

HILLS.TM

Antenna Home Hub

Hills Antenna Home Hub

Models:

24HH520

24HH720

24HH1000

Hills Antenna Home Hub

The enclosure that gives you so much more.

NBN Fibre, Data, AV, Security and Television applications

Congratulations:

Dear customer.

Congratulations and thank you for choosing one of our awesome Hills Antenna Home Hubs.

We are sure you will find it convenient and easy to use. Before you use your Hills Antenna Home Hub, we recommend that you read through the relevant sections of this manual, which provides a description of your Hills Antenna Home Hub, it's installation, function and use.

To avoid any risks that are always present with any type of equipment, it is important that the product/products are installed correctly and that you read the safety instructions carefully to avoid misuse and hazards.

We recommend that you keep this user manual for future reference and pass it on to any future owners.

After unpacking all the products contained in the carton, please check they are not damaged. If in doubt, do not use and contact your place of purchase.

Notice:

Standards and regulations that govern the installation practices and requirements for these types of products include but may not be limited to the following listing:

For Australia & New Zealand installations:

- AS/NZS 3080: Telecommunications Installations - Integrated telecommunications cabling systems for commercial premises
- AS/NZS 3000: Electrical Installations - Buildings, Structures and Premises (SAA Wiring Rules)
- AS 3815: A guide to coaxial cabling in single and multiple premises
- AS/NZS 3086: Telecommunications Installations - Integrated telecommunications cabling systems for small office/home office premises
- ANSI/TIA/EIA-570-A: Residential Telecommunications Cabling Standard
- AS/NZS 3085: Telecommunications Installations - Administration of communications cabling systems
- AS2201: Intruder Alarm Systems

Additional requirements for Australia:

- ACA TS 008: Requirement for Authorised Cabling Products
- ACA TS 009: Installation Requirements for Customer Cabling (Wiring Rules)

Security System Warning:

Note that there are some parts of the Hills Antenna Home Hub you should not touch including your security system wiring. When you are working on equipment contained inside your Hills Antenna Home Hub, take care not to touch or disconnect any of the security wiring. It also uses power, so make sure to turn the power back on if you have turned it off.

Once you have finished working on the Hills Antenna Home Hub, firmly close and lock the lid.

Safety Warnings:

- Wiring work for telecommunications requires relevant knowledge and experience. Telephone line voltage can rise above 48VDC in certain circumstances. Do NOT work on your telephone wiring without the appropriate training and licensing as required by your State/Territory/Country.
- A qualified electrician should only carry out work on power supplies and outlets. Work by unqualified users may cause electric shock, fire, injury or death.
- Do NOT work on the Hills Antenna Home Hub, its contents, or wiring in the event of an electrical storm or lightning.
- Do NOT clean the contents of the Hills Antenna Home Hub with any liquid or wet cloth. Water penetration into the unit may cause short-circuit, electric shock and fire.
- Do NOT handle any equipment with wet hands as it may cause electric shock.
- No user serviceable parts, in the event of product failure, please contact your installer for assistance. Do NOT attempt repairs.
- Do NOT attempt to modify any of the components or wiring inside your Hills Antenna Home Hub except as instructed in this manual.
- If any power cables are broken or exposed, switch off power and replace.
- In case of smoke or burning smell from equipment (e.g. damaged by lightning) immediately discontinue use and contact your installer.
- Dropping or exposing products to electric shock may cause damage and malfunction.
- Only use approved cable, tools and components in your Hills Antenna Home Hub.
- Do NOT install your Hills Antenna Home Hub near wet or damp areas (e.g. laundry, kitchen, bathroom, outside, near and air conditioner or heater).
- When removing a cable from a socket, do NOT pull using the lead, hold the plug body firmly using dry hands then pull straight out.

Trademark:

Hills Antenna Home Hub is a registered trademark.

Copyright:

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Disclaimer:

Bitek Pty Ltd reserves the right to change specifications or designs described in this manual without notice and without obligation. It is provided for general information only.

For assistance on your specific installation please contact your installer.

Every effort has been made to ensure that this manual documents the operation of the Hills Antenna Home Hub. However, due to the on-going improvement and update of products, Bitek Pty Ltd cannot guarantee the accuracy of printed material after the date of publication, nor can Bitek Pty Ltd accept responsibility for errors or omissions. Revised manuals and update sheets will be published as deemed necessary.

Warranty Terms & Conditions:

This is a manufacturer's warranty against defects in the Hills Antenna Home Hub Models; 24HH520, 24HH720 & 24HH1000.

The benefits to you given by this warranty are in addition to your other rights and remedies under a law in relation to the goods or services to which this warranty relates. This warranty only is applicable to product/products used in a residential application. If the said appliances are used in a business, then there is a three-month warranty.

For appliances purchased within Australia, this warranty is given by Bitek Pty Ltd (ABN 93 084 308 207)

Bitek Pty Ltd contact details:

Business address: 11 Sheppard Street HUME ACT 2620.

Telephone number: 1300 601 915

Email address: enquiry@bitek.com.au

The warranty period will commence from the date of purchase of the relevant model (listed above).

The period within which the defect must appear if you are to be entitled to claim under this warranty is 12 months.

