. If prompted, enter the password for your Wi-Fi network.
3. Check "Remember this network" to have your Mac automatically join your home network.

Note: For the purposes of configuring the router, it is recommended to use a Wired connection opposed to a Wireless connection as it is typically more reliable.

2.2 Router Interface

Open your preferred web browser (such as Internet Explorer, Google Chrome, Mozilla Firefox, Safari etc.) and enter the TP-Link Archer C2s' default gateway address of **192.168.0.1** into the URL/Address bar of your web browser (ensure that you do not type this number into your browsers in-built *search* bar feature).

Note: if you have a different router, it may have a different default gateway address. You can try **192.168.1.1** which may work, otherwise you will need to locate your routers' manual or user-guide and look for the default gateway number.



The default login credentials for the TP-Link Archer C2 are;
Username: **admin**
Password: **admin**

Note: if you have a different router, it may have a different default login username and/or password. Most routers use ***admin*** *as the username, but some may have a different password such as* ***password*** *which may work, otherwise you will need to locate your routers' manual or user-guide and look for the default username/password combination.*

3 ROUTER SETTINGS

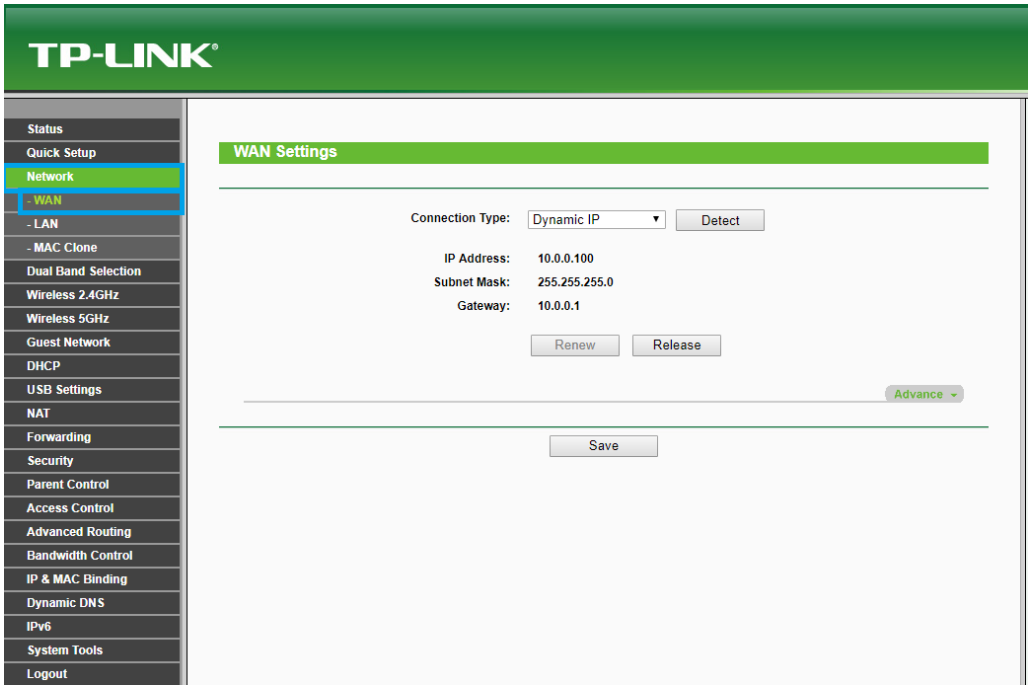
3.1 Internet Connection

(a) Dynamic Connection

*Dynamic Connection only applies to NuSkope Fixed Wireless only (where the antenna unit **has not** been bridged).*

From the left-hand options menu, select **Network** and ensure that the **WAN** sub-option is selected (default). This will bring you to the **WAN Settings** screen.

In the centre WAN Settings pane, from the **Connection Type** dropdown selection, select **Dynamic** (this option is usually selected by default).



