



MANUAL PART NUMBER: 400-0030-003

## **MX2226AT**

### **6-IN, 1-OUT RGBHV SWITCHER**

### **USER'S GUIDE**

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **MX2226AT** Switcher. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MX2226AT** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Unauthorized personnel shall not open the unit since there are high-voltage components inside.
- Qualified ALTINEX service personnel, or their authorized representatives must perform all service.

### 1.2 SAFETY GUIDELINES FOR THE RACK-MOUNTING OF THE MX2226AT

- Maximum operating ambient temperature is 35 (degrees C).
- Never restrict the airflow through the device's fan or vents.
- When installing equipment into a rack, distribute the units evenly. Otherwise, hazardous conditions may be created by an uneven weight distribution.
- Connect the unit to a properly rated supply circuit.
- Reliable Earthing (Grounding) of Rack-Mounted Equipment should be maintained.

### 1.3 INSTALLATION

- For best results, place the **MX2226AT** Switcher on a flat, level surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **MX2226AT** Switcher in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Dropping or jarring can damage internal components, so handle the **MX2226AT** Switcher carefully.

- Do not place heavy objects on top of the **MX2226AT**. If the **MX2226AT** is to be mounted to a table or wall, use only ALTINEX made **DA1292FC** 1U High Rack Mount and cables for optimum setup.
- To turn off the main power, be sure to remove the cord from the power outlet. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Do not pull the power cord or any cable that is attached to the **MX2226AT** Switcher.
- If the **MX2226AT** Switcher is not used for an extended period, disconnect the power cord from the power outlet.

### 1.4 CLEANING

- Unplug the **MX2226AT** power cord before cleaning. Clean surfaces with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

### 1.5 FCC / CE NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

## ABOUT YOUR SWITCHER

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The **MX2226AT**, a 6-in 1-out RGBHV Switcher is controllable using its built-in front panel or via RS-232 commands. The **MX2226AT** utilizes relays internally for each component channel, enabling it to pass a wide variety of signal types, including RGBS, RGsB, Component Video (Y, R-Y, B-Y), S-Video (Y/C), Composite Video, Mono or Stereo Audio, and even RS-232.

The **MX2226AT** can also be used as a 1-in 6-out switcher where a signal can be routed through the switcher to allow a single source to be connected to as many as six displays.

If desired, the **MX2226AT** can be operated in a Sync Delay switching mode to eliminate the "glitch" typically associated with the switching of high-resolution sources. This delay is factory preset at 2.5 seconds and can only be used when switching within RGBHV and RGBS format signals.

The **MX2226AT** offers Step Switching, which allows the user to cycle through the inputs sequentially, making the **MX2226AT** perfect for monitoring applications. The **MX2226AT** also offers a Video Off feature in which the video portion (RGB signals) of the selected signal are disconnected but sync signals are passed so that the monitor or projector does not progress into a "no display" mode.

Multiple **MX2226AT** units may be looped together to create a larger switcher with more than six inputs. By connecting two pins on the control port of each switcher used, the multiple switchers will act as a single switcher when controlled from the front panel.

The **MX2226AT** delivers an extremely high bandwidth of 400 MHz, allowing it to remain transparent to even very high-resolution signals. Its low-profile design requires only 1U of rack space. Its wide variety of features makes it perfect for rental or permanent installation applications.

The **MX2226AT** may be rack-mounted using hardware supplied with the unit.

## TECHNICAL SPECIFICATIONS

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FEATURES/DESCRIPTION	MX2226AT
<b>GENERAL</b>	
<b>Inputs</b>	6
Input Connector	Set of 5 Female BNC
<b>Outputs</b>	1
Main Output Connector	Set of 5 Female BNC
<b>Compatibility</b>	RGBHV, RGBS, RGsB, Component Video (Y, R-Y, B-Y), S-Video (Y/C) and Composite Video

Table 1. **MX2226AT** General

<b>MECHANICAL</b>	
<b>Enclosure</b>	
Width (inches)	1.75 in (44mm)
Height (inches)	17.00 in (432mm)
Depth (inches)	9.00 in (229mm)
Weight (lbs.)	5.2 lbs. (2.36kg)
Ship Weight (lbs.)	7.4 lbs. (3.36kg)
Finish	Gray
Front/Back Panels	Lexan
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. **MX2226AT** Mechanical

