



500Mbps Powerline Adapters with AC Pass-through



NP511
USER GUIDE

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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 your household waste. You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

Please be responsible and protect our environment.

This guide covers the following products:

NetComm Wireless NP511 500Mbps Powerline Adapters with AC Pass-through

DOCUMENT VERSION	DATE
1.0 - Initial document release	August 2014
1.1 – Re-ordered LED descriptions to match order on unit.	24 September 2015

Table 1 - Document Revision History

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About the product

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 500 Mbps, 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 have to 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.

Direct connection




For best performance, connect Powerline adapters directly to a wall outlet. Avoid connecting them to a power strip where other electrical devices are connected. Other devices create electrical noise that may affect the performance of Powerline adapters.

AC pass-through

Both of the Powerline adapters in the kit comes with built in AC pass-through. With this unit you are conveniently able to use the same power point to plug in other electrical appliances. All you have to do is connect the electrical appliance into the built-in pass-through socket and it will have power as if it was connected directly into the wall. This eliminates the need to connect your Powerline adapter to a power board and improves your networking performance.

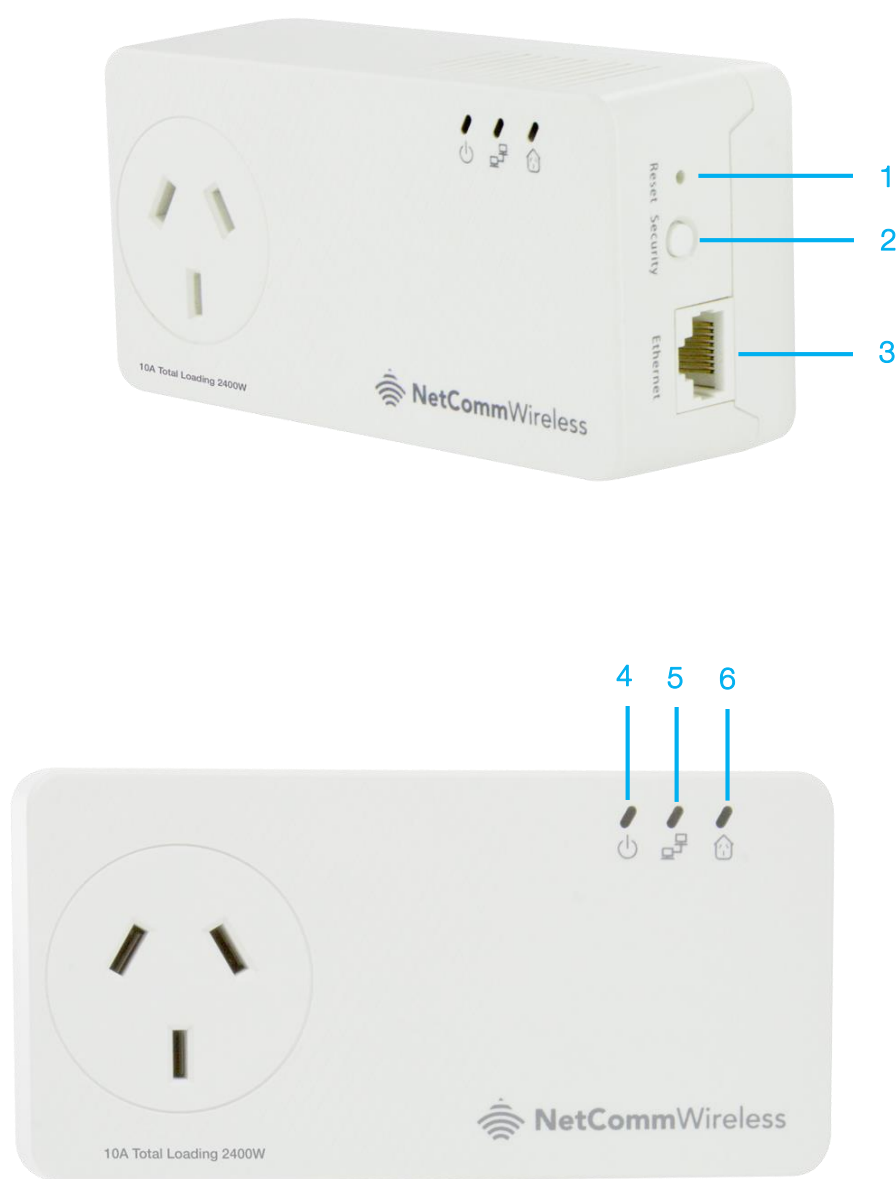
Package contents

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

#	LABEL	STATUS	DESCRIPTION/FUNCTION
4	Power	Off	No power.
		On	<ul style="list-style-type: none"> When Security button is pressed for 10 seconds, this LED will turn OFF and turn ON once to confirm the private network name reset. When Security button is pressed for no more than 3 seconds, this LED will blink to confirm the button press. Blinks slowly when the adapter is in power saving mode.
