

FttX

Broadband Systems

Telecom Fibre & Copper Products

HellermannTyton

Fibre to the X (FttX)

HellermannTyton Broadband Systems – At the leading edge of Fibre Management

HellermannTyton is an established and innovative global leader in the provision of network infrastructure cabling solutions, offering a broad range of quality, high performance connectivity for both residential and commercial use.

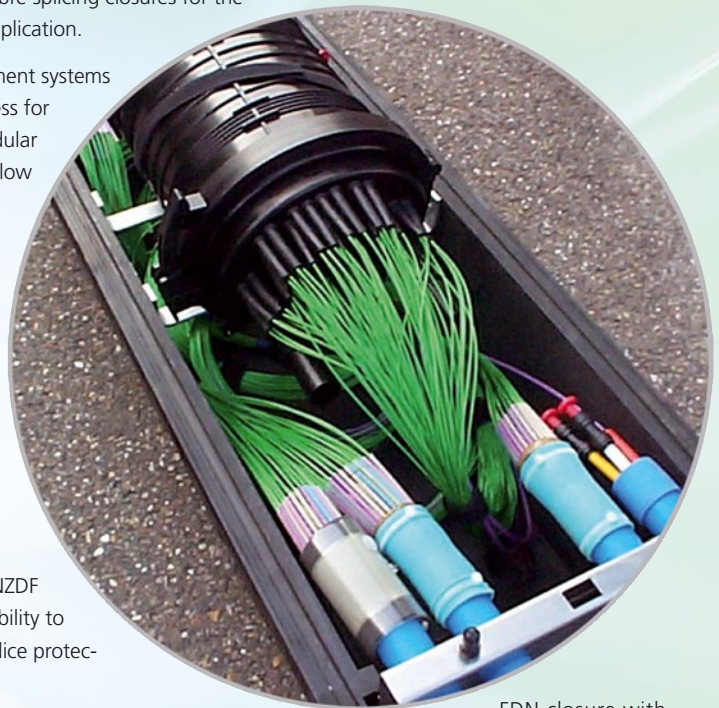
HellermannTyton's Broadband Systems comprise a unique range of fibre splicing closures for the external and internal plant that you would find in any typical FttX application.

The sealed closures from HellermannTyton protect the fibre management systems from adverse environmental conditions whilst maintaining ready access for effective cable installation. The fibres are housed in space saving modular units that minimise network disruption and have been designed to allow further modules to be added at a later date for increased capacity, ensuring a future proof design.

More customers are demanding maximum flexibility and a modular approach to cable management systems that will fit into existing and future networks. All closures have therefore been designed to cater for this requirement to accommodate the wide variety of fibre optic cables that are now available including slotted core, loose tube, compact, ribbon and blown fibre / cable applications.

The closures have been designed to meet customer's demands for various fibre management systems including single circuit, single element, multiple element and cross connectivity. Tray design is evolving to meet the needs of bend sensitive fibres, for which the Hellipse™ NZDF range has been developed, for increased fibre storage capacity, the ability to change direction of the fibres and to cater for the various types of splice protectors and PON devices that are now available in the global market.

HellermannTyton manufacture a wide range of fibre closures that can be applied across all areas of FttX applications. Many of the sealed closures lend themselves to a PON architecture allowing up to 864 fibres in the largest UFC closure all the way down to 36 fibres with the FST closure. All of the closures from HellermannTyton offer flexibility and access so that more fibre can be added in the future (up to their maximum capacity). All of the closures are compatible with Cablelok, HellermannTyton's 100% mechanical seal, or heat-shrink can be used as an alternative sealing method.



FDN closure with 52 cabled drop ports.

HellermannTyton are members of European Standards (CENELEC) and International Standards (IEC) bodies which is reflected in the design, performance and future-proofing of the fibre product range. All products conform to the relevant CENELEC/IEC standards.



HellermannTyton is a member of the FTTH Council Europe.



