

User Guide

1.2Gbps Powerline Kit with Gigabit Port



Copyright

Copyright© 2017 NetComm Wireless Limited. All rights reserved.

The information contained herein is proprietary to NetComm Wireless. No part of this document may be translated, transcribed, reproduced, in any form, or by any means without prior written consent of NetComm Wireless.

Trademarks and registered trademarks are the property of NetComm Wireless Limited or their respective owners. Specifications are subject to change without notice. Images shown may vary slightly from the actual product.



Note – This document is subject to change without notice.

Save our environment

When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separately from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this device can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with domestic waste. You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

<http://recyclingnearyou.com.au/ewastescheme/>

Please be responsible and protect our environment.

Document history

This guide covers the following products:

NetComm Wireless 1.2Gbps Powerline Kit with Gigabit Port (NP1201)

Ver.	Document description	Date
v1.0	Initial document release	6 March 2017

Table i. - Document revision history

Contents

Overview	5
Introduction	5
Prerequisites	5
Notation	5
Product introduction	6
Product overview	6
How does it work?	6
Package contents.....	6
Interfaces and indicators	7
Interfaces	7
LED indicators	7
Setting up your powerline adapters.....	8
Determining connection rate.....	10
Power saving mode.....	10
How to use the Security button	10
Creating a Powerline network	10
Resetting the private network password	11
Power Packet Utility	13
Map View	13
Detailed View	14
Device Setup	14
Advanced	15
Options 15	
Legal & Regulatory Information	16
Product Warranty	16
Limitations of Warranty.....	17


Overview

Introduction

This document provides you all the information you need to set up, configure and use the NetComm Wireless 1.2Gbps Powerline Kit with Gigabit Port.

Prerequisites

For advanced configuration of the Powerline Kit, please confirm that you have the following:

-  An electronic computing device with a working Ethernet network adapter and a web browser such as Internet Explorer®, Mozilla Firefox® or Google Chrome™.

Notation

The following symbols are used in this user guide:



The following note requires attention.



The following note provides a warning.



The following note provides useful information.

Product introduction

Product overview

Powerline adapters are ready to use out of the box and do not require the installation of driver software to work. They can be connected to computers, routers, gaming consoles, hubs, IPTV set-top boxes, and other Ethernet devices regardless of operating system.

How does it work?

Powerline adapters utilise the existing electrical wiring in the house as a path to create a secured network of computers and Ethernet devices. With a maximum data rate of up to 1.2 Gbps, Powerline adapters can reliably handle high requirement applications like broadband Internet, high definition video streaming, and Voice over IP.

Powerline adapters convert digital signals to a complex analog signal that traverses along the electrical wires. When receiving the analog signal, the Powerline adapters convert the analog signal back to digital. To make the signal secure, a 128-bit AES encryption is applied.

A Powerline device can only communicate with other Powerline devices that use the same private network password. The private network password can be changed manually using the Powerline adapter utility software on a computer with a Windows operating system. When you use the software, you must manually type the private network password for the device. Another way to change the private network password is to use the Security button. The Security button automatically creates an encrypted private network password. It can also be used to reset the private network password or to add a device into an existing Powerline network.






Note: Powerline adapters are pre-configured to use a common private network password unique for that pair and are ready to use out of the box.

When a Powerline adapter communicates with another device, the Powerline Activity LED colour indicates the connection speed: red indicates a good connection; amber indicates a better connection; and green indicates the best possible connection speed.

Package contents

The package contains the following items:

-  2 x Powerline adapters
-  2 x Ethernet cables
-  Quick start guide

If any of these items are missing or damaged, please contact NetComm Wireless Support immediately by visiting the NetComm Wireless Support website at: <http://support.netcommwireless.com>


Interfaces and indicators







Interfaces

#	Label	Description/function
1	Reset button	Use a paperclip to press this button for no more than 3 seconds to reset the unit to the factory default settings
2	Security button	Press the security button for 10 seconds to reset the private network password. Press the security button for no more than 3 seconds to begin pairing.
3	Ethernet port	Accepts either crossover or straight-through Ethernet cable.

LED indicators

What can the LEDs tell me?