5	Ethernet Activity	Off	An Ethernet device is not connected.
		On	<ul style="list-style-type: none"> When the Security button is pressed for 10 seconds, this LED will turn OFF to confirm the private network name reset. This LED remains steady when the device is part of a Powerline adapter network. The LED colours represent the connection rate within the Powerline adapter network whether it is good (red), better (amber), or best (green).
6	Powerline activity	Off	Device is not connected to a Powerline adapter network.
		On	<ul style="list-style-type: none"> When Security button is pressed for 10 seconds, this LED will turn OFF to confirm the private network name reset. This LED remains steady when the device is part of a Powerline adapter network. The LED colours represent the connection rate within the Powerline adapter network whether it is good (red), better (amber), or best (green).

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 three main functions which include:

-  Creating a Powerline network
-  Resetting the private network password
-  Joining an existing Powerline network

Creating a Powerline network

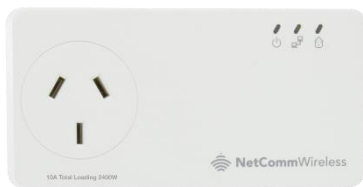
To create a Powerline network, you need at least two Powerline devices using random private network passwords. When you press the Security button on both devices, a common private network password is automatically generated to enable them to communicate with each other.



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 create 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

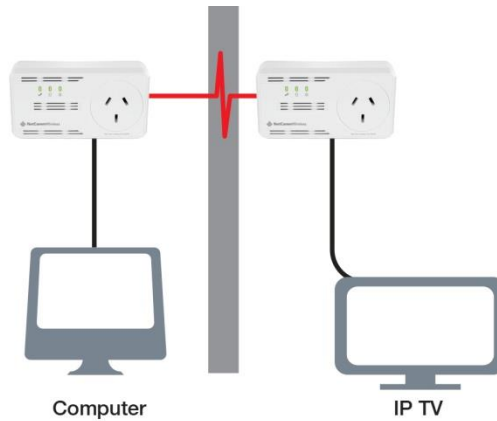


Adapter Y

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. 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

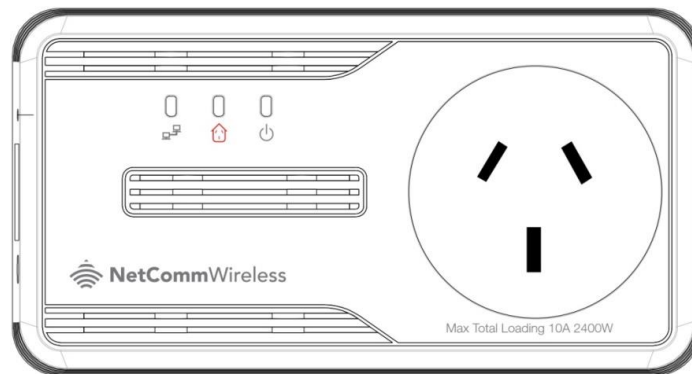
The Security button enables a new device to join an existing network by copying the private network password of the existing network to the new Powerline adapter.

