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**fibrepoint network  
evaluations kits**

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**Quick Install  
Guide**



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# The fiberpoint network

## Introduction to fibrepoint™

A fibrepoint™ network is a combined data and power system, each outlet provides access to the network as well as a network independent 48V DC power source. This evaluation kit has been power limited, but we have tested the system with 100w output per port.

The power system could be used to provide emergency power for telephone, and other essential systems, as well as providing an infrastructure for domestic control systems, alarms etc.

Each leg of the network runs at 100Mb and has been tested with all PDX (The fibrepoint central switch) ports running at 100% capacity. This is a combined throughput of 1.6Gbits, fast enough for the domestic environment and exceeding power line and most copper based systems.

## Dc48™ Power

The fibrepoint™ system is designed to provide access to both an Ethernet Network and a Low voltage DC network; this system is called Dc48™ (Data Comms 48V) you can find out more about Dc48™ at [www.dc48.net](http://www.dc48.net) .

**Note:** You must only use certified fibrepoint power supply's to power your network, if in doubt contact your local Senko Sales office

# The fibrepoint network

## The Evaluation Kit Contains

Your fibrepoint evaluation kit comprises the following parts, please check you have received all the parts listed below.

Qty	Description	Part No.
1	fibrepoint™ 8 Port PDX	PDX-1002-01
1	fibrepoint™ Wallport Dual POF	FAW-1002-00
1	fibrepoint™ Wallport Single POF	FAW-1001-00
30	Hybrid POF/Power cable (Meters)	FHC-0002-01
1	20W Network Power Supply (UK Version)	FPS-1001-00
1	POF Cutter	FPA-1004-00

# The fiberpoint network

## Port/Product Identification

### The fiberpoint™ PDX

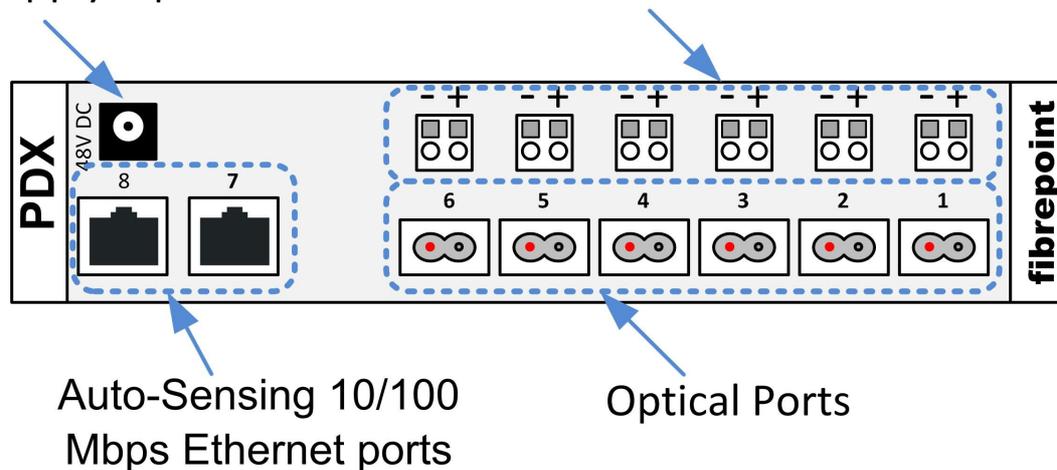
The fiberpoint DPX is an high speed switch it has two 100 Mb RJ45 input and 6 optical network ports. Each optical port has a corresponding low voltage supply that feeds power to the active fiberpoint wallports via the Hybrid cable.

The switch has a number of special features that can be integrated in to the designed for Fibre-to-the-Home services. These include connections for multiple service providers and distributing telephone services to a number of outlets with an emergency telephone line connection that links into a battery back-up facilities to maintain telephony services in the event of electrical mains power failure.

The Optical Switch can be used as a patch panel to direct services to any fiberpoint wall plate.