Warranty cover:

1. Any parts in the Hills Antenna Home Hub found to be defective due to faulty materials or workmanship will be replaced at no cost to the owner during the warranty period.
2. Warranty claims are to be assessed and approved by Bitek Pty Ltd only.
3. Under this warranty, Bitek Pty Ltd reserve the right to repair or replace any defective parts as deemed necessary.
4. To the extent legally permissible, Bitek Pty Ltd reserve the right to remedy a major failure in any manner permitted by section 261 of the Australian Consumer Law (Australia).
5. Replaced parts become the property of Bitek Pty Ltd.
6. The Hills Antenna Home Hub is intended for domestic use only and is designed for operation in a residential dwelling. Use of the Hills Antenna Home Hub for commercial purposes or any use of the product/products outside of a residential dwelling will limit this warranty to a period of three (3) months.
7. This warranty only applies to goods sold and used in Australia. Goods taken out of this country are no longer under warranty by Bitek Pty Ltd.

Warranty exclusions:

1. Damage to or faults to the product/products caused by the following are excluded:

- (a) incorrect installation, usage.
- (b) rodent or pest infestation;
- (c) supply services (power/water);
- (d) neglect and/or abuse;
- (e) use of the product/products in a manner inconsistent with the uses specified in this User Guide; and
- (f) any owner's modifications made to the product/products.
- (g) Natural Disaster

2. To the extent legally permissible, no responsibility will be accepted for any loss or damage, direct or indirect, or for personal injury or for any additional expenses relating to or caused by the product/products.

Warranty claim:

To claim under this warranty:

(a) As soon as the defect appears, contact Bitek Pty Ltd using the contact details provided in this User Manual and advise us of the nature of the defect.

(b) Provide us with your proof of purchase of the Hills Antenna Home Hub upon request.

(c) Goods deemed to be fault under warranty must be returned to a Bitek store at the customer expense. Replacement or repaired goods will be returned at to the customer at Bitek Pty Ltd expense.

Any claims by you under this warranty (including expenses incurred in making such claim) should be made to the contact details set out in this warranty.

AUSTRALIAN CONSUMER LAW

For products purchased in Australia, our goods come with guarantees that cannot be excluded under Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



General:

The Hills Antenna Home Hub contains components that may need configuration once installed. We hope that your installation will provide you with many years of maintenance-free convenience and enjoyment.

The majority of issues that may appear can be solved by:

1. Checking that you are using the correct wall plate outlet.

A single type of outlet may be used for a variety of services but (usually) only one service at a time and also as an input or output and not both simultaneously.

This is why correct labelling or a labelled floor plan is essential.

If you have another outlet on the wall plate try that and see if it works.

For example, a wall plate may have multiple F-type outlets that all look the same.

Some may be from the antenna (for normal Free-To-Air TV) and others from a satellite dish (for Pay TV), and maybe even another that is intended for a modulator.

2. Checking that you are using the right cable to connect to the wall plate.

Perhaps the cable you have connected to the wall plate is for another device.

This especially applies around your home entertainment area(s) with many cables.

For example, you may have accidentally plugged your TV (instead of your DVR) into an antenna (FTA) wall plate outlet; this could stop you from viewing or recording a TV show.

3. Checking that all required modules and devices are turned on.

For example, in order to watch Pay TV your Set-Top-Box must be plugged into a wall outlet, then to your TV. All these devices need to be turned on and set to the right channel for the channel to appear on your TV. And if you want to watch your DVD/PayTV from another room, your modulator needs to be turned on.

In rare circumstances the power to the Hills Antenna Home Hub may be switched off. For example, a circuit breaker may have tripped or someone turned it off and forgot to turn it back on. This will also turn off some modules located in the Hills Antenna Home Hub.

Check that any power sockets that supply power to your Hills Antenna Home Hub are switched on and function normally.

Some Hills Antenna Home Hubs have power socket(s) located inside the enclosure, read the section "Security System Warning" then open the lid of the Hills Antenna Home Hub and verify that these power sockets are functioning. Certain modules (e.g. power supplies and active splitter) located inside the enclosure will have a power indicator light to indicate they are receiving power.

4. Checking that you have configured your device correctly.

For example, a TV will not work out-of-the-box. You will first need to tune it after you plug it into an appropriate wall outlet. And a computer will not automatically connect to the internet after you plug it into an appropriate outlet. You first need to set up your computer and modem with the required settings.

See your device's manual for more information and instructions.

Hills Antenna Home Hub

The enclosure that gives you so much more.

NBN Fibre, Data, AV, Security and Television applications

The Hills Antenna Home Hub Enclosures have been designed and built with the modern home in mind. They are aesthetically pleasing with a tough powder coated finish in a neutral white colour to suit all colour palettes.

The Hills Antenna Home Hub exceeds the requirements for NBN Enclosures and is feature packed to suit various applications within the modern home. It can be surface mounted or flush mounted, the depth adjustable Escutcheon is included to give you the flexibility of choice.

With everything you need in the box to get you started the Hills Antenna Home Hub is the most flexible product on the market and a notch above the rest when it comes to features, quality and serviceability.

Whether you're looking for an enclosure for your NBN Fibre, Data, AV, Security or Television applications, look no further. The feature packed Hills Antenna Home Hub has you covered.