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

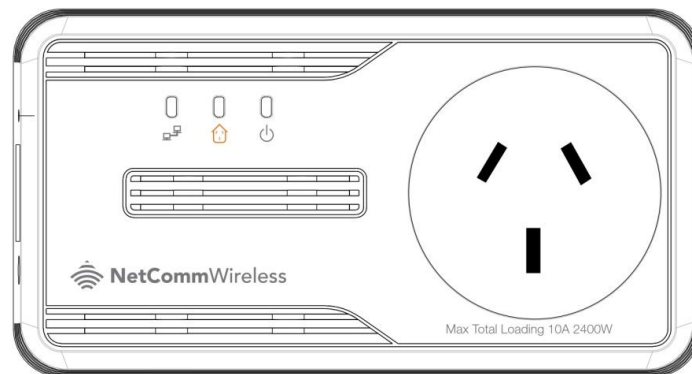
1. Plug Powerline adapter Z beside one of your existing Powerline adapter devices. Make sure you can observe the LED behaviour. Upon connection, Powerline adapter Z's LEDs blink simultaneously and then the Power LED remains on steadily. If there is an Ethernet link, the Ethernet LED is on.
2. On Powerline adapter Z, press the Security button for 10 seconds. When you release the button, the Power LED and Ethernet LED will turn off and on again.
3. 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. Within the next 2 minutes, press the Security button on Powerline adapter Z again for 1-3 seconds.
5. 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.
6. 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.

Determining connection rate

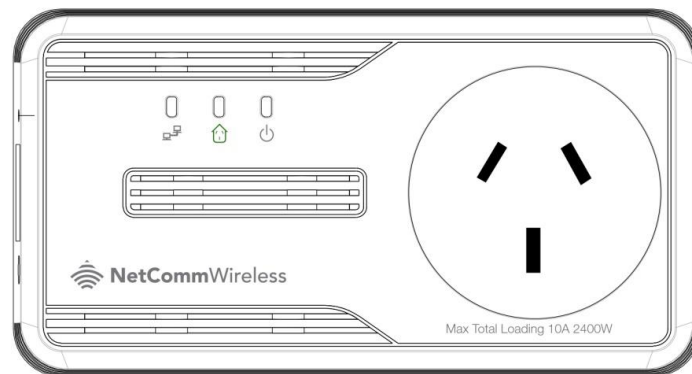
Each colour of the Powerline Activity LED represents a connection rating. The connection rating can only be calculated when the device is part of an existing network. The exact connection rate value can also be viewed using Powerline Utility.



Good (Red) – Connection rate is less than 30 Mbps



Better (Amber) – Connection rate is between 30 to 80 Mbps



Best (Green) – Connection rate is more than 80 Mbps

Power saving mode

After 15 minutes without Ethernet activity, the Power LED blinks slowly indicating that the adapter is in power saving mode.

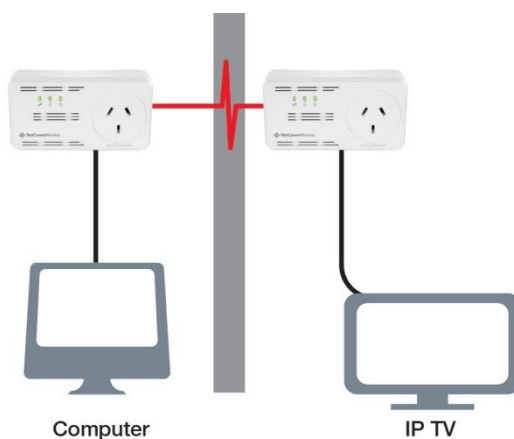
Getting started

Plan your network

Here are ideas on how you can plan your Powerline network.

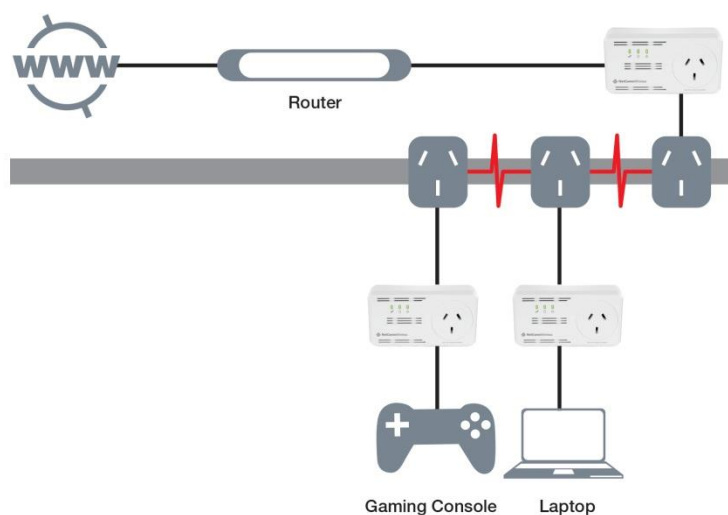
Local network

Share a high-speed Internet connection with any computer, wherever it is in the house.