<b>ELECTRICAL</b>	
<b>Input Video Signal</b>	
Analog Signal	-10V to +10V (+/-10V p-p max)
Impedance	75 Ohms (unselected inputs)
<b>Input Sync Signal</b>	
Composite Sync	TTL(+/-), Analog 0.3-1.0V
Sync on Green	-0.3V
Impedance	Pass-through
<b>Output Video Signals</b>	
Analog Signal	-10V to +10V (+/-10V p-p max)
Rise/Fall Time (ns)	1.9
Impedance	75 Ohms

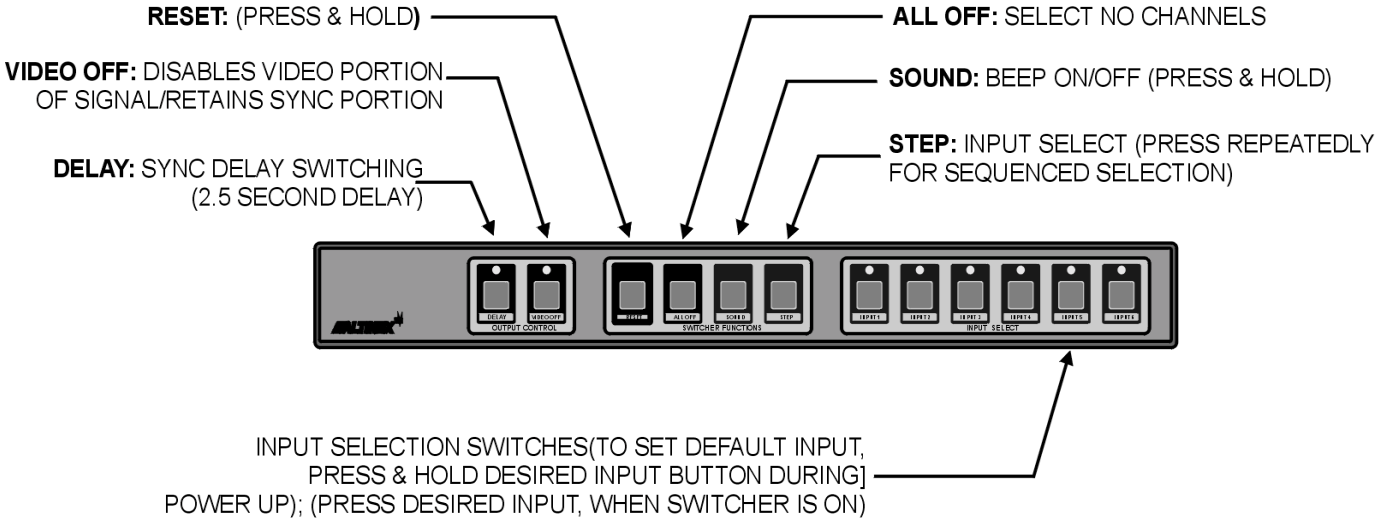
3

	(pass-through)
<b>Output Sync Signal</b>	
Composite Sync	TTL(+/-), Analog 0.3-1.0V (unbuffered)
Sync on Green	-0.3V
Impedance	Pass-through
<b>Frequency Compatibility</b>	
Typical Video Bandwidth	400 MHz @ -3 dB
Horizontal	15-200 kHz
Vertical	30-190 Hz
Horizontal Position Range	20 %
<b>Cross-talk</b>	-48 dB @ 10 MHz
<b>Coupling</b>	DC
<b>Power</b>	90-140V/200-240V Selectable
Power Consumption	12 watts max