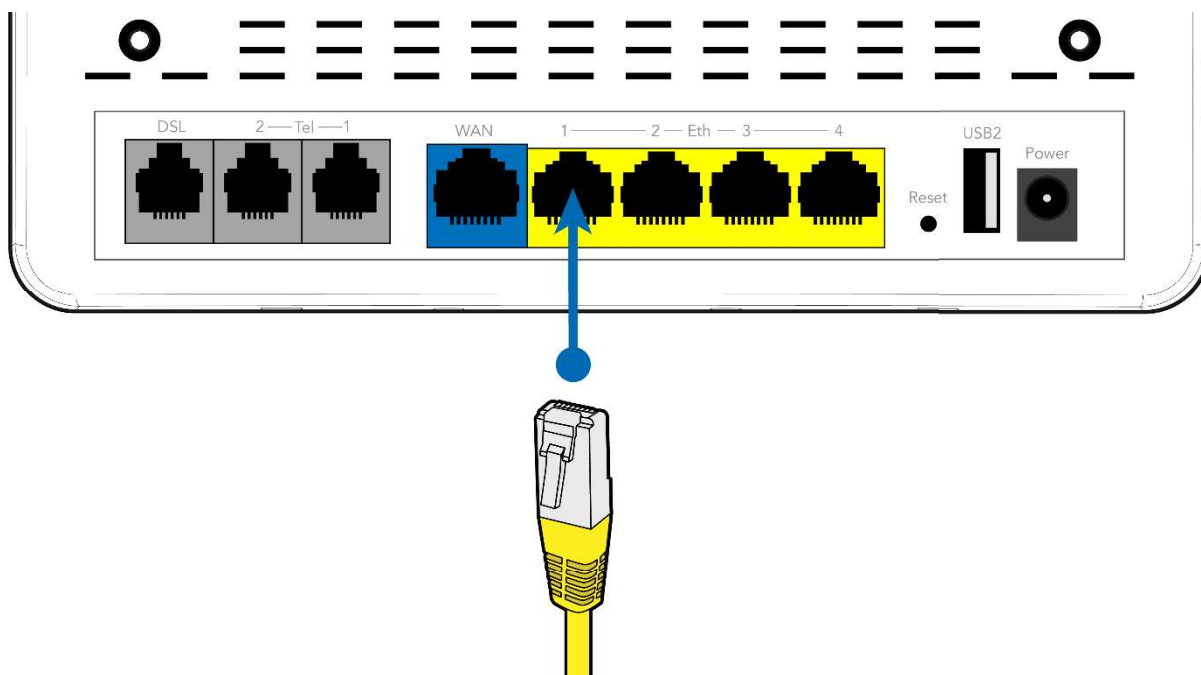
The Powerline LED  changes colour depending on the speed of communication between the powerline adapters.

LED Status	Status	Description
	On	Fastest possible connection speed. Powerline adapter is connected to the Powerline Network.
	On	Faster connection speed. Powerline adapter is connected to the Powerline Network.
	On	Fast connection speed. Powerline adapter is connected to the Powerline Network.
	Off	The Powerline adapter is not connected to a Powerline network. This could be due to there being no network in range or the unit could not find another paired unit on the power line.
	On	An Ethernet device is connected via the Ethernet port of the Powerline adapter.
	Off	No device connected to the Ethernet port of the Powerline adapter.
	On	Powerline adapter is connected to a powered wall socket.
	Blinking	The powerline adapter is pairing.
	Off	Powerline adapter is not powered on.