Features:

Exceeds NBN Co requirements – NBN-NO-GDE-0011.

1 x Enclosure with 1 x Door (Left/Right Opening)

2 x Door Locks 2 x Keys #Spare Part Number 24HHSPK

1 x Escutcheon (Flush Mount Option) Inc as standard

1 x Name Badge

1 x Solid Frame #Spare Part Number 24HHSF

1 x Two Hole Frame #Spare Part Number 24HH2HF

1 x Open Frame #Spare Part Number 24HHOF

3 x Mounting Blocks

1 x Double GPO Horizontally Mounted

2 x Blank Wall Plates #Spare Part Number 05DWP00

1 x 8 Port CAT6 Data Module #Spare Part Number S2119v2

4 x Earth Wire Links & 2 x Additional Eyelets

1 x Cut Out Template

Hills Antenna Home Hub

The enclosure that gives you so much more.

NBN Fibre, Data, AV, Security and Television applications

- **Flexibility in mounting options**

Enclosure can be surface or flush mounted, door can be left or right hand opening

- **NBN Equipment Enclosure**

Install all your NBN equipment in one secure location

- **Data Distribution**

Share one internet connection and access the internet anywhere in the home

- **Telephone Distribution**

Access telephone lines anywhere in the home

- **Security**

View your security cameras on your TV's from any room, install Bosch Alarm panel in the secure enclosure with the HHBOS001 Mounting Bracket

- **TV & Audio Video Distribution**

View your TV channels and AV from any room

Hills Antenna Home Hub Enclosure

1. Remove top foam packaging from both sides of the cardboard box. Remove the enclosure from the cardboard box and place face up on a flat surface.



2. Remove the escutcheon by carefully sliding it upwards away from the enclosure body.



3. Open the door and remove the 3 frames and bag of accessories inside. You will now have access to all the screw locations.



4. Open the door and unscrew the 3 mounting blocks located at the top of the gear tray and remove.



5. Unscrew the gear tray and remove from the enclosure. You will now have the bare enclosure with the mounting points clearly visible on the back and the sides of the enclosure.



Hills Antenna Home Hub

Enclosure

Surface Mounting Instructions

1. With the cutout template provided mark the wall where the enclosure is to go.
2. Mark the rear fixing points on the back of the enclosure. Where possible locate a wall stud for a good fixing point for the enclosure.
3. With the mounting holes marked, remove the template and drill the holes in the wall.
4. For gyprock walls use good quality wall anchors for mounting where the wall stud has not been utilised.
5. For brick walls use appropriate wall plugs for the screws to securely mount the enclosure.
6. For internal cavity wiring cut out the holes in the wall using the cutout template,
7. For external wiring, use the correct size conduit to suit the knockouts located on the top and bottom of the enclosure. The top knockouts are 25mm and 32mm, care should be taken when removing either size.
8. Mount the enclosure to the wall utilising the mounting points prepared earlier.
9. The electrical cable should have adequate clearance from all other cables and should be drawn through to behind the GPO location.
10. Ensure all earth links cable are in place, extra links may be required depending on the equipment used.
11. **Important**, all electrical work should be carried out by a licenced electrician and in accordance with Australian Standards.
12. Once the cables have been drawn through and are located inside the enclosure the gear tray can be reinstalled.
13. With the gear tray in place, you can now mount the frames and modules that you wish to use.
14. Install the name plate badge to the door in the correct orientation.

Hills Antenna Home Hub

Enclosure

Flush Mounting Instructions

1. For internal gyprock walls, locate the wall studs and noggins. The enclosure width is designed to fit between two wall studs.
2. Align the cutout template provided to one side of a wall stud and mark the circumference.
3. Remove the cutout template and cut along the line to create an opening for the enclosure to fit into.
4. The enclosure should fit against an existing wall stud. Add additional timber blocking to the wall for securing the enclosure side mount holes.
5. Before installing the enclosure, remove the top or bottom knockouts to allow for the cabling to be drawn through into the enclosure.
6. The electrical cable should have adequate clearance from all other cables and should be drawn through to above the GPO location.
7. Ensure all earth links cable are in place, extra links may be required depending on the equipment used.
8. **Important**, all electrical work should be carried out by a licenced electrician and in accordance with Australian Standards.
9. Once the cables have been drawn through and are located inside the enclosure the gear tray can be reinstalled.
10. With the gear tray in place, you can now mount the frames and modules that you wish to use.
11. Install the escutcheon to the enclosure, push the escutcheon back to sit against the wall surface. Secure in place with the mounting screws provided.
12. Install the name plate badge to the door in the correct orientation.

Hills Antenna Home Hub Enclosure Cabling

1. Located at the top of the enclosure are 3 rectangular holes. Cables can be directed through these to access the main gear tray area of the enclosure.
2. Electrical power cable can be directed through the right-hand hole for connection into the double GPO. *#Note all electrical work to be carried out by a licenced electrician.*



Bare enclosure
ready for cables



Enclosure with
Coax and Data cables
installed



Enclosure with
Gear Tray reinstalled
and cables directed
to their locations
ready for frame and
module installation.