Press **Save.**
Wait 30-60 Seconds and attempt to use your internet connection

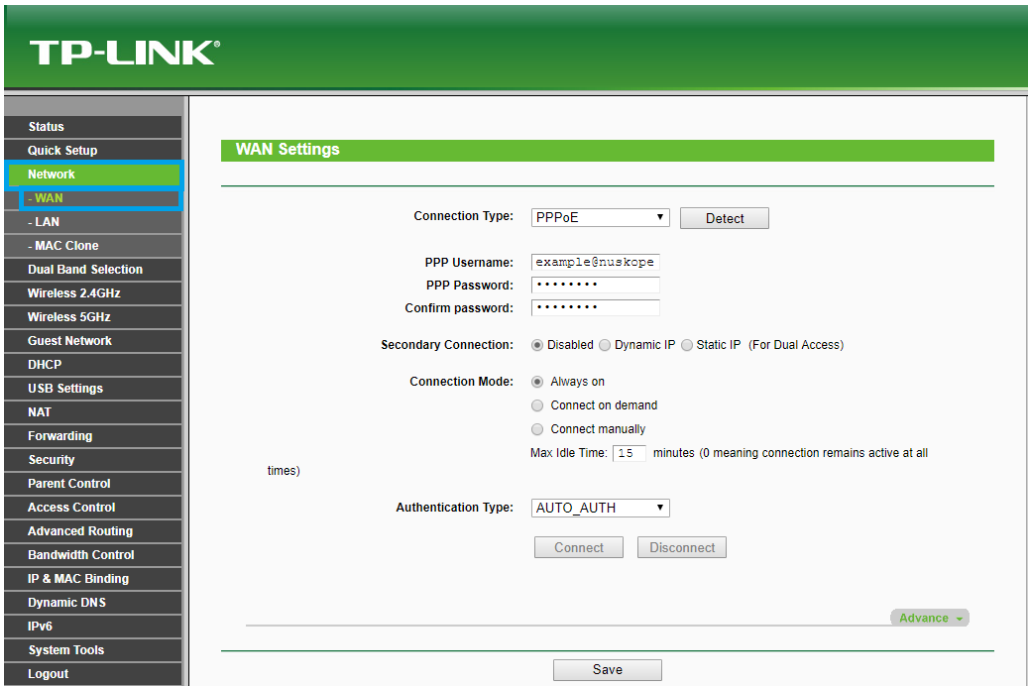
Note: If this doesn't work immediately, you may need to reboot the router, leaving it off for 10-15 seconds before turning it back on).

(b) PPPoE Authentication Connection

*PPPoE Authentication applies to NBN Fibre-to-the-Premises, NBN Fixed Wireless and NuSkope Fixed Wireless (where the antenna unit **has** been bridged).*

From the left-hand options menu, select **Network** and ensure that the **WAN** sub-option is selected (default). This will bring you to the **WAN Settings** screen.

In the centre WAN Settings pane, from the **Connection Type** dropdown selection, select **PPPoE.**



This will expand further internet connection options;
- In the **PPP Username** filed, enter your NuSkope username that was chosen upon signup. Ensure to enter the NuSkope domain after your username, i.e. **example@nuskope.com.au** (this field is case sensitive).
- In the **PPP Password** field, enter your NuSkope password that was chosen upon signup (this field is case sensitive).

