Troubleshooting Tips

There are many variables involved in Video Distribution. Cable lengths, splitter/combiners, and pre-existing signals can all impact picture quality. In general, good results are achieved when the field strengths (dB) of each signal are balanced throughout the system. Combinations of amplifiers, attenuators, and tilt compensators may be necessary to ensure an equalized and sufficient delivery of signal to each television. You may wish to consult your local A/V Professional whose tools and expertise can help provide you with optimal results.

Modulator Channels

Channel range for MM70, RM70, MM73, NMOD1 and NMOD3 Modulator function.

Modulator	Description	Television
Channels 0-13	Not valid channel selection.	No signal should appear on TV.
Channels 14-69	UHF Stations 14-69	Set TV to ANTENNA Tuning for its UHF channels 14-69.
Channels 70-94	CABLE Stations 70-94	Set TV to CABLE Tuning for its CABLE channels 70-94.
Channels 95-99	Not valid channel selections.	No signal should appear on TV.
Channels 100-125	CABLE Stations 100-125	Set TV to CABLE Tuning for its CABLE channels 100-125.
Channels 80-116	Can conflict with DIGITAL CABLE, use 120-125	Set TV to CABLE Tuning for its CABLE channels 120-125 and bypass the cable box.

All Modulators

This table covers all NetMedia Modulators, MM70, RM70, MM73, NMOD1 and NMOD3. Also see their individual tables for more help.

Symptom	Description	Recommended Action
No picture on programmed UHF channel 14-69	1. TV must be set to ANTENNA Tuning in order to view UHF channels 14-69.	1. Tune TV to channel 80. If successful, your TV is probably in CABLE Tuning mode then Check the switches or menus on your television and change from CABLE Tuning to ANTENNA Tuning. or Leave the TV in CABLE Tuning and program the modulator for a CABLE channel from 70-94, 100-125.
No picture on programmed CABLE channel 70-94, 100-125	2. TV must be set to CABLE Tuning in order to view CABLE channels 70-94, 100-125.	2. Tune TV to channel 80. If <u>not</u> successful, your TV is probably in ANTENNA Tuning mode then Check the switches or menus on your television and change from ANTENNA Tuning to CABLE Tuning. or Leave the TV in ANTENNA Tuning and program the modulator for a UHF channel from 14-69.
No picture through Cable Box.	3. Cable Boxes normally use CABLE Tuning. 4. Cable Boxes sometimes put the modulator signal on a different channel or do not pass the signal at all. 5. If you cannot get a signal through the Cable Box then you must bypass it and switch the TV between channel 3 and the modulator channel.	3. Program the modulator for a CABLE channel from 70-94, 100-125. 4. Check for the modulator signal several channels above and below the programmed channel. 5. Combine the modulator signal to the cable signal after the Cable Box. or Split the combined cable/modulator signal before the Cable Box and recombine again after the Cable Box. Use a filter or trap to eliminate channel 3 on the bypassed side. or Use an A/B Switch to select between modulated and cable signal.
No picture on programmed CABLE channel 95-99.	6. The modulator does not program channels 95-99.	6. Program the modulator for a CABLE channel from 70-94, 100-125.
Modulator has "forgotten" programmed channel.	7. The channel is stored in EEPROM and is not forgotten, though a bad power glitch may occasionally scramble the signal.	7. Disconnect modulator power supply and reconnect after waiting for several seconds. Programmed channel should reappear.
Bad signal on station next to programmed channel.	8. Modulated channels will interfere with adjacent channels, esp. the one just below it.	8. Program channels with at least one blank channel above and below.
"Noise" on programmed CABLE channel 70-94, 100-125.	9. Local UHF broadcast channels can interfere with CABLE channels.	9. Program the modulator for a CABLE channel 70-94, 100-125 that is not close to a local UHF broadcast channel frequency (UHF 14 to 43 add 51; UHF 44 to 69 add 56. Examples: UHF 43 is close to CABLE 94; UHF 44 is close to CABLE 100).
Weak, "snowy" signal on Cable, Antenna, or modulator channels after signals combined.	10. Signals must be balanced before combining. Cable and Antenna signals are generally not as strong as the modulator's. Also, the additional cable and combiners disperse and weaken their signal strength.	10. Amplify weaker "snowy" signal before combining with others to boost strength and help signal balance. Use other combinations of amplifiers, attenuators, and tilt compensators to provide a balanced and sufficient signal to each television.
Horizontal, diagonal, or herringbone lines on any distributed channel.	11. Signal may be too strong for television. Modulator output is at least +27dB. 12. Combined signals are unbalanced.	11. Weaken signal with gain controls, attenuators, splitter/combiners, or longer cable lengths. 12. See *Step 10*.