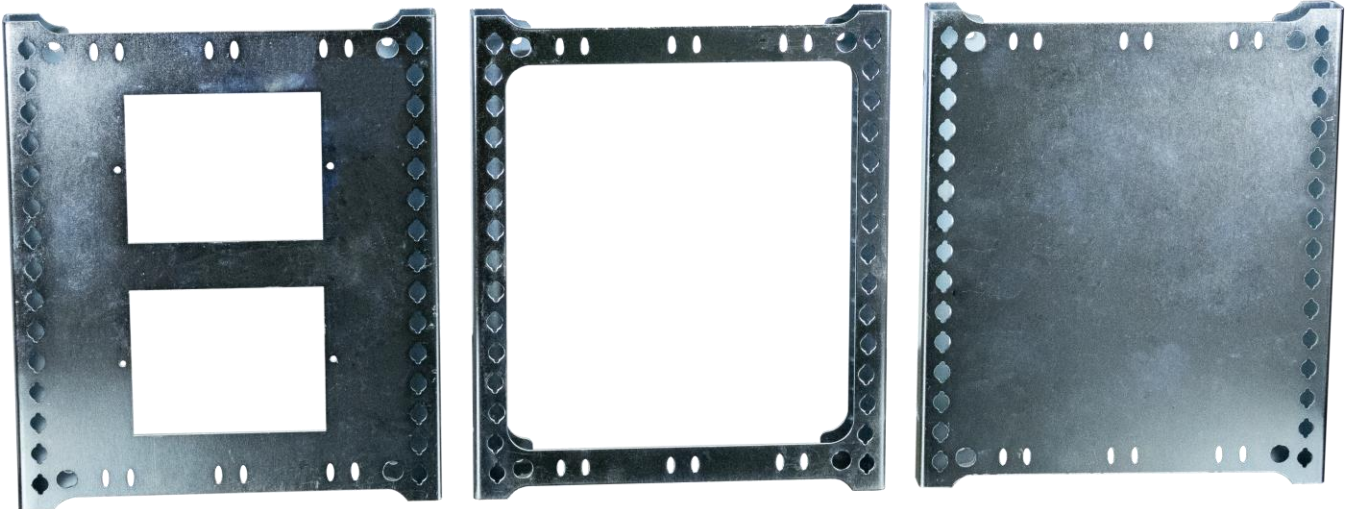
Hills Antenna Home Hub Frames

1 x Solid Frame:	Part Number 24HHSF
1 x Two Hole Frame:	Part Number 24HH2HF
1 x Open Frame:	Part Number 24HHOF

Included with the Hills Antenna Home Hub are 3 frames, these frames are designed to fit onto the Gear Tray. They can be adapted to mount many different modules and customers equipment.

Each frame has four screw points that match up to pre-drilled screw holes on the Gear Tray. Align the appropriate frame to the Gear Tray opposing holes and screw into place, this creates a firm mounting surface for the equipment to be fixed to.

Cables can be run under the frame and through the Gear Tray for a neat and tidy look. Cable tie slots have been included to the top, sides and bottom of each frame to allow for securing of cables if desired.



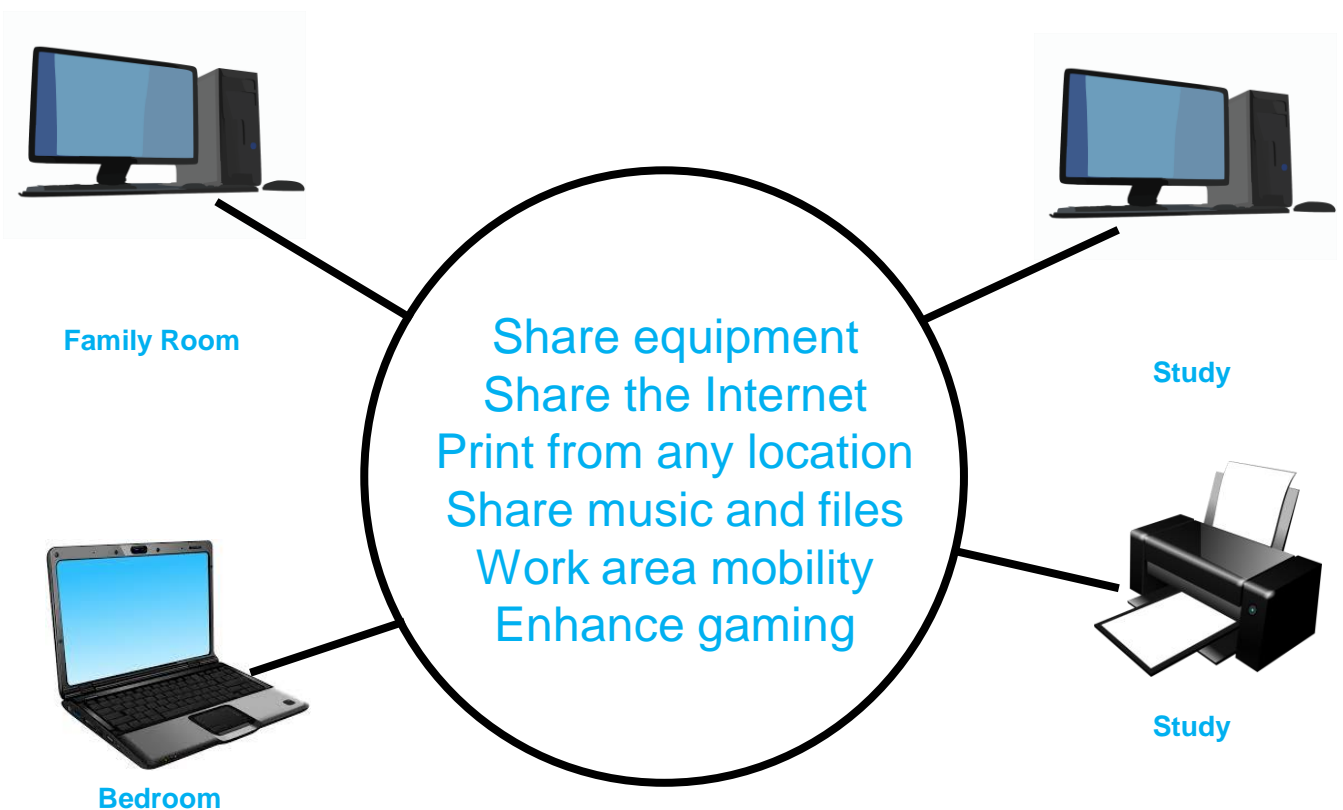
24HH2HF
Two Hole Frame
Ideal for extra wall plates