Dc48 Supply Input

Dc48 Power Outlets



# The fiberpoint network

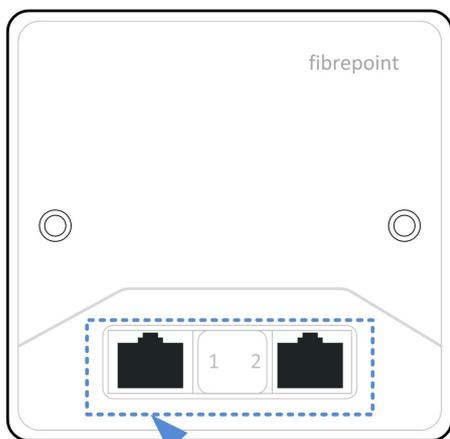
## The fibrepoint™ Wallport

The WallPort has a unique design which easily identifies it as a Fibrepoint optical network outlet. The dual RJ50 outputs can provide low voltage DC power while being completely backwards compatible with the CAT5e, RJ45 connector.

Using the unique fibrepoint hybrid cable system you can connect both the optical data and electrical power feeds of the system. Wall plates can be joined together to make a simple, point-to-point network or expanded into a full blown, managed switch system that can offer quality of service and VLAN optimization to every room in your home. The Wall Ports are easy to connect and require no special skills or qualifications; using standard tools you can connect and mount a WallPort onto a standard UK style, single pattress or wall box.

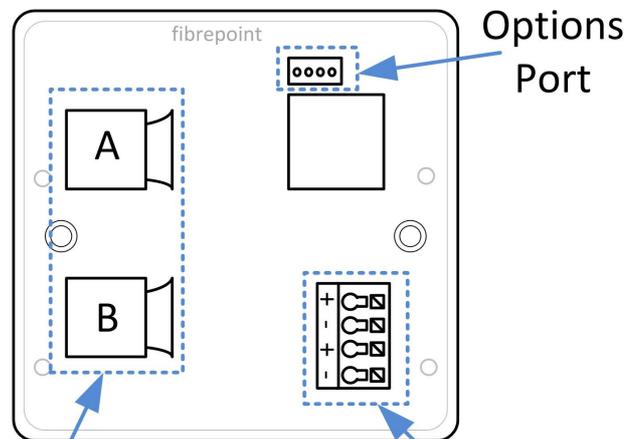
When operational, the Fibrepoint system will allow you to stream high speed, interference free data which is essential for viewing live video and IPTV.

Front View



Auto-Sensing 10/100 Mbps Ethernet ports

Rear View

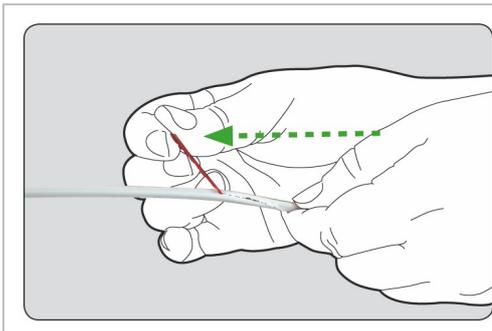


Optical Ports

Dc48 Power Ports

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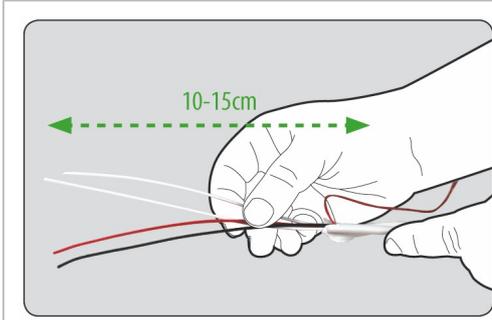
## Installation Stage 1 - Preparing the Hybrid Cable



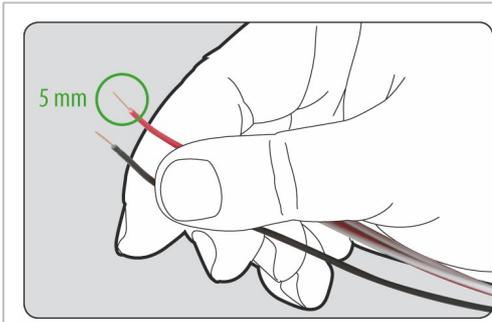
After cutting the hybrid cable to length, carefully strip back the outer jacket using the rip cord.



