



# Vodafone MachineLink Ethernet Switch

Quick Start Guide  
and Safety Manual

**Vodafone**  
Power to you

# Welcome

to the world of mobile communications

Thank you for choosing a **Vodafone MachineLink Ethernet Switch**.  
This guide provides simple instructions to help you quickly and easily set up your device.

## Chapters

- 2 Getting started
- 3 Device overview
- 4 Installing your device
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## Package contents

### This package includes

- 1 x Vodafone MachineLink Ethernet Switch
- 1 x 15cm Yellow Ethernet link cable 8P8C (Ethernet jumper)
- 1 x 10cm Power link cable (DC jumper) with two-way terminal block connector attached
- 1 x Two-way terminal block connector
- 1 x Quick start guide and safety manual
- 1 x Flat dual joiner
- 1 x Single DIN rail mounting bracket

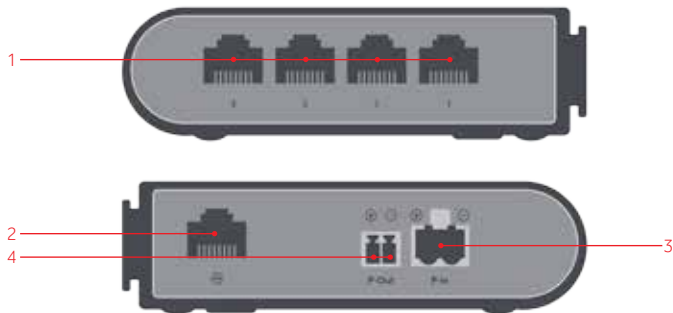
A power supply is available as an optional accessory.


## Getting started

Depending on your individual setup, you may need certain components to configure your device correctly.

- External power supply unit for the switch (not included).
- Flathead screwdriver for terminating power input wires.
- Additional fasteners and screwdrivers for specific wall or rail mounting.

## Device overview

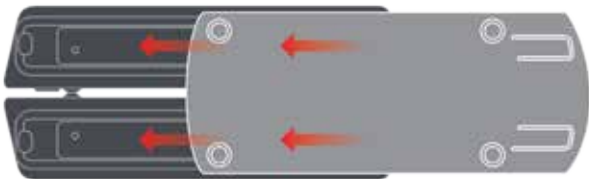


ITEM	DESCRIPTION
1 Gigabit Ethernet ports 1-4	Provides connectivity for up to four network devices at 1000Mbps each. Each port supports autosensing of the link speed (Auto MDIX) and speed classes 10/100/1000 Base-T Ethernet.
2 LINK port 	Connect the provided Ethernet cable between this port and the LAN port of the router to provide network access to devices connected to the Gigabit Ethernet ports. The port supports autosensing of the speed class and supports 10/100/1000 Base-T Ethernet.
3 Power output <b>P-Out</b>	Connect the power output connector of the provided power supply cable to this port to deliver power to another unit. Usually this will be a Vodafone MachineLink 3G, 3G Plus or 4G router. (Provides 12-30V DC/1.5A)
4 Power input <b>P-In</b>	Accepts 12-30V DC/2A via the power input 2-way terminal block connector.

## Installing your device

### Step 1

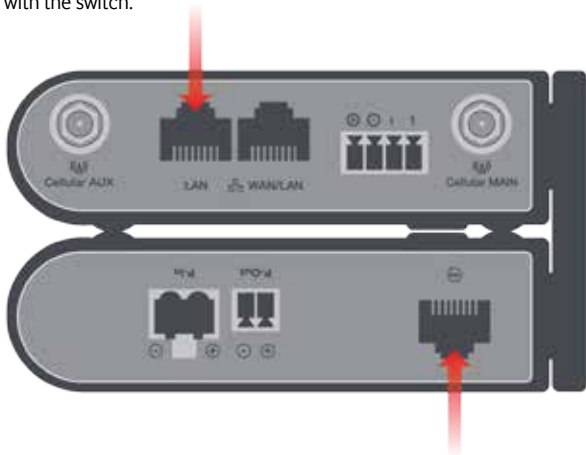
To mount the unit on a desktop, slide the Vodafone MachineLink Ethernet Switch and the Vodafone MachineLink router into the Flat dual joiner as shown below.