24HHOF
Open Frame
Designed for Data Modules
and
Active Splitter Modules

24HHSF
Solid Frame
Customer equipment
can be fixed to it.

Hills Antenna Home Hub Modules

8 Port CAT6 Data Module
Part Number S2119v2



Local Area Network (LAN)

S2119v2 8 Port CAT6 Data Module
03JCAT6-BL CAT6 UTP LAN Cable

With the Hills Antenna Home Hub and these associated parts, you can create your own Local Area Network.

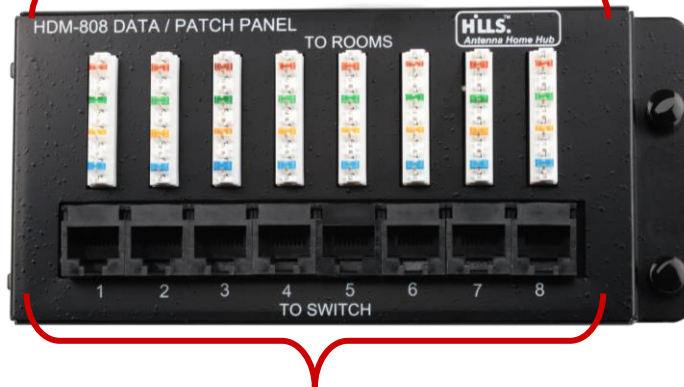
Hills Antenna Home Hub Modules

8 Port CAT6 Data Module Part Number S2119v2

The 8 Port CAT6 Data Module is designed for internal house cabling to provide internet access to different rooms. The IDC punch down connection strips offer a convenient connection while maintaining the correct twist rate on the building cabling. The RJ45 sockets are used to patch the rooms to the data switch/router.

- **Cat 6 performance**

8x 4-pair 110/IDC
Punch down cables to rooms



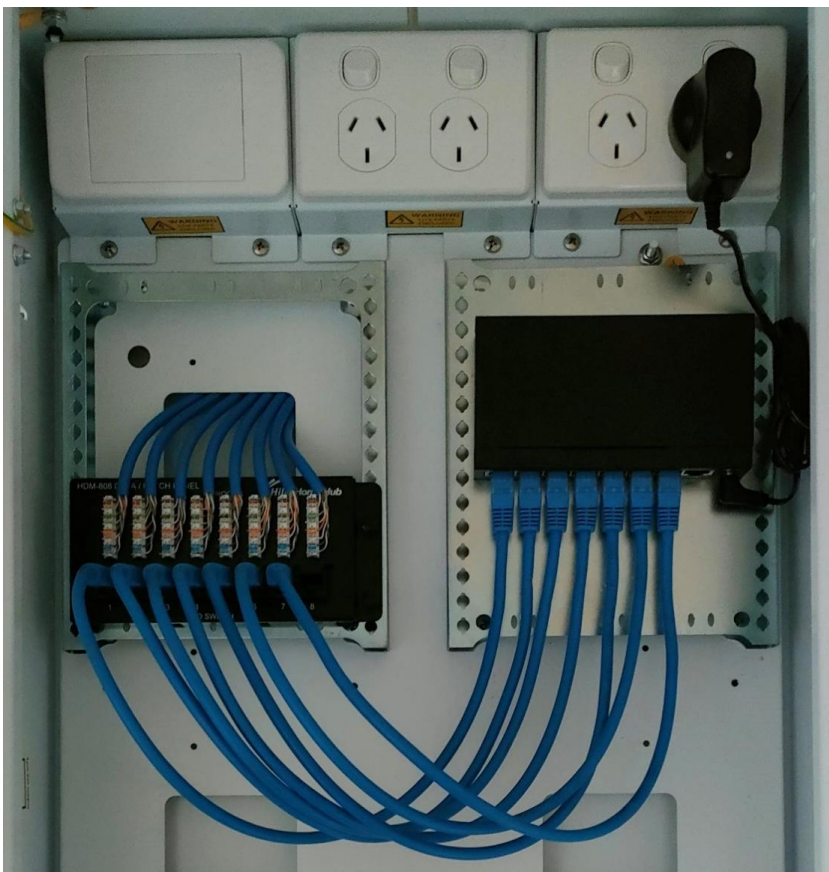
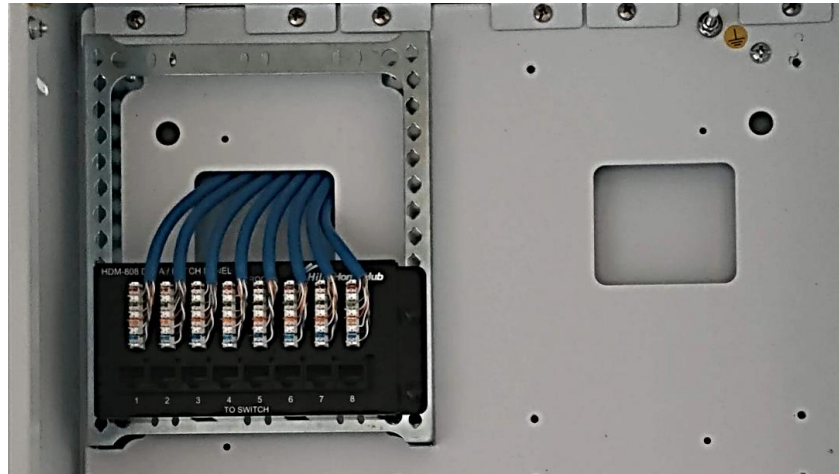
8x RJ-45 sockets
Patch to:
Gigabit Switch