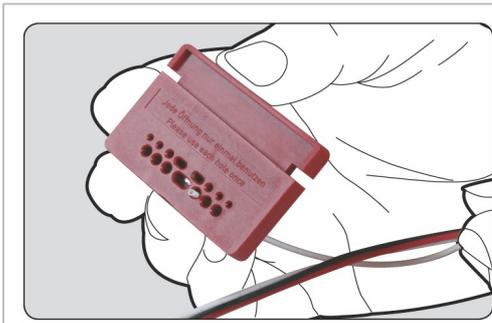
**Do not use cutter to do this**



With About 10-15cm exposed, trim back the outer jacket, being very careful not to damage the copper and POF cores



Strip back the jacket on the copper cores to expose about 5mm of the copper.

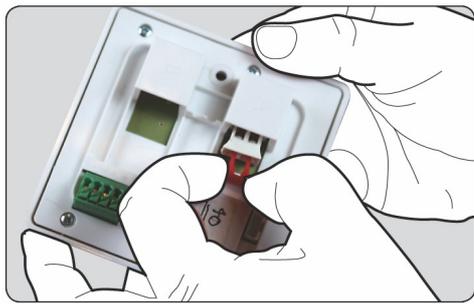


Use the POF cutter to cleanly cut the ends of the POF, trimming 4mm from the end of each fibre.

This will give a square, flat end face to the fibre which is essential to achieve a good optical connection. Ensure that the fibers are the same length.

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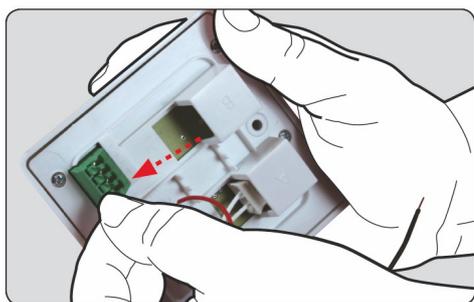
## Installation Stage 2 - Installing the Wallports



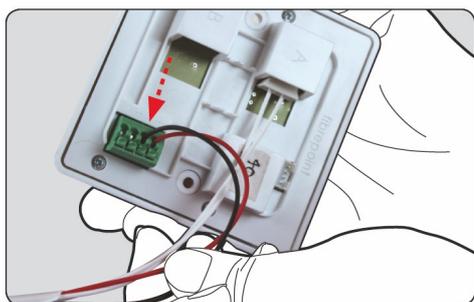
On the back of the Wallport, locate the POF connector and remove the dust cap.



Insert the freshly cut POF cores and push them firmly into the connector then slide back the POF connections lock mechanism to secure the POF in position.



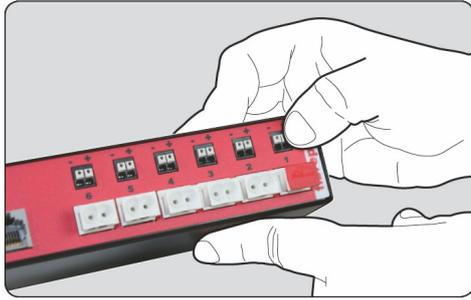
The Wallports power connector has 4 possible positions, there are two each for (+) and (-). Press down the button on a (+) position and insert the exposed end of the red core.



Do the same with the exposed end of the black core in to one of the positions marked with a (-).

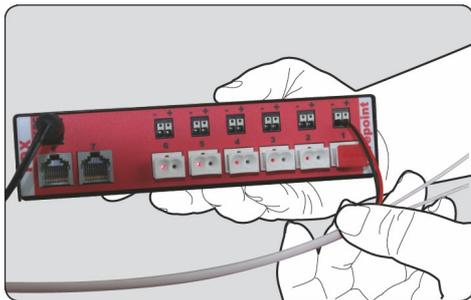
# The fiberpoint network

## Installation Stage 3 - Installing the PDX



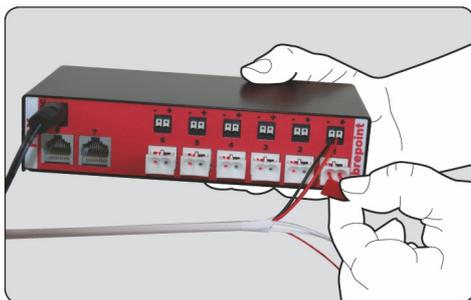
Select a hybrid POF/Power cable from a already installed Wallport and starting from PDX Port 1 Press down the button on thr (+) side of the network power connector and insert the exposed end of the red core, then do the same for the (-) connection and the exposed core of the black lead.

