



# M2M Serial Modem

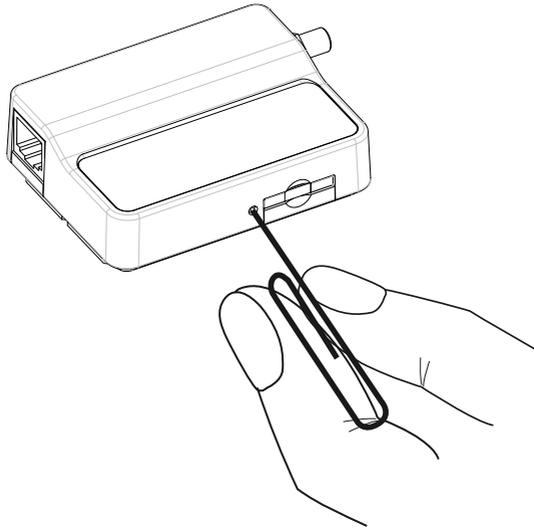


# THANKS FOR PURCHASING NETCOMM WIRELESS

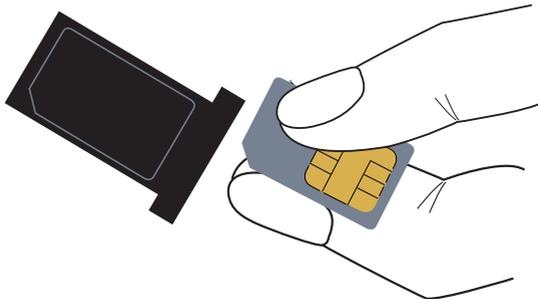
This quick start guide is designed to get you up and running quickly with your new modem. More advanced set up instructions can be found in the user manual which can be downloaded from [www.netcommwireless.com](http://www.netcommwireless.com)

## INSTALLATION - INSERTING THE SIM CARD

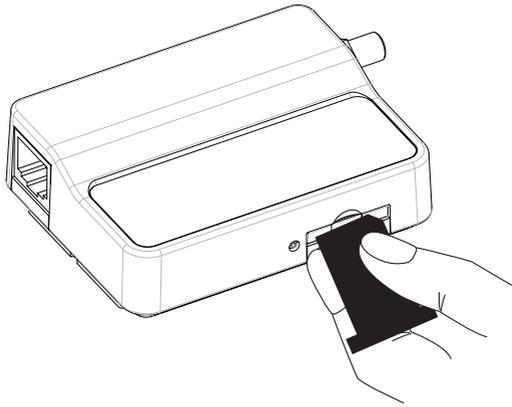
1. Please ensure that the NTC-3000 is not connected to the power cable before proceeding.
2. Push the small yellow button besides the SIM card holder with a paper clip or similar pointed object.



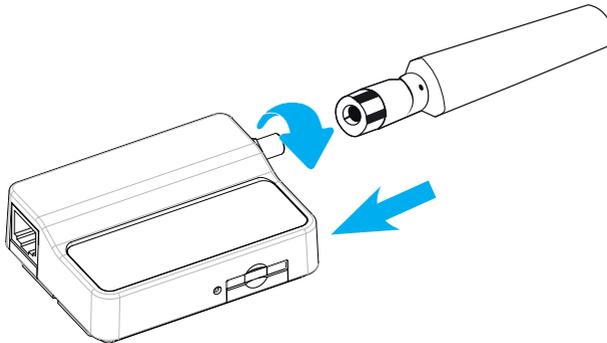
3. Insert the SIM card into the holder with the SIM conductor pins facing up.



4. Insert the SIM card holder with the SIM conductor pins facing down into the NTC-3000.

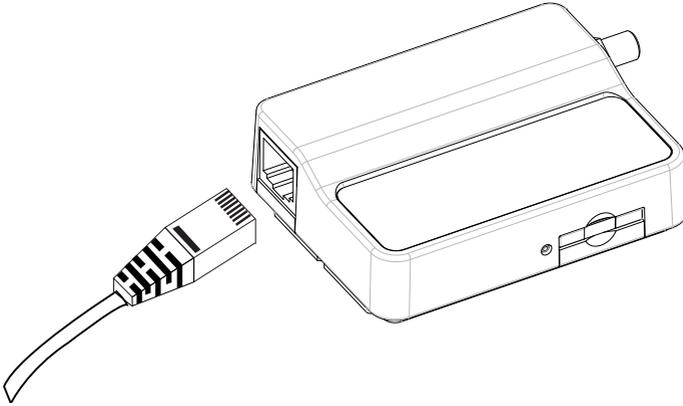


5. Connect a compatible 3G antenna to the SMA connector on the NTC-3000. 3G Antennas can be purchased as an accessory from the NetComm website at [www.netcommwireless.com](http://www.netcommwireless.com)



