



Coaxial Cable wiring tips and tricks, from BAMF Manufacturing LLC

As a way of saying thank you for your purchase, we have put together a brief manual, in which we will provide some basic tricks and tips for hooking up your new BAMF Splitter, as well as some general pointers, which will make your installation smoother. We will also cover some best practices for wiring which will your overall experience with your coaxial device.

1) **Splitter Swaps**

When replacing an old splitter for your new BAMF splitter, first make sure you have the correct input line and the correct 2 corresponding output lines. This seems like a simple thing, but hooking up the input to one of the output lines on the splitter happens quite often, and will cause a lot of unnecessary headache and problems,

(If connecting MoCa devices, follow the same process, but remember that the MoCa signal will be traveling in the opposite direction (back from the device into the “out” leg of the splitter

Tape is often used to label input/output line is beneficial. If that is not an option, try to disconnect the old splitter 1 line at a time, and hook the lines back up to the new splitter 1 by 1 so that they are not mixed up.

DON'T FORGET TO TIGHTEN BACK UP YOUR CONNECTIONS!!! This cannot be emphasized enough, (which is why 3 exclamation points were used here!) Having tight connections is the most important thing you can do to help your cable TV/ and Internet performance. Check all of the connections that you can access in your home to make sure they are tight, use a 7/16 wrench if you have one. If not, a crescent wrench should do the trick.

3) **Adding a splitter**

Adding an additional Splitter within the home due to increasing the number of devices follows the same process as swapping, other than needing an additional Coaxial Line to connect from the splitter to the new device.

4) **HOME RUNS LINES**

It's always a good idea to have all of your cable line run back to 1 central location/ or demarcation point. Having splitters linked together in the attic, crawl space, or

any other location throughout the house causes serious signal degradation, and makes troubleshooting very difficult. Daisy chaining splitters can also cause devices to drop below their signal threshold and stop working all together.

By having every line run all the way from the intended device to 1 central location makes troubleshooting much easier when there is a problem, and also saves a lot of time in the long run. This allows each individual line to be isolated and not have it effect more than 1 device within the home.

Most homes have a plastic cable box on the outside of the home where the cable, or satellite feed comes in, this is often the central location or demarcation point for your cable wiring.

Many Newer homes have distribution panels/ Network Panels/ Smart Panels installed which serve as a central location point for all wiring. These make wiring very convenient, and help to organize your low voltage wires. These are generally found in a utility closet, garage, or master bedroom closet. They look similar to the electrical panel, but these are white in color, and generally require a screwdriver to open.

If you are unable to run all lines back to 1 central demarcation point, at the very least, write down the location of your splitters in case they need to be accessed by you or a cable TV technician in the future

5) MoCa Devices

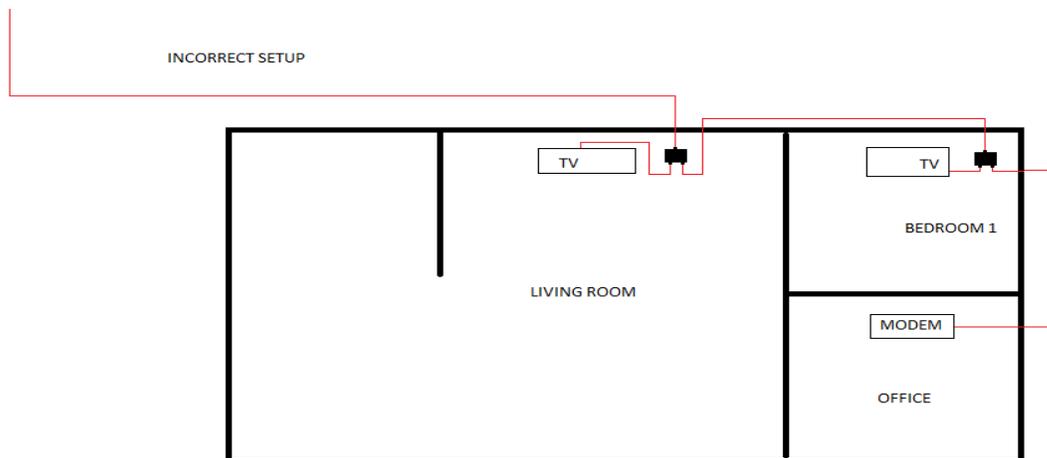
MoCa use signal frequency range up to 500 to 1650MHz range, but usually above 1000MHz or above 1GHz. This is important to know, as most splitters that are not rated for 1GHz/1000MHz or higher cause significant signal loss for MoCa devices. The BAMF splitter has a frequency range of up to 2.3GHz which great for MoCa, and most other applications.