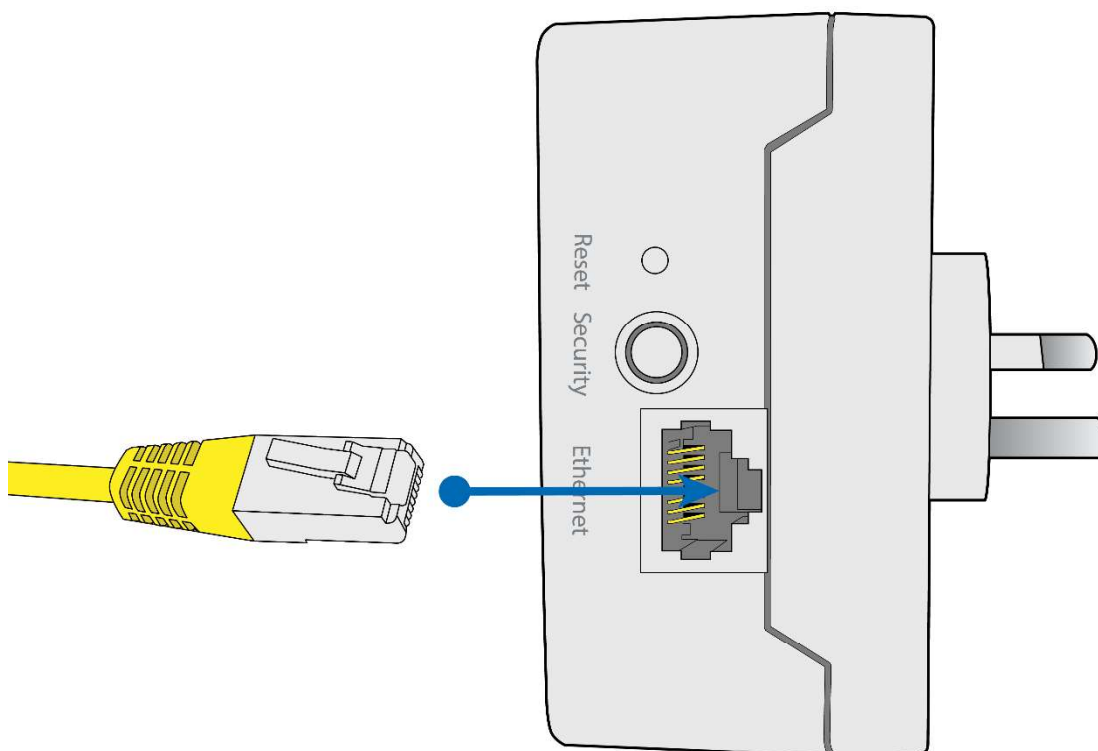
Setting up your powerline adapters

The powerline adapters you have purchased are paired and ready for use out of the box. All that is required is to correctly connect them. Follow these instructions to connect them:

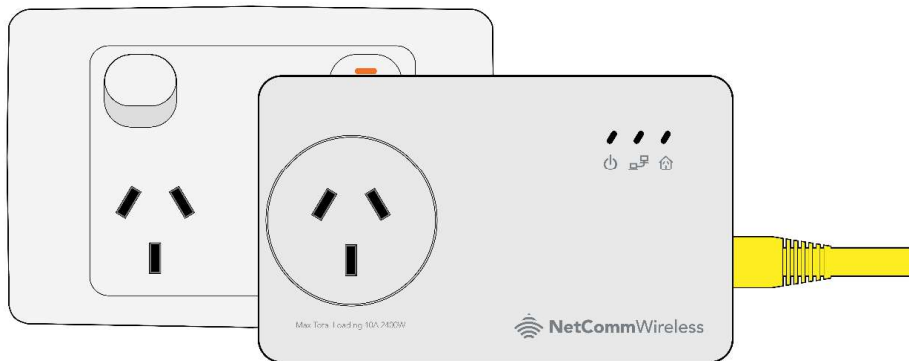
- 1 Connect one end of the supplied Ethernet cable into a LAN Ethernet port of your modem/router.



- 2 Connect the other end of the cable into one of the Powerline adapters.



- 3 Plug the Powerline adapter into a wall power socket near the modem/router.

