



## INSTALLATION GUIDE MULTIMEDIA DROP AMPLIFIERS



PCT-MA-B-xx / PCT-BEMA2-xx / PCT-NEMA2-xx / PCT-MA2-xx / PCT-MA210-xx  
1, 2, 4, and 8 Ports

Ver-2 20110106

### A. GENERAL INSTRUCTIONS (OPTIONS 1 & 2)

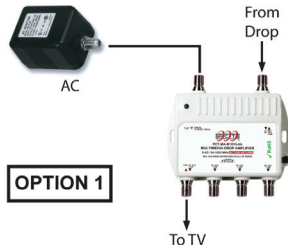
1. Install type F-male connectorized input coaxial cable to the "RF IN" port.
2. Install type F-male connectorized RF coaxial cable to the "RF OUT" port.
3. Verify AC voltage rating of power source conforms with AC/DC adaptor.
4. Minimum power requirements

Active Return: 400 mA \*\*  
Passive Return: 250 mA

- \*\* Warning – Using a 250 mA power adapter to power an active return amplifier may result in:
- a. Interference from hum, and
  - b. Overheating and premature failure of the power adaptor.

### B. FOR STANDARD POWERING (OPTION 1)

1. Connect F-male connectorized RF coaxial cable between "PWR IN" port on the drop amplifier and power adapter F-type connection.
2. Connect the power adapter to AC voltage source.



**OPTION 1**

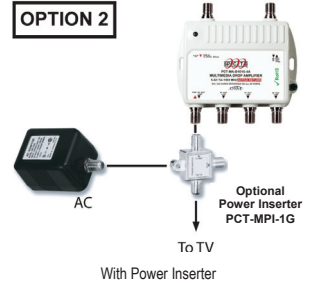
Without Power Inserter

### C. FOR REVERSE POWERING (OPTION 2)

1. Connect an F-male connectorized RF coaxial cable between the port "RF OUT /PWR IN" on the drop amplifier and the "TO AMP" port on the power inserter (PCT-MPI-1G).
2. Connect the F-male connectorized RF coaxial cable to the power adapter and the "DC IN" port on the power inserter.

3. Connect the F-male connectorized RF coaxial cable from the "TO TV" port on the power inserter to distribution network.
4. Connect the power adapter to AC voltage source

**OPTION 2**



With Power Inserter

#### NOTES:

This guide covers 1, 2, 4, and 8 port models. Images shown are of a 4-port amplifier.

PCT multimedia drop amplifiers can be ordered with or without a PCT-MPI-1G power inserter. If a power inserter is required, it can be ordered separately. Please contact your local PCT sales office or representative for details.

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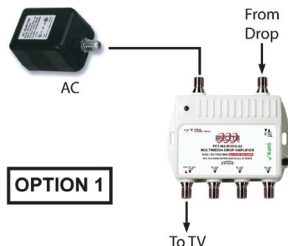
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**OPTION 1**

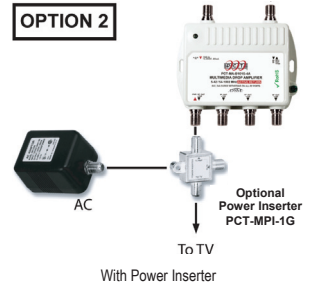
Without Power Inserter

### C. FOR REVERSE POWERING (OPTION 2)

1. Connect an F-male connectorized RF coaxial cable between the port "RF OUT /PWR IN" on the drop amplifier and the "TO AMP" port on the power inserter (PCT-MPI-1G).
2. Connect the F-male connectorized RF coaxial cable to the power adapter and the "DC IN" port on the power inserter.

3. Connect the F-male connectorized RF coaxial cable from the "TO TV" port on the power inserter to distribution network.
4. Connect the power adapter to AC voltage source

**OPTION 2**



With Power Inserter

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## PLEASE READ THIS BEFORE INSTALLING YOUR NEW PCT-MA2-4P AMPLIFIER

**This amplifier is intended for use on cable TV systems or over-the-air (Antenna) systems, NOT satellite. Connecting this product to a satellite system can damage the amplifier and will void the warranty. If you have a satellite system, please contact us to arrange a product return prior to installation.**

If your amplifier is not working as expected, please be sure that you have connected the amplifier properly. Amplifier failures are very rare. Please note:



### Connections:

**RF IN (top right)** = The connection coming FROM the cable company or from the antenna.

**OUTPUTS (bottom)** = Amplifier outputs, going toward your TVs and devices in the home.

**PWR (top left)** = connection to the power supply. Use a standard RG59 or RG6 coaxial cable, less than 100' long.

To insure the BEST performance, the amplifier should be connected at a point as close as possible to where the cabling enters the house. Ideally it should be connected before splitters and cabling degrade the signal. The amplifier only performs well if the input signal is in good shape. If the input signal is weak, you may not get the results you expected.