Please review the suggested installation method on the following pages.

Hills Antenna Home Hub Modules

8 Port CAT6 Data Module Part Number S2119v2

Install the 24HHOF Open Frame in a position on the Gear Tray that best suits your cabling and equipment. Ensure the Module is located correctly in the frame and insert the plastic rivets and lock in place. Punch down the CAT6 Cabling as shown, taking note of the pairs colour configuration. (Additional notes are supplied with the S2117v2 8 Port CAT6 Data Module.



Install the 24HHSF Solid Frame in a position on the Gear Tray that best suits your cabling and equipment. Mount an Ethernet Switch by using the Solid Frame as a mounting plate, drill screw holes in the matching location as the mounting points on the Switch. Connect the ports on the Switch to the Data Module with short CAT6 Patch Leads to provide data transfer to the required rooms.

Hills Antenna Home Hub

Modules

8 Port CAT6 Data Module
Part Number S2119v2



In our installation example we have an NBN.Co HFC Connection Box. The NBN.Co Coaxial Connection is located in the outlet top left corner. The NBN.Co HFC Connection Box has been mounted to the Gear Tray directly beneath 24HHSF Frame used to mount the Data Switch. A coax lead connects the NBN.Co HFC Connection Box to the NBN.Co Outlet. The ISP Router is located at the bottom of the Enclosure, a CAT6 Patch Lead connects the NBN.Co HFC Connection Box to the Router. A yellow CAT6 Patch Lead has been used to connect the ISP's Router to the Data Switch. 7 of the 8 available room locations have been connected with CAT6 Patch Leads between the Data Switch and the S2119v2 8 Port CAT6 Data Module.

Hills Antenna Home Hub Modules

Active TV Splitter Module

Part Number S2707

(Optional Accessory, purchase separately)

The Active TV Splitter Module is designed for internal house coaxial cabling to provide television antenna and AV modulated signals to different rooms. The F Type connectors offer a convenient and secure connection for all coaxial cables including the 12VDC Power Cable. The two inputs are for a television antenna input and AV modulated input. The 6 outputs are connected to house coaxial cabling distributed to the desired rooms throughout the house.

- View FTA, PayTV & RF signals in multiple locations
- Amplifies signal for distribution, reduces loss typically found in passive splitters
- 2 inputs, 6 outputs
- F-type connectors, use with RG6Q quad shield coaxial cable
- 12VDC Power Supply included

