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# MPX309/709 *Preliminary* Operation Manual

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**Color Video Comparator System**

**MicroImage Video Systems**  
division of World Video Sales Co., Inc

P.O. Box 331  
Boyertown, PA 19512  
610-754-6800  
Fax 610-754-9766  
info@mivs.com

**www.mivs.com**

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## Description

The MicroImage MPX309/709 is designed to combine the images from two color video cameras into one image. The images can be split on the screen showing a portion of each image or the two images may be mixed, or faded together as an overlay.

The images can be split in the horizontal or vertical direction. A lower right corner insert mode is also available. The A camera is always displayed on the left or top and the B camera is always displayed on the right or bottom. For the corner insert mode, the B camera is within the insert area in the lower right corner. The split portion can typically be adjusted over 100% of the screen area with the front panel control.

The Fade mode allows the two images to be added together. The mix can be adjusted over the full range from a full camera A image to a full camera B image.

The MicroImage PX701C9 is designed specifically to work seamlessly with the included YV209 color video cameras.

## Unpacking

The PIX/2 package includes the following items:

- PX701C9 controller
- DTS120150U Power Module
- 2 - CAB50415A camera cables
- 1 - CAB12006 S-Video cable
- This operation manual

Please inspect all items carefully and report damaged or missing items to your dealer or MicroImage Video Systems immediately.

## Connections

### Power

Plug the small connector on the cord end of the power module into the power input connector on the PIX/2 controller. Plug the power module into the proper power source.

## Cameras

Connect the CAMERA end of a CAB50415A cable from camera A to the Cam A input on the PIX/2 controller.

Connect the CAMERA end of the other CAB50415A cable to the connector on camera B and the PIX/2 labeled end to the PX701C9 Camera B input.

### Output

Connect the output of the PIX/2 to the video monitor or other output device.

## Operation

Once connected properly, the PIX/2 is easy to use. Following is a description of each switch and control. When first testing the PIX/2, place the MIX control in the center of its range.

### Power

Pressing the power switch will turn the power on or off. The green indicator next to the power switch will light to indicate power is on. This will also control power to the two YV209 color video cameras.

### Cam A

Pressing the Cam A switch will change the display to show 100% of the camera A image. An indicator to the right of the switch will indicate this mode is selected.

### H Split

Pressing this key will cause the screen to be split, adjusted by the MIX control. Camera A will be displayed on the left side and camera B on the right side. An indicator to the right of the switch will indicate this mode is selected.

### V Split

Pressing this key will cause the screen to be split, adjusted by the MIX control. Camera A will be displayed on the top and camera B on the bottom. An indicator to the right of the switch will indicate this mode is selected.

<b>Corner</b>	Pressing this key will cause camera B to be placed as a corner insert. Camera A will be displayed on the top and left and camera B will be displayed in a lower right corner insert. The insert size is adjusted by the MIX control. An indicator to the right of the switch will indicate this mode is selected.
<b>Fade</b>	Pressing this key will cause the camera images to be added together. The MIX control will adjust the amount of each image to be mixed and can fade completely from camera A to camera B images. An indicator to the right of the switch will indicate this mode is selected.
<b>Cam B</b>	Pressing the Cam B switch will change the display to show 100% of the camera A image. An indicator to the right of the switch will indicate this mode is selected.
<b>Mix</b>	The mix control is used to adjust the position of the split, the size of the corner insert, or the ratio of the fade. The control has no effect when the Cam A or Cam B switches are pressed.

### In case of difficulty

If you are experiencing problems with your MicroImage product, you can contact us in one of the following ways:

<b>Mail</b>	MicroImage Video Systems a division of World Video Sales Company, Inc. P.O. Box 331 Boyertown, PA 19512
<b>Phone</b>	610-754-6800
<b>Fax</b>	610-754-9766
<b>Email</b>	support@mivs.com
<b>Web</b>	www.mivs.com

### Specifications

<b>Image Sensor Type</b>	½" Interline transfer CCD
<b>Pixels</b>	768x494 monochrome (6.4mm x 4.8mm area)
<b>Lens Mount</b>	C/CS
<b>Pixel Clock Freq</b>	14.318180Mhz
<b>Horizontal Freq</b>	15.73426Khz
<b>Vertical Freq</b>	59.94Hz
<b>Shutter settings</b>	Off, 1/125, 1/250, 1/500, 1/2000, 1/4000, 1/10000
<b>Horiz Resolution</b>	600 lines
<b>S/N Ratio</b>	Greater than 48dB
<b>Gamma</b>	0.45 standard (1.0 factory optional - cable selected)
<b>Video Output Level</b>	1Vpp typical into 75 ohms
<b>Connectors (PX701C9)</b>	
PX Cam A & B	8 pin Mini-DIN female
RGB Output	9 Pin D-sub female
S-Video Output	4 Pin Mini-DIN female
PX Power	2.1mm coaxial power
<b>Sync System</b>	RS-170, EIA
<b>Bandwidth</b>	Greater than 30 Mhz
<b>Crosstalk</b>	Greater than 50dB
<b>Gain Match A to B</b>	Typically within 4%
<b>Temperature</b>	
Operating	0° ~ 40° C (32° ~ 104° F)
Storage	-40° ~ 60° C (-40° ~ 140° F)
<b>Humidity</b>	
Operating	10% ~ 85% RH(non-condensing)
Storage	5% ~ 95% RH(non-condensing)
<b>Power</b>	
Voltage	+11 to +13VDC (+12VDC typical), negative ground
Consumption	approx 1000mA total (including cameras)
Protection	Automatic electronic fuses, internal, self resetting
<b>Size</b>	
YV209	1.7"W x 2.0"H x 5.125"L (43 x 50 x 130mm)
PX701C9	6.5"W x 5.6"H x 1.6"L (165 x 142 x 40mm)
<b>Weight</b>	
YV209	12.4 oz (351.5g)
PX701C9	16oz (450g)
<b>Power Module</b>	
Part Number	DTS120150U
Type	Table top universal switcther, UL/CSA/CE
Voltage	100 ~ 240 VAC, 47-63 Hz

PX701C9 Manufactured in the USA by MicroImage Video Systems

## Warranty

MicroImage Video Systems warrants that each PX701C9 is free from defects due to faulty materials or improper workmanship for a period of one (1) year. MicroImage Video Systems further warrants that any part which proves defective in materials or workmanship within one (1) year, will be replaced or repaired at no cost to the user. Labor to replace defective parts will be done without charge, provided the equipment is returned to MicroImage Video Systems prepaid, insured and properly packaged. Prior return authorization must be obtained from MicroImage Video Systems.

### NOTE

This warranty covers the MicroImage PX701C9 only.

### CONDITIONS

This warranty is void if the warranted part has been altered or subjected to abuse or misuse. Defective parts must be returned to MicroImage Video Systems

### SOLE WARRANTY

This Warranty is in lieu of all other warranties expressed or implied including, without limitation, any implied warranty or any implied warranty of fitness for a particular purpose. MicroImage Video Systems shall have the final right to determination as to the existence and cause of any defect and its appropriate adjustment in accordance with the terms of this warranty. In no event shall MicroImage Video Systems be liable for any consequential or collateral damages.

## Returns

All returns MUST have an RMA number. Please call, fax or email for an RMA form. The RMA form will have the proper shipping address for returns.

Phone	610-754-6800
Fax	610-754-9766
Email	service@mivs.com