### Here are some things to look for if the product is not working as expected:

1. Is the green power LED on the amplifier lit? When the power is applied the green power LED will be lit.
2. Do the amplifier and power supply get warm after about ½ hour of use? Both the amplifier and power supply should get warm during normal operation.
3. Does the picture improve, get worse, or stay the same with the power applied? A signal that gets worse when power is on indicates that the input signal is "noisy", or that the amplifier circuitry is bad. Generally a signal will get MUCH worse if the amplifier circuitry is bad
4. Have you tried different cables to connect the amplifier? Bad cables or connectors are common problems.

### ADDITIONAL NOTES ON USING AN ANTENNA:

This amplifier is compatible with HD signals, but you need to be careful when amplifying an HD antenna signal. This product is designed to boost a signal for distribution purposes, but may provide mixed results if the incoming signal is not strong enough. The amplifier cannot take a weak antenna signal and make it perfect. The amplifier will boost the antenna signal, but it will also boost anything else that hits the antenna. This means that other unwanted signals received by the antenna which normally won't cause any issue could cause problems after boosting. It is possible that installing the amplifier could actually prevent reception of HD signals - because the booster may boost the noise (unwanted signals) to a point where they seriously interfere with reception.

**IMPORTANT NOTE:** If your poor TV picture is caused by other issues (weak input signal, cabling problems, etc.) the amplifier may not have the desired effect on your picture. In some instances an amplifier will not be able to improve your picture.

# USING AN AMPLIFIER WITH AN HD ANTENNA? PLEASE READ THIS BEFORE INSTALLING.

**Our goal is to help you get better HD reception. As part of that we need to educate you a bit on what WILL and WILL NOT work when amplifying an HD signal.**

This amplifier is compatible with HD antenna signals, but you need to be careful when amplifying an HD antenna signal. These amplifier products are designed to boost a signal for distribution purposes, not to take a weak HD antenna signal and make it perfect. If your HD antenna signal is not strong enough to support a single HDTV (or converter box) without any splitters in the line, it is unlikely that this amplifier is going to make the signal better. Why? The amplifier will boost the HD signal, but it will also boost anything else that hits the antenna.

## **How do I know if I have a good HD signal?**

Think of it this way. Having a good HD signal is like being in a room with a friend talking. You can hear them clearly. You can also turn up the volume (amplify) if you need to hear them better. Likewise a good HD signal will support one TV without any splitters, without any picture or audio problems.

Having a weak HD signal is a little different. Take that same room your friend is in and fill it with other people who are also talking. The room is noisy. You can still hear some of what your friend says, but not everything. If you turn up the volume (amplify), you end up turning up the volume on EVERYONE in the room, and you can still not hear. In fact it might hurt your ears because you are boosting all the noise, and you still can't hear your friend. A weak HD signal will drop out, checkerboard, lose audio, and generally be unstable. Amplifying it may only make it worse. Solution? A better antenna – usually.

## **What happens if I lose ALL my channels (or just see fewer) after installation? Defective?**

This is not common, but it does happen. It does not mean the amplifier is defective. More likely you have another condition in play that causes this to happen. **IF YOU HAVE A PREAMP you should NOT use another amplifier.** Most commonly there is an existing amplifier in the line elsewhere. Amplified antennas have a pre-amp installed, usually in the antenna package or somewhere near the antenna. Google the specific model number of your antenna and see if it is an AMPLIFIED antenna, or an antenna which includes an amplifier. It is rare that 2 amplifiers will work on the same line, and in that case you will not be able to use the PCT amplifier.

## **Boosting a strong HD signal can have adverse effects as well.**

In addition, if you already have good reception with a number of channels, you could actually overdrive the signal by adding an amplifier. This is the "too much of a good thing" syndrome. When a strong signal is amplified, it may push the limit of the amplifier chip such that the tops of the signals get "cut off" because they exceed the amplifier's maximum signal capability. Since we are dealing with Digital TV, it means that the entire signal will be knocked out if part of the signal is being "cut off". This is expected, and unavoidable. In this case the amplifier is not for your situation.

## **If your HD signal is not strong enough to support one TV, then the better choice is to install a bigger/better antenna.**

Do not expect that an HD signal which cannot supply signal to a single TV without any splitters will be better with an amplifier. Do not be surprised if you try to boost a weak HD signal and you do not get the desired results. This does not mean the amplifier is defective, it simply means that the signal is not strong enough going into the amplifier. **BAD SIGNAL IN = BAD SIGNAL OUT.**

**Be sure to visit the OTADTV.COM website, as there is a lot of good information there to help you understand and perfect your HD reception.**

