
PIX/2

Operation Manual

Video Split Screen and Fade Controller

PAL Format

Models

PX101EXP
PX101XCP
PX201EXP

MicroImage Video Systems

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Description

The MicroImage PIX/2 family of controllers is designed to combine the images from two 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 PIX/2 family consists of several products to work with a variety of cameras, both Black & White and Color. Each unit provides the proper signals and connectors to work correctly with the intended camera type. The units are designed to work with color and B&W cameras and are not just B&W units that happen to function "OK" with color cameras.

PIX/2 variations

PX101EXP	Designed to work with B&W or NTSC composite color cameras. The PX101EXP will not power the cameras.
PX101M1P/XCP	Designed to work with several industry standard B&W cameras. Both units will provide power for the cameras. The PX101XCP includes two camera cables with industry standard 12 pin connections for the cameras.
PX201EXP	Designed to work with S-Video (YC) color cameras.

Board Level and OEM PIX/2 products are also available.

Choosing the Correct Cameras

Choosing the correct cameras to use with the PIX/2 units is critical for proper operation. Camera A can be virtually any camera with the proper output signal (see below) but camera B **must** have full Genlock capability.

For B&W applications, the B camera must have a genlock input or H&V inputs to lock its timing to the A camera.

For color applications, the B camera must have a Genlock input and must provide an SC or Subcarrier phase control. This phase control is necessary to match the colors between the two cameras. Keep in mind that there are a number of cameras on the market that provide Genlock, but do not provide the SC phase control and these cameras are not compatible with the PIX/2 series.

Unpacking

The PIX/2 package includes the following items:

- PX101EXP, PX101M1P, PX101XCP, or PX201EXP controller
- DTS120150 Universal Power Module
- This operation manual
- 2 camera cables (PX101XCP Only)

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 video output from camera A to the Cam A input on the

PIX/2 controller with an appropriate video cable.

Connect the video output from camera B to the Cam B input on the PIX/2 controller with an appropriate video cable. Connect the Genlock input on the B camera to the Genlock connector on the PIX/2 with an appropriate cable. For H&V applications, a custom made cable may be necessary. For XC units, a single standard camera cable is provided for each camera, there is no separate Genlock/H&V connection.

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.
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.

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

the colors between the two cameras as close as possible.

Camera Adjustments

B&W Cameras

Insure that both cameras function in each mode. If the camera B image is floating left or right through the pictures, then there is a genlock problem. If the camera has an H Phase control, it can be used to adjust any left/right position errors.

Color Cameras

Insure that both cameras function in each mode. If the camera B image is floating left or right through the pictures, then there is a genlock problem. If the camera has an H Phase control, it can be used to adjust any left/right position errors.

Adjust the SC or Subcarrier phase control on Camera B to match

Cables

The following cables and products are available from MicroImage Video Systems to assist in system setup. These are not included in the PIX/2 system and are additional cost items.

CAB11001M	1 foot BNC cable
CAB11003	3 foot BNC cable
CAB11006	6 foot BNC cable
CAB11012	12 foot BNC cable
CAB11025	25 foot BNC cable
CAB11050	50 foot BNC cable
CAB11100M	100 foot BNC cable
CAB12001	1 foot S-Video (YC) cable
CAB12003	3 foot S-Video (YC) cable
CAB12006	6 foot S-Video (YC) cable
CAB12012	12 foot S-Video (YC) cable
CAB12020	20 foot S-Video (YC) cable
CAB12030	30 foot S-Video (YC) cable
CAB12050	50 foot S-Video (YC) cable
CAB12075	75 foot S-Video (YC) cable
CAB12100	100 foot S-Video (YC) cable
CAB14006	6 foot BNC to RCA cable (Typically used for connection to consumer VCRs)
VDA106	B&W or composite color BNC 1 in, 6 out Video Distribution Amplifier
VDA206	S-Video (YC) 1 in, 6 out Video Distribution Amplifier

In case of difficulty

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

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

Specifications

Input level

101EXP/M1P/XCP	1Vpp composite 75 Ω
201EXP only	Y-1Vpp comp 75 Ω , C-286mVpp Burst 75 Ω

Output level

All units	Composite, Y, C - Same as respective inputs $\pm 2\%$ into 75 Ω
All units	Genlock - 1Vpp composite video 75 Ω
101EXP/201EXP	H & V - 5Vpp no load or 1Vpp 75 Ω
101XCP only	Camera Power +12VDC @ 250mA max.

Connectors

PX101EXP	Cam A, Cam B, Out, Genlock - BNC female
PX101XCP	Cam A, Cam B - 8 pin mini-DIN female Out - BNC female
PX201EXP	Cam A, Cam B, Out - 4 pin mini-DIN female
All units	H & V - 6 pin mini DIN
All EX units	Genlock - BNC female

Sync System

Bandwidth

Crosstalk

Gain Match A to B

Temperature

Operating	0E - 40E C (32E - 104E F)
Storage	-40E - 60E C (-40E - 140E F)

Humidity

Operating	10% - 90% (non-condensing)
Storage	5% - 95% (non-condensing)

Power

Voltage	+12VDC +/- 10%
Consumption	160mA typical, 200mA max. (up to 600mA for M1P/XCP)
Protection	Automatic electronic fuse, internal, self resetting

Size

Weight

	5.6" (142 mm) x 6.2" (155 mm) x 1.2" (41mm)
	15 ox. (425 g)

Power Module

Part Number	DTS120150
Type	Universal input table top, UL approved
Voltage	100 - 240 VAC, 47-63 Hz universal
Consumption	9W max
Size	3.9" (99mm) x 1.9" (48 mm) x 1.4" (36 mm)
Weight	6.5 oz. (184g) without power cord USA style power cord included

Manufactured in the USA by MicroImage Video Systems

Warranty

MicroImage Video Systems warrants that each PX101EXP, PX101XCP, or PX201EXP 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 PX101EX, PX101XC PX201EX, or PX101EXP 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