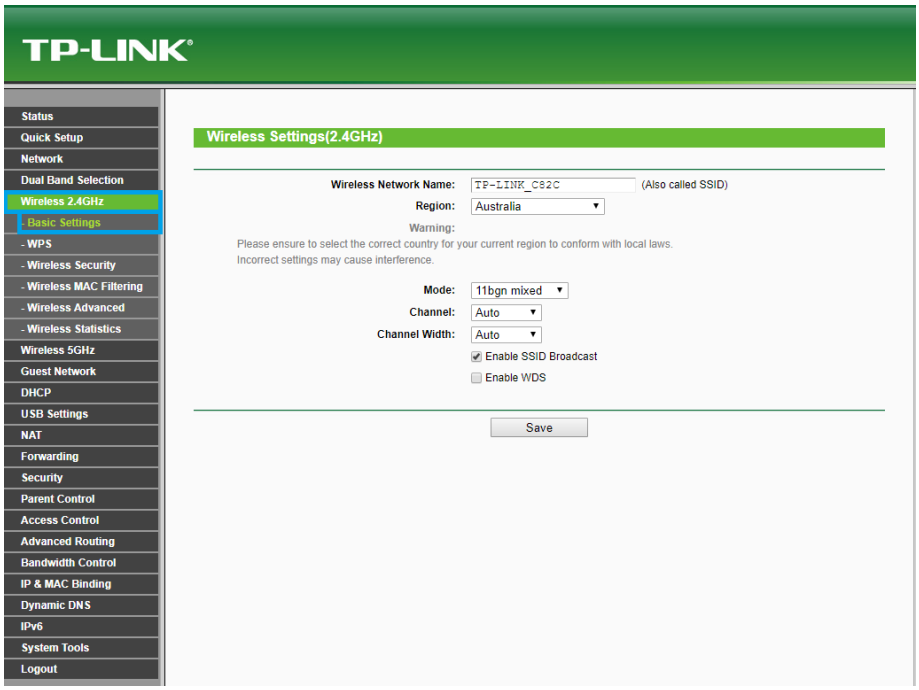
Press **Save.**
Wait 30-60 Seconds and attempt to use your internet connection

Note: If this doesn't work immediately, you may need to reboot the router, leaving it off for 10-15 seconds before turning it back on).

3.2 WiFi Configuration

(a) 2.4Gz Band

From the left-hand options menu, select **Wireless 2.4Ghz** and ensure that the **Basic Settings** sub-option is selected (default). This will bring you to the **Wireless Settings(2.4GHz)** screen.



- **Wireless Network Name (SSID)**
  If desired, you may change the name of your WiFi (Also Called SSID) by modifying the **Wireless Network Name** field.

  Note: Do not name the 2.4ghz WiFi band the same as the 5ghz WiFi band as this may cause WiFi connectivity issues.
  Note: If you're currently modifying your router settings on a device connected via WiFi to the router, and you modify the Wireless Network Name, you will lose connectivity and will need to rediscover and reconnect to your wireless network with the new name that you have set.

- **Channel**
  By default, your router will decide a channel automatically to broadcast on. Click on the dropdown box located next to **Channel** to manually set your WiFi broadcast channel.

  *Note: Ensuring your router is broadcasting on the best channel is **very important**. If your router is broadcasting on the same channel, or a nearby channel to another WiFi network in the area, it may cause reduced speeds and unstable WiFi connectivity.*

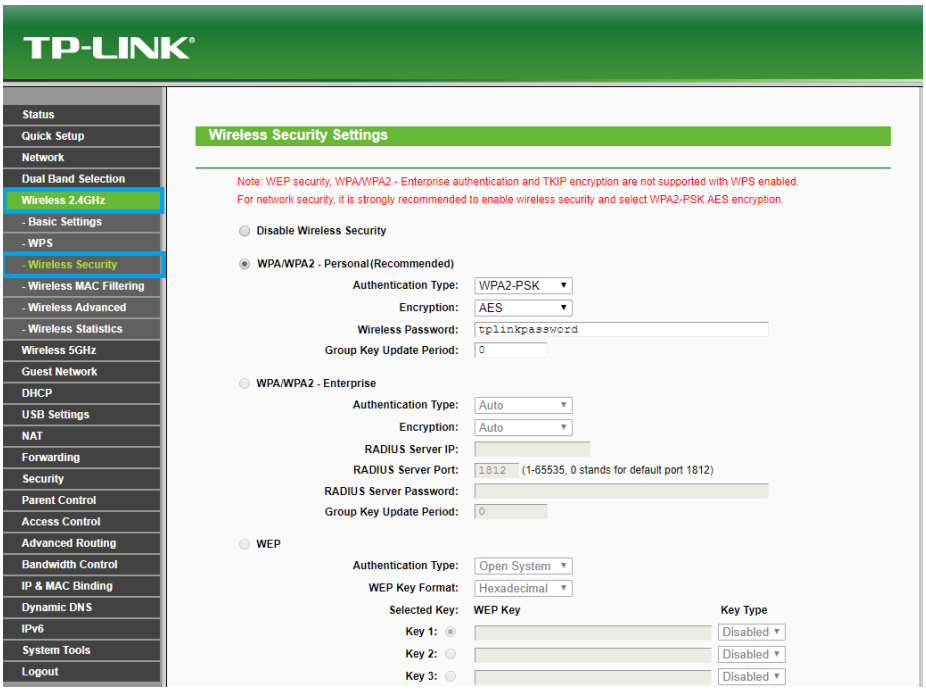
- **Channel Width**
  By default, your router will automatically set the Channel Width. Click on the dropdown box located next to **Channel Width** to manually set your WiFi channel width.