Cablelok mechanical seal is available in a range of sizes.

Fibre to the X

Fibre to the X (FttX) is the generic term used for any network architecture that uses an optical fibre infrastructure to deliver high speed voice and data signals in a variety of applications. The 'X' refers to the application but can be broken down into Fibre to the Home (FttH), Fibre to the Kerb (FttK) and Fibre to the Building (FttB) to name a few.

Optical distribution within an FttX network can face a number of competing technologies including Direct Fibre, Shared Fibre, Active Optical Networks (AON's) and Passive Optical Networks (PON's).

Direct fibre is possibly the simplest form of optical distribution. In this architecture, each fibre leaving the Point of Presence (PoP) goes to only one customer. This type of network provides the customer with excellent bandwidth as they have their own dedicated fibre.

Shared fibre is the most common architecture used across FttX applications. In this type of network the fibre leaving the PoP is shared by a number of customers. It is not until the fibre gets relatively close to the customers that it is spliced into individual customer specific fibres.

The difference between the Active Optical Network and the Passive Optical Network is quite simple. The AON relies on some form of electrically powered equipment to distribute a signal, such as a switch, router or multiplexer. Each signal leaving the PoP is dedicated to one customer and the powered equipment acts as a buffer to prevent any signals colliding.

The PON is a point-to-multipoint, fibre to the premises network where unpowered optical splitters are used to enable a single optical fibre to serve multiple premises. A PON configuration can help reduce the amount of fibre and PoP equipment required compared to the point to point nature of an AON.

Fibre to the Home (FttH)

For new builds and existing housing, fibre is seen as the only solution to deliver high-speed broadband internet, voice and television services to the home now and in the future. A fibre to the home infrastructure delivers high bandwidth and reliability as well as having the capacity to support service developments of the future.

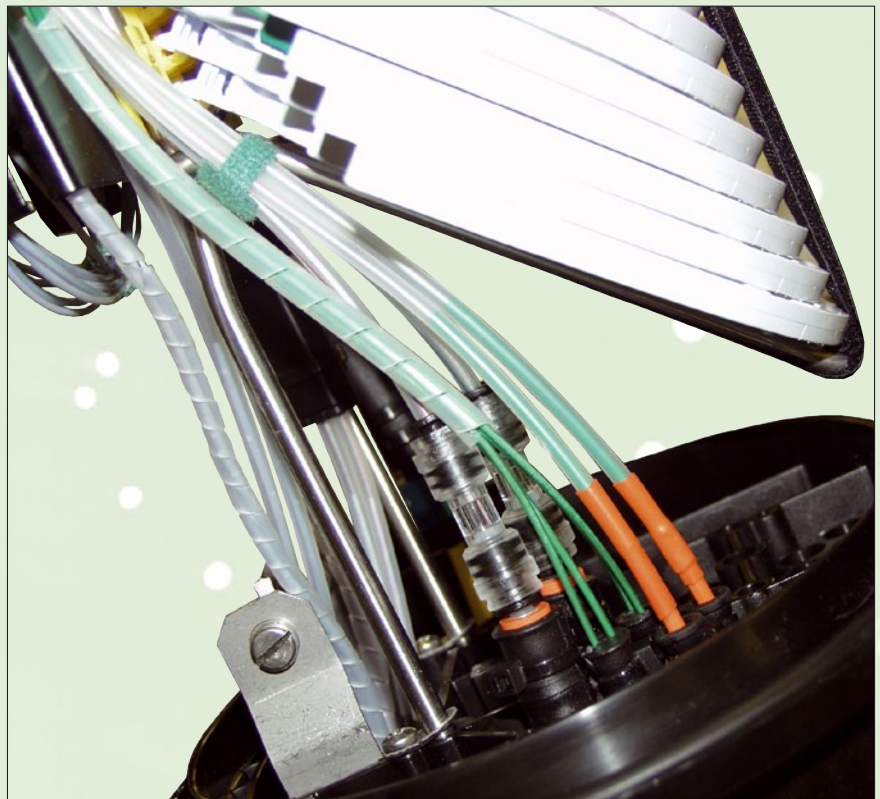
Fibre to the Kerb (FttK)