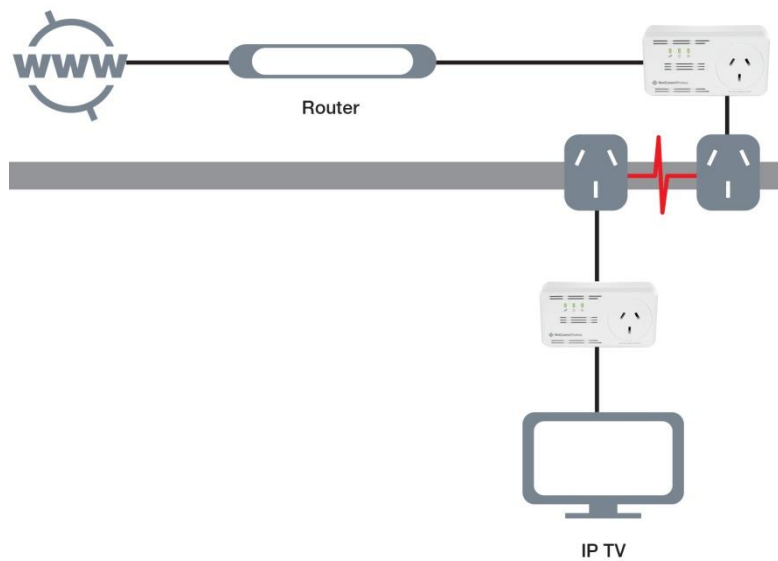
Gaming network

Connect your gaming console to the Internet and compete with other online players.



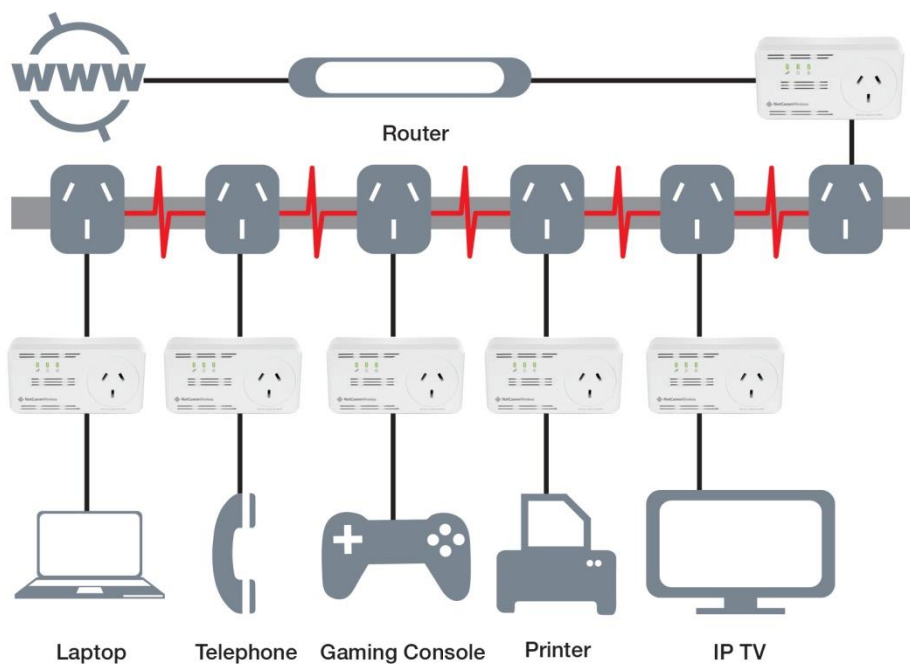
Entertainment network

Experience IPTV streaming to your home entertainment system.



Media network

Converge all your IP devices onto a single network to enjoy seamless integration.



Legal & Regulatory Information

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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

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.

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:

-  Replacement of the Goods; or
-  Repair of the Goods; or
-  Payment of the cost of replacing the Goods; or
-  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>