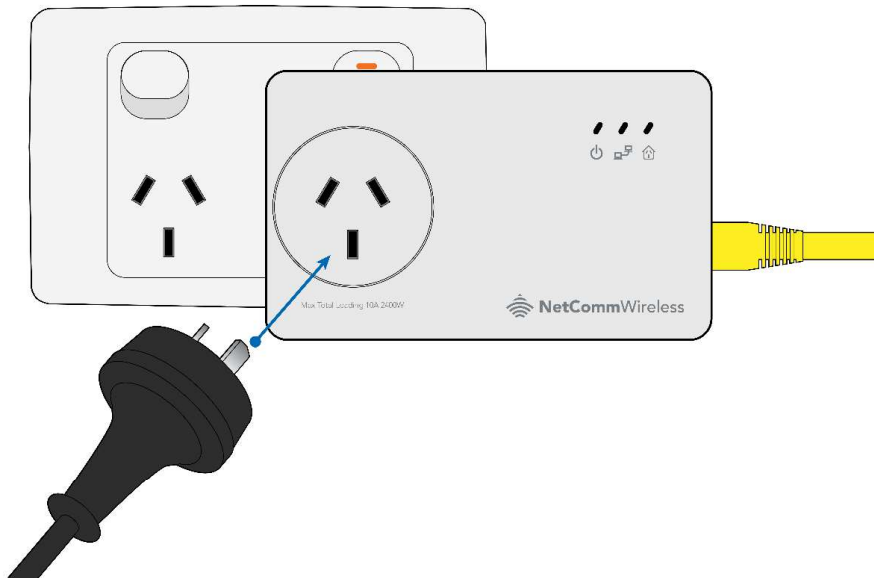


Note: For best performance, plug Powerline adapters directly into the wall socket. Avoid connecting them to power boards.

- 4 If desired, plug other electrical equipment into the Powerline adapter's AC pass-through socket.




WARNING: Do not apply a load of greater than 10Amp/2400W to the pass-through socket.



- 5 Plug the other Powerline adapter into a wall socket near the equipment that requires network access. Connect the other supplied Ethernet cable from the Powerline adapter to the device that requires network access, e.g. PC, set-top box, gaming console, or Blu-Ray player.



Note: When the Powerline adapters are first plugged in to the wall sockets, they take a short time to locate and synchronize with each other. When synchronized, the Powerline LED  on both adapters turn on and they are ready for use.

Determining connection rate

Each colour of the Powerline LED represents a connection rating. The connection rating can only be calculated when the device is part of an existing network. The exact connection rate value can also be viewed using the Powerline Utility.



Power saving mode

After 15 minutes without Ethernet activity, the Power LED blinks slowly indicating that the adapter is in power saving mode. Powerline Adapter will wake up on Ethernet Activity.

How to use the Security button

The Powerline Adapters that you have received are ready for use straight out of the box. They require no initial set-up or configuration. All you need to do is connect them as detailed in the Quick start guide. The following instructions about using the Security button to configure your network are only applicable if you want to change the default private network password or add more adapters on the same Powerline network.

The Security button provides a convenient way of creating your Powerline network without the need to use application software from a computer. The button has two main functions which include:

-  Creating a new unique Powerline network
-  Joining an existing Powerline network

Creating a Powerline network

To create a Powerline network, you need at least two Powerline devices using random private network passwords. When you press the Security button on both devices, a common private network password is automatically generated to enable them to communicate with each other.



Note: New Powerline adapters can already communicate with each other out of the box. However, if you intend to create a new private network password using the Security button for both devices, you must reset their private network passwords to a random key before proceeding.

To connect to a Powerline network using the Security button:

- 1 Plug your Powerline adapters side-by-side where you can easily observe the LED behaviour. Upon connection, the LEDs will blink simultaneously and then the Power LED remains on steadily.



Adapter X

Adapter Y

- 2 On Adapter X, press the Security button for two seconds. After you release the button, the Power LED blinks. If the Power LED did not blink, press the Security button again for two seconds.
- 3 On Adapter Y, press the Security button for two seconds. After you release the button, the Power LED blinks. If the Power LED did not blink, press the Security button again for two seconds. The Security button on Adapter Y must be pressed within two minutes of pressing the Security button on Adapter X. The LEDs on both devices switch off and on twice to signify that they are searching for another device with which to pair.
- 4 Upon connection, the Powerline adapters reboot and connect to each other. To confirm the connection was established, check the LEDs. If a connection is made successfully the Power LEDs and the Powerline Activity LEDs on both adapters are on. If the Powerline Activity LED on either Adapter X or Adapter Y is off, this means the pairing was not successful. In this case, please repeat the process as outlined from step 1.
- 5 Unplug the Powerline adapters and then connect them to your Ethernet devices using the Ethernet cables from the product package. After connecting the Ethernet cable, plug the adapters directly to a wall outlet in the room to which you would like to provide network access.