Fibre to the Kerb is a telecommunications system where the fibre runs to a platform or cabinet that serves a number of customers. Each of these customers has a connection to the platform or cabinet via copper cable. It is the final leg of the infrastructure running over existing copper that helps an FttK network cost less to deploy. However, for the same reasons an FttK network has a lower bandwidth than with FttH.

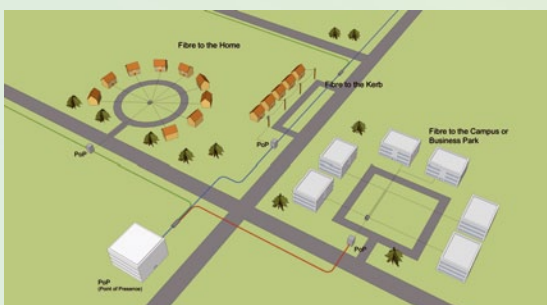
Fibre to the Campus or Business Park

Whether it's a campus or a business park, a hospital or an out of town retail complex, commercial and residential users require a robust yet flexible network that can deliver high performance and bandwidth over a common infrastructure.

The range of closures from HellermannTyton can accommodate almost any density of fibre to support the demands of a large campus network infrastructure.



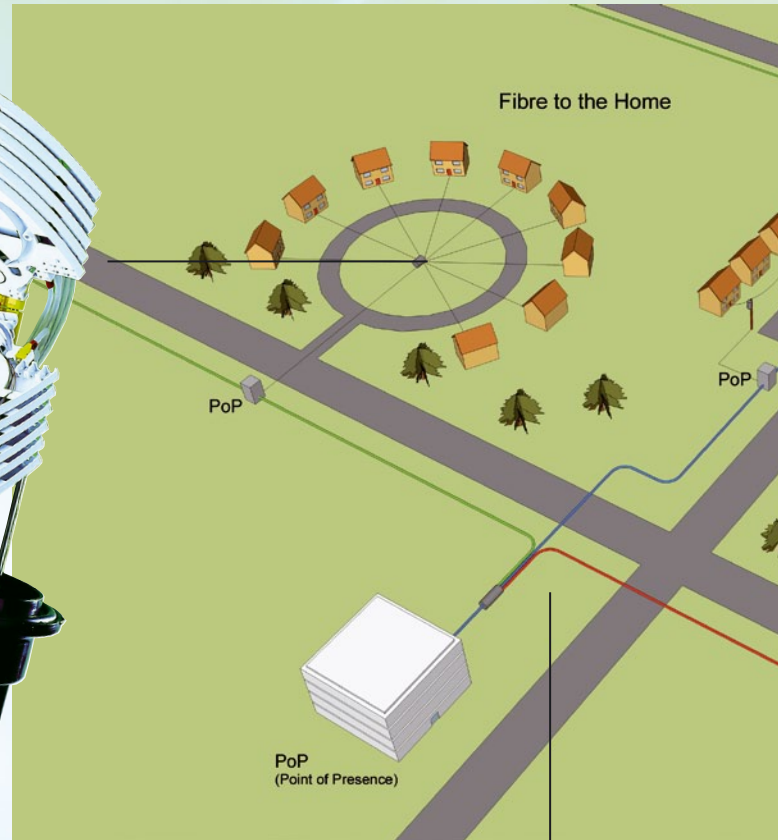
Blown fibre application in FDN closure.



