

IPTV Coax ProTM



USER MANUAL

3

SAFETY WARNINGS

- ξ To prevent short circuits, this product should only be used inside and only in dry spaces. Do not expose the components to rain or moisture. Do not use the product close to a bath, swimming pool etc.
- ξ Do not expose the components of your systems to extremely high temperatures or bright light sources.
- ξ In case of improper usage or if you have altered and repaired the product yourself, all guarantees expire. Marmitek does not accept responsibility in the case of improper usage of the product or when the product is used for purposes other than specified. Marmitek does not accept responsibility for additional damage other than covered by the legal product responsibility.
- ξ This product is not a toy. Keep out of reach of children.
- ξ Do not open the product: the device may contain live parts. The product should only be repaired or serviced by a qualified expert.
- ξ Only connect the adapter to the mains after checking whether the mains voltage is the same as the values on the identification tags. Never connect an adapter or power cord when it is damaged. In that case, contact your supplier.

1. INTRODUCTION

Congratulations on the purchase of your IPTV Coax Pro™. It helps you create an additional network connection (IP/internet) on your (existing) coaxial network, in any room with a coaxial connection. It provides a guaranteed stable high-bandwidth connection for the most demanding HD video streaming equipment. This includes services such as IPTV, Smart TV, Video-on-Demand, Media Player and, for example, a PC, while keeping your existing coaxial signals (digital/analogue/satellite TV, radio and telephony).

2. CONTENT

- 1 x IPTV Coax Pro™ 1P-node (with 1 Ethernet port)
- 1 x IPTV Coax Pro™ 4P-node (with 4 Ethernet ports)
- 2 x RJ45 CAT5 network cable
- 4 x F-connector for coaxial cable
- 1 x F-connector to IEC male Adapter
- 1 x F-connector to IEC female Adapter
- 1 x LPF-1000 coaxial filter

3. OPERATION

Position the IPTV Coax Pro™ 1P-node where your internet and coaxial cable enters the house. The 1P-node combines the two signals and distributes them across your entire coaxial network. Position an IPTV Coax Pro™ 4P-node at the location where you require a network connection to connect your devices to the internet/IP. This allows you to easily add an internet signal to your existing coaxial network, while maintaining your coaxial signals.

Product features:

- ξ Parameterized Quality of Service (PQoS): optimised for HD video streaming by distinguishing between data traffic for video, voice and gaming. When a large amount of data is being downloaded within the network, for example, by a PC, your AV streams will not be compromised and will be prioritised.
- ξ Bandwidth reservation: provides a guaranteed bandwidth that is required per connection and thus enables multiple simultaneous connections.
- ξ Low Latency: very low latency (<5ms) for the best online gaming experience.
- ξ LPF-1000 coaxial filter: set includes a Low Pass Filter that prevents network signals from leaving your home (for safety) and increases the impedance of your coaxial network (prevents signal loss).
- ξ With built-in 4-port Ethernet Switch: simply connect up to 4 devices.
- ξ Status Lights: visual display of the signal quality on the node facilitates set-up and operation, without requiring any IP or networking knowledge.

4. PREPARATION

The room in which you want to create a network connection (IP/internet) must have a coaxial connection. This may be a wall outlet, splitter or the end of a coaxial cable. Ensure that this coaxial connection has good signal reception for analogue and/or digital television. If not, it may cause a poor connection between the two IPTV Coax Pro™ nodes.

4.2 F-connector sockets

Within your coaxial network you may encounter two types of connectors, the F-connector and the IEC-connector.



F-connector



IEC-connector

Older systems generally still use IEC-connectors, while newer installations use F-connectors. The use of F-connectors within your coaxial network is recommended because of the quality of the connection. Compared to an IEC connector, the F-connector has lower signal loss. To avoid/reduce signal loss, IPTV Coax Pro™ nodes use an F-connector socket. Use IEC-connectors preferably only for loose cables, for example, to connect to your TV.

No two coaxial home networks are the same, so in practice, there is an infinite number of different connectivity options. This makes it impossible to add all possible cables and connectors to the set's content. However, you can assemble the appropriate cables yourself, or cut existing cables and use the supplied F-connectors. Some specialist shops also carry IEC to F-connector adapter cables; please enquire at your shop.

