



Installation Guide and User Manual

2023v1



What makes up your RV Wi-Fi 4G

Congratulations on your purchase of an RV Wi-Fi Router.

This purchase will give you greater freedom to enjoy your travelling without sacrificing the lifestyle that the internet provides.

RV WIFI 4G Router



4G Stick Antenna's



Telstra Starter SIM

SIM adapter

12 volt Power Cable

External 4 in 1 Antenna



External 4 in 1 Antenna Bracket



How to Activate the Telstra Pre Paid SIM

The Telstra satchel contains your Sim Card. You need to activate this and add credit to it to finish the set up stage of your RV Wi-Fi unit.

We strongly advise to do this instore to make sure the activation has been confirmed.

You MUST use a Full Sized SIM card in the router OR in conjunction with the SIM adapter provided.

Activate your Telstra Sim Card	
1	Have your driver's licence handy
2	Use the Service Number located on the rear bottom space of the Telstra Satchel.
3	Open your browser and go to www.telstra.com/activate
4	Follow the Telstra prompts for activation.
5	Once complete, turn off your router and then turn it on again to reboot the system.

For providers other than Telstra please look on their packaging for instructions to activate.

Below are links to Optus, Vodafone and Virgin.

Optus can be activated by going to www.optus.com.au/customercentre/activateprepaid

Vodafone can be activated by going to www.vodafone.com.au/activate

Virgin can be activated by going to www.virginmobile.com.au/activate

For other providers, please see your Sim card documentation.



Warranty Registration

Please complete your Warranty Registration by going to:

www.rvwifi.com.au/warranty-registration.

Your serial number for your RV Wi-Fi unit is located on the outside of the box, and on the rear of your RV Wi-Fi unit.

Inserting your SIM card into the RV WIFI 4G

1	In your pack you will have received a SIM card adapter.	
2	There are three in the pack, please remove the middle one.	
3	Break your sim card down to the smallest size - 'Nano', the same size you would put into your phone.	
4	Insert the activated and data credited Nano sim into the middle sim card adapter.	
5	Insert the SIM/Adapter into the sim card slot (making sure the sim stays in the recess of the adapter), with the router turned : OFF	
6	Turn the router: On and wait 5 minutes for it to boot up	
7	You are now ready to connect your RV WIFI to your devices.	
NB:	Please note, you do need to do this step, failure to use the adapter will result in connection issues.	

Installing your RV Wi-Fi 4G

In most cases, your manufacturer will install your RV Wi-Fi for you. But if you are looking at installing yourself, please follow the steps below.

There are two methods available:

- With an external antenna fitted to the outside of the RV.
- No external antenna.

Installing your RV Wi-Fi 4G using the external antenna

Set up for use with external antenna

1	Choose a position for RV Wi-Fi+ Router adjacent to a single 12v power point, remembering to leave access for the SIM insertion;
2	Pre wire external antenna and mount on roof using bracket provided;
3	Screw into place on router: 4G/LTE antenna cable into '4G/External' point;
4	Screw into place on router: 3G antenna cable into '3G/External' point;
5	Screw into place on router: Wi-Fi antenna cable into 'Wi-Fi/External' point;
6	Screw into place on router. WI-FI antenna cable into Internal point.
7	Remove the middle Sim adapter from the pack. Insert an activated and credit loaded Nano SIM into the adapter and place in the SIM card slot. Failure to use this adapter will result in connection issues.
8	Plug the power adaper into the power jack of the RV Wi-Fi+ Router;
9	Place the power cord into the single 12v power point and turn on. Sim must be inserted prior to turning on or a reboot will be required;



4 in 1 Antenna Set Up

To external antenna

To external antenna

To external antenna

To external antenna



Installing your RV Wi-Fi 4G without the external antenna

Set up for use with
NO external antenna

1

Choose a position for RV Wi-Fi+ Router adjacent to a single 12v power point;

2

Screw the four black antenna into the four points - Wi-Fi/ 4G/ 3G/ Wi-Fi. 2.4 labeled into the WIFI ports and 4.0/LTE labeled into the 3G/4G ports

3

Plug the power adapter into the power jack of the RV Wi-Fi+ Router;

4

Remove the middle Sim adapter from the pack. Insert an activated and credit loaded Nano SIM into the middle adapter in the pack and place in the SIM card slot. Failure to use this adapter will result in connection issues.

5

Place the power cord into the 12v power point and turn on. Sim must be inserted prior to turning on or a reboot will be required.