FttX Product Applications

FDN – Fibre Distribution Node Splice Capacity – Up to 144 fibres

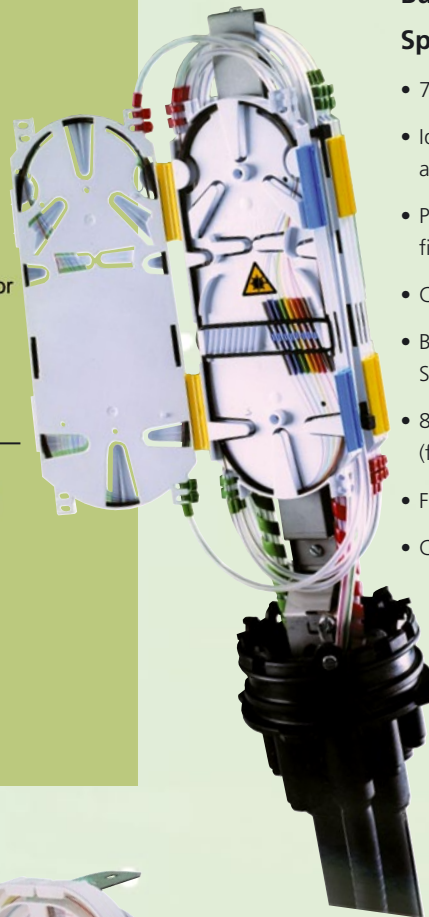
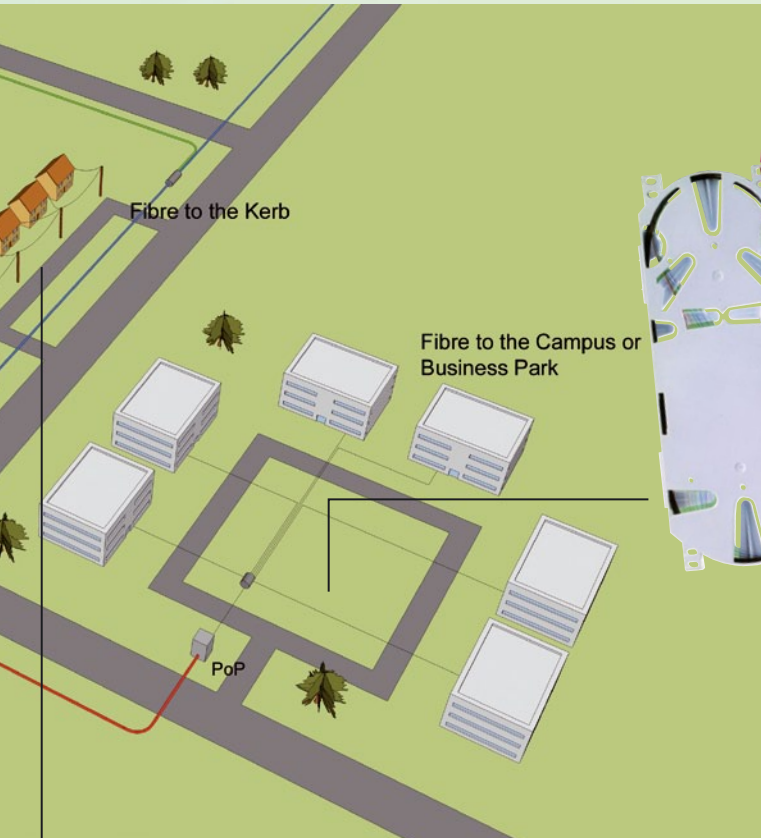
- 144 Fibre splice capacity
- Ideal for FttH network applications, especially last mile/kilometre
- Provides protection and distribution of fibre optic cables
- Cablelok™ ready
- Quick release cover with 'O' ring clamp
- 58 round ports and 1 oval port (for loop through cable)
- Fitted with pressure release valve
- Industry leading 52 customer drop port capability
- Conforms to BS EN 50411-2-4-2006