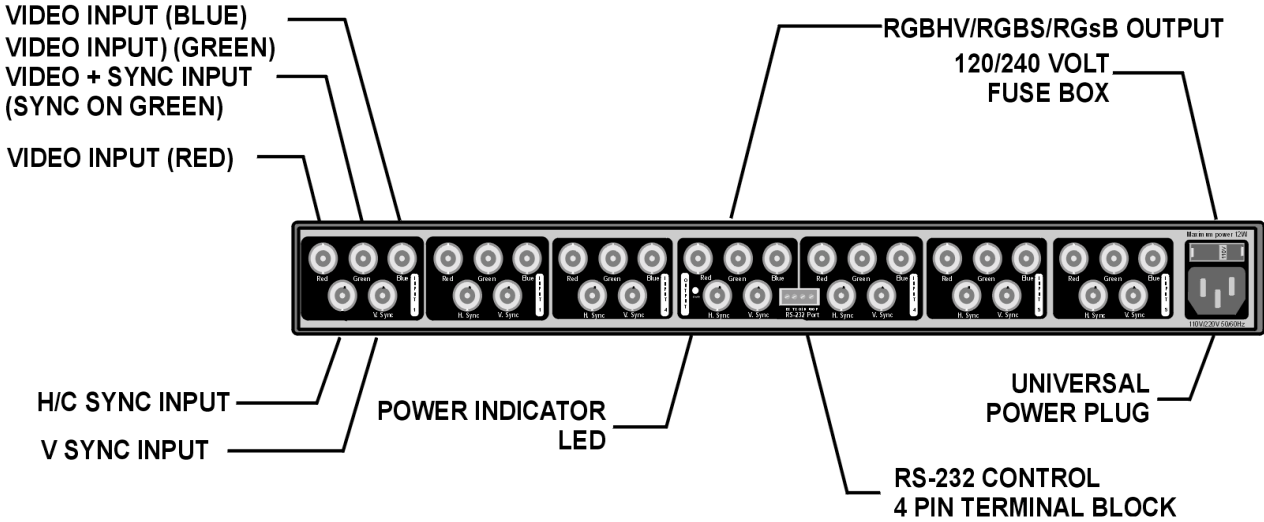
Table 3. MX2226AT Electrical

**DESCRIPTION OF MODEL NAME** **4**

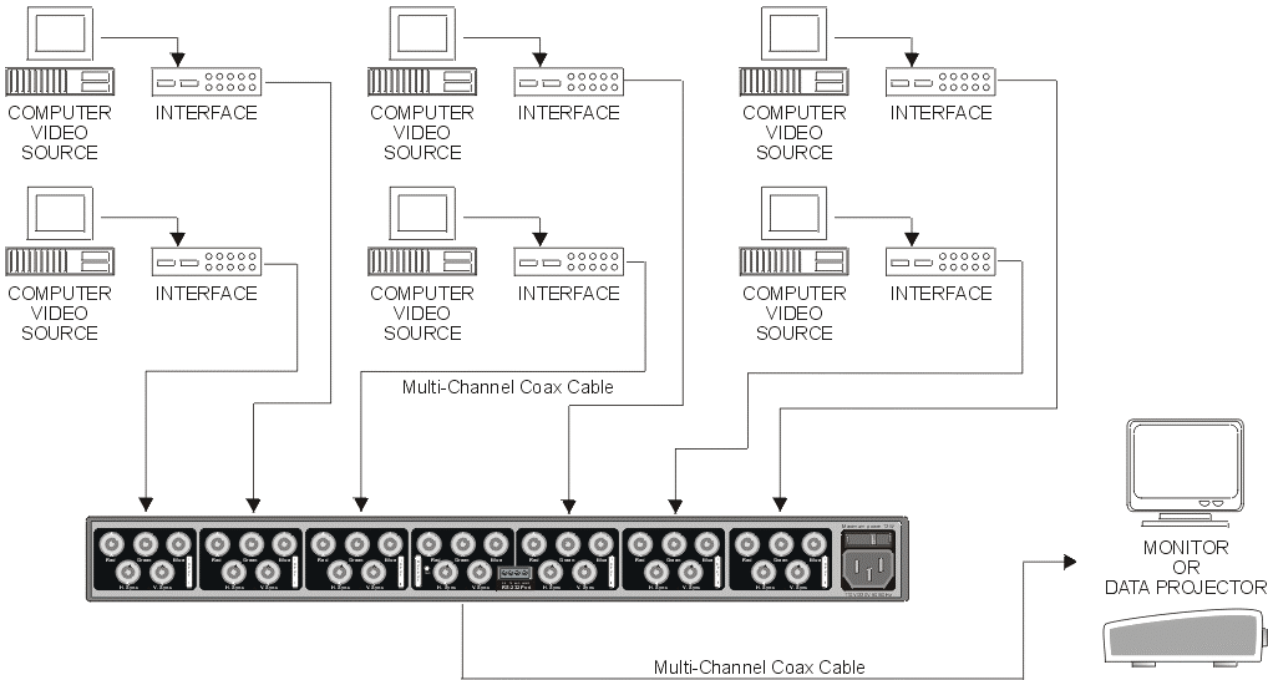
## FRONT PANEL



## BACK PANEL



## APPLICATION DIAGRAM 5



## INSTALLING YOUR SWITCHER 6

- Step 1.** Make sure that the window on the fuse is set to the proper AC voltage in your country. An incorrect setting can result in unit damage, which is not covered by warranty.
- Step 2.** Connect the power cord to the unit and plug it into the power outlet. Make sure that the power indicator LED is on.
- Step 3.** Connect the cables from the source to the input connectors and connect display devices, such as monitors or projectors to the outputs. Shielded, high quality coaxial cables are recommended for video cable runs.
- Step 4.** Verify that image on the display is perfect. The unit will operate successfully as long as all specifications are followed.
- Step 5.** Connect the Rx, Tx, and Gnd signals from the control system as per section 7.2 if the **MX2226AT** must be controlled remotely.

## OPERATION 7

### 7.1 OPERATION FROM THE FRONT PANEL

The front panel of the **MX2226AT** provides access to essentially all of the switcher's capabilities. It has three sections: input select, switcher functions, and output control.

#### 7.1.2 INPUT SELECT SECTION

##### SELECTION OF INPUT:

When the buttons INPUT1 through INPUT6 are pressed, the corresponding INPUT will be selected. The LED on top of the bottom front panel will TURN ON simultaneously to indicate which input has been selected. When connected as a 1-in 6-out switcher, the outputs are selected through the INPUT SELECT section.

##### SET DEFAULT POWER UP INPUT:

This function allows a user to define which input will be selected at power up. To define the default power on the input channel, while turning ON the unit, press the desired channel switch and hold it for approximately 2 seconds until you hear a short beep. Turn the unit OFF and then turn it back on again. The LED of the selected input should be ON. For factory default the input is set to INPUT1.

### 7.1.2 SWITCHER FUNCTIONS SECTION

##### RESET:

This function allows a user to reset the switcher without unplugging the unit. Press the RESET button and hold it for approximately 2 seconds. When you hear a beeping sound, release the button. All LEDs on the front panel will flash simultaneously. The current connection of input to output will be lost and power up input will be loaded. The user-set defaults for SOUND and DEFAULT CHANNEL will not be changed by the RESET function.