6

Ensure the 'Power' light is on.



Insert the middle adapter from the adapter pack with a Nano sized sim into the sim card slot.

Turning on your RV Wi-Fi 4G Router

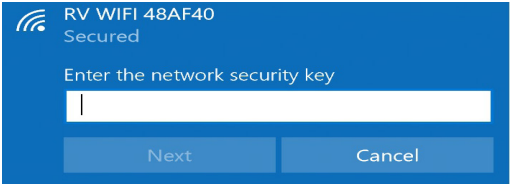
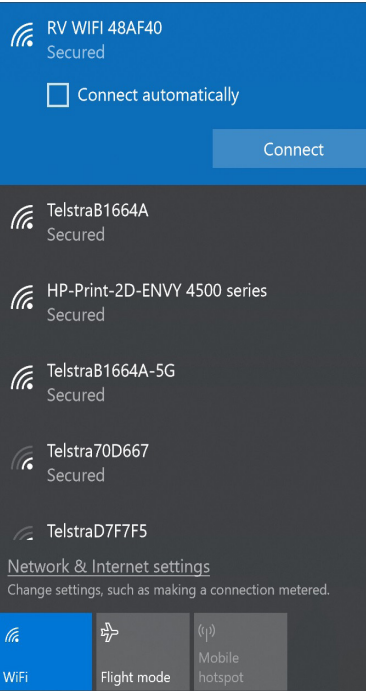
1

Place the end of the power adapter into the 'Power' slot.



Connecting your device via Wi-Fi to your RV Wi-Fi 4G

1	Turn on the device/s (phone/laptop etc.), that you wish to connect to the Internet
2	Click on: 'Settings' or equivalent page on your device
3	Click on : 'Wi-Fi' heading and choose the wifi network: RV WIFI abc123 NOTE: "abc123" varies on each unique router.
4	Click the: 'Connect Automatically' Box
5	Click: 'Connect',
6	When prompted enter the Wi-Fi password/network security key : rvwifi1234 (please note this is case sensitive and some devices will auto capitilize the first letter).





One of the great features of RV Wi-Fi is the security it provides whilst using the internet. This next section provides step by step instructions on setting your Wi-Fi password.

1. Open the web/internet browser on your device and enter the address `http://10.0.1.1` into the 'search' bar.



`http://192.168.1.1`

2. The RV Wi-Fi home page will appear.

RVWiFi

Authorization Required

Please enter your username and password.

Username

Password

Username is prepopulated with 'root'

Type 'admin' for password

3. You are about to enter the username and password.

You **MUST** enter the username 'root' and the password 'admin'. Failure to do so will result in the router requiring resetting. The 'root' password **CANNOT** be changed and is prepopulated.

4. Select/click on the following tab:
1. Network.

The screenshot shows the RVWiFi Status page. The sidebar on the left has a menu with 'Status', 'Overview', 'Routes', 'Logging', 'Realtime Graphs', 'Load Balancing', 'System', 'Services', 'Network', and 'Logout'. The 'Network' tab is highlighted with a red circle. The main content area shows the 'Status' page with a 'System' section containing the following data:

System	
Hostname	RVWiFi
Model	ZBT-WG209
Architecture	MediaTek MT7621 ver:1 eco:3
Authorization	Authorized
Firmware Version	LEDE Reboot SNAPSHOT 17.01 22.0714_114130
Kernel Version	4.4.61
Local Time	Fri Nov 4 08:07:37 2022

5. Select/click on the dropdown box:
1. Wireless

The screenshot shows the RVWiFi Status page with the 'Wireless' tab selected in the sidebar. The main content area shows the 'Status' page with a 'System' section containing the following data:

System	
Hostname	RVWiFi
Model	ZBT-WG209
Architecture	MediaTek MT7621 ver:1 eco:3
Authorization	Authorized
Firmware Version	LEDE Reboot SNAPSHOT 17.01 22.0714_114130
Kernel Version	4.4.61
Local Time	Fri Nov 4 08:08:29 2022
Uptime	1d 2h 24m 27s
Load Average	0.70, 0.44, 0.34

Below the System section, there is a '4/5G' section with the following data:

4/5G	
Model	Quectel RM520N-GL

6. Select/Click on the 'Edit' box

The screenshot shows the OpenWrt Router Wireless Overview page. The sidebar on the left has a menu with 'Status', 'System', 'Services', 'Network', 'Interfaces', 'Wireless', 'Switch', 'DHCP', 'Custom TTL Settings', 'Diagnostics', 'Firewall', and 'Load Balancing'. The 'Wireless' tab is highlighted with a red circle. The main content area shows the 'Wireless Overview' page with the following data:

Wireless Overview	
Generic 802.11 Wireless Controller	
Channel: 3 Encryption: none	
BSSID: 76:5E:3C:35:A1:36	
SSID: WiFi-35A136 Mode: Master	
	DISABLE EDIT

At the bottom of the page, there is a footer with the text: 'Powered by LuCI Master (gh-20.335.23838-231436d) / LEDE Reboot SNAPSHOT 17.01 22.0714_112318'.

7. Go to the 'Interface Configuration' Section.

- Click on the 'Wireless Security' tab.

The screenshot shows the RVWiFi configuration interface. The left sidebar contains a menu with 'Status', 'System', 'Services', 'Network', 'Interfaces', 'Wireless', 'Switch', 'DHCP', 'Custom TTL Settings', 'Diagnostics', 'Firewall', 'QoS', 'Load Balancing', and 'Logout'. The 'Wireless' section is selected. The main content area is titled 'Wireless Network: Master "RVWiFi-5.8-3E4F20" (mt7612e.network1)'. Below this, there is a 'Device Configuration' section with 'General Setup' and 'Advanced Settings' tabs. The 'Advanced Settings' tab is active, showing 'Status' as 'SSID: RVWiFi-5G-3E4F20', 'Mode' as '802.11a/n/ac', and 'Channel' as 'Auto'. Below this is the 'Interface Configuration' section, which is circled in red. It has 'General Setup' and 'Wireless Security' tabs. The 'Wireless Security' tab is active, showing 'SSID' as 'RVWiFi-5G-3E4F20', 'Mode' as 'Access Point', 'Network' as 'lan: 200', and 'Hide SSID' as an unchecked checkbox. At the bottom right, there are 'SAVE & APPLY', 'SAVE', and 'RESET' buttons. The footer shows 'Firefox' and 'Version 106.0.3'.

8. Next to the 'Key' drop down box, click on the astrix. This shows what the current Wi-Fi password is set to.

The screenshot shows the RVWiFi configuration interface, similar to the previous one. The 'Wireless Security' tab is active in the 'Interface Configuration' section. It shows 'Encryption' as 'WPA-PSK/WPA2-PSK Mixed Mode', 'Cipher' as 'Force CCMP (AES)', and 'Key' as a field with a masked password '*****'. A red circle highlights the 'Key' field, and a red circle highlights the 'x' button next to it, which is used to reveal the password. At the bottom right, there are 'SAVE & APPLY', 'SAVE', and 'RESET' buttons. The footer shows 'Firefox' and 'Version 106.0.3'.

8. Delete the password, by backspacing or use the delete button.

- In the Key box , type your new Wifi password - your choice!

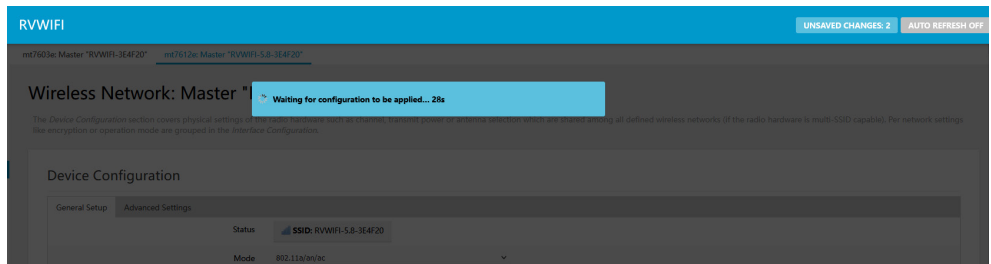
(Your password must be a minimum of 8 characters, and it is case sensitive).