Note: Powerline adapters work best when connected directly to a wall socket. Avoid plugging them into a power strip or power extension. Other electrical devices in the power strip produce electrical noise that may affect the performance of the adapter.

Resetting the private network password

The Security button allows you to reset the Powerline adapter's private network password to a random key. When a Powerline adapter is reset to a random key, it will not be able to communicate with any other device.



Note: The Security button has multiple functions depending on the length of time it is depressed. Resetting the private network password is not the same as restoring factory default settings.

To reset the Private Network Password using the Security button:

- 1 On one Powerline adapter, press and hold the Security button down for 10 seconds, wait for the Power LED and Ethernet LED to turn off, and then release. The Powerline Activity LEDs of both units turn OFF.
- 2 On the second adapter, press the Security button for 2 seconds and then press the Simple Connect button on the first Powerline adapter to pair the devices. The Power LED blinks to indicate that the button is pressed.

Joining an existing Powerline network

The Security button enables a new device to join an existing network by copying the private network password of the existing network to the new Powerline adapter.

To join an existing secured Powerline network using the Security button:

- 1 Plug Powerline adapter Z beside one of your existing Powerline adapter devices. Make sure you can observe the LED behaviour.
- 2 On Powerline adapter Z, press the Security button for 1-3 seconds. When you release the button, the Power LED and Ethernet LED will turn off and on again.

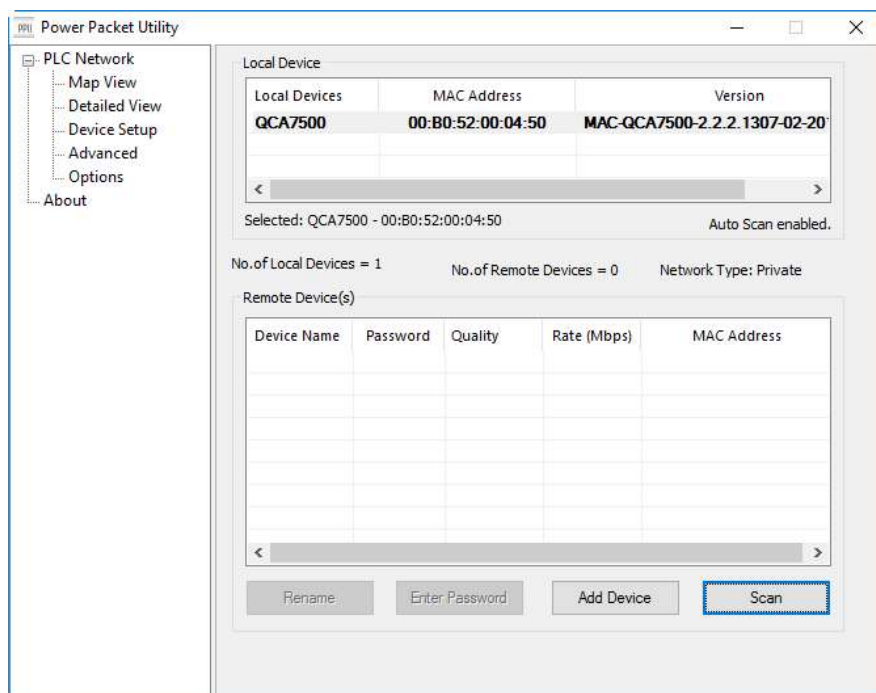
- 3 Within the next 2 minutes, on the existing Powerline device, press the Security button for 1-3 seconds. When you release the button, the Power LED blinks continuously. If the Power LED did not blink, press the Simple Connect button again for 1-3 seconds.
- 4 Confirm that the connection was established successfully. To do this, check that the Power LEDs and Powerline Activity LEDs on all Powerline adapters are on. If the Powerline Activity LED on adapter Z is off, the pairing was not successful and you must repeat the process.
- 5 Unplug Powerline adapter Z and then connect it to your Ethernet device using the Ethernet cables from the product package. After connecting the Ethernet cable, plug adapter Z directly to a wall outlet where you intend to use it.