Do the same for each Hybrid cable that is already connected to a Wallport.

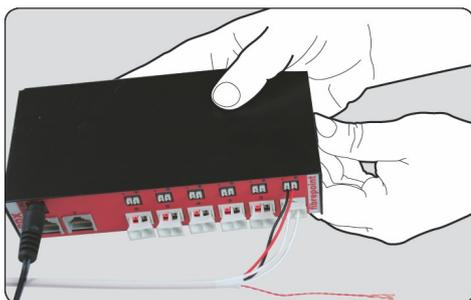


Plug the fibrepoint power supply in to the 48V DC input on the PDX and apply power to the system.

The optical POF connectors on the PDX should all be glowing red on the left hand side and each cable from a Wallport will have a single core glowing red.



Remove the dust cap from the POF connector and slide the red glowing core into the right hand unlit side of the connector, and the unlit core into the left side of the connector.



Side back the POF connector lock mechanism to secure the POF in position.

You can now connect Ethernet devices to any of the RJ45 ports on the PDX and Wallports and test the system.

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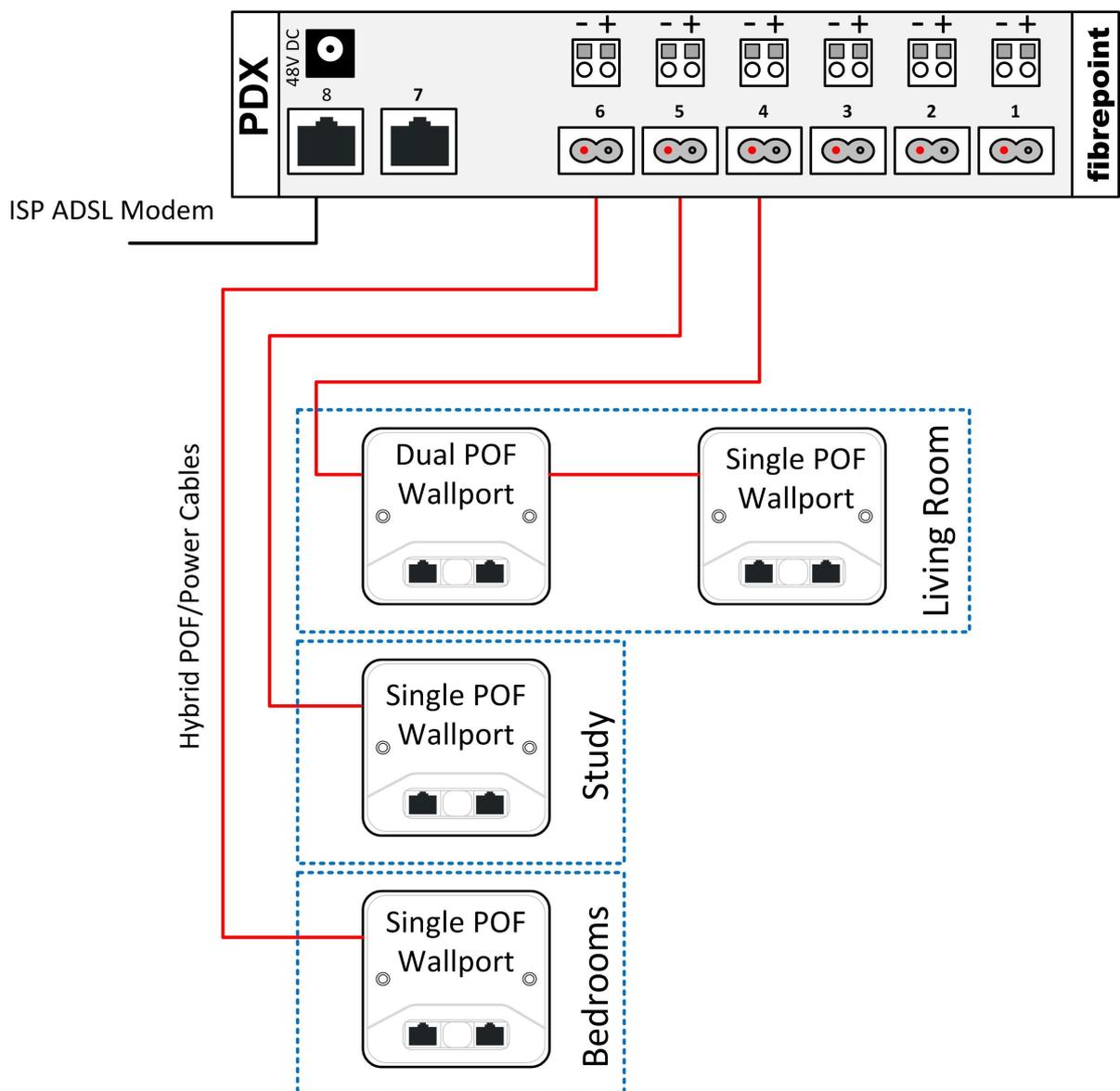
## Typical Configurations