  Note: If you're in an area with a mid-high number of WiFi networks, it is recommended to manually set the Channel Width to 20mhz

- **Enable SSID Broadcast**
  This checkbox enables your WiFi network to be discoverable by wireless devices. It is recommended to leave this ticked enabled.

- **Enable WDS**
  This checkbox allows WiFi interconnection of the TP-Link Archer C2 with wireless access points (such as WiFi range extenders) to act as a single WiFi network, by default this checkbox is unticked. If you plan on using WiFi range extenders, and setting the range extender to the same WiFi network name, this option will need to be enabled.

- **WiFi Password**
  From the left-hand options menu, select **Wireless 2.4Ghz** and ensure that the **Wireless Security** sub-option is selected. This will bring you to the **Wireless Settings(2.4GHz)** screen.



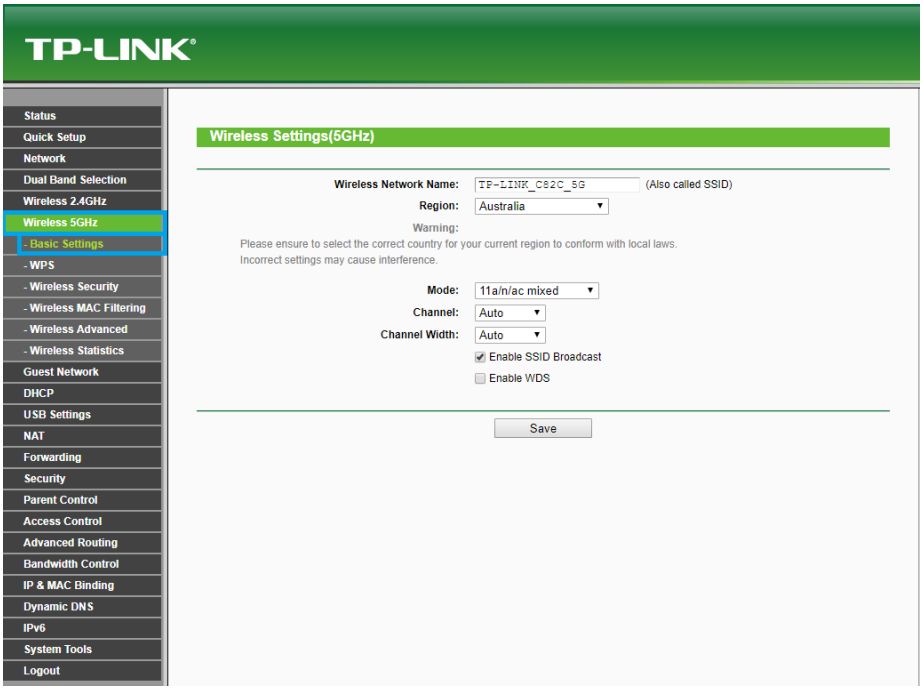
If desired, you may change your WiFi password (sometimes called Encryption Key, Pre-Shared Key, or Passphrase) by modifying the **Wireless Password** field.