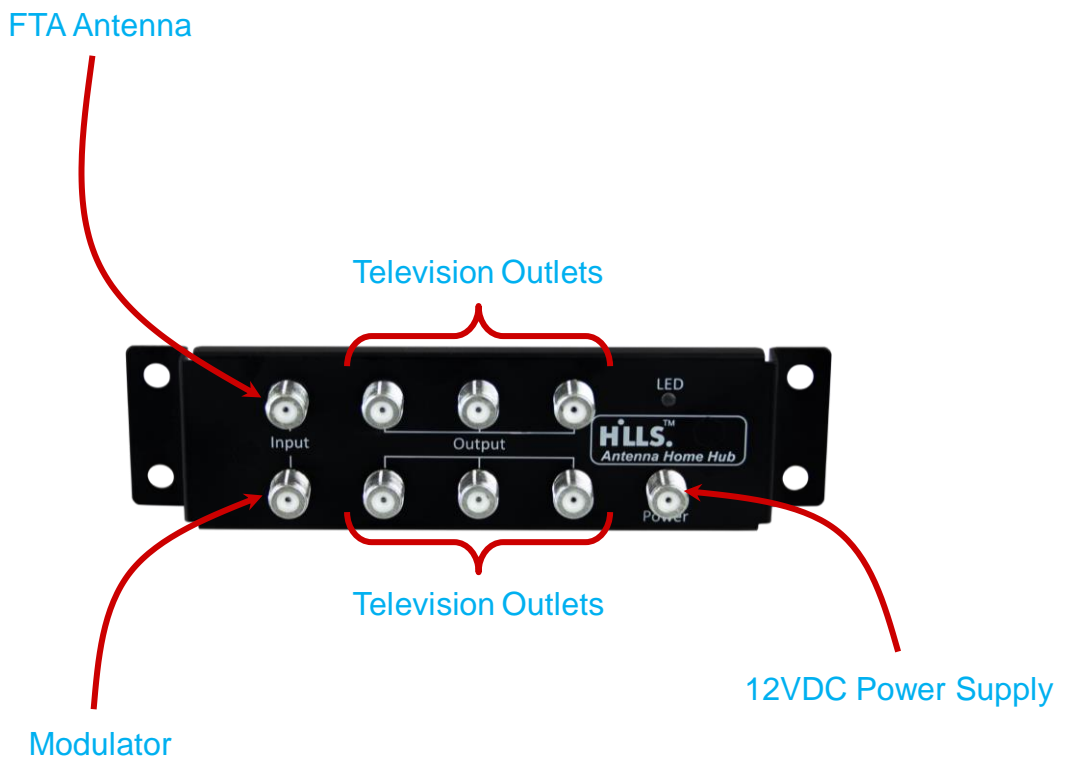


Please review the suggested installation method on the following pages.

Hills Antenna Home Hub Modules

Active TV Splitter Module
Part Number S2707

Cable connections for the S2707 Active TV Splitter Module



Recommended parts:

- TRU-Series Antenna
- RG6 Quad Shield Coaxial Cable
- F Type Compression Connectors
- ProquipDigital HD to DVB-T Modulator

Best installation practices:

- Ensure the FTA Antenna and Modulator input signals are within 6dBuV of each other.
- Configure the Modulator RF output channel to NOT clash with the FTA channels.
- (refer to Modulators setup instructions for further information regarding the correct configuration of the Modulator).
- Only use RG6 Quad Shield Coaxial Cable and F Type Compression Connectors.
- Where possible keep all cable runs to rooms equal length.
- Only use the 12VDC Power Supply that comes with the S2707 Active TV Splitter Module (warranty will be void if incorrect Power Supply is used)