## CONNECTING THE DATA/POWER CABLE

1. The NTC-3000 has two possible power inputs, either via a 5V Mini USB socket, or via a single RJ-45 connector which combines both power and serial port input. Connect a USB power source, or compatible Serial+Power cable from the RJ-45 port of the NTC-3000 to the serial port of your serial device (e.g a computer) and to a compatible power adapter. Power adapters and serial cables can be purchased as accessories available from the NetComm website a [www.netcommwireless.com](http://www.netcommwireless.com)
2. After power on, the NTC-3000 is now ready to establish a serial communication link.



## MOUNTING OPTIONS

The NTC-3000 series modem can be mounted on the wall or a DIN rail by using the mounting bracket. The mounting bracket is made from polyamide, which is a flexible material.

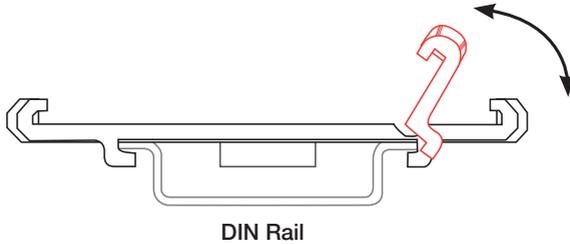
Mounting the NTC-3000 series modem is as simple as bending the mounting bracket to snap into place on the Type-O (Top Hat) DIN rail. This holds the NTC-3000 series modem in place securely.

Alternatively, the mounting bracket can be screwed onto a wall to provide a permanent fixture.

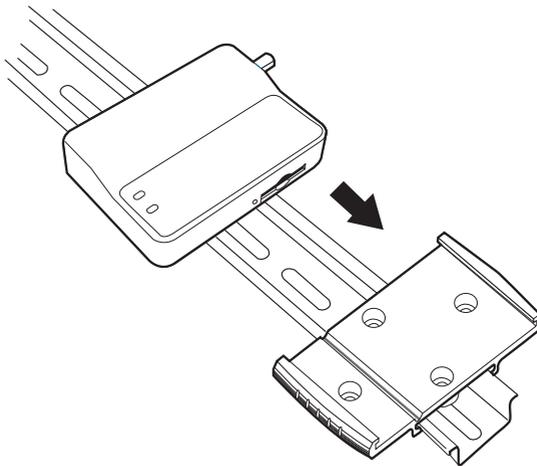
## DIN RAIL MOUNTING

The NTC-3000 Series mounting bracket has been designed to fit a TS 35 Type-O DIN rail with a 25mm core.

1. Bend / Flex the mounting bracket at the bend line so that the ridges are able to 'hold' onto the DIN rail edges as per the diagram below. You also have the option of securing the mounting bracket further by screwing it into place on the rail.



2. Once the bracket is attached to the DIN rail, slide the NTC-3000 Series modem into the mounting bracket to securely fix it in place.



## WALL MOUNTING

1. Select the location you would like to attach the NTC-3000 Series modem. Attach the mounting bracket to the wall or ceiling by using the 4 screw holes (screws not included).

## CONNECTING VIA A SERIAL PORT

1. For example, to connect a terminal emulator, open a HyperTerminal and create a new connection to the COM port of your serial port, with the bitrate set to 115200.



2. In the HyperTerminal type “AT” (no quotations) and press enter. If the NTC-3000 is connected the reply will be “OK”.
3. Further AT commands for use with the NTC-3000 are available in the NTC-3000 support documentation on the NetComm website at [www.netcommwireless.com](http://www.netcommwireless.com)

## CONNECTING VIA USB

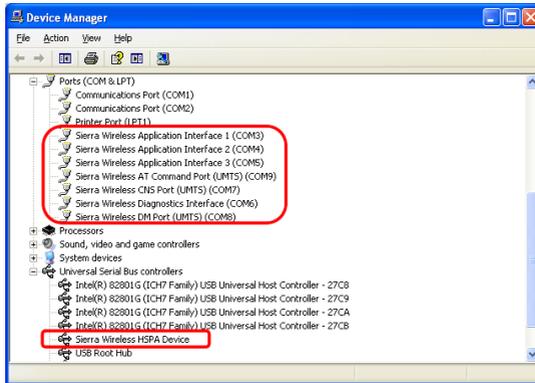


1. The NTC-3000 features a USB port which can optionally be used for serial connectivity, terminal emulation or for establishing a high speed PPP internet connection. The USB port will enumerate a number of endpoints after the USB port driver is installed.