Power Packet Utility

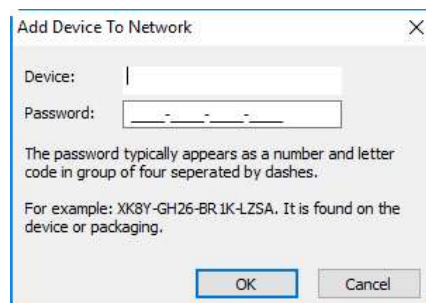
The Power Packet Utility is a management tool allowing advanced configuration of Powerline adapters and can be downloaded from the product page on the [NetComm Wireless website](#). This section describes the features of the software utility.

Map View

The Map View page displays all the Powerline Adapters on the network, both locally (connected directly to the PC or through a router) and remotely (those connected via Powerline).



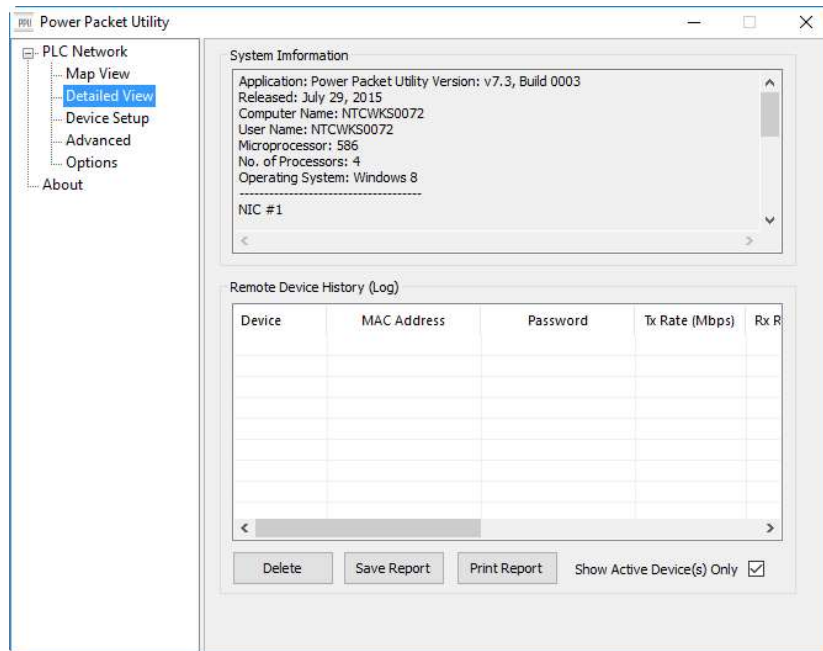
You can manually add a device to your powerline network by clicking the “Add Device” button, giving it a device name and entering the 16-character password.



Details of remote adapters on the network are displayed including their connection speed in Mbps. You can rename a remote adapter at any time by clicking the “Rename” button.

Detailed View

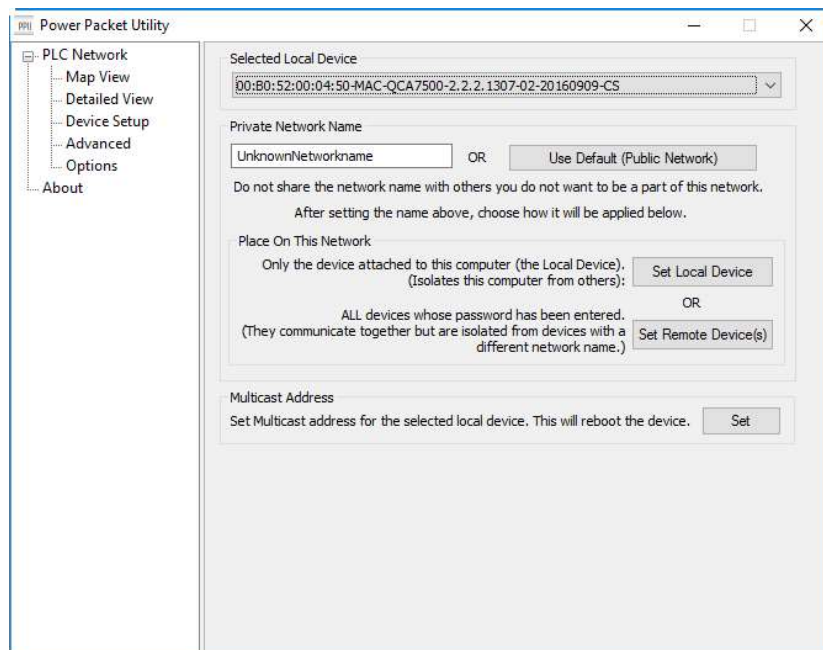
The Detailed View page displays a list of Powerline adapters on the network. You can restrict the display to show only those devices which are active by selecting the “Show Active Device(s) Only” box.