UFC – Universal Fibre Closure Splice Capacity – Up to 864 fibres

- 864 Fibre splice capacity
- High Fibre/port count suited to all FttX and trunk applications
- Provides protection and distribution of fibre optic cables
- Cablelok™ ready
- Quick release cover with 'O' ring clamp
- 28 round ports and 2 oval ports (for loop through cable)
- Fitted with pressure release valve
- Conforms to BS EN 50411-2-4-2006





FRBU – Fibre Residential and Business Unit

Splice Capacity – Up to 72 fibres

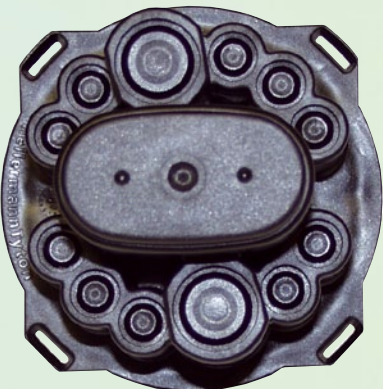
- 72 Fibre splice capacity
- Ideal for FttX Campus or Business Park applications
- Provides protection and distribution of fibre optic cables
- Cablelok™ ready
- Base to cover clamp with quick release Snapperband or stainless steel latch clamp
- 8 or 10 round cable ports and 1 oval port (for loop through cable)
- Fitted with pressure release valve
- Conforms to BS EN 50411-2-4-2006



FST – Fibre Small Tray

Splice Capacity – Up to 36 fibres

- 36 Fibre splice capacity
- Provides protection and distribution of fibre optic cables
- Cablelok™ ready
- Base to cover clamp with quick release Snapperband or stainless steel latch clamp
- 3 Base Configurations available
- 3, 10 or 12 round ports and 1 oval port (for loop through cable)
- Pressure release valve available as an option
- Conforms to BS EN 50411-2-4-2006



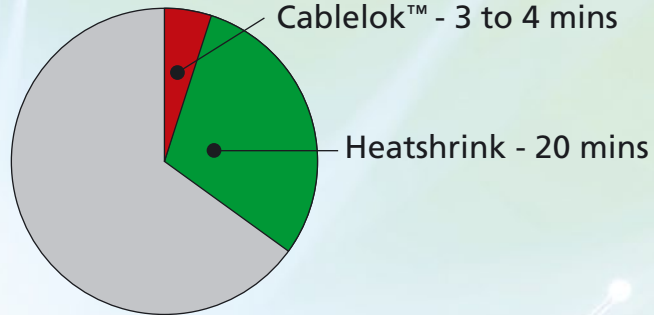
Cablelok™ 100% Mechanical Seal

Growing numbers of fibre engineers and network operators are insisting upon 100% mechanical seal closures. The traditional heat-shrink methods are viewed as craft sensitive with too many health and safety issues relating to gas bottle storage / transportation and confined space use. Other solutions in the marketplace typically rely upon secondary sealing tapes or resins to complete the seal which adds time, complexity and likelihood of error to installations.

Cablelok is a unique and patented 100% mechanical seal which provides the environmental sealing of cable entering a HellermannTyton closure. The sealing is achieved by a number of internal lip seals, which are compressed onto the cable during installation. With an installation time of only 3-4 minutes, Cablelok provides a 100% seal and is significantly faster and safer than using a heatshrink sealing method. Each port size on the HellermannTyton closures has a dedicated cablelok, each accommodating a range of cable diameters.

Features and Benefits of Cablelok™

- Excellent sealing properties to 6m head of water
- Rapid and consistent installation with few specialist tools required
- Eliminates the need for potentially hazardous heat-shrink gas bottle transportation and storage
- Ideal for use in hazardous areas as no heat is required for installation
- Dual outlet versions for loop through applications
- Multi-hole versions are available allowing several cable drops from the same port
- Hole plugs available for sealing unused outlets in multi-hole versions
- Proven technology in the field