NetMedia, Inc. 10940 N. Stallard Place, Tucson, Arizona 85737 (520) 544-4567 Fax: (520) 544-0800
mailto: sales@netmedia.com http://www.netmedia.com
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Troubleshooting Tips

MM70 and NMOD1 MicroModulator

This table covers the NetMedia MM70 and NMOD1 MicroModulators. Also see the *All Modulators* table for more help.

Symptom	Description	Recommended Action
Modulator does not work.	1. The modulator requires 12V DC 100mA power and good signal connections.	1. Disconnect and reconnect power supply. Make sure all other connections are secure. Check for correct power supply.
	2. Rule out external factors such as cable, amplifiers, splitters, and other devices.	2. Connect modulator to coax and coax directly to one TV. Set TV to channel 80, then program modulator to channel 80 and look for the momentary test bars. If TV will not tune to channel 80, see *Step 2* of the *All Modulators* table.
	3. The modulator must be repowered for channel changes to take effect.	3. Review programming steps. Program modulator for a simple channel such as 20 or 80. Disconnect and reconnect power supply.

RM70 Single Modulator

This table covers the NetMedia RM70 Remote Powered Single Modulator. Also see the *All Modulators* table for more help.

Symptom	Description	Recommended Action
Modulator does not work.	1. The modulator requires 12V DC 100mA power and good signal connections.	1. Disconnect and reconnect power supply. Modulator LED should then glow brightly before returning to normal dim state. Make sure all other connections are secure. Check for correct power supply.
	2. Power Injector is directional; power cannot pass through TV side.	2. Check Power Injector direction so that MOD Arrow goes toward modulator and TV Arrow goes toward television.
	3. Coax shielding may short circuit power by touching center conductor.	3. Check all coax F-connectors and replace if necessary.
	4. Sufficient power must reach modulator location. Each RM70 requires 12V DC, 100mA in addition to power requirement of attached device.	4. Long cable runs will diminish power, place Power Injector closer to modulator. Amplifiers and some splitter/combiners do not pass DC power, replace them or move Power Injector so that those devices are not between it and modulator. Multiple devices require more power, use a larger power supply that gives each modulator and device enough power.
	5. Rule out external factors such as cable, amplifiers, splitters, and other devices.	5. Connect modulator to coax, coax to Power Injector, and Power Injector directly to one TV. Set TV to channel 70, then program modulator to channel 70 and look for the momentary test bars. If TV will not tune to channel 70, see *Step 2* of the *All Modulators* table.
	6. The modulator starts from zero each time you enter programming mode.	6. Review programming steps. Program modulator for a simple channel such as 20 (2 presses) or 70 (7 presses).
Problems with other devices connected to coax.	7. Power Injector introduces 12V DC power to coax cable.	7. Place Power Injector so that no splitter/combiners are between it and the modulator. or Use DC Blockers to prevent power from entering other devices.
Problem with device connected to RM70.	8. The RM70 can supply 12V DC power to an external device. There must be sufficient power for both units.	8. Make sure external device uses 12V DC power. Use a power supply that delivers 12V DC, 100mA + DEVICEmA.

MM73 and NMOD3 TriplePlay™ Modulator

This table covers the NetMedia MM73 and NMOD3 TriplePlay™ Modulators. Also see the *All Modulators* table for more help.

Symptom	Description	Recommended Action
Modulator does not work.	1. The modulator requires 12V DC 300mA power and good signal connections.	1. Disconnect and reconnect power supply. All three modulator LED's should turn on momentarily before returning to normal single LED on state. Make sure all other connections are secure. Check for correct power supply.
	2. Rule out interference from TriplePlay's other channels by setting them to 0.	2. Select each of the other two modulator LED's. Enter programming mode but do not select any channels. Wait for LED to Quit flashing.
	3. Rule out external factors such as cable, amplifiers, splitters, and other devices.	3. Connect modulator to coax and coax directly to one TV. Set TV to channel 80, then program modulator to channel 80 and look for the momentary test bars. If TV will not tune to channel 80, see *Step 2* of the *All Modulators* table.
	4. The modulator starts from zero each time you enter programming mode.	4. Review programming steps. Program modulator for a simple channel such as 20 (2 presses) or 80 (8 presses).

NetMedia, Inc. 10940 N. Stallard Place, Tucson, Arizona 85737 (520) 544-4567 Fax: (520) 544-0800
mailto:sales@netmedia.com http://www.netmedia.com
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