A typical configuration uses the PDX as the central distribution point of a fibrepoint™ network; it provides power and data to devices connected to the network.

The WallPorts are available with either a single or dual POF connectors on the rear. The second POF connector and spare power connections are designed to enable two WallPorts to be daisy chained together to extend any leg of the network.

Daisy chaining WallPorts can be a very efficient method of adding additional ports to the system without having to add additional cables.

While we recommend only adding one additional WallPort using this method, it would be possible to add more but this does affect network latency for the extension WallPort. Most applications and users will not notice this latency, but it is not recommended when attaching streaming devices.



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## Additional Options

### HomeHub Network Consumer Unit

The standard HomeHub accommodates up to two of our 8 Port PDX switches and 16 hybrid data/power cables enabling up to 56 network/power outlets to be installed around the home. The hub can include a power management system with battery backup so that in the case of power failure, the telephone and any emergency systems can be maintained, the size of battery determines the length of time this can be maintained but typically they are specified to provide 2+ hours emergency use.



The HomeHub can be supplied with a custom backplane that provides a simple adjustable product mounting/upgrading as well as an integrated cable management solution. The design is flexible enough to enable upgrades and third party devices to be easily integrated into the system. If there is not enough space within the hub for all your equipment, then a number of hubs can be stacked to provide greater space, we can provide a vanilla backplane that can be customised for your needs.

The Dc48 Standard provides network and power over the same cable so as the customer's power requirements change the 48V DC power supply can be upgraded to provide greater and greater throughput and better power management integrating into local green power sources as required.

A complete home fibre network can be included into the fiberpoint HomeHub including the fibre-to-the-home service providers ONT/ONU and then distributing both VOIP, IPTV and data services around the home with POTS (Telephone System) integration when required, let us know your requirements and we will be happy to work with you to develop a system to your needs.

# The fiberpoint network

## Warranty

### Product Warranty

Senko Advanced Components. ("Senko") warrants its fibrepoint range of products, are free from defects in material and workmanship under normal use, for of one year from the date of purchase. Subject to the conditions and limitations set forth below, Senko will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. The warranty becomes effective from the date of shipment.

### Limitations of Warranty

This warranty does not include non-Senko installed components. This limited warranty does not cover any damage to the product that results from abnormal mechanical or environmental conditions, abuse, accident, improper installation, misuse, insufficient or excessive electrical supply, natural disaster, or any unauthorized disassembly, repair, or modification.

This limited warranty also does not apply to any product on which the original product label has been altered, obliterated or removed, has not been handled or packaged correctly or has been sold as second-hand. This limited warranty covers only replacements for defective Senko products, as described above.

Senko does not cover under warranty and is not liable for any loss of data or any costs associated with diagnosing the source of system problems or installing, removing or servicing Senko products. This warranty excludes 3rd party software, connected equipment or stored data. In the event of a claim, Senko's sole obligation shall be to repair or replace our product with its equivalent or the best possible substitute.

Under no circumstances shall Senko be liable in any way to the user for damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, the Senko products.

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