

## Programming the NetMedia MM70 MicroModulator™ SETTING THE MM70 CHANNELS (UHF 14-69, CABLE 70-94, 100-125)

**Please read instructions completely** before you begin. Each time you program or re-program a channel, you must start again from channel 0. If no channel is selected, the modulator will default to channel 14. If no gain is selected, the modulator will default to +30dB.

**Decide what channel you wish to use.** If combining with an antenna system, choose a UHF channel 14-69. If combining with a cable system, choose a CABLE channel 70-94,100-125. Choose a channel that is not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources.

**Digital Gain Adjustment:** After setting channel, each press of the selector button then advances the RF gain (signal strength) from 0dB to +30dB. The first press selects 0dB, the second press selects +10dB, the third selects +20dB, the fourth +30dB, and the fifth press starts again at 0dB. Match modulator signal strength with Antenna/Cable signal strength, or use the lowest gain setting that provides a clear picture to all TVs.

**Test Pattern:** A brief test pattern (two white vertical bars) is displayed after programming or after select button is tapped. Press and hold select button while connecting power to display a permanent test pattern. Tap select button to remove permanent test pattern. The test pattern is displayed only on the programmed channel.



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## Programming the CTV1-M

#### PLEASE READ INSTRUCTIONS COMPLETELY BEFORE YOU BEGIN.

**DECIDE WHAT CHANNEL TO USE:** If combining with an antenna system, choose UHF channel 14-71. If combining with a cable system choose a CABLE channel 66-94, 100-127. Choose a channel that is not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources. CALLER-ID: Requires a telephone line with Caller-ID service activated by the local telephone company. After the first or second ring, the Caller-ID information will be displayed for approximately 15 seconds. The CTV1-M overlays the Caller-ID information on the video of the modulated channel.

#### **PROGRAMMING A CABLE CHANNEL**

Figure 1
Programming Cable Channel





- 1. Connect the F-Connector on the CTV1-M to the television ANT/Cable input.
- 2. Tune the television to CABLE channel 70
- 3. Push the button with the UP arrow and plug in the power while holding down the button (this will put the modulator into CABLE programming mode).
- 4. The display on the screen should look like Figure 1.B.
- 5. Select the desired CABLE channel from 66-94 or 100-127 by pressing the up and down buttons.
- 6. Once you are on the channel you wish to select, you need to set the channel by cycling the power on the CTV1-M. To do this, remove the power supply from the CTV1-M and then plug it back in.
- 7. Tune TV to programmed channel to view modulated source and Caller-ID.

#### **PROGRAMMING A UHF CHANNEL**







Figure 2.B

**Television Output** 

- Connect the F-Connector on the CTV1-M to the television F-Connector ANT/Cable input.
- 2. Tune the television to UHF channel 14.
- 3. Push the button with DOWN arrow and plug in the power while holding down the button.
- 4. The display on the screen should look like Figure 2.B.
- 5. Select the desired UHF channel from 14-71 by pressing the up and down buttons.
- Once you are on the channel you wish to select, you need to set the channel by cycling the power on the CTV1-M. To do this, remove the power supply from the CTV1-M and then plug it back in.
- 7. Tune TV to programmed channel to view modulated source and Caller-ID

#### PROGRAMMING THE ADJUSTABLE GAIN

Once you have selected and programmed a channel, the next step is to program the Output Gain Level. Use the adjustable gain to match signal strengths with the combined signals. **\*When programming the gain, the CTV1-M defaults to the previous gain setting. The Factory default setting is maximum gain.** 

Figure 3 Setting Adjustable Gain





Figure 3.B

- 1. Tune the television to the channel programmed above.
- 2. Press and hold both the UP and DOWN at the same time and plug in power to the CTV1-M (this will put the CTV1-M into Output Gain Adjustment mode like Figure 3.B).
- 3. Now press the UP and DOWN buttons to select the Gain. BAR TO THE LEFT FOR LESS GAIN BAR TO THE RIGHT FOR MORE GAIN
- 4. After selecting the desired Gain Level, cycle the power to the CTV1-M by unplugging and plugging in the power to set the Gain

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# Programming the RM70 Coax-Powered<sup>™</sup> Modulator

#### SETTING THE RM70 CHANNELS (UHF 14-69, CABLE 70-94, 100-125)

Please read instructions completely before you begin. Each time you program or re-program a channel, you must start again from zero.