##### ALL OFF:

This function allows a user to turn OFF the output of the **MX2226AT**. It is very useful when the **MX2226AT** Switcher is used in an application, where the display must be blanked periodically. Press this button to switch to a "no signal" condition. To resume Input Select switching, simply press the desired INPUT or the STEP function.

##### SOUND:

This function allows a user to have audible feedback when the buttons are pressed. The factory default is set to have audible feedback ON through to a beep. In some situations however, sound may be undesirable. To disable the beeping sound, press this button and hold it for approximately 2 seconds until a beep is heard. After the sound is disabled, to re-enable the sound, repeat the same procedure.

## STEP:

This feature allows cycling through the inputs one at a time. It is used to select the next input from an ALL OFF condition. If this button is pressed once it switches to the next input in an increasing order. For example, if INPUT 3 is currently selected, pressing STEP SELECT once will switch to INPUT 4. If pressed again INPUT 5 is selected. If INPUT 6 is already selected, and the STEP SELECT button is pressed once, none of the inputs will be selected. This condition is similar to the ALL ON function. By pressing once more from the ALL OFF stage, INPUT 1 will be selected.

### 7.1.3 OUTPUT CONTROL SECTION

#### DELAY:

This function enables Sync Delay Switching in RGBHV and RGBS signals. Sync Delay allows the "glitch" that normally takes place when switching between high-resolution sources to take place off screen. When the Sync Delay feature is enabled, the video portion of the image (RGB signals) is disconnected before the sync portion (H&V SYNC or CSYNC). When connecting the input, the video portion of the signal (RGB) is restored shortly after the incoming sync portion of the signal is connected. This delay time is factory pre-set to 2.5 seconds. By pressing this button once, the SYNC DELAY feature is enabled and confirmed through the LED on top of the button. If it is pressed once more this feature is disabled and the LED turns off.