Note: Wireless passwords must contain a minimum of 8 characters.

Note: If you're currently modifying your router settings on a device connected via WiFi to the router, and you modify the Wireless Password, you will lose connectivity and will need to rediscover and reconnect to your wireless network with the new password you have set.

(b) 5GHz Band

From the left-hand options menu, select **Wireless 5Ghz** and ensure that the **Basic Settings** sub-option is selected (default). This will bring you to the **Wireless Settings(5GHz)** screen.



- **Wireless Network Name (SSID)**
  If desired, you may change the name of your WiFi (Also Called SSID) by modifying the **Wireless Network Name** field.

  Note: Do not name the 5ghz WiFi band the same as the 2.4ghz WiFi band as this may cause WiFi connectivity issues.
  Note: If you're currently modifying your router settings on a device connected via WiFi to the router, and you modify the Wireless Network Name, you will lose connectivity and will need to rediscover and reconnect to your wireless network with the new name that you have set.

- **Channel**
  By default, your router will decide a channel automatically to broadcast on. Click on the dropdown box located next to **Channel** to manually set your WiFi broadcast channel.

  *Note: Ensuring your router is broadcasting on the best channel is **very important**. If your router is broadcasting on the same channel, or a nearby channel to another WiFi network in the area, it may cause reduced speeds and unstable WiFi connectivity.*

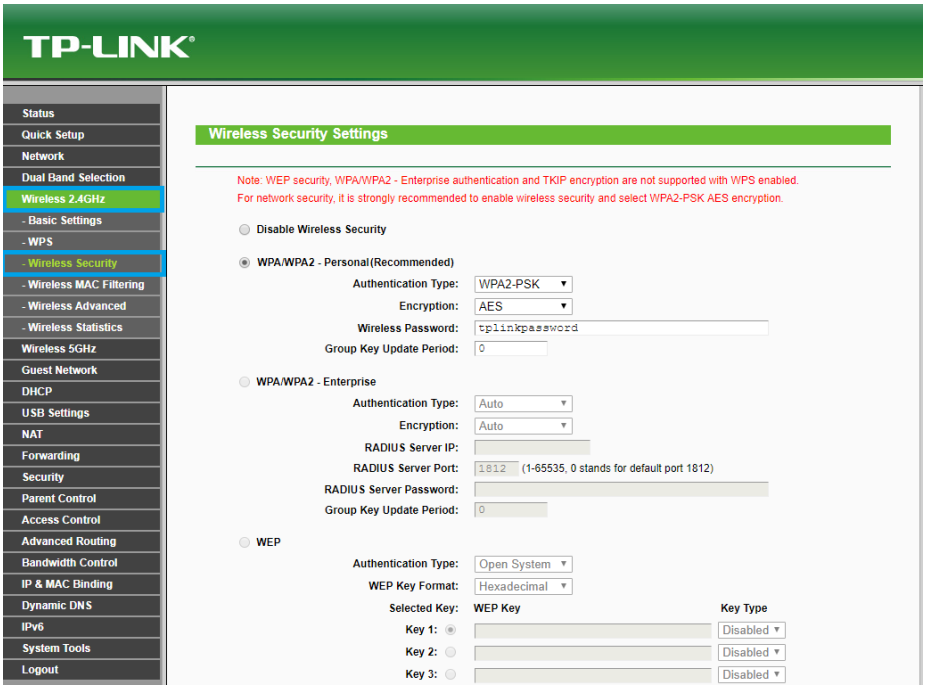
- **Channel Width**
  By default, your router will automatically set the Channel Width. Click on the dropdown box located next to **Channel Width** to manually set your WiFi channel width.

  Note: If you're in an area with a mid-high number of 5Ghz WiFi networks, or there are obstructions (such as walls, and appliances etc.) between where the router is and where you use your connection it is recommended to manually lower the Channel Width to 20mhz or 40mhz (down form 80mhz) depending on the amount of interference.

