



EVO 5G FLEX

Roof Mounted + Portable
Amplified Internet Solution



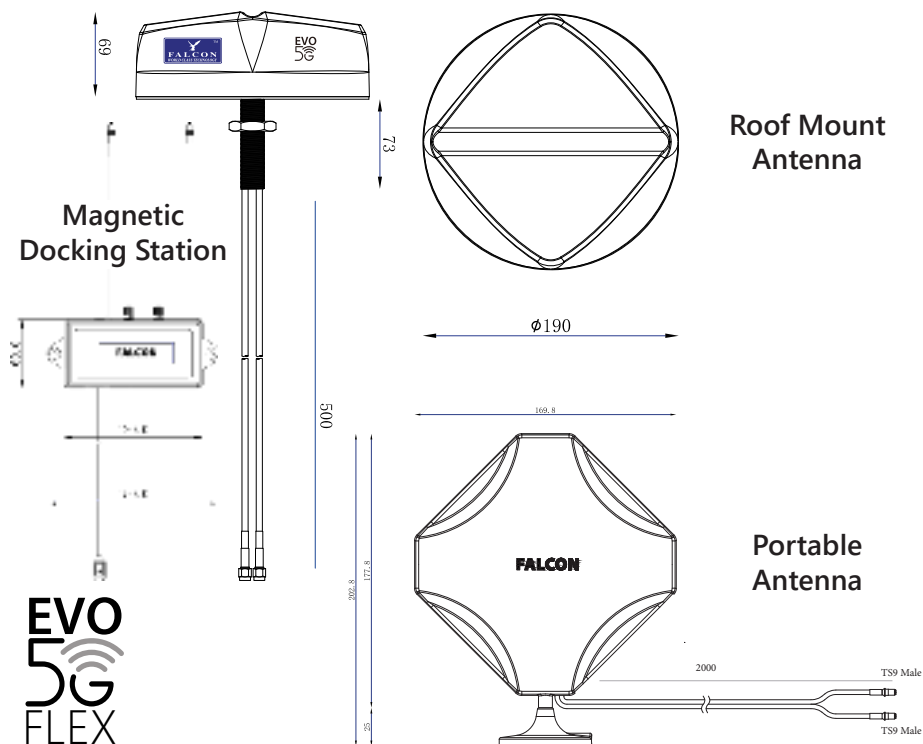
Amplified Mobile Internet Anywhere
Installation & User Manual



V1

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Introduction

Many thanks and congratulations on your purchase of the Falcon EVO 5G FLEX

The EVO FLEX provides flexible boosted internet for your leisure or marine vehicle and also for use anywhere else with its Roof Mounted and Portable 5G Amplified Antennas.

We hope you enjoy your new purchase.



Please study and follow the instructions carefully to get the best out of your new product.

If further assistance is required please contact product support.

cs1@falcontechanical.co.uk

or

support@falcontechology.eu

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Dutton, Cheshire, United Kingdom
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Technical Specifications

Falcon EVO 5G Roof Mount Antenna

Frequencies	698-960MHz, 1710-2700MHz, 3300-4800MHZ
Peak Gain	4dBi/7.5dBi/8dBi
Polarization	Linear Vertical
Ground Plane	Independent
Radiation	Omni-Directional
Impedance	50 Ohm
Height	69mm
Antenna Diameter	190mm
Thread	15mm
Body	ABS
IP Rating	IP66 - Water and Dust proof
Antenna Cable	2 x 0.5m SMA Cables (Male Connector

Falcon EVO Mobile 5G Portable Antenna

Antenna Type	2x2 MiMo function for 5G/4G reception
Frequencies	698-960 MHz, 1710-2700 MHz, 3300-4800 MHz
Peak Gain	2-3 dBi / 4-5 dBi / 4-5 dBi
Radiation	Omni-Directional
Impedance	50 Ohm
Antenna Dimensions: On Stand:	168*205*60mm
Antenna Dimensions: On Rear Mount:	168*180*18mm
IP Rating	IP62
Fixings:	Threaded Suction Pad Threaded Soft Magnetic Plate (Can be applied to base or rear of the antenna)

Falcon Magnetic Router Docking Station

Power	12V DC (1 metre bare wire to 12V DC cable)
Antenna Inputs	2 x SMA Female Connectors
Isolation Switch	LED switch to underside of docking station
Antenna Outputs	2 x TS9 Male connectors

Falcon Portable Router (If Applicable)

The supplied Falcon Portable Router specifications vary based on the purchase.
Please check the separate Router User Manual for full details and support.