It's even more important for MoCa Devices to have home runs, as the signal loss from this type of signal drops off significantly with distance as well as going through multiple splitters. Also read under wiring types

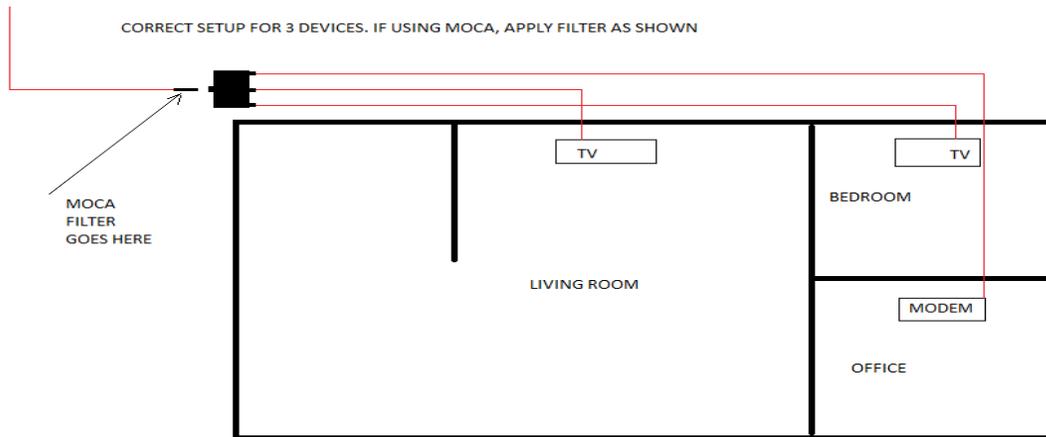
Make sure to use a MoCa/ POE filter for your MoCa Network. This will keep your MoCa network private so that your signals are not leaving your house. This also allows the MoCa devices to communicate to each other more efficiently throughout the house, as the signal is not trying to connect to devices outside of your home. The proper location to install this filter can be complicated, but for simplicity reasons, installing the filter on the end of your service drop, directly where it come out of the ground, or terminates in your house box should work.

If possible isolate all of the cable lines that are using MoCa, and feed all of those lines back to 1 splitter, then the proper location to install this filter would be at the input to this splitter. This will decrease the amount of signal travel for your MoCa network and help provide better connection between devices.

- The diagram below shows an example of Daisy-Chain wiring.
- This type of wiring uses 1 line from the main source, and then is split over and over again, each time reducing the signal by half.
- By the time the signal reaches the modem in the office, the signal will most likely be too low to properly run the modem.

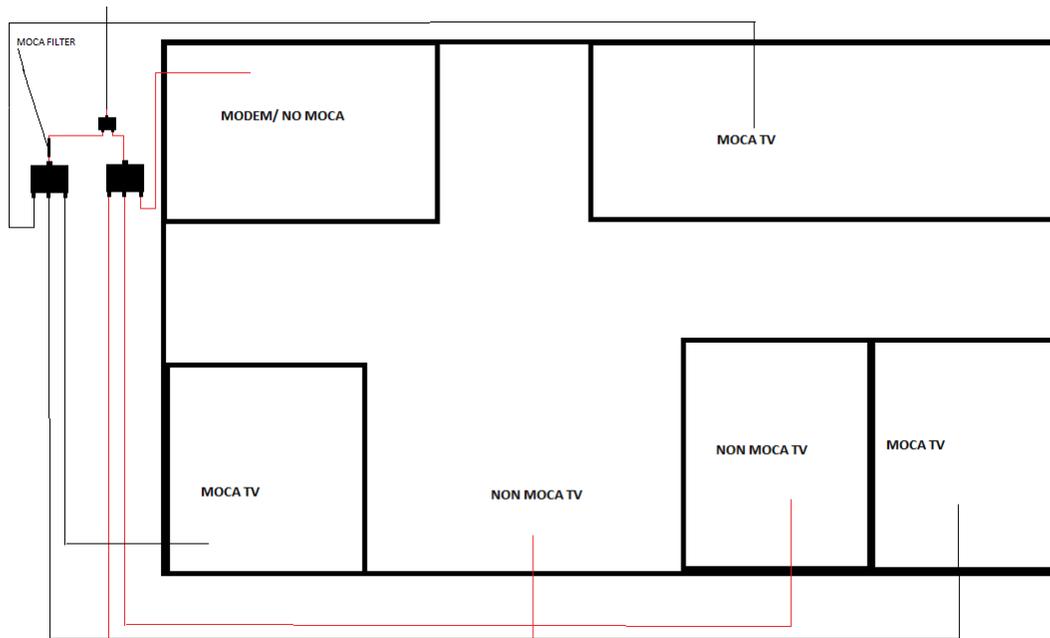


- The correct wiring diagram shown below illustrates a home that is wired with home run lines to all devices.
- There is only 1 splitter, and each line runs directly to the device that it's feeding signal to.
- This is ideal for all situations, and the impact on MoCa is emphasized. Placing a MoCa/ POE filter on the input of the 3-way splitter is ideal in this situation.