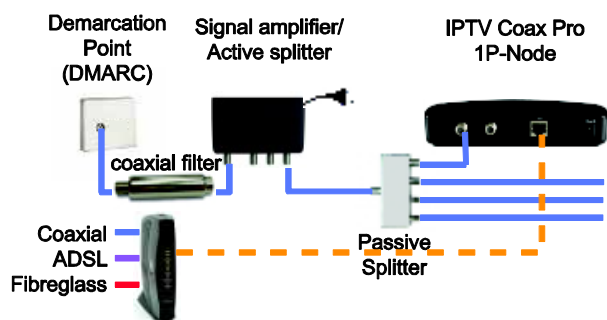
The remainder of the manual is based on an installation using F-connectors.

For more information about assembling your own coaxial cables using F-connectors, please refer to www.marmitek.com (FAQs).

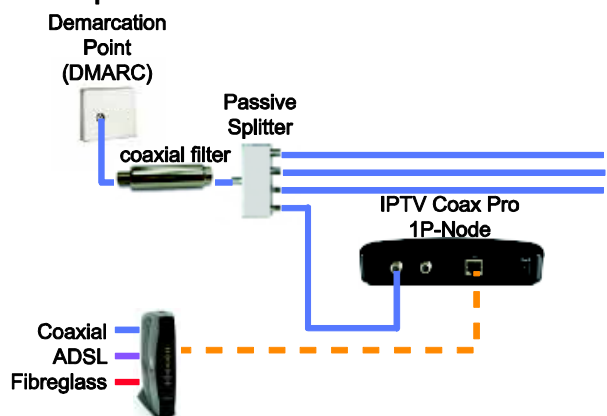
4. INSTALLATION

When installing the IPTV Coax Pro™ nodes, use as few splitters, connectors, converters, amplifiers and other connections as possible. Each component that is added to the coaxial network will weaken the coaxial signals to some extent.

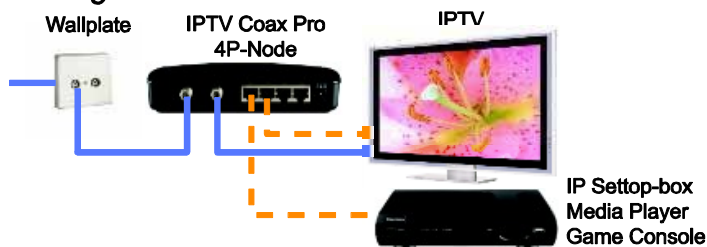
Example 1



Example 2



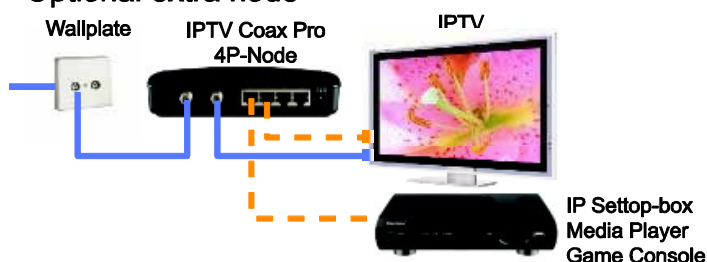
Living room



Bedroom

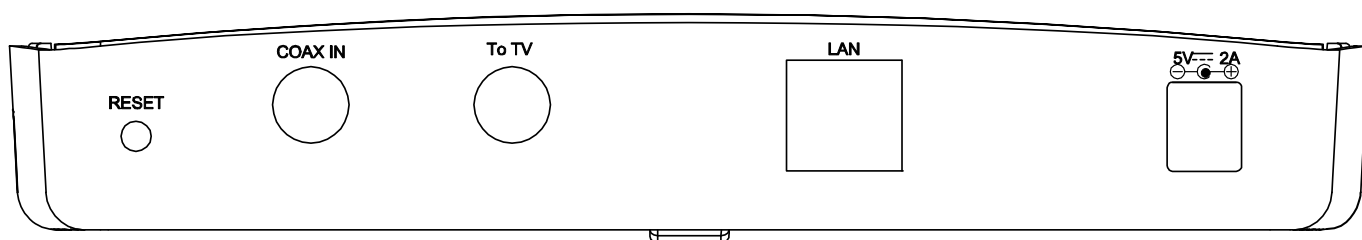


Optional extra node



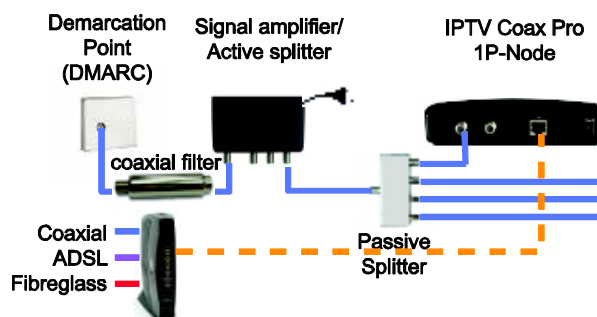
4.3 Connecting the 1P-node (in the meter cupboard)