For other mounting methods, please mount the devices after completing the following steps. Refer to the [Mounting your device](#) section for details.

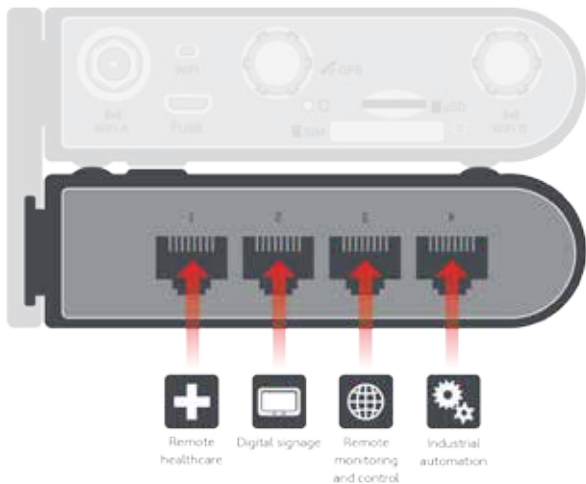
## Step 2

Connect one end of the provided Ethernet LINK cable to the LINK port of the Vodafone MachineLink Ethernet Switch. Connect the other end to the LAN port of the Vodafone MachineLink router that you will use with the switch.



### Step 3

Connect network equipment to the 4 Ethernet ports on the Vodafone MachineLink Ethernet Switch. To get Gigabit speeds, ensure that you use at least Category 5e Ethernet cable.



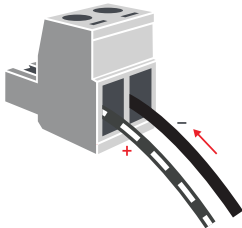


## Step 4

Connect power to your switch using one of the following options.

### 1. DC power via the two-way connector

Remove the attached green terminal block from your switch and connect to the switch's power socket using a DC power supply, sold separately.



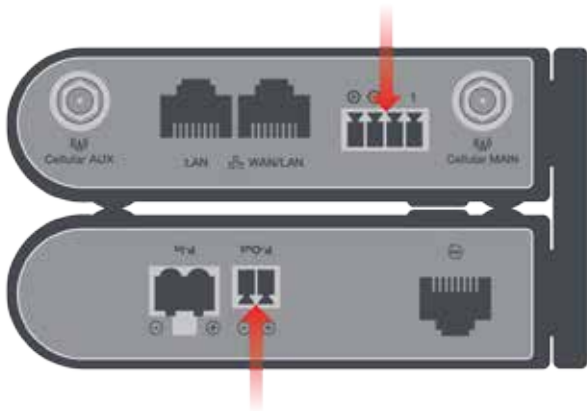
### 2. DC power via field terminated power source

If a 12-30V DC power supply is available, you can insert the wires into the supplied terminal block to power your switch. Use a flathead screwdriver to tighten the terminal block screws and secure the power wires, making sure that you have correctly wired the terminal block as illustrated below. You should avoid using DC cables greater than 2 metres in length.

TERMINAL	DESCRIPTION
+	Positive wire for power.
-	Ground wire.

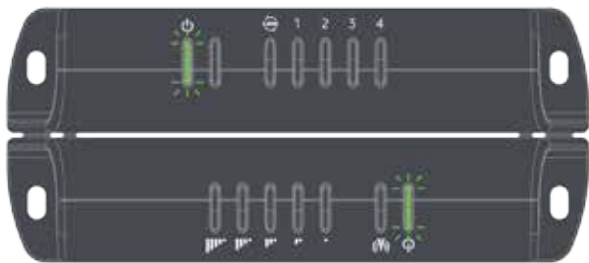
### Step 5

Using the Power link cable, connect the router and switch together as shown below.