- The example below shows 6 devices connected in a home (3 MoCa, and 3 Non-MoCa)
- The first step in this type of hookup is to separate the MoCa network from the Non-MoCa network (this is done with a 2-way splitter)
- The 2-way Splitter feeds 2 (3-way) splitters. 3 legs on 1 splitter are MoCa and all 3 on the other splitter are Non-MoCa.
- Place the MoCa/POE filter on the “input” to the 3-way splitter supplying the MoCa devices.
- This type of hookup requires more work, but ensures the best possible connections between MoCa Devices, and prevents the MoCa signal from causing problems with other devices in the home.
- In some situations this type of setup is not possible due to lower signal coming into the home. Unfortunately the only way to know for sure is with a signal level meter.

Correct setup for MoCa and non-MoCa devices in the same home



4) Wiring Types

With the digital world needing more and more bandwidth, its important to make sure the pipe feeding this bandwidth inside of your home is adequate for the job. This is more and more important with High Speed Internet, VOIP, VPN and other date critical devices, as well as MoCa.

Many homes still use older cable or RG59 wiring to provide service to their TV's and modems, but this wiring is over 20 years old and is not properly shielded to provide quality service to critical digital devices.

If you have any RG 59 wiring in your home, it's best to replace it if possible. Even 1 bad piece of cable, can feed back noise into your home, which can affect the performance of all of the devices in your home. The new standard is RG6 cabling.

If it's not possible to replace all of the wiring with RG6, at least replace the most critical lines with RG6, especially those used for Modems, and MoCa Devices, as these are the most signal picky Coax devices found in most homes today.

Avoid cables that have ends that are made out of plastic, or that have "push on" style connections, these cheaper cords have many problems and can create problems for all devices within your home. Spend a little extra money and buy a cable that is made with quality components that will hold up over time, and provide the proper shielding for your network to perform the way it's designed to.

5) Troubleshooting

1-*Make sure you're on the correct input.* This is very common error, and sadly generates a lot of money for cable companies in truck roll fees. Keep the money in your pocket and check the input first!

If you are using a High Definition device, you most likely will want an HDMI Input, sometimes you will use Component or DVI for older TV's
For non-high definition devices, ch3, ch4, or AV input is generally used. Cycle through your inputs until you see a picture, but go slowly, as it takes a while for the signal to come through

2- *Do you have an amplifier in your home?*

Many homes are equipped with a cable amplifier from the cable company; these are often installed without the homeowners' knowledge. Sadly, these units get unplugged unknowingly very often, and generate a lot of money for the cable companies in truck roll fees.

These amplifiers have a main unit outside, as well as a power supply unit inside. Often this power supply unit gets unplugged by mistake, which causes all of the devices in the home to lose signal from the cable company. If you suspect you have unplugged this by mistake, should be restored. Simply plug back in the power supply and your service should be restored. Below is a picture of a power supply for a Cable Amplifier. There will be a coaxial cable connected to the bottom of this device, which runs outside and provides power for the main unit.



3- Internet speed issues. If you are having problems with your Internet speed, try running a speed test. These are simple, free, and easy to do. There are many sites that allow you to run these tests and help you understand how fast your Internet connection really is. It's important to select a server that is in your area, but also is a main distribution point, as some smaller towns do not have the infrastructure to provide an accurate speed test result.

If you are using a wireless router (rather than having a hard wired connection) remember that your connections will generally always be slower than being hard wired, and the further you are away from your homes wireless router, the slower your internet connection will be. It's worth spending a little extra money on a good wireless router that will provide adequate Internet coverage throughout your home.

4- Picture Quality Issue

Are you actually getting an HD picture? Many people subscribe to HDTV programming, and don't realize that they aren't even getting a truly HD picture.

Even with a HD box or HD DVR hooked up from your television provider, you may not be getting an HD picture, even though you may be watching on an HD station. How can this be?

Often the connection in-between your box, and your TV is not correct. Make sure you are using one of the following cords for HD

1-HDMI (best)

2-DVI (2nd best) this is an older technology and most newer TV's do not have this style of connection

3- Component cables- these provide an HD picture as well, but not quite as sharp of a picture as HDMI, and are analog connections vs. the HDMI and DVI, which are Digital connections to the box. You will need to use one of these cords, Make sure the TV is on the correct corresponding input in order to receive the HD signal from the provider. Finally, make sure the channel you are watching is an HD version of the channel. All of these are required in order to get an HD signal properly.