#### VIDEO OFF:

This feature allows a user to disable only the video (RGB channels) portion of the selected source. The sync portion (H&V, SYNC or CSYNC) of the selected source will continue to be sent to the display. This feature can be very helpful when the user does not want the display to go into a "no display" or "no signal" mode (e.g. some data monitors will display a blue screen if no signal is present). To disable the video portion of the selected input, press the video off button once, the LED on the top

button should light up. To enable the video portion, press the button again and the LED will be in an OFF position. This feature is designed to work only with RGBHV, RGBS and RGsB format signals. It is similar to the ALL OFF mode except that there is only sync signal sent to the output for display.

### 7.2 RS-232 CONTROL

The **MX2226AT** uses a terminal block type connector for RS-232 communication. The terminal block uses solder-free, screw-down contacts, making it extremely easy to connect the switcher to a control system or to a computer in the field.



RS-232 Terminal Block

PIN	DESCRIPTION
RX	RS-232 receive
TX	RS-232 transmit
GND	Ground
LOOP	Used to connect additional switchers in "Loop" mode.

#### Terminal Block Designation

The terminal block is labeled with the proper contact designations: Transmit (TX), Receive (RX), and Ground (GND). Always remember that the Transmit pin from the control system or computer must be connected to the Receive pin on the switcher control port.

Typically, a control system or computer will offer RS-232 connections on a 9-pin D connector or a DB 25-pin connector. The following are two typical cable pin-out connections for RS-232 connections from a PC. Always confirm the pin-outs for your system to insure proper wiring.

PC DB-9 port PIN No.	MX2226AT Terminal block pin
3	RX
2	TX



5	GND
---	-----

RS-232 connection of PC with DB-9 port  
**MX2226AT** Terminal Block

PC DB-25 port pin no. IBM PIN No.	<b>MX2226AT</b> Terminal block pin
2	RX
3	TX
7	GND

RS-232 connection to **MX2226AT** Terminal Block  
of PC with DB-25 port

Port settings of the control system or computer  
being used to control the **MX2226AT** Switcher  
should be set as follows:

BAUD Rate bps (Bits per second): 2400

Data Bits: 8

Parity: None

Stop Bits: 1

There is no software or hardware flow control  
implemented. The RS-232 input has a 6-character  
buffer. The **MX2226AT** Switcher will not execute  
additional commands until the previous command  
is fully processed.

### 7.3 RS-232 CONTROL COMMANDS

The standard RS-232 protocol is used to control  
the switcher. Commands must be issued as  
shown, in ALL CAPS and with brackets [ ] that are  
included in the command string.

RS-232 Protocol:

[INP0] All channels off

[INP1] Select input 1

[INP2] Select input 2

[INP3] Select input 3

[INP4] Select input 4

[INP5] Select input 5

[INP6] Select input 6

[RSET] Reset unit to user defaults

[VERN] Returns firmware version number

After processing a valid command, an [OK] string  
will be returned, followed by a command echo. For  
instance, if a command, [INP1] is sent to the  
**MX2226AT** Switcher, it would return the feedback  
as [OK] [INP1]. The only exception is that with the  
[VERN] command, which is the corresponding  
firmware version of the switcher, [1.0] is returned  
as feedback.

If a command is not recognized by the switcher,  
an error string, [ERR], will be returned. Any  
command other than the previously listed  
commands will also return [ERR] feedback.

If the control system being used is not set up to,  
pause for the [OK] string, it is important to include  
a 100-millisecond delay between each command  
to allow pause for the processing of the [OK]  
[COMMAND] string.

The [RSET] function requires at least one minute  
of processing time. If the Sync Delay function is  
used, a 2.5-second delay should be maintained  
between RS-232 commands, to account for the  
time required processing Sync Delay switching.

If a key is pressed on the front panel, a feedback  
string is transmitted. This is done to inform a  
control system that the key has been pressed.  
This feature allows several switchers used  
simultaneously to operate in tandem.