With the exception of the built-in 4-port Ethernet Switch, there are no technical differences between the IPTV Coax Pro™ 1P-node and the 4P-node. In most cases, the 1P-node will be placed in the meter cupboard or at the Demarcation Point (DMARC) where your coaxial cable and internet connection enter your home. You can then use the 4P-node to connect up to 4 devices with a network connection (internet/IP).



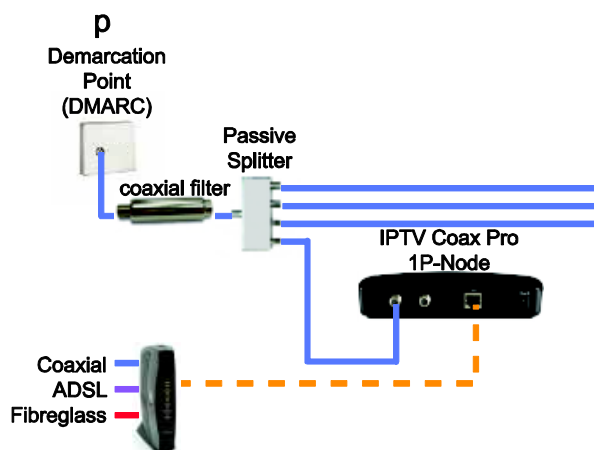
Meter cupboard example 1

1. Position the IPTV Coax Pro™ 1P-node as close as possible to the DMARC in the meter cupboard or another place where the coaxial cable enters your home.
2. Connect the 1P-node's COAX IN to an available connector on your passive splitter using a coaxial cable (not supplied) with an F-connector.
3. Please note that the (active) signal amplifier does not transfer the signal from the IPTV Coax Pro™ nodes. Therefore, never position it between the 1P-node and the 4P-node.
4. You can leave the To TV unused because the IP/internet signals are also sent to your coaxial network via the 1P-node's COAX IN connector.
5. Connect a CAT5 network cable (included) to your internet router and connect the other end to the 1P-node's LAN port.
6. Then connect the power cable to the 1P-node and plug the adapter into the wall outlet.



Meter cupboard example 2

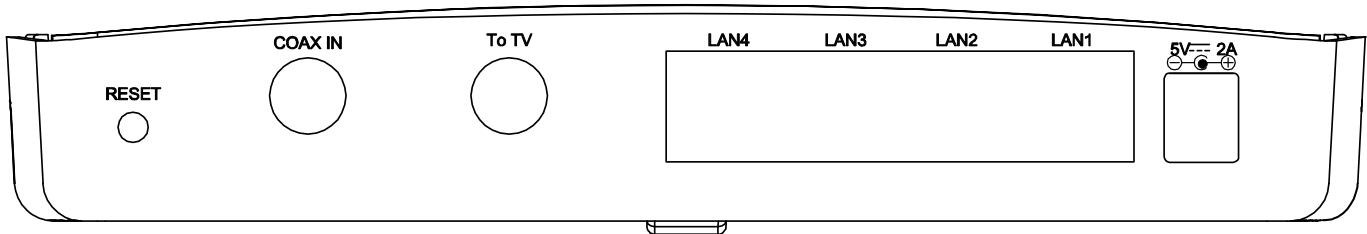
1. Position the IPTV Coax Pro™ 1P-node as close as possible to the DMARC in the meter cupboard or another place where the coaxial cable enters your home.
2. Connect the 1P-node's COAX IN to an available connector on your passive splitter using a coaxial cable (not supplied) with an F-connector.
3. You can leave the To TV unused because the IP/internet signals are also sent to your coaxial network via the 1P-node's COAX IN connector.
4. Connect a CAT5 network cable (included) to your internet router and connect the other end to the 1P-node's LAN port.
5. Then connect the power cable to the 1P-node and plug the adapter into the wall outlet.