Decide what channel you wish to use. If combining with an antenna system, choose a UHF channel 14-69. If combining with cable, choose a CABLE channel 70-94,100-125. Choose a channel that is at not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources.

Programming: To program the RM70 using a paper clip, follow the instructions below. After the RM70 is programmed, a momentary push of the button displays a test pattern (two white vertical bars).



# MODULATING DSS/SATELLITE OVER YOUR CABLE SYSTEM



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### **Programming the NetMedia MM73 TriplePlay<sup>™</sup> Modulator** SETTING THE TRIPLEPLAY CHANNELS (UHF 14-69, CABLE 70-94, 100-125)

**Please read instructions completely** before you begin. If you do not enter the programming promptly, the programming sequence will time-out and terminate. Each time you program or re-program a channel, you must start again from zero.

**Decide what channels you wish to use.** If combining with an antenna system, choose UHF channels 14-69. If combining with cable, choose CABLE channels 70-94,100-125. Choose channels that are at not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources.

**All three channels can be set at once.** Press the Select Button until all three LEDs are on and follow the programming procedures. The first modulator will be set to the channel selected, the second will be 2 channels higher, the third will be 4 channels higher (examples: setting 14 = 14,16,18; setting 70 = 70,72,74; setting 94 = 94,101,103).

Each channel can be set individually by following the programming steps while only one LED is on.

**Test Pattern:** A brief test pattern (two white vertical bars) is displayed after programming or after select button is tapped.

**Disable any unused modulators.** Set to channel 00 by performing by entering programming mode and allowing it to time out without selecting any channel.



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### Programming the CAModulator<sup>™</sup> SETTING CHANNELS (UHF 14-69, CABLE 70-94 & 100-125)

**Please read instructions completely** before you begin. Each time you program or reprogram a channel, you must disconnect and reconnect the power.

**Decide what channel you wish to use.** If combining with an antenna system, choose a UHF channel 14-69. If combining with cable, choose a CABLE channel 70-94 & 100-125. Choose a channel that is at not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources.

Programming: To program the CAModulator, follow the instructions below.

Programming Instruction	ons for the CAModulator
	20 10 8 4 2 1
Example: UHF Channel 25	With the power off, locate the dip switches on
ON OFF SUM 80 40 20 10 8 4 2 1 Example: UHF Channel 69	the back of the CAModulator assembly. The CAModulator channel is programmed by adding up the numbers that appear below the dip switches. These numbers are printed on the circuit board just below the dip switches. In the example above, the channel is set to
ON       N       Image: Contraction of the contraction of t	CABLE 85 by moving the 80, 4 and 1 switches to the ON position (e.g. 80+4+1=85). Other examples are to the left. The CAModulator supports UHF channels 14-69 and CABLE channels 70-94 & 100-125.
ON OFF SUM 80 40 20 10 8 4 2 1	You must select a channel that is not on or adjacent to any other local broadcast, cable or modulated source.
<ul> <li>Setting CAModulator Angle and Focus</li> <li>The camera comes pre-focused. It is possible however, to change the focus by rotating the lens</li> </ul>	
clockwise or counter-clockwise. To adjust the angle of the camer gently bend the bracket left, righ up or down.	t, Email: info@netmedia.com L www.netmedia.com A
To mount the CAModulator horizontally, turn the camera board 90 degrees. Do this by reinstalling the camera board mounting screws in the other two opposing corners of the board.	

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Rev. 0002A



### Programming the CAModulator<sup>™</sup> SETTING CHANNELS (UHF 14-69, CABLE 70-94 & 100-125)

**Please read instructions completely** before you begin. Each time you program or reprogram a channel, you must disconnect and reconnect the power.

**Decide what channel you wish to use.** If combining with an antenna system, choose a UHF channel 14-69. If combining with cable, choose a CABLE channel 70-94 & 100-125. Choose a channel that is at not currently in use by any local broadcast, cable, or other modulated source. There must also be at least one blank channel separating each modulated channel from these other sources.