The screenshot shows the RVWiFi configuration web interface. The top navigation bar is blue with the RVWiFi logo and an 'AUTO REFRESH ON' button. A left sidebar contains a menu with 'Status', 'System', 'Services', 'Network', and 'Interfaces'. The 'Network' section is expanded, showing 'Wireless' as the active tab. The main content area is titled 'Wireless Network: Master "RVWiFi5.8.3E4F20" (mt7612e.network1)'. Below this is a sub-header 'Device Configuration' with tabs for 'General Setup' and 'Advanced Settings'. The 'Advanced Settings' tab is active, showing fields for 'Status' (SSID: RVWiFi-5G-3E4F20), 'Mode' (802.11a/n/ac), and 'Channel' (Auto). Below this is the 'Interface Configuration' section with tabs for 'General Setup' and 'Wireless Security'. The 'Wireless Security' tab is active, showing 'Encryption' (WPA-PSK/WPA2-PSK Mixed Mode), 'Cipher' (TKIP/CCMP (AES)), and a 'Key' field containing 'rwl0f224'. The 'Key' field is highlighted with a red circle. At the bottom right of the configuration area are buttons for 'Save & Apply', 'Save', and 'Reset'. The footer indicates the device is a 'FireFox' running 'Microsoft Windows 10 Pro 64-bit Build 6.2.9200' and 'Version 106.0.3'.

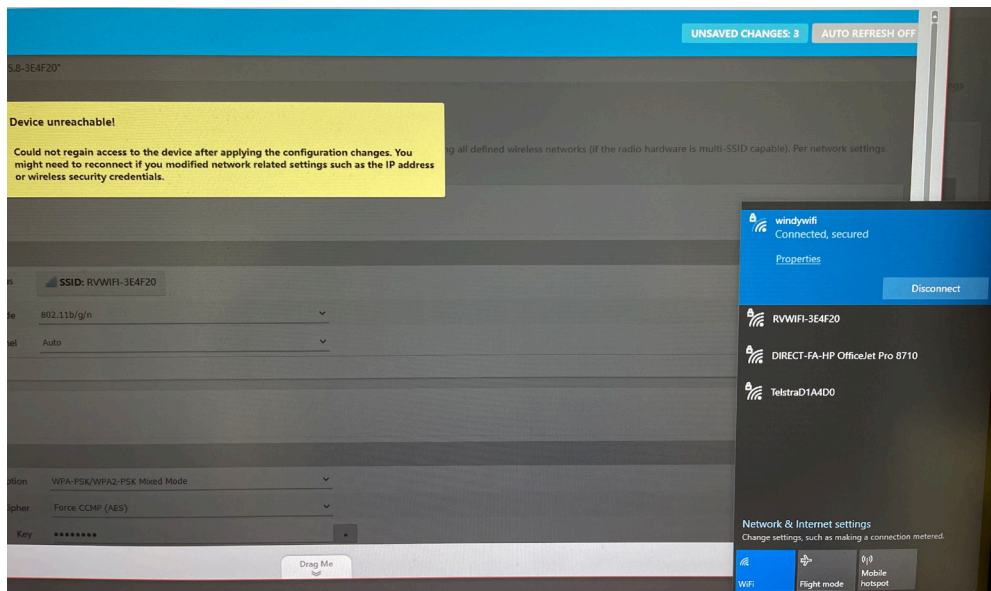
9. Click on the 'Save and Apply' button. The screen will indicate that it is 'waiting for configuration to apply'.

This screenshot shows the same RVWiFi configuration interface as the previous one, but with the 'Save & Apply' button highlighted with a red circle. The configuration details remain the same, including the 'Key' field in the 'Interface Configuration' section. The 'Save & Apply' button is located at the bottom right of the configuration area, next to the 'Save' and 'Reset' buttons. The footer information is also consistent with the previous screenshot.

- Wait for this to apply. Do not turn off your device during this time. You will see a countdown clock appear from 30 seconds.



10. The next screen will say 'Device Unreachable'. This is due to the password being changed and the two devices no longer recognising each other.



12. On your device (laptop/ipad/phone).

1. Go to: Settings,
2. Click on: Wifi,
3. Wait for RV Wi-Fi to come up on the list. Click on this,
4. Your device will now tell you that your Wi-Fi password is incorrect (that is because you have just changed it),
5. Type in the 'new' Wi-Fi/Security Key' password that you have just set,
6. Remember that it is case sensitive and some devices will automatically capitalise the first letter.
7. Wait for your device to let you know that you are connected,
8. You are now ready to access the internet through your RV Wi-Fi 4G.

Frequently asked questions

SIM CARDS

What size SIM card should I use?

Always use a Nano sim in the Noosey Sim adapter. Use the middle adapter in the pack.

What if I insert the wrong sized SIM card?

You will know that the wrong sized SIM card has been inserted, if once it is inserted it can no longer be seen. If inserted correctly, approximately 3mm should be visible out of the end of your RV WIFI router.