### Step 6

Turn on the power source. Confirm that the green power LED on both the router and switch light up when a power source is connected.



## Overview of LED indicators

### Front panel LEDs

LED ICON	NAME	COLOUR	STATE	DESCRIPTION
	Power		Off	Switch is powered off.
			On	Switch is powered on.
	LINK		Off	No device is connected to the LINK port.
			On	A device is connected to the LINK port.
			Blinking	Traffic between the device connected to the LINK port and devices connected to the Gigabit Ethernet ports.
	Ethernet 1 - 4		Off	No external device connected.
			On	External device connected, no traffic.
			Blinking	External device connected with traffic.



## Gigabit Ethernet port LEDs

LED	STATE	DESCRIPTION
■	Off	No network connection is available.
	On	Network connection is available.
	Blinking	Network traffic.
■	On	Port speed is 1000Mbps.
	Off	Port speed is 10/100Mbps.



**Congratulations - your Vodafone MachineLink Ethernet Switch is now ready to use!**

## Mounting your device

Depending on your individual setup, you may need certain components to mount your device correctly, such as:

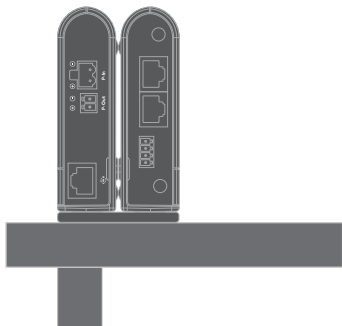
- A Flathead screwdriver for terminating power input wires.
- Additional fasteners and screwdrivers for specific wall or rail mounting.

### Mounting options

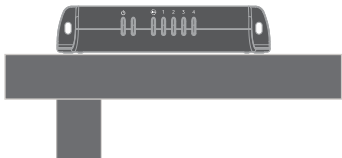
The **Vodafone MachineLink Ethernet Switch** can be installed quickly and easily in a variety of locations.

MOUNT TYPE	DESCRIPTION	BENEFITS
Desk mount using joiner bracket	Joiner bracket mounts a MachineLink router adjacent to the MachineLink Ethernet Switch.	<ul style="list-style-type: none"><li>• Simplicity, units stand upright on a desk, slimline form factor.</li></ul>
Desk mount	Stand on a desk	<ul style="list-style-type: none"><li>• Simplicity, versatility</li></ul>
Wall mount	1. Flat against the wall 2. Perpendicular to the wall 3. Mounted via DIN rail bracket	<ul style="list-style-type: none"><li>• Slimline form factor, close to wall</li><li>• Small wall footprint</li><li>• Easy to remove</li></ul>
C Section DIN rail mount	Slide onto a rail	<ul style="list-style-type: none"><li>• Simplicity</li></ul>
Top hat DIN rail mount	Mount on a bracket and slide onto a rail	<ul style="list-style-type: none"><li>• Simplicity</li><li>• Can mount in between other devices</li></ul>