# INSTALLING THE NTC-3000 USB DRIVERS

1. For USB port communication, you must install a driver compatible with the NTC-3000's embedded Sierra Wireless AirPrime cellular module. This can be done by downloading the Windows or MAC-OS Sierra Wireless 3G Watcher software for the NTC-3000 serial modem from [www.netcommwireless.com](http://www.netcommwireless.com). This software incorporates the USB drivers for the NTC-3000's USB interface.
2. After the download has completed, install the software by double-clicking on the downloaded file and following the installer prompts.
3. Connect a mini USB cable to the USB port on the NTC-3000.
4. Connect the other end of the mini USB cable to a spare USB port on your computer.
5. After inserting the cable into your computer, you will be prompted that a new USB connection has been detected and will be configured using the associated drivers that were installed by the Sierra Wireless 3G Watcher software installation.
6. To verify the driver was successfully installed, check in the Device Manager for extra COM ports and a new Universal Serial Bus controller. To check the Device Manager, perform the following steps:
  - Click on the Start button and then navigate to the "Control Panel" item.
  - Double click on the "System" Control Panel item.
  - Click on the "Hardware" tab and then click the "Device Manager" button.

You should see entries similar to the following in the Ports and Universal Serial Bus controllers section:



If there are any error signs, denoted by a yellow question mark or a red apostrophe, next to the new listed items please reboot your computer.

If rebooting the computer does not resolve the issue please try re-installing the drivers using the Sierra Wireless Aircard Watcher. To do this click on the options tab of the watcher and select reinstall drivers. If reinstalling the Watcher drivers fails to resolve the issue please try reinstalling the Sierra Wireless Aircard software.

If you are still unable to successfully install the device please contact Technical Support at NetComm Wireless Limited at <http://www.netcomm-commercial.com.au/contact-us/technical-support>

Once the driver has been installed, serial connectivity can be achieved via the “AT Command Port”. Alternatively, a PPP Internet Connection can be established by launching the 3G Watcher Program installed by the driver installation.



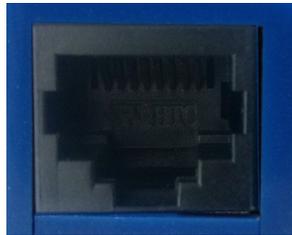
## LED INDICATORS

The NTC-3000 Series uses two LEDs to display the current system and connection status.

LED Indicator	Colour	Definition
Power	Off	The power is off
	Red	The power is on
3G	Off	3G connection is down
	Slow flashing green	Searching the network
	Green	3G connection is up

## RJ45 CONNECTOR

The RJ-45 connector provides a serial connection utilising 2 pins (as shown below) to provide power.



PIN8-PIN1

Pin	Signal	Description
1	VCC	Input Voltage 8VDC-56VDC
2	DCD	Data Carrier Detect
3	DTR	Data Terminal Ready
4	GND	Common Ground
5	RXD	Serial Data Out
6	TXD	Serial Data In
7	RTS	Ready To Send
8	CTS	Clear To Send

## MINI USB CONNECTOR

The mini USB connector can be connected to a USB 2.0 host port on a computer or other device to provide an alternate power input to the NTC-3000 as well as alternate serial connectivity. The mini USB port can also optionally facilitate a high speed PPP Internet connection, if required. It utilises a standard mini USB pin out configuration.



Pin	Signal
1	VIN
2	D-
3	D+
4	N/C
5	GND

## RJ-45 TO DB-9 SERIAL/POWER ADAPTER CABLE

The NTC-3000 Series uses a RJ-45 to DB-9 serial cable to facilitate communications to an attached device. Pins 1 and 4 are used to supply power to the NTC-3000 Series.

DB9	Signals		RJ45	DC Power Socket	Description
1	DCD	↔	2		Data Carrier Detect
2	RXD	↔	5		Serial Data Out
3	TXD	↔	6		Serial Data In
4	DTR	↔	3		Data Terminal Ready
5	GND	↔	4	DC Ring	Common Ground
6	DSR	↔	-		<i>Not Used</i>
7	RTS	↔	7		Ready To Send
8	CTS	↔	8		Clear To Send
9	RI	↔			<i>Not Used</i>
	Power		1	DC Tip	VCC (Input voltage from 8V - 56VDC)

## CONTACT

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