

INSTRUCTIONS FOR INSTALLING A COAXIAL GROUND LOOP ISOLATOR

WHAT ARE GROUND LOOPS ?

Ground loops generally occur when there is a difference in potential between the various grounding points in a home theater audio and video system. This ground loop will appear as HUM in audio or a rolling, grainy video presentation. When potentials like this occur, 60Hz ground currents and high frequency noise can flow around the system and cause hum in audio and video reproductions. Audio hum is the most obvious evidence of 60Hz ground loop currents as one can hear it directly from the speakers.

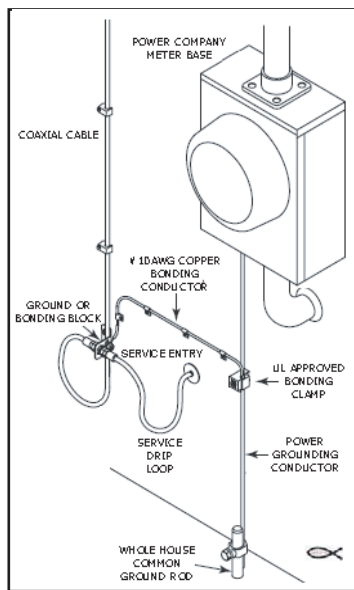
Video hum can be more frustrating to locate the source. It usually manifests itself as a series of faint lines that rise up though the video image. Sometimes they are very faint, but occasionally, can be quite severe.

The difference in ground potentials in an A/V system can be caused by a number of factors. One of the most notorious involves the ground of the cable TV coax when it enters the premise or building.

The cable grounding block or surge portector should be securely grounded to the electrical services ground, as defined in the National Electrical Code (NEC). If this ground is poor or non-existent, external 60Hz currents can circulate throughout the shield of the A/V's coaxial system's interconnecting cables.

If the system is correctly grounded and video hum still exists, which is fairly common, it is probably caused by grounding problems in and from the dwelling's AC wiring.

A correct method of bonding and/or grounding a cable TV or for that matter a satellite installation is shown in the diagram below;

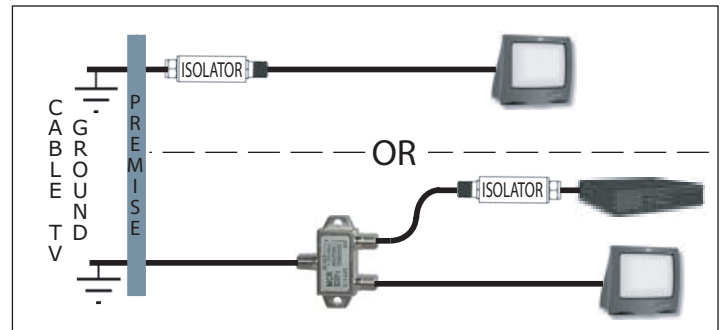


COAXIAL RF GROUND LOOP ISOLATION INSTALLATION

A/ Remove the existing coaxial cable on the output side of the exterior mounted ground block or surge protection device.

B/ Inspect the center conductor of the coax cable entering the dwelling. The end of the center conductor must be smooth, straight, cleanly cut and should not extend more than 1/8" past the end of F connector's nut. NOTE; All F connectors should be inspected to insure they are properly prepared, before re-assembly, as described. An improperly prepared F connection will result in poor digital signal transmission, reduced cable modem speed and cable signal dropouts.

C/ Remove the input coaxial cable from the termination device i.e; settop box, digital video recorder, etc.or any electrically powered device DIRECTLY connected to the coaxial cable between the exterior ground block and your video device. Install the ground loop isolator at this point, reconnect the coaxial cable's F connector 7/16" rotating nut.



NOTE; If your coaxial distribution has RF in-line splitting device, DO NOT install the ground loop isolator BEFORE the splitter. If The isolator is installed BEFORE the splitter and the exterior premise grounding, as detailed in the below left illustration, will isolate ONLY the coax between the exterior grounds and the splitters input connector. The probability of the splitter's output connectors being on a different ground potential are high. This would provide that a ground loop would STILL EXIST between the splitter's output and the device that has exhibited AC hum characteristics. The optimum place to install the ground loop isolator in the example would be directly on the splitter's output connector before the suspected problematic device.

D/ Reconnect the coax cable to the exterior mounted ground block and/or surge protector. Insure that all F fitting's back nuts are snug. Do not rotate the ground loop isolator to tighten the F connector, overtightening these F Fittings on the device may damage the device and void the warranty.

E/ Power up your system's devices and observe the HUM free presentation you system is now reproducing.