Device Setup

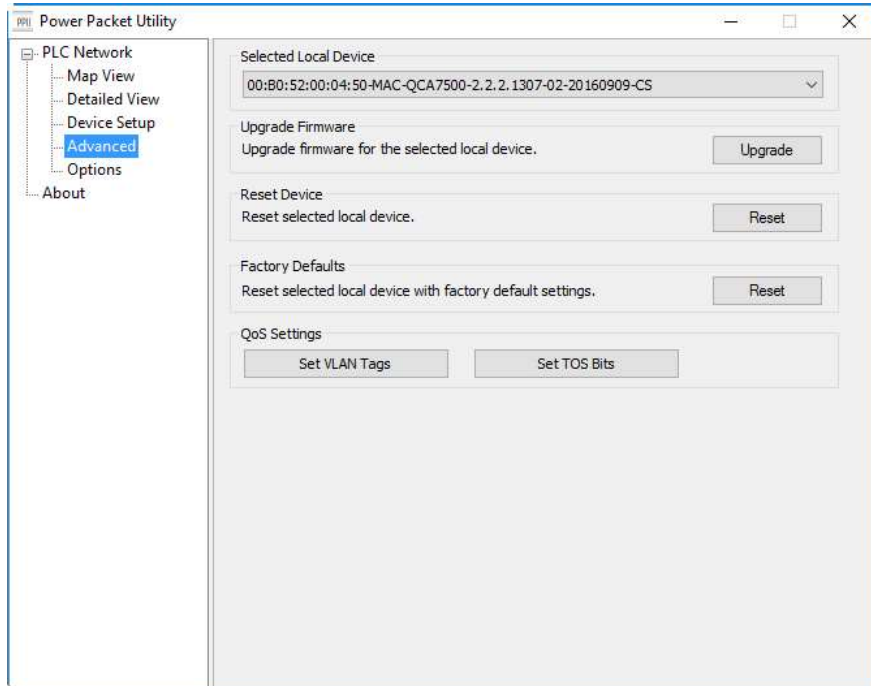
The Device Setup page lets you specify a Private Network Name for a particular device, set the selected adapter to be a local or remote device and specify a multicast address for the selected device.

The Private Network Name is also your network security key. Keep this private to protect your network.