Cablelok R Series,
Cable range 1.7mm - 9.5mm



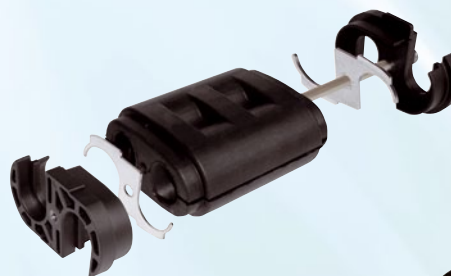
Cablelok S Series,
Cable Range 5mm - 20mm



Cablelok B Series,
Cable Range 4.8 mm - 16.5 mm



Cablelok T Series,
Cable Range 15.5mm - 29mm



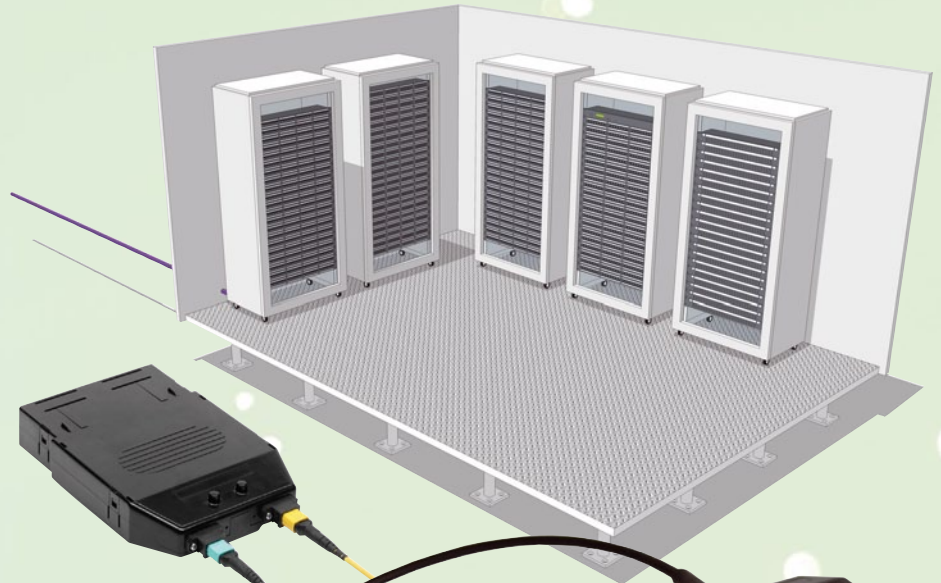
Cablelok™ L-C Series,
Cable Range 12mm - 20mm



Data Centres

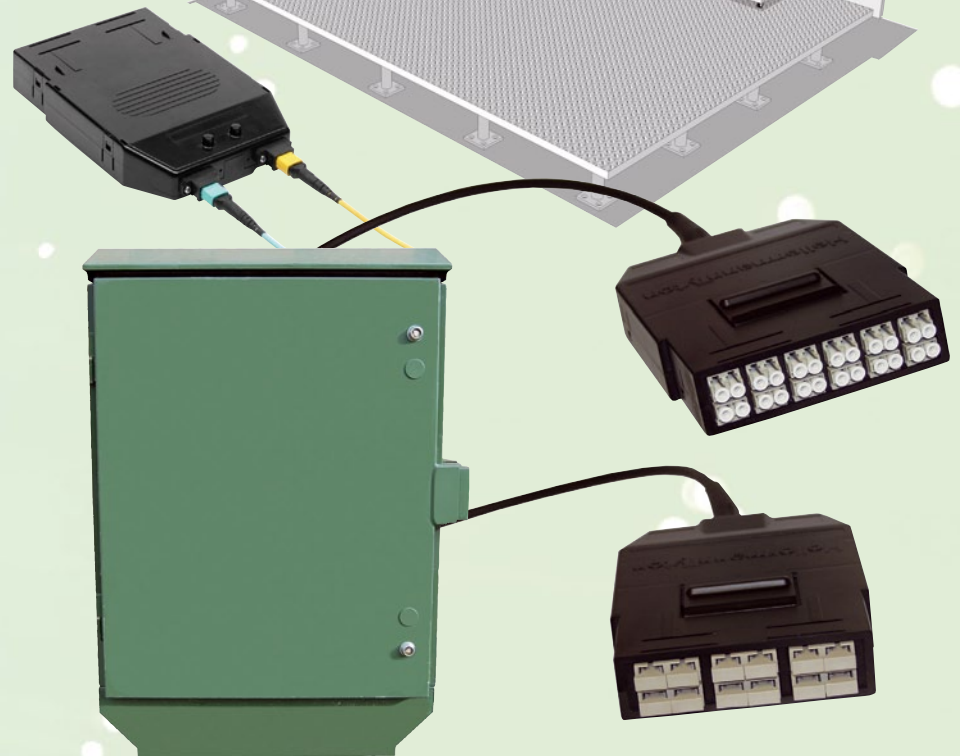
The cabling infrastructure in a data centre or point of presence is as equally important as the cable or fibre to the data centre. HellermannTyton offer a variety of data centre cabling solutions from their fibre and copper range in both pre-terminated and traditional media.