### 7.4 FEEDBACK CODES

Key pressed	Description	Feedback code
INPUT 1	Input Select	[OK] [INP1]
INPUT 2	Input Select	[INP2]
INPUT 3	Input Select	[INP3]
INPUT 4	Input Select	[INP4]
INPUT 5	Input Select	[INP5]
INPUT 6	Input Select	[INP6]
STEP	Step Input select	
ALL OFF	Disable All Inputs	[INP0]
RESET	Reset the Switcher	[RSET] [INPx] (x= default input)
VIDEO OFF	Video RGB (ON/OFF)	
DELAY	Sync Delay Switching Enabled/Disabled	

## 7.5 MASTER/SLAVE CONTROL (RS-232):

The feedback codes allow multiple **MX2226AT** Switchers to be connected in a Master-Slave configuration, if desired.

When the control port of two units are connected as shown below, the slave unit duplicates the actions of the master unit. The slave unit can still be controlled from its front panel or through another RS-232 control; however this configuration is used when multiple **MX2226AT** units must be controlled through a single RS-232 source.

Master MX2226AT Terminal block pin	Slave MX2226AT Terminal block pin
TX	RX
GND	GND

Master-Slave Control Port Connection of the **MX2226AT**

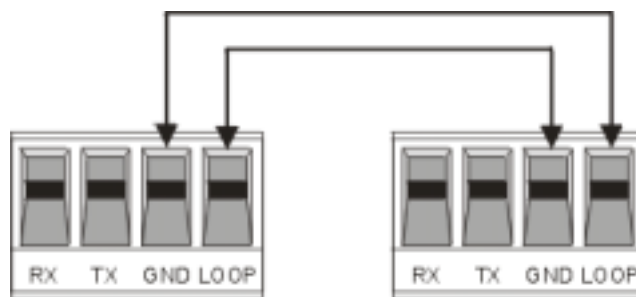
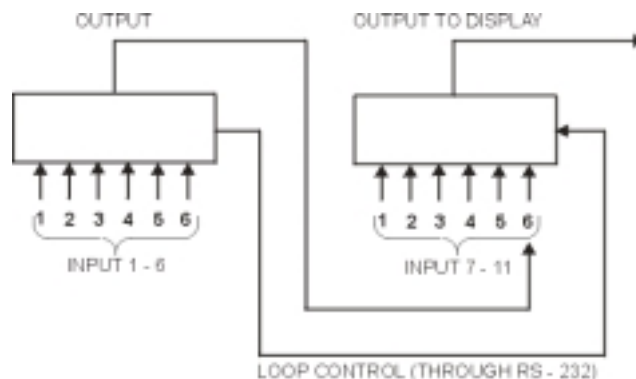
## 7.6 LOOP CONTROL

In some applications, it may be necessary to switch a number of computer video sources to a single presentation display, requiring more inputs than are available from an individual switcher.

To create a larger switcher with more input, the output of the previous unit can be looped to another unit. To maintain the completeness and availability of the incoming video signal, no more than 3 units should be looped. Keep in mind that the Looping Configuration will eliminate one usable input for each looped unit. For example, if two 6-in 1-out switchers were looped together, there would be 11 usable inputs.

The loop control feature forces all looped units to select input 6 so that the incoming signal will automatically pass through. If input from switcher no. 1 is selected then input no. 6 is automatically selected on switcher no. 2, so that an incoming signal from the output of switcher no. 1 is passed to the output of switcher no. 2.

## 11-IN 1-OUT SWITCHER



**MX2226AT Unit #1**

**MX2226AT Unit #2**

The coaxial cable between looped switchers must be arranged so that Input 6 always accepts the loop output.

## FREQUENTLY ASKED QUESTIONS

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No	Question	Answer
1	When I press the RESET button, the switcher does not respond. Why?	You must press and hold the button for approximately 2 seconds, until you hear a short beeping sound until all of the LED lights flash. This is designed to avoid accidental resetting of the unit just by touching the key.
2	When I press the SOUND button, the switcher doesn't respond.	You must press and hold the button for approximately 2 seconds, until you hear the beeping sound. This is done to set the switcher in either BEEP ON or BEEP