You will need to return the router to our factory for retrieval of the sim card. Inserting something into the sim card slot to retrieve will result in the voiding of the warranty.

Damage to the sim card slot, results in replacement of the chip set - whole router replacement.

Do I need a SIM card to operate the WIFI?

If you are using the Media centre to stream from an inserted USB or External hard Drive, then you do not need to have a SIM card inserted.

If you are sending information to a WIFI device, like a printer, then you do not need to have a SIM card inserted.

Always turn your router off and on again after doing any adjustments to the SIM card.

The router needs to re-read the SIM card once it has been inserted, so turning it off and on again will enable it to do this.

RESETTING

If you are having issues with your router, please turn off and on.

Reset your device by turning it off and on again. Resetting re-establishes the connection and can help correct issues. To know the reset has been completed, the following lights will appear: one solid blue light, one solid red light, one flashing blue light.

Factory reset

The factory reset will put the router software back to the configuration it left the factory in.

- 1) Depress and hold the small black recessed button on the left side of the router (just above the power cord). A pen, toothpick, small screw driver is easily inserted into the hole.
- 2) Hold this recessed button for 10 seconds
- 3) You will notice the lights begin to flicker
- 4) Release the button
- 5) All lights on the router will illuminate
- 6) Wait 5 minutes
- 7) Turn the router off, wait 1 minutes
- 8) Turn the router on, wait 5 minutes.
- 9) Go to: settings on your device
- 10) Go to: wifi
- 11) Wait for RV WIFI to come up in the list of WIFI options. Click on: RV WIFI
- 12) When asked for a password/security key, type in: rvwifi1234
- 13) Click on: connect
- 14) Wait for confirmation of connection

OPERATIONAL ISSUES

Why can't I get onto the internet?

There are a couple of reasons this could occur.

- 1) The wrong size SIM card has been inserted. Check that the SIM card is visible in the SIM card slot. If not follow the steps on how to retrieve it. (Sim card section).
- 2) You are not using the Noosey SIM Card Adapter. Break your sim into the smallest size and place in the middle adapter from the pack. Insert into the router, turn it off and on again.
- 3) The SIM card has not been activated. Best way to check if the SIM card has been activated by the provider is to try it in another device. Remove the Nano SIM and place it in another device, for example a phone. Go to: Settings, then: WIFI.

Turn WIFI to OFF. This way it will be making sure you are using the SIM card inserted and not another WIFI network. If it does not work, see your data provider.

4) The SIM card has run out of data. To check data credit, contact the service provider.

5) The SIM card has expired. To check expiry, contact the service provider.

6) There is a fault with the modem.

To establish if it is a SIM card issue or a router issue, follow these steps

1) Turn on your RV WIFI router

2) On the device (phone/laptop/tablet), go to: settings

3) Go to: Wi-Fi

4) Wait for RVWIFI123abc (each router will have its own unique series of numbers and letters following RV WIFI), to come up on the list of possible WIFI options.

5) Click on: RV WIFI123abc

6) If the device has already been connected to the RV WIFI router, it will recognise it and connect automatically. However, if this is the first time it is connecting to it, it will ask for the WIFI password.

7) Type in the factory set WIFI password: rvwifi1234 (all lower case)

8) Wait for the device to indicate that it is connected.

If at this point you cannot connect, then perform a factory reset and then start the process again.

9) Open up a new web page on the device that is now connected via WIFI

10) Type in: <http://10.0.1.1> (where you would normally type in www.google.com.au)

11) This is a website on the actual router NOT on the web.

12) Type in: admin for both the username and the password

13) Click on: login

14) This is now the home page. Check to see what the software version is. The current version 3.07.

15) 2/3rds of the way down the page is a heading IPV4. To the right of this will have information that either says it is '3G connected' or 'not connected'. If the IPV4 indicates that it is not connected, then ask the customer to test their SIM card in another device. If once this has occurred and the SIM card works in another device, then there is a fault with the router and it needs to be returned to head office.

What do I do if I can't connect to the Wi-Fi?

There are a couple of causes that may have made this happen.

1) The Wi-Fi may have been accidentally deleted during the set-up phase. You will need to do a factory reset. See factory reset section.

2) You have entered your own password into 'setting the Wi-Fi password' point 2, instead of entering 'admin' in both boxes. You will need to do a factory reset. See factory reset section.

Can I change the ADMIN password?

This setting cannot be changed.