RapidNet is HellermannTyton's world leading pre-terminated cassette based solution and supports the growing requirements of performance and installation speeds that more and more data centres demand.



Pre-terminated Fibre to the Street Cabinet

Combining HellermannTyton's patented, pre-terminated RapidNet solution with the Broadband systems range adds further scope to the HellermannTyton FttX offering. A pre-terminated Fibre to the Cabinet solution reduces installation times in the field by minimising any termination work at the cabinet. The RapidNet fibre cassette runs from the closure and snaps into place within the cabinet. The pre-terminated and pre-tested nature of RapidNet not only reduces installation times but eliminates risk by guaranteeing quality terminations in every cassette.

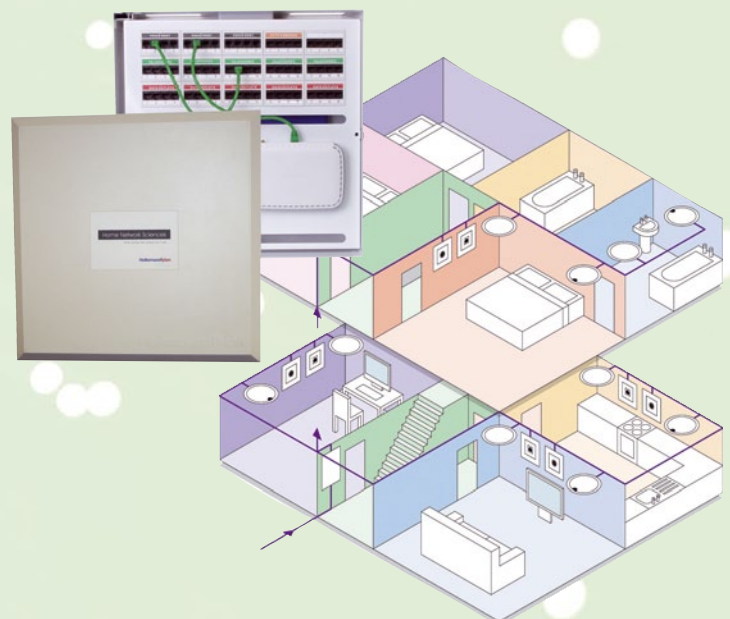


Home Networking

Building technology into your new home makes sense both now and for the future. The advance of network ready consumer appliances, digital storage and multi-media servers will change the way we access information and entertainment. The Home Network Sciences system means your house is networked ready to distribute these high speed data services.

The data networking system allows you to access the Internet from any room with the knowledge that the guaranteed Bandwidth and Security of a wired system can be complemented with the mobility of wireless network devices.

This combined with telephone points distributed around the property gives you the flexibility to use a room for work or leisure.



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