**Programming:** To program the CAModulator, follow the instructions below.

Programming Instructions for the CAModulator		
ON POSITION		
<u>UNITS TO SUM</u> 80 40 2		I
Example: UHF Channel 25	With the power off, locate the dip switches on	N S
ON OFF OFF		S T A L L
SUM       80       40       20       10       8       4       2       1       the circuit board just below the dip switches.         Example:       UHF Channel 69       In the example above, the channel is set to		
ON OFF OFF OFF Channel 69 OFF		
SUM 80 40 20 10 8 4 2 1	channels 70-94 & 100-125.	
ON OFF		
SUM 80 40 20 10 8 4 2 1		С
<ul> <li>Setting CAModulator Angle and Focus</li> <li>To adjust the angle of the camera, use the screw mount in the base to rotate the camera horizontally. To</li> </ul>		
adjust the camera vertically, loosen the screw in the camera arm assembly 10940 N. Stallard Place, Tucson, Arizona 85737		U
to rotate the camera up and down. (520) 544-4567 Fax: (520) 544-0800 Email: info@netmedia.com		
The camera comes pre-focused. It is possible however, to change the focus by loosening the small screw on the lens then rotating the lens clockwise or counter-clockwise. Tighten the screw when you are finished.		A T O R S

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## Installing the NetMedia Wall-Mounted Camera SC50, SC51

### WARNING: Improper installation may damage electronic equipment. This must be installed by qualified technician.

Thank you for purchasing the NetMedia security camera. This is the same camera that is included in the assembly that is sold as the CAModulator which includes both the camera and remote-powered modulator in a single assembly. This camera is designed to be a general purpose security camera that mounts in a single or double gang junction box or in a drywall mount. The camera may be aimed by bending the mounting bracket. It may be focused by twisting the lens.

The contents of this package include the camera, mounting bracket, BNC Video Out cable, Power In cable, 12V DC Transformer, two mounting bracket screws and two Lens Covers. The camera, bracket, and camera cables are already attached to form the Camera Assembly.



- 1. Install Single Gang Box (not included).
- 2. Connect BNC Video Out cable to monitor.
- 3. Connect 12V DC Transformer to Power In cable.
- 4. Attach Camera Assembly to Single Gang Box.
- 5. Adjust camera angle and focus if necessary.
- 6. Snap Lens Cover into Decora Cover (not included) by pressing all four corners in simultaneously.
- 7. Attach Decora Cover to Single Gang Box.



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Power In

(12V DC, Center Positive)

SC50 - SC51

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BNC Video Out

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## Installing the NetMedia Exterior Mounted Camera **SCE1 & SCE2**

WARNING: Improper installation may damage electronic equipment. This must be installed by gualified technician.

Thank you for purchasing the NetMedia security camera. This is the same camera that is included in the assembly that is sold as the CAModulator which includes both the camera and remote-powered modulator in a single assembly. This camera is designed to be a general purpose security camera that mounts on a flat surface.

The contents of this package include the Camera Assembly which consists of the camera, bracket, and attached camera wires.

Setup requires 12V DC (300mA SCE1, 100mA SCE2) power to the power connector. Use the BNC connector for video output.



# Installing the NetMedia Infrared Illuminator SCIR

WARNING: Improper installation may damage electronic equipment. This must be installed by qualified technician.

Thank you for purchasing the SCIR NetMedia Infrared Illuminator. This illuminator is designed to provide night vision for black and white security cameras.

The contents of this package include the Illuminator housing, Illuminator base and 12V DC 300mA DC power supply.

If it is necessary to extend the length of the power cord, be sure to connect positive (+) to the center conductor and negative (-) to sleeve.

The SCIR can illuminate a viewing area up to 50 feet away with a 30 degree spot. The Illuminator housing may be adjusted as shown in the diagram below. Mount the SCIR so that its infrared light does not shine or reflect directly into your camera.