- **Enable SSID Broadcast**
  This checkbox enables your WiFi network to be discoverable by wireless devices. It is recommended to leave this ticked enabled.

- **Enable WDS**
  This checkbox allows WiFi interconnection of the TP-Link Archer C2 with wireless access points (such as WiFi range extenders) to act as a single WiFi network, by default this checkbox is unticked. If you plan on using WiFi range extenders, and setting the range extender to the same WiFi network name, this option will need to be enabled.

- **WiFi Password**
  From the left-hand options menu, select **Wireless 2.4Ghz** and ensure that the **Wireless Security** sub-option is selected. This will bring you to the **Wireless Settings(2.4GHz)** screen.



If desired, you may change your WiFi password (sometimes called Encryption Key, Pre-Shared Key, or Passphrase) by modifying the **Wireless Password** field.

Note: Wireless passwords must contain a minimum of 8 characters.

Note: If you're currently modifying your router settings on a device connected via WiFi to the router, and you modify the Wireless Password, you will lose connectivity and will need to rediscover and reconnect to your wireless network with the new password you have set.

4 GLOSSARY OF TERMS

Full NBN Terms can be found at http://www.nbnco.com.au/content/dam/nbnco/documents/glossary.pdf

Bridge (or Network Bridge)
Specific to NuSkope; a bridge refers to the operation mode the antenna is set to that performs data pass-through instead of routing.

Channel (WiFi)
A pre-set range of radio frequencies, used in WiFi transmission.

Dynamic
A router connection method, that uses automatic IP address assignment in a Local Area Network

Fibre-to-the-Premises (FTTP)
A type of NBN technology.

Gigahertz (GHz)
Unit of frequency measurement. 1 Gigahertz = 10^9 hertz.

Local Area Network (LAN)
A digital data network that interconnects computers and devices in a limited geographical area (such as an office building or a home).

Megahertz (MHz)
Unit of frequency measurement. 1 Megahertz = 10^6 hertz.

National Broadband Network (NBN)
The nationwide broadband network that is being deployed by NBN Co and third parties on behalf of NBN Co

National Broadband Network Company Limited (NBN Co)
The legal entity of National Broadband Network Company Limited.

Network Termination Device (NTD)
NBN Co's termination point (network boundary point) inside a residence for fibre services featuring four UNI-D ports and 2 UNI-V ports.

Personal Computer (PC)
A users' home Desktop or Laptop computer

Point to Point Protocol over Ethernet (PPPoE)
A router connection method that uses customer credential authentication to obtain a WAN IP address from an Internet Service Provider.

Power Over Ethernet (PoE)
A method of transmitting power/voltage

Registered Jack 45 (RJ45)
A type of cable termination specification that specifies male and female connectors and the pin assignments of cable wires. Also known as data jacks/sockets.

Service Set Identifier (SSID)
A case sensitive 32 alphanumeric character unique identifier attached to the header of packets sent over a wireless local area network. The SSID is also referred to as the WiFi Network Name or just WiFi Name.

User Network Interface – Data (UNI-D)
The physical port on the NBN Co Network Termination Device (NTD) at the end-user premises which connects the end-user's router or Ethernet enabled device to the NBN.

User Network Interface – Voice (UNI-V)
The physical port on the NBN Co Network Termination Device (NTD) at the end-user premises which connects the end-user's telephone handset or handset base station.

Wide Area Network (WAN)
A data network that interconnects computers and devices over a large geographical area.

Wi-Fi
Trademark name of the IEEE 802.11 Standard as defined by the WiFi Alliance.

Wireless Distribution System (WDS)
WDS allows the interconnection of wireless access points in a WiFi network without the need for a physical backbone link.

FCC STATEMENT

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 or more 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.

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.

2） This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

This device is restricted in indoor environment only.

CE Mark Warning

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

RF Exposure Information

This device meets the EU requirements (1999/5/EC Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when the device used at 20 cm from your body. Restricted to indoor use.