If you are concerned with security be assured that as the website: <http://10.0.1.1> is located on the router, it can only be accessed by knowing the WIFI password which is set by you.

We recommend that you set your WIFI password upon receiving your router and keep the password information secure.

My WIFI password is not being accepted

- 1) You will need to do a factory reset.
- 2) Your Wi-Fi password is case sensitive and must be a minimum of 8 characters.
- 3) When setting your WIFI password, the router will automatically capitalize your first letter. Check that this is what you want.

Can I change my SSID?

Yes. The SSID is the routers 'name'. This can be changed by:

- 1) going to the home page of <http://10.0.1.1>.
- 2) Scrolling 2/3rds of the page until you see the heading SSID, it will be highlighted.
- 3) Click on it. Then type in what you would like to call your router.
- 4) Click on: save and apply
- 5) Turn the router off and on

ANTENNA

What is the maximum & average gain from the external antenna when in a fringe reception area?

The maximum gain is 5.4db. The average is 3.2 for B28 and is impedance matched to the RVWIFI router.

There are three antennas inside the external antenna. 1 x 3G, 1 x 4G, 1 x WIFI. Each of the 3G and 4G antennas have a gain of 4dB.

What is an 'omni-directional' antenna?

Our external antenna delivers coverage in a circular horizontal direction.

The WIFI antenna will give you a range of up to 40 metres from the RV.

External antenna dimensions

Height (including bracket): 50mm
Diameter:125mm

How long are the external antenna leads?

2 metres each in length.

Can these lengths be adjusted?

They can be adjusted by seeking assistance from an auto electrician.

Can I attach a different external antenna to the RV WIFI router?

Yes, the connector on the router is a SMA Female for 3G/4G connections. You will need to get an adapter that suits.

GENERAL INFORMATION

Why is the router only showing that I am connected to 3G when my phone is showing 4G?

This information shown is only a 'sticker'. The router will find the strongest signal and swap between 3G and 4G accordingly. The 'sticker' label showing '3G' will remain the same.

I seem to be using more data than expected. What might be the cause?

Data usage is very hard to comment on because everyone uses their data differently. The possibilities for unexpected high usage are;

1. Someone has gained access to your WIFI password. Change your WIFI password.
2. Software updates (windows or apple or android), turn off automatic updates, and select when you want to do them (i.e. when you're on a public Wi-Fi hotspot and not paying for data)
3. When not using, turn it off, devices might still be using data even when you have put them down, such as a VPN connection on a laptop has a thing called a heartbeat that slowly uses data to maintain the connection,

this might slowly use data for many hours.

4. Video conferencing calls can be like steaming video, 1GB per hour as a rule of thumb, even more for High Definition.

5. Consider changing your plan or data provider. There are always new and improved deals being announced.

What coverage can I expect to get?

As we access our data from a range of Data Providers - the coverage is where they are available.

Search on the internet for coverage maps. These are normally located on your providers web site.

Will you be making updates to the software? If so, how can I update my router?

Yes, we are continually looking for new and exciting features and improvements. We will make these available for download on our website.

Follow our Facebook page for notifications and how to apply these updates www.facebook.com/rvwifi

Is there any device in my RV that I should not place the router or antenna near?

1. The external antenna is best placed clear of high objects that will restrict its capacity to receive and send.

2. The router and antenna need to be placed away at least 2 metres from the solar inverter.

How many concurrent Wi-Fi device connections can your product support?

The limit is up to 150 devices at once.

What size external hard drive can be connected?

RV WIFI has been tested up to 1TB.

How is RV WI-FI different to hot spotting my phone, or a 'pocket device'?

The RV WI-FI solution has been created with the specific needs of the RV community. The differences are as follows:

- Wired in to the 12V supply of the van, so no chargers to look after or lose.
- Superior Wi-Fi coverage – typically 40 metres from the Caravan/ Motorhome.
- The RV WI-FI router Software has been developed with the travelling holiday in mind, there is no other product like it. No bill shock – no impact to your phone data plan.

SPECIFICATIONS

What is the size of the router?

Height: 32mm Width: 83mm Length: 130mm

How much power does the RV WIFI draw?

250milliamps (mA)

It must be placed in a single power socket

What is the length of the internal antenna's?

195mm

External antenna dimensions

Height (including bracket): 50mm
Diameter: 125mm

How long are the external antenna leads?

2 metres each in length.

Need Help

For help with your RV Wi-Fi unit please go to:

info@rvwifi.com.au and a service agent will be in touch.