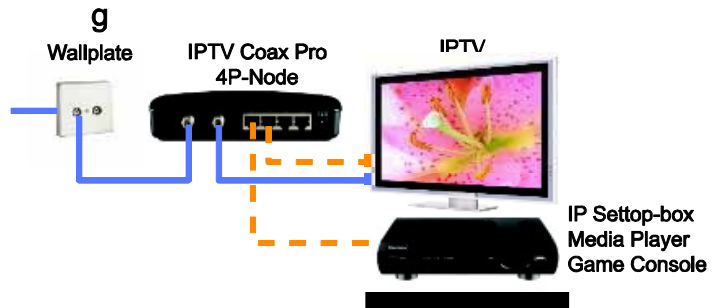
TIP: After installation, use a spanner to check if the F-connectors are sufficiently tightened until finger tight.

4.4 Connecting the 4P-node (living room)

Now create a network connection (IP/internet) on your existing coaxial network in a room that has a coaxial connection. This may be a wall outlet, splitter, or the end of a coaxial cable.



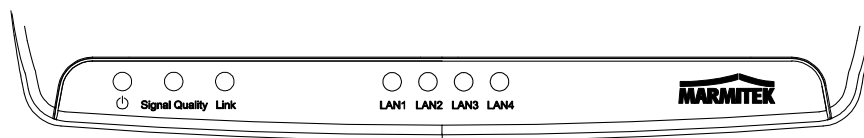
1. Disconnect your TV's (or other device's) coaxial cable from the existing coaxial connection.
2. Connect a coaxial cable (not included) with an F-connector to the now vacant socket and connect it to the 4P-node's COAX IN.
3. Now attach the F-connector to IEC adapter (supplied) to the 4P-node's To TV to reconnect the previously disconnected cable to your TV (or other device).
4. Connect a CAT5 network cable (included) to your device (IP set-top box, SMART TV, Media Player, etc.) and the other to one of the four LAN ports of the 4P-node. The built-in 4-port switch requires no further configuration.
5. Then connect the power cable to the 4P-node and plug the adapter into the wall outlet.



TIP: After installation, use a spanner to check if the F-connectors are sufficiently tightened until finger tight.

4.5 Checking the installation

To verify correct installation, a number of checks need to be performed on both the 1P-node and the 4P-node.

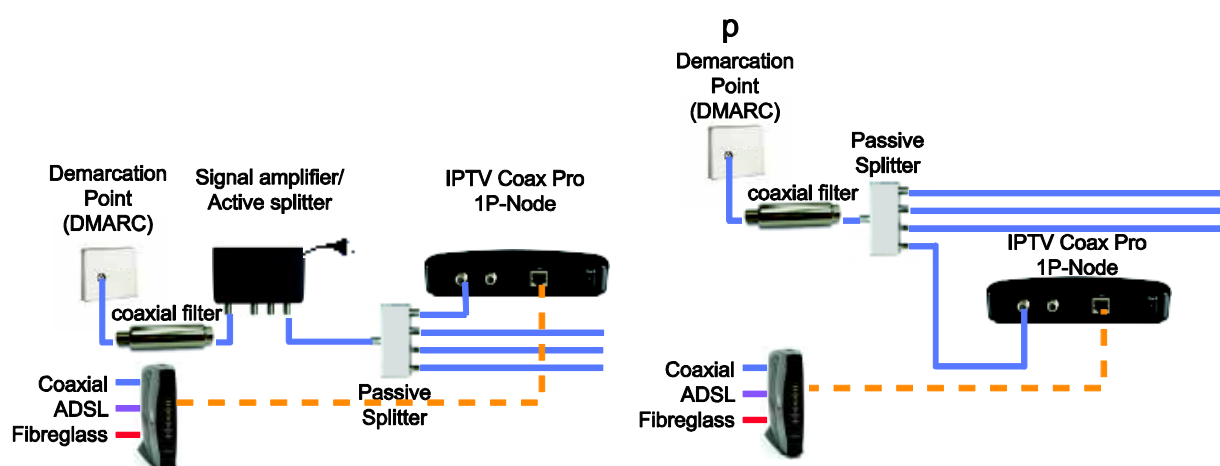


1. Check that the POWER lamp is lit, indicating the node is powered.
2. Check that the LINK light is lit, indicating the 1P-node is connected correctly to the 4P-node.
3. Check that the SIGNAL QUALITY light turns green, indicating the signal quality between the 1P-node and the 4P-node is very good.
4. Check that the LAN light is lit or flashing, indicating that the unit is connected or data is being transferred, respectively.