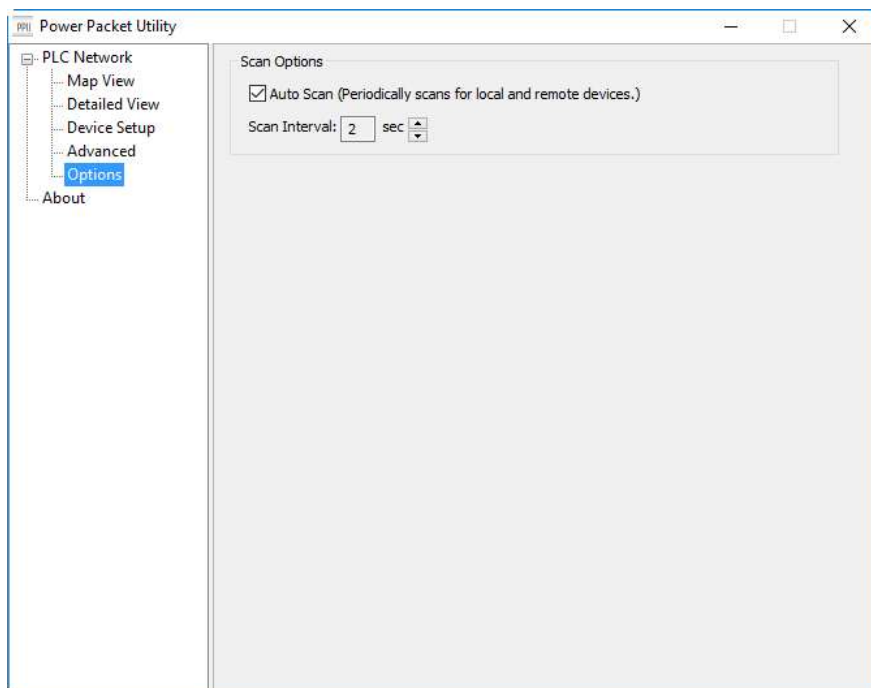
Advanced

The Advanced page provides firmware upgrade ability, a reset button, factory default reset button and QoS settings.



Options

The Options page includes the ability to turn the automatic periodic scan function on or off as well as set the scan interval. Note that this is a setting of the Power Packet Utility software and not a setting on a Powerline adapter.



Legal & Regulatory Information

This manual is copyright. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the Copyright Act, no part may be reproduced, stored in a retrieval system or transmitted in any form, by any means, be it electronic, mechanical, recording or otherwise, without the prior written permission of NetComm Limited. NetComm Limited accepts no liability or responsibility, for consequences arising from the use of this product. NetComm Limited reserves the right to change the specifications and operating details of this product without notice. NetComm is a registered trademark of NetComm Limited. All other trademarks are acknowledged the property of their respective owners.

Product Warranty

The warranty is granted on the following conditions:

- 1 This warranty extends to the original purchaser (you) and is not transferable;
- 2 This warranty shall not apply to software programs, batteries, power supplies, cables or other accessories supplied in or with the product;
- 3 The customer complies with all of the terms of any relevant agreement with NetComm and any other reasonable requirements of NetComm including producing such evidence of purchase as NetComm may require;
- 4 The cost of transporting product to and from NetComm's nominated premises is your responsibility;- and,
- 5 NetComm does not have any liability or responsibility under this warranty where any cost, loss, injury or damage of any kind, whether direct, indirect, consequential, incidental or otherwise arises out of events beyond NetComm's reasonable control. This includes but is not limited to: acts of God, war, riot, embargoes, acts of civil or military authorities, fire, floods, electricity outages, lightning, power surges, or shortages of materials or labour.
- 6 The customer is responsible for the security of their computer and network at all times. Security features may be disabled within the factory default settings. NetComm recommends that you enable these features to enhance your security.

The warranty is automatically voided if:

- 1 You, or someone else, use the product, or attempts to use it, other than as specified by NetComm;-
- 2 The fault or defect in your product is the result of a voltage surge subjected to the product either by the way of power supply or communication line, whether caused by thunderstorm activity or any other cause(s);
- 3 The fault is the result of accidental damage or damage in transit, including but not limited to liquid spillage;
- 4 Your product has been used for any purposes other than that for which it is sold, or in any way other than in strict accordance with the user manual supplied;
- 5 Your product has been repaired or modified or attempted to be repaired or modified, other than by a qualified person at a service centre authorised by NetComm; and, 6. The serial number has been defaced or altered in any way or if the serial number plate has been removed.

Limitations of Warranty

- 1 The Trade Practices Act 1974 and corresponding State and Territory Fair Trading Acts or legalisation of another Government (“the relevant acts”) in certain circumstances imply mandatory conditions and warranties which cannot be excluded. This warranty is in addition to and not in replacement for such conditions and warranties.
- 2 To the extent permitted by the Relevant Acts, in relation to your product and any other materials provided with the product (“the Goods”) the liability of NetComm under the Relevant Acts is limited at the option of NetComm to:
- 3 Replacement of the Goods; or
- 4 Repair of the Goods; or
- 5 Payment of the cost of replacing the Goods; or
- 6 Payment of the cost of having the Goods repaired.

All NetComm ACN 002 490 486 products have a standard 12 months warranty from date of purchase. However some products have an extended warranty option (refer to packaging). To be eligible for the extended warranty you must supply the requested warranty information to NetComm within 30 days of the original purchase by registering on-line via the NetComm web site at <http://www.netcommwireless.com>