**Desk mount  
using joiner  
bracket**

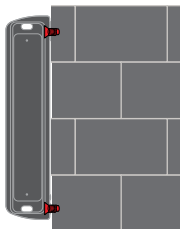


**Desk mount**

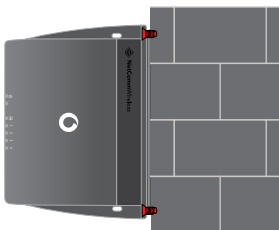


## Wall mount

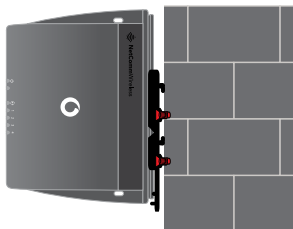
1. Flat against the wall



2. Perpendicular to the wall

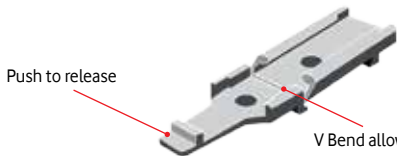


3. Mounted via DIN Rail Bracket



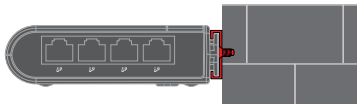


## DIN Rail mounting bracket

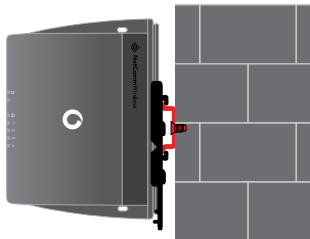


V Bend allows you to snap the DIN bracket onto the middle of a DIN rail, rather than sliding it onto the end

## C Section DIN rail mount



## Top hat DIN rail mount



## **Safety and Product Care**

Vodafone MachineLink Ethernet Switch

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## CE approval (European Union)

This device has been tested to and conforms to the regulatory requirements of the European Union and attained CE Marking. The CE Mark is a conformity marking consisting of the letters "CE." The CE Mark applies to the products regulated by the central European health, safety and environmental protection legislation. The CE Mark is obligatory for products it applies to: the manufacturer affixes the marking in order to be able to sell their product in the European market.

The wireless device is approved to be used in the member states of the EU. NetComm Wireless declares that the wireless device is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC. Compliance with this directive implies conformity to the following European Norms:

### **EMC Directive**

- EN55022:2010/AC: 2011
- EN55024:2010

### **LVD Directive**

- EN60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + A2:2013 + AC:2011

The CE Marking is not a quality mark. Foremost, it refers to the safety rather than to the quality of the product. Secondly, CE Marking is mandatory for the product it applies to whereas most quality markings are voluntary.

## FCC Statement

### **FCC compliance**

Federal Communications Commission Notice (United States): Before a wireless device model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure.

## FCC regulations

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.

This device 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:

- Reorientate 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## IC regulations

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

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## RCM

The Australian Communications & Media Authority (ACMA) requires you to be aware of the following information and warnings:

This equipment has been tested and found to comply with the Standards for RCM as set by the ACMA. These standards

are designed to provide reasonable protection against harmful interference in a residential installation. This equipment,

if not installed and used in accordance with the instructions detailed within this manual, may cause interference to radio communications.

However, there is no guarantee that interference will not occur with the installation of this product in your home or office. If this equipment does cause some degree of

interference to radio or television reception, which can be determined by turning the equipment off and on, we encourage

the user to try to correct the interference by one or more of the following measures:

- i. Change the direction or relocate the receiving antenna.
- ii. Increase the separation between this equipment and the receiver.

- iii. Connect the equipment to an alternate power outlet on a different power circuit from that to which the receiver/TV is connected.
- iv. Consult an experienced radio/TV technician for help.

## Electrical safety

### Accessories

Only use approved accessories.

Do not connect with incompatible products or accessories.

### Connection to a car

Seek professional advice when connecting a device interface to the vehicle electrical system.

## Distraction

### Operating machinery

Full attention must be given to operating the machinery in order to reduce the risk of an accident.

You alone are responsible for how you use your device and any consequences of its use.

You must always switch off your device wherever the use of a mobile phone is prohibited. Do not use the device without the clip-on covers attached, and do not remove or change the covers while using the device. Use of your device is subject to safety measures designed to protect users and their environment.

- Always treat your device and its accessories with care and keep it in a clean and dust-free place.
- Do not expose your device or its accessories to open flames or lit tobacco products.
- Do not expose your device or its accessories to liquid, moisture or high humidity.
- Do not drop, throw or try to bend your device or its accessories.
- Do not use harsh chemicals, cleaning solvents, or aerosols to clean the device or its accessories.
- Do not paint your device or its accessories.
- Do not attempt to disassemble your device or its accessories, only authorised personnel must do so.
- Do not use your device in an enclosed environment or where heat dissipation is poor. Prolonged use in such space may cause excessive heat and raise ambient temperature, which will lead to automatic shutdown of your device or the disconnection of the mobile network connection for your safety. To use your device normally again after such

shutdown, cool it in a well-ventilated place before turning it on.