In all other cases, please refer to Chapter 5, Frequently Asked Questions.

4.6 Use of the LPF-1000 coaxial filter

If you use analogue or digital television via a coaxial cable, we recommend using the supplied coaxial filter. This filter prevents network signals from leaving your house (security) and reflects the signal back into the coaxial network, improving the signal quality. This filter does not affect your existing coaxial signals such as TV, radio and telephony. Position the coaxial filter directly at the point where the coaxial cable enters your home.



5. FREQUENTLY ASKED QUESTIONS

Link and Signal Quality lights are not lit

The IPTV Coax Pro™ node is unable to make a proper connection with another node on the coaxial network.

- ξ Make sure the POWER light is lit on all IPTV Coax Pro™ nodes.
- ξ The signal between the two IPTV Coax Pro™ nodes may be too weak to establish a connection. This may be caused by bad connections or poor quality jacks (splitters, cables, connectors). Use high-quality F-connector jacks, cables and splitters wherever possible.
- ξ Coaxial cables must not be bent, kinked or damaged.
- ξ Please ensure that no active coaxial signal amplifiers are installed between two IPTV Coax Pro™ nodes.
- ξ Press and hold the RESET button for 10 seconds to restore the IPTV Coax Pro™ node's factory settings.

Signal Quality indicator light turns red

The IPTV Coax Pro™ node is connected to another node on the coaxial network. The signal quality between the two nodes is adequate but not maximal. This connection is stable and fast enough to connect your high-bandwidth internet devices. Please note that adding multiple coaxial splitters, cables or other connecting materials may weaken the signal, making the signal quality inadequate and turning the indicator light off.

RESET:

- ξ Hold 1 second to restart the IPTV Coax Pro™ node.
- ξ Hold 10 seconds to restore the IPTV Coax Pro™ node to its factory settings.

Still have any questions that have not been answered here? Please check www.marmitek.com.

6. TECHNICAL INFORMATION

IPTV Coax Pro™ node

Power adapter:	100~240VAC@50/60Hz, 5VDC 2A
Range:	max. 100m for RG-59 coaxial cable
Coaxial input:	F-connector, 75ohm
Coaxial output:	F-connector, 75ohm
RF output level:	E-Band, -3dBm
	D-Band, -10dBm
Network connection:	1P-node: 1x 10/100Mbps Ethernet (RJ45) 4P-node: 4x 10/100Mbps Ethernet (RJ45)
Status indication:	Power, Link, Signal Quality, LAN
Dimensions:	170 x 95 x 30mm

Environment:

Ambient temperature:	+0 to +40°C
Ambient humidity:	10% to 85%

MoCA

Version	MoCA 1.1
Frequency:	E-Band, 475~625MHz (5 channels) D-Band, 1125~1525MHz (8 channels)
Bandwidth:	50MHz
Throughput speed:	PHY 250Mbps
Latency:	< 5ms

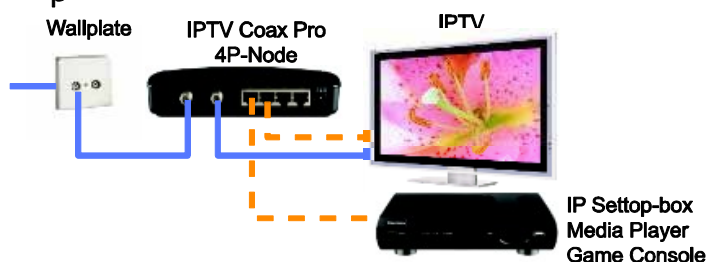
Specifications may change without prior notice.

7. OPTIONALLY AVAILABLE

Additional IPTV Coax Pro™ 4P-node (art. nr. 08185 / 08186)

Use your coaxial network to create additional network connections (IP/internet) in multiple rooms of the house (living room, bedroom, office, loft).

You can connect up to 16 additional 4P-nodes to your coaxial network. Please refer to the Additional 4P-node's datasheet at www.marmitek.com



Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