	Why?	OFF mode.
3	Can the <b>MX2226AT</b> be used to pass Composite Video, S-Video, and Component Video?	Yes, simply use the corresponding channels to pass the signals (e.g. For composite video, you may use the red channel or you may use the blue channel). Since the <b>MX2226AT</b> is a relay switcher, it can be used as a contact closure control or to switch virtually to any type of video, sync, audio, or even RS-232 signals.
4	What is the difference between the VIDEO OFF button and the ALL OFF button?	When the ALL OFF button is pressed none of the inputs is connected by the <b>MX2226AT</b> , while the VIDEO OFF button disables the video portion of the selected input but continues to send the sync portion of the signal.
5	Can I use contact closures to control the <b>MX2226AT</b> ?	No, the <b>MX2226AT</b> is not designed for control through contact closures at this time. To use contact closures you may consider using the ALTINEX <b>CP7317RS</b> Controller to convert contact closures to RS-232 commands.
6	Can the <b>MX2226AT</b> Switcher be used outside of the United States?	Yes, the <b>MX2226AT</b> uses a universal internal power supply, enabling it to be used throughout the world. First, make sure that you have the voltage setting in the correct position, and second make sure to use the proper adapter cable for the country where it will be used. Adapter cables for several countries are available through ALTINEX as listed in section 9.
7	How do I control several	You cannot control multiple <b>MX2226AT</b> Switchers

	switchers independently with one RS-232 card in a control system?	independently with one RS-232 control card at this time. The unit does not have user-selectable ID codes or command delimiters. So, a command sent by a control card cannot be interpreted individually by each switch. If this is a required feature, the units can be pre-set at the factory for individual ID codes. Please call ALTINEX at 1-714-990-2300 for details.
8	Does the "Loop" connection on the 4 pin Terminal Block allow me to loop RS-232 to another switcher?	No, the "Loop" feature on this connector allows multiple switchers to be connected and operated as one large switcher with more than six inputs. For the solution to this, see the Master/Slave control operations section, 7.5.
9	Why doesn't my control system work when I have the sync Delay feature activated?	The Sync Delay feature requires 2.5 seconds to be executed. You must make sure that your control system of at least 2.5 seconds allows for the delay between two consecutive commands.

## CABLES AND ACCESSORIES 9

Model No.	Description
<b>RACK MOUNTING ACCESSORIES</b>	
<b>DA1293FC</b>	
<b>POWER CABLES</b>	
<b>PC5301US</b>	Power cable for US
<b>PC5302UK</b>	Power cable for England
<b>PC5303AU</b>	Power cable for Australia
<b>PC5304GR</b>	Power cable for Germany
<b>HIGH RESOLUTION 5 BNC TO 5 BNC COAXIAL CABLE</b>	
<b>CB4200MR</b>	Bulk cable (500 feet minimum)
<b>CB4203MR</b>	3 feet, 5-BNC M to 5-BNC M

<b>CB4206MR</b>	6 feet, 5-BNC M to 5-BNC M
<b>CB4212MR</b>	12 feet, 5-BNC M to 5-BNC M
<b>CB4225MR</b>	25 feet, 5-BNC M to 5-BNC M
<b>CB4250MR</b>	50 feet, 5-BNC M to 5-BNC M
<b>CB4275MR</b>	75 feet, 5-BNC M to 5-BNC M
<b>CB42100MR</b>	100 feet, 5-BNC M to 5-BNC M
<b>CB42150MR</b>	150 feet, 5-BNC M to 5-BNC M
<b>SUPER HIGH RESOLUTION 5 BNC TO 5 BNC COAXIAL CABLE</b>	
<b>CB4400MR</b>	Bulk cable (500 feet minimum)
<b>CB4406MR</b>	6 feet, 5-BNC M to 5-BNC M
<b>CB4412MR</b>	12 feet, 5-BNC M to 5-BNC M
<b>CB4425MR</b>	25 feet, 5-BNC M to 5-BNC M
<b>CB4450MR</b>	50 feet, 5-BNC M to 5-BNC M
<b>CB4475MR</b>	75 feet, 5-BNC M to 5-BNC M
<b>CB44100MR</b>	100 feet, 5-BNC M to 5-BNC M
<b>CB44150MR</b>	150 feet, 5-BNC M to 5-BNC M
<b>HIGH RESOLUTION PLENUM-FLEX 5BNC-5BNC COAXIAL CABLE</b>	
<b>CB5000PL-5BM00035BM</b>	3 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM00065BM</b>	6 feet, 5BNC M to 5-BNC M
<b>CB500PL-5BM00125BM</b>	12 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM00255BM</b>	25 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM00505BM</b>	50 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM00755BM</b>	75 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM01005BM</b>	100 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM01505BM</b>	150 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM02005BM</b>	200 feet, 5BNC M to 5-BNC M
<b>CB5000PL-5BM02505BM</b>	250 feet, 5BNC M to 5-BNC M
<b>SUPER HIGH RESOLUTION PLENUM-FLEX 5-CHANNEL COAX CABLE</b>	
<b>CB5100PL – 5BM00035BM</b>	3 feet, 5-BNC M to 5-BNC M
<b>CB5100PL-5BM00065BM</b>	6 feet, 5-BNC M to 5-BNC M
<b>CB5100PL –</b>	12 feet, 5-BNC M to 5-BNC M