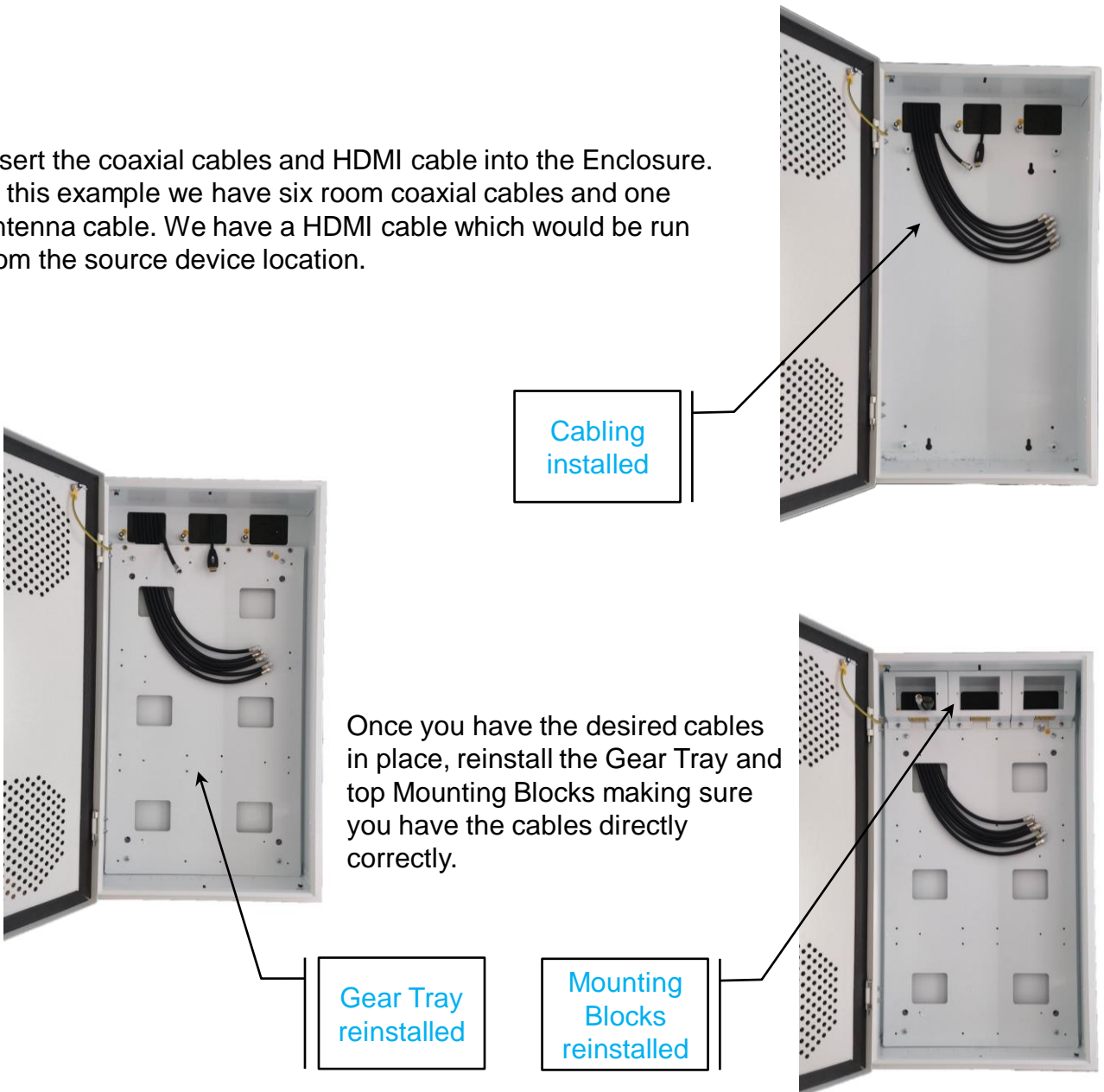
Hills Antenna Home Hub Modules

Active TV Splitter Module
Part Number S2707

Cable preparation will depend on the Enclosure mounting method, (refer to earlier chapters regarding surface or flush mounting options).

Our example installation assumes we are surface mounting the Enclosure to an internal plaster board wall.

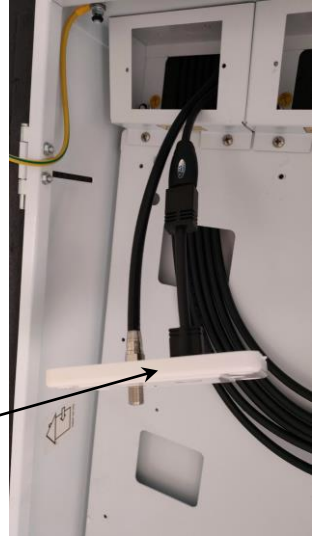
Insert the coaxial cables and HDMI cable into the Enclosure. In this example we have six room coaxial cables and one antenna cable. We have a HDMI cable which would be run from the source device location.



Hills Antenna Home Hub Modules

Active TV Splitter Module
Part Number S2707

Connect the input cables to the outlet and secure to the Mounting Block. Example shows the antenna cable from the roof top antenna and HDMI cable from the source device (PayTV Box) located in another room.



Input
cabling in
outlet



Reinstall the outlets as required. GPO installation to be carried out by a licenced electrician. Ensure all earth points are connected.

Outlets
reinstalled

Install 22HHOF Open Frame to your desired location, secure in place using 4 screws supplied.

Frame
installed




Hills Antenna Home Hub Modules

Active TV Splitter Module Part Number S2707

Place the S2707 Active TV Splitter Module on the 24HHOF Open Frame and secure with the four plastic rivets supplied. Ensure the module is securely fixed in place before attaching cables.



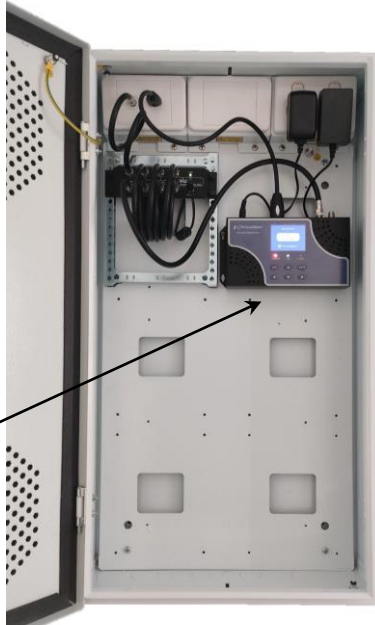
S2707
mounted
to Frame



Connect the outlet cables to the Output F Type Connectors and the Input cable to one of the Input F Type Connectors on the S2707.

Outlet
cable
connected

Install the modulator and connect the HDMI input cable. Connect the RF input cable to the remaining input F Type Connector on the S2707.



Modulator
installed and
connected

Hills Antenna Home Hub

DIN Rail

Part Number 24HHDIN
(Optional Accessory, purchase separately)

The 24HHDIN DIN Rail is available for use to fit any device that requires this mounting method. This accessory item comes with 2 x DIN Rails and 8 x Plastic Mounting Rivets. It can be mounted to any of the 3 Frames supplied with the Hills Antenna Home Hub.



Hills Antenna Home Hub Bosch Security Alarm Plate

Part Number HHBOS001
(Optional Accessory, purchase separately)

For use with Bosch Alarm Systems, a specially designed mounting plate has been designed to suit the Hills Antenna Home Hub. The Gear Tray has 3 different mounting locations for the plate, top middle and lower as shown in the pictures below. All 3 positions allow for easy neat cabling between the Enclosure and the Gear Tray. Ensure you align the Bosch Security Alarm Plate with the correct corresponding mounting holes (4) located on the Gear Tray. For further details on this product please refer to the supplier's website. www.apol.com.au



Note:
24HH520 has 2 position for
mounting the Bosch Security
Alarm Plate

HILLSTM

Antenna Home Hub



www.bitek.com.au

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