What's Included In The Box

		
1 x EVO 5G Roof Mount Antenna (Inc. 3M Pad + 20mm nut) 2 x 0.5m SMA cable	1 x Magnetic Router Docking Station + 2 x fixing screws	1 x 1 metre Bare wire to 12VDC Cable
		
1 x EVO Mobile Portable Antenna	1 x Suction Fixing Pad	1 x Magnetic Fixing Pad
		
Portable Router (If applicable - Varied)	Router Charging Cable (If applicable)	Router Protective Carry / Storage Case
		
1 x Antenna Adhesive	1 x EVO 5G FLEX User Manual	1 x Router User Manual (If applicable)

Installation Tools / Requirements:

- Step Ladders
- Pencil + Masking Tape
- Cleaning cloth / wipes
- Degreasing cleaner / solvent
- Drill
- 6 - 8mm Pilot Drill Bit
- 15-20mm Hole Cutter / Arbor

Roof Mount Antenna Installation

Find a suitable position on the roof of your vehicle. Ensuring that the selected position allows enough space on the roof without obstruction.

Please ensure that you have selected the correct position suitable for the hole into the vehicle's interior and that it is suitable for the cable entry and is clear of any obstructions. (Above Cabinets and cupboards are usually a preference to ensure a tidy installation).

An installation video is available to assist the setup. Scan the Qr Code for video.



Measure, Mark, check the position for the antenna and Drill a central pilot hole from the interior ceiling to the roof.

From the exterior of the vehicle Drill with a 20mm hole cutter / arbor, using the pilot hole as a guide. Drill carefully and just enough to break the surface of the ceiling.



Check the hole is straight by drilling one last time from inside.

With a cloth and degreaser / alcohol, clean the roof of the vehicle to prepare for the installation of the 5G antenna, ensuring any remaining dust or debris is removed.

Roof Mount Antenna Installation

Place the antenna down (with the sticker intact) to ensure it's straight. Once confirmed, remove the 3M pad backing paper and apply a generous amount of adhesive to the neck of the antenna to prevent any water ingress.



Pass the cable through the hole drilled and place the antenna down, ensuring the position is correct. Apply pressure to the antenna to ensure a bond between the roof and the antenna.



From inside the van, screw the bolt onto the nut and hand tighten to the ceiling.



With the remaining adhesive, apply a fine bead around the antenna base to seal the antenna installation and allow to dry.

The installation of the Roof Mount Antenna is now completed and the Magnetic Docking Station and router can now be fitted.

Magnetic Docking Station Installation

Mount the docking station in proximity of the cables from the antenna.



Ensure that there is access to a 12V positive and negative supply to connect the bare wire to 12V DC cable. This provides the power to the docking station to charge the portable router.

Place the docking station in the desired location, ensuring it will connect to the two antenna cables from the ceiling.

Mount the docking station using the 2 x self tapping screws supplied.



Connect the 12V DC Power to the Power input and then screw the two SMA cables from the antenna to the SMA Inputs on the docking station (These can go either way around, there is no specific SMA port to a cable).

Use P-Clips or similar to tidy the cables from the antenna and power. (Avoid looping the cables to ensure no signal loss etc.)

There is an isolation rocker switch on the bottom of the docking station to allow the power to be disabled if required.

Portable Router

If the EVO FLEX kit has been purchased including a router, these will vary as per below. For full details on supplied router, see separate router manual.

The portable routers supplied with the Falcon EVO FLEX are as follows:



5G 1800Mbps Portable Router

LTE Category: 22
Peak Download: 3.6Gbps
Max. Wifi Users: 32
Wifi: 2.4GHz / 5GHz / WiFi6
Battery: 4500mAH Lithium



5G 3600Mbps Portable Router

LTE Category: 22
Peak Download: 3.6Gbps
Max. Wifi Users: 32
Wifi: 2.4GHz / 5GHz / WiFi6
Battery: 5040 mAh Quick charge lithium



4G 300Mbps Portable Router

LTE Category: 6
Peak Download: 300Mbps
Max. Wifi Users: 16
Wifi: 2.4GHz / 5GHz
Battery: 2930 mAh lithium



4G 150Mbps Portable Router

LTE Category: 4
Peak Download: 150Mbps
Max. Wifi Users: 10
Wifi: 2.4GHz
Battery: 2000mAh lithium

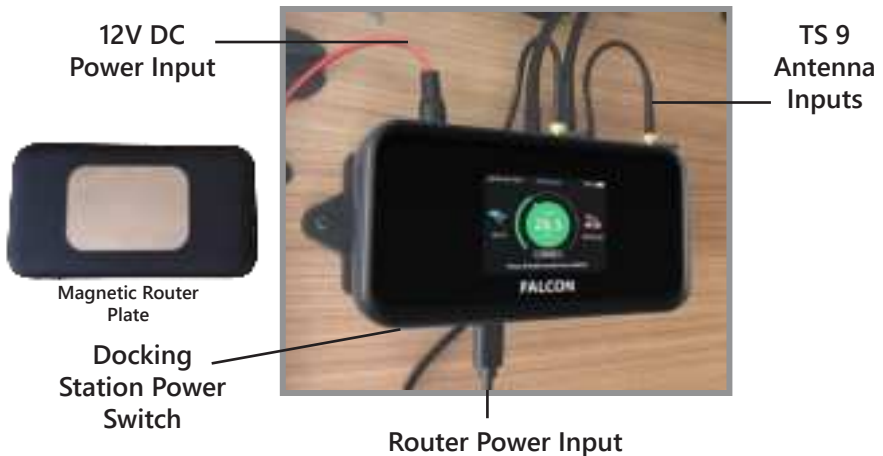
All of the above routers are Simlock Free and will work with any SIM network.

