

Model PG101  
Model PG201  
Model PG301  
Model PG401  
CrossLine Generator

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**MicroImage Video Systems**  
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Version PG401-00 Rev 00 09-30-2000 JWS

## UNPACKING

The Pattern Generator package includes the following items:

PG101/201/301/401 Pattern Generator Unit  
12VDC Power Supply  
This operation manual

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

## CONNECTIONS

### Power

The Pattern Generator uses a 12VDC wall plug power supply or an option universal table top power supply. For medical applications, a special low leakage power unit is also available. Connect the power supply to a suitable power source. This product will also operate from a external source of 9 to 20VDC

### Video Connections

The MicroImage Pattern Generator will operate with a variety of video signal formats. It automatically detects the correct signal. The model PG101 is for Composite Video and B&W video signal while the PG202 is for S-Video signal. The PG301 will operate with Composite/B&W or S-Video signals and the PG401 is for RGB/RGBS Applications.

### RGB Video (PG401 only)

Connect the video source (i.e. camera) Red, Green, Blue and Sync signals to the RGB IN connector on the Pattern Generator.

Connect the RGB OUT signals from the Pattern Generator to the video display.

Note that a special cable may be necessary in order to use the RGB signals. The PG401 uses 9 pin D-Sub connectors for RGB with

industry standard pin connections. Contact your dealer or MicroImage Video systems for the proper cable.

### S-Video (YC) (PG2101/301 only)

Connect the video source (i.e. camera) to the S-VIDEO IN connector on the Pattern Generator.

Connect the S-VIDEO OUT signal from the Pattern Generator to the video display.

The Pattern Generator uses industry standard mini-DIN connectors for S-Video

### Video (NTSC Composite or B&W) (PG101/301 only)

Connect the video source (i.e. camera) to the VIDEO IN connector on the Pattern Generator

Connect the VIDEO OUT signal from the Pattern Generator to the video display.

## OPERATION

The Pattern Generator is designed to be easy to operate while also providing maximum flexibility. All the controls are listed below.

**POWER SWITCH** The Power Switch and power indicator are located on the right side of the front panel. .

**OFF SWITCH** Depressing the off switch will illuminate the red LED next to the switch. Video will follow through the unit but the pattern will not be displayed.

**ON SWITCH** Depressing the on switch will illuminate the green LED next to the switch. It will also display the pattern stored in the unit.

## PATTERN STYLE

The PG101/PG201/PG301/PG401 Pattern Generator units contain a single custom generated pattern. This pattern cannot be altered by the user and is programmed into the unit.

## IN CASE OF DIFFICULTY

If you are experiencing problems with any MicroImage product, you can contact MicroImage Support using the following methods:

Phone	610-754-6800
Fax	610-754-9766
Email	support@mivs.com
Web	www.mivs.com

## SPECIFICATIONS

### Main Unit

Front panel switches	On, Off and Power
Line resolution	320 x 240 or 640 x 480
Sync system	RS170A (North American NTSC timing)
Genlock	Precision Phase Locked Loop (PLL)
Input levels	
NTSC	1.0 Vpp composite, 75 Û
S-Video	1.0 Vpp (Y), 0.286 Vpp burst (C), 75 Û
RGB	0.715 Vpp non-comp / 1.0 Vpp comp, 75 Û
Sync	0.3 - 4 Vpp, 75 Û
Output levels	
NTSC, S-Video, RGB	Same as respective input ±5% into 75 Û
Sync	Same as input level, up to 2 Vpp.
Bandwidth	Greater than 30 MHz
Connectors	
NTSC / SYNC	BNC Female
S-Video	4 pin mini-DIN Female (Std. S-Video conn.)
RGSB	9 pin D-sub female
Temperature	
Operating	0° ~ 40° C (32° ~ 104° F)
Storage	-40° ~ 60° C (-40° ~ 140° F)
Humidity	
Operating	10% ~ 90% (non-condensing)
Storage	5% ~ 95% (non-condensing)
Power	9 - 20 VDC, 3W max
Size	5.6" (142 mm) x 6.2" (155 mm) x 1.2" (41 mm)
Weight	15 oz. (425 g)
Manufactured in Bechtelsville, PA USA by MicroImage Video Systems	

### Standard Power Unit - Wall Plug

Part Number	DPD120050-P5
Input	120VAC, 60Hz, 9W
Output	12VDC, 500mA non-regulated
Type	Linear, very low leakage
Size	3.2" (78mm) x 1.9" (48mm) x 1.3" (32mm)
Weight	8 oz. (227g)

### Option 220 Power Unit - table top with universal input

Part Number	DTS120150U/AC1-P5
Input	Universal, 100-240VAC, 47-63Hz, 0.4A, 3wire
Output	12VDC, 1.5A, regulated
Type	Switching, leakage about 160uA
Size	3.9" (99mm) x 1.9" (48mm) x 1.4" (36mm)
Weight	6.5 oz. (184g) without power cord Includes 120V US 3 wire power cord

## WARRANTY

MicroImage Video Systems warrants that each Pattern Generator 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 Pattern Generator 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](mailto:service@mivs.com)