- Please check local regulations for disposal of electronic products.
- Do not operate the device where ventilation is restricted
- Installation and configuration should be performed by trained personnel only.
- Do not use or install this product near water to avoid fire or shock hazard. Avoid exposing the equipment to rain or damp areas.
- Arrange power and Ethernet cables in a manner such that they are not likely to be stepped on or have items placed on them.
- Ensure that the voltage and rated current of the power source match the requirements of the device. Do not connect the device to an inappropriate power source.

### **Children**

Do not leave your device and its accessories within the reach of small children or allow them to play with it.

They could hurt themselves or others, or could accidentally damage the device.

Your device contains small parts with sharp edges that may cause an injury or which could become detached and create a choking hazard.

### **Emergency & other situations requiring continuous connectivity**

This device, like any wireless device, operates using radio signals, which cannot guarantee connection in all conditions. Therefore, you must never rely solely on any wireless device for emergency communications or otherwise use the device in situations where the interruption of data connectivity could lead to death, personal injury, property damage, data loss, or other loss.

### **Device heating**

Your device may become warm during normal use.

### **Safe operating temperature**

The safe operating temperature of the device is 55°C.



The device may not function below -40°C and over 85°C.

## WEEE approval

The wireless device is approved to be used in the member states of the EU. NetComm Wireless declares that the wireless device is in compliance with the essential requirements and other relevant provisions of the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE Directive).

## RoHS compliance statement

NetComm Wireless is committed to the development of products which are in compliance with the RoHS (Restriction of Hazardous Substances) directive. The RoHS directive restricts the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr6+), Polybrominated biphenyls (PBB) and Polybrominated diphenyl ether (PBDE). To meet this compliance, all of these substances must either be removed or reduced to levels within the maximum permitted concentrations in products containing electrical or electronic components for sale within the EU.

## Faulty and damaged products

Do not attempt to disassemble the device or its accessories.

Only qualified personnel must service or repair the device or its accessories.

If your device or its accessories have been submerged in water punctured or subjected to a severe fall, do not use until they have been checked at an authorised service centre.

All Ethernet cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.

## Interference

Care must be taken when using the device in close proximity to personal medical devices, such as pacemakers and hearing aids.

### **Pacemakers**

Pacemaker manufacturers recommend that a minimum separation of 15cm be maintained between a device and a pacemaker to avoid potential interference with the pacemaker.

### **Hearing aids**

People with hearing aids or other cochlear implants may experience interfering noises when using wireless devices or when one is nearby.

The level of interference will depend on the type of hearing device and the distance from the interference source, increasing the separation between them may reduce the interference. You may also consult your hearing aid manufacturer to discuss alternatives.



## Explosive environments

### **Medical devices**

Please consult your doctor and the device manufacturer to determine if operation of your device may interfere with the operation of your medical device.

### **Hospitals**

Switch off your wireless device when requested to do so in hospitals, clinics or health care facilities. These requests are designed to prevent possible interference with sensitive medical equipment.

### **Interference in cars**

Please note that because of possible interference to electronic equipment, some vehicle manufacturers forbid the use of devices in their vehicles unless an external antenna is included in the installation.

### **Petrol stations and explosive atmospheres**

In locations with potentially explosive atmospheres, obey all posted signs to turn off wireless devices such as your device or other radio equipment.

Areas with potentially explosive atmospheres include fuelling areas, below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

### **Blasting caps and areas**

Turn off your device or wireless device when in a blasting area or in areas posted turn off “two-way radios” or “electronic devices” to avoid interfering with blasting operations.

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