If using a different router, please ensure that these have external antenna connections. The antennas require an TS9 type connection, though SMA connection is also possible with cable adaptors (not supplied)

*Supplied router colour, appearance or model may be subject to change without notice.

Connecting The Router (Magnetic Power Docking Station)

The router is supplied with a magnetic plate to allow it to be placed on the magnet of the docking station and connected.



The router can be easily connected and mounted to the docking station or removed if being used independently or with the portable amplified antenna.

To mount the router on the docking station simply plug the power cable from docking station into the power input of the portable router. Then connect the small TS9 Connectors into the external antenna inputs of the router. These push in and pull out

When removing TS 9 Cables from the docking station, always do this from the gold connector, not the cable to ensure the cable is not damaged.

Note:

The EVO 5G Flex product comes with a selection of available routers. The docking stations for the routers vary due to power input / antenna input locations on the routers.

The docking station included (if applicable) will be suited to the router which has been selected.

Portable 5G Antenna

The Falcon EVO Mobile antenna is a fully portable 5G ready amplified Omni-directional antenna which boosts the 5G or 4G signal to the router.

POSITIONING THE ANTENNA

The antenna can either be used with the included suction cup base or magnetic antenna base. These can be screwed into either the base of the antenna or the rear of the antenna depending on required application. The suction fixing pad is ideal for windows and flat surfaces and the non-scratch magnetic fixing pad is ideal for affixing to any magnetic metal surface.

SUCTION FIXING



MAGNETIC FIXING



The high gain antenna is Omni-directional and can be placed anywhere. It is recommended that the antenna is placed as high as possible to avoid obstructions but not always necessary.

The 2 metre long small twin TS9 cable is flat enough to pass through any window spaces and allowing them to close.

The kit is also supplied with a self adhesive metal plate that can be mounted externally to the side or roof of a vehicle to use with the magnetic fixing pad of the antenna.

Connecting The Router (Portable 5G Antenna)

To connect the portable amplified antenna to the router simply use the two TS9 connections cables to connect to the two TS9 inputs on your router.

These can usually be found on either the top or bottom of the router depending on the router model.

TS9 connections simply push in and pull out to remove. Either of the cables can be placed in each of the ports.



*Please note that when removing the cables from the router, gently pull using the TS9 connectors rather than the cable to avoid damaging the cables.

The Portable antenna and router can then be used anywhere due to the rechargeable battery of the router. This is ideal for city breaks, hotels, vacations, tents, hiking, holiday homes, switching between multiple vehicles, remote working or at home.



Simply position the antenna with the two TS9 cables connected to the external antenna inputs of the router.

Enjoy flexible amplified internet anywhere with the Falcon EVO 5G Flex.

Product Support

For product support regarding the EVO 5G Flex, contact our support via email or visit our website for more details.

UK, US & AUS Product Support:

Email: cs1@falcontechanical.co.uk

Websites:

UK: falcontechology.co.uk

US & USA: falcontechologygroup.com



EU Support:

Email: support@falcontechology.eu

Website

falcontechology.eu



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Additional Languages



If the user manual is required in other languages, a digital copy can be accessed and downloaded using the below QR Codes.



Si le manuel d'utilisation est requis dans d'autres langues, une copie numérique peut être consultée et téléchargée à l'aide des codes QR ci-dessous.



Si se requiere el manual del usuario en otros idiomas, se puede acceder y descargar una copia digital utilizando los siguientes códigos QR.



Se il manuale utente è richiesto in altre lingue, è possibile accedere e scaricare una copia digitale utilizzando i codici QR riportati di seguito.



Declaration Of Conformity



Declaration of Conformity

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Product:

Falcon EVO 5G Flex

Description:

Falcon EVO 5G Flex - Amplified Roof & Portable Antennas

Permanent mount antenna with 5G / 4G / 3G / 2G 2*MIMO

The object of the declaration described above is in conformity with the following directives and standards:

RE Directive (2014/53/EU)

ROHS Directive RoHS 2 Directive 2011/65/EU Annex II (EU) 2015/863 as last amended by Directive (EU) 2017/2102.

EMC Standards:

Article 3.1 (a) Protection of health and safety
EN 62368-1:2014+A11:2017 EN62479:2010
Article 3.1 (b) Electromagnetic compatibility
ETSI EN 301489-1 V2.2.0 (2017-03) ETSI EN 301 489-3 V2.1.1 (2017-003)
Article 3.2 Effective use of the spectrum
ETSI EN 303 345 V1.1.7 (2018-09)

Signed: _____

Christopher Williams 15/02/2025
Managing Director - Falcon Technical Ltd



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