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#### Installation of the VS4X1 Video Switcher V S Thank you for purchasing the NetMedia 4X1 Video Switcher. This unit comes factory set to automatically switch between 4 video sources every 4 seconds (4 sec. per source). If there are fewer video sources or you wish to change the 4 second time lapse, follow the instructions below. Otherwise, the VS4X1 is ready to place into service out of the box. Х DIP Black - Output Input Number 2 $\square$ ŧ Input Number 1 Input Number 3 Power Connector Input Number 4 Example Setup Set to 4 seconds and 4 input sources Remove the end cap covering the end with the 3 yellow RCA connectors. Slide the printed circuit board out far enough to expose the red bank of switches. The switches numbered 1-6 are used to set the time lapse and Ν switches 7 and 8 are used to set the number of video input sources (from 2 to 4). The switches are used to designate a binary value as indicated in the table below. S NOTE: It is necessary to power off the VS4X1 when the switches are changed Т Α 0 = OFF or in the DOWN position 1 = ON or in the Up position Switch Nbr of Switch Nbr of Switch Nbr of Switch Nbr of Seconds Seconds Seconds Seconds Α N/A Т L Ο Ν S W Switches 7 and 8 set the number of input sources you have. So if you only have 3 sources, the VS4X1 can turn into a 3x1 with the flick of a switch. I

Switch 7 8	Number of Sources
00	N/A
01	2
10	3
11	4



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# Installation of the VS4X4 Video Switcher



#### What's it for?

Rotation Status LED

The Video 4x4 lets you view up to four different rotation patterns from four video sources. Any of the inputs may be included or excluded from a rotation pattern. The output may then be sent to a composite video source or modulated (using an RF modulator such as the NetMedia MM70 Micro Modulator, RM70 Remote Modulator or MM73 Triple Play Modulator). In addition to the rotation modes each source may be viewed independently.

#### Connecting your Video 4x4

We assume at this point you have made all the necessary connections to your video input sources and output receivers as illustrated on the back of this sheet. It is not necessary to have your Video 4x4 completely connected to program it however it may make it easier to understand its operation.

#### **Creating a Rotation Mode**

To create a rotation mode you must first select an output by pressing the **Output Selector Button** (shown above). Each successive press of this button advances the **Output Status LED** to the next position. This LED corresponds to one of the four video output connections located behind these LEDs. You may want to label these outputs in the Label Area using a fine felt-tip marker or pencil. To include the selected output press the Add Button (the Output Status LED should stay on). To exclude the selected output press the Delete Button (the LED will flash). To advance to the next output press the **Output Selector Button** again.

Once an output is selected we can determine which inputs should be included in that output's rotation mode by pressing the Input Selector Button. Each successive press of this button advances the Input Status LED. This LED corresponds to one of the four input source connections located behind these LEDs. You may want to label these inputs in the Label Area using a fine felt-tip marker or pencil. To include the selected input press the Add Button (the Input Status LED should stay on). To exclude the selected input press the Delete Button (the LED will flash). To advance to the next input press the Input Selector Button again. Repeat this process until all desired inputs for your rotation mode are enabled.

We can now set the rotation delay time. This is the amount of time an input will be displayed before advancing to the next enabled input. We set this by pressing the Input Selector Button until the Rotation Status LED and Time Status LED lights turn on. Then press the +10 Sec Button or +1 Sec Button to increment the time. Each successive press of these buttons will add an additional 10 seconds or 1 second delay respectively (to a maximum of 255 seconds). After the desired time is entered wait 10 seconds for the Time Status LED to turn off and the current rotation setting to be displayed. If you want to change the time setting simply press the Input Selector Button until the Time Status LED comes on again, then enter the new time. Repeat these steps until all desired output rotation modes are programmed. Once programmed, EEPROM memory

prevents the Video 4x4 from losing its settings even if power INPUT 1 Is disconnected.

#### Single Source Viewing

If you prefer to view a single input you may press the Input Selector Button. All inputs can be viewed through the selected output when not in rotation mode. To view the rotation again simply press the Input Selector Button Until the Rotation Status LED is lit.





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# Installing the NetMedia CTV2 Two-Line Caller-TV

Follow the instructions in the User's Manual; the video connections are the same as outlined there. The phone connections vary, as shown in Figures 1 & 2, depending on the configuration of your phone lines. Caller-IDs are displayed by the CTV2 as shown in Figure 3.

For best results, use the CTV2 with two active phone lines. This will prevent data crossover between the two ID displays.



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