<b>5BM00125BM</b>	
<b>CB5100PL – 5BM00255BM</b>	25 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM00505BM</b>	50 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM00755BM</b>	75 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM01005BM</b>	100 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM01505BM</b>	150 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM02005BM</b>	200 feet, 5-BNC M to 5-BNC M
<b>CB5100PL – 5BM02505BM</b>	250 feet, 5-BNC M to 5-BNC M

## TROUBLE SHOOTING GUIDE 10

- Please make sure, that the input signal formats are the same for the input (source) and output (display).
- Please make sure that the input signal amplitude levels are as follows:
  1. RED, GREEN, and BLUE are less than 10 V.
  2. SYNC is less than 5.0 V and more than 0.3 V.
- Please use the appropriate input voltage 110 VAC or 220 VAC.
- Please make sure that proper quality of cables is used. We recommended ALTINEX made cables for the best results.
- If a problem arises after continuous usage at higher voltage, higher temperature, higher humidity, or at other extreme environmental conditions, please correct the problem.
- If a problem exists with the switcher, please reset the unit by pressing the RESET key for more than 2 seconds
- Make sure that all channels (inputs) are not OFF (i.e. RED LED is not ON next to the ALL OFF key).
- If you are using any controllable software or hardware to control the **MX2226AT**, then first verify operation of the unit using MX Control software available from the ALTINEX web-site:

[www.altinex.com](http://www.altinex.com). When using RS-232 commands to the switcher where the RX pin of the **MX2226AT** is connected to the TX pin of the computer, make sure that the cable is made according to the manual.

## ALTINEX POLICY

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### 11.1 LIMITED WARRANTY

ALTINEX warrants that its products and cables are free from defects in materials under normal use and service. This warranty is limited to repairing at company's factory any part or parts of the product, which upon company's examination shall disclose to be, thus defective. Products considered defective should be returned to company with transportation charges pre-paid within 2 years (90 days for cables) from date of shipment to the purchaser. The warranty is expressly instead of all other warranties expressed or implied. ALTINEX neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the products. This warranty shall not apply to any product that shall have been repaired or altered outside of company's factory in any way so as, in its judgment, to affect its stability or reliability, or that has been subject to misuse, negligence, or accident.

### 11.2 RETURN POLICY

It is very important to ALTINEX that you receive the products that you have ordered and that this product meets your expectations. In the unlikely event, that an ALTINEX product needs to be returned please follow the policy below:

ALTINEX will accept product returns for a period of 30 days from authorized ALTINEX dealers. Products must be returned in an unopened package.

If a product has been opened, the restocking fees will apply. For the restocking fee amount, please contact an ALTINEX Sales Representative.

If the product is in your possession for more than 30 days, the restocking fees will apply.

ALTINEX will not accept any returns on cables or custom products.

If your product is in warranty and needs service, contact the ALTINEX Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service.

If your product is out of warranty and needs service, contact the ALTINEX Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service. The service charges will be quoted to you before the actual repairs are done.

### 11.3 CONTACT INFORMATION

#### ALTINEX, INC.

592 Apollo Street  
Brea, CA 92821 USA

TEL: 714-990-2300

TOLL FREE: 1-800-ALTINEX

WEB: [www.altinex.com](http://www.altinex.com)

E-MAIL: [solutions@altinex.com](mailto:solutions@altinex.com)

FAX: 714-990-3303