Fixed Pattern Generator

Instruction Manual

Models PG100, PG300, PG700

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Contents

Features

- High Resolution fixed position pattern generator (512 x 240 pixel resolution)
- Processes RGB (PG700 only) and YC(PG300&700 only) and NTSC or Monochrome signals simultaneously
- Intelligent logic determines which signals are used - No switches to set
- Easy to use

Unpacking Instructions

The MicroImage Fixed Pattern Generator consists of:

MicroImage PG100, PG300 or PG700 Fixed Pattern Generator unit
Detachable 3 wire power cord
This instruction manual

Unpack all items carefully.

Inspect Unit to make sure that there was not any shipping damage. If there was shipping damage, call MicroImage Video Systems Immediately. Do NOT plug unit into power if damaged.

Connections

The MicroImage Model Fixed Pattern Generator is capable of processing up to three different video sources at the same time. These are RGB, YC(S-Video) and either NTSC or B&W video (see below). The only requirement is that all inputs MUST be from the same sync source (i.e. All from the same camera). If the signals are from different sync sources, some of the images may appear to "float" around the picture. If only one source is connected, the unit will automatically configure itself to use the timing information from that source. There are no switches to set for signal or sync type as in some other products.

The model PG100 will process only NTSC or B&W video. The model PG300 will process YC signals in addition to either NTSC or B&W signals while the PG700 will accommodate all these signals plus RGB & Sync.

NTSC or B&W

Connect a BNC cable from the video source (i.e. Video Camera) NTSC or VIDEO output connector to the NTSC IN connector on the Fixed Pattern Generator.

Connect another BNC cable from the NTSC OUT connector on the Fixed Pattern Generator to the VIDEO IN connector on the monitor. If this is the only monitor being used, place the TERM switch in the 75Ω TERM position.

If a second monitor is being used, please consult the monitor manual for proper looping and termination procedures. Not all monitors terminate the same way. Some monitors do not have looping capability, in this case

a Video Distribution Amplifier will be required. An improperly terminated monitor will result in a degraded picture.

S-Video (YC)

Connect a YC (S-Video) cable from the video source (i.e. Video Camera) YC or S-Video output connector to the YC IN connector on the Fixed Pattern Generator. A special YC adapter cable may be required for some cameras.

Connect another YC (4 pin to 4 pin) cable from the YC OUT connector on the Fixed Pattern Generator to the YC IN (S-Video) Connector on the monitor. If only one YC monitor is being used, place the YC TERM switch in TERM or 75Ω position.

If a second YC monitor is being used, please consult the monitor manual for proper looping and termination procedures. Not all monitors terminate the same way. Many monitors do not have looping YC capability, in this case a YC Distribution Amplifier will be required. An improperly terminated monitor will result in a degraded picture.

RGB

Connect Red, Green, Blue and if required, Sync Cables from the video source (i.e. Video Camera) RGB output to the RED IN, GREEN IN, BLUE IN and if required, SYNC IN connectors of the Fixed Pattern Generator.

Connect RED, GREEN, BLUE and if required SYNC cables from the RED, GREEN, BLUE and SYNC OUT connectors on the Fixed Pattern Generator to the appropriate connectors on the monitor. If only one RGB monitor is being used, place the RGB and SYNC TERM switches in TERM or 75Ω position.

If a second RGB monitor is being used, please consult the monitor manual for proper looping and termination procedures. Not all monitors terminate the same way. Many monitors do not have looping RGB capability, in this case a RGB Distribution Amplifier will be required. An improperly terminated monitor will result in a degraded picture.

VCR Connections

The NTSC and YC signals may be recorded on videotape. Recorders to record RGB signals directly are very rare. High resolution VCRs such as the S-VHS type will give higher quality recordings than standard VCRs. Use of the YC signal with these VCRs will provide the highest resolution. The combination of RGB for real time display and YC for recording is the optimum way to obtain best picture quality.

NTSC

Connect an appropriate cable from the camera or other video source to the NTSC IN connector on the Fixed Pattern Generator.

Connect another cable from the NTSC OUT connector of the Fixed Pattern Generator to the VIDEO IN connector on the VCR. Note that adapters or special cables may be required.

Connect a cable from the VIDEO OUT connector of the VCR to the Video or NTSC INPUT connector of an NTSC monitor as described in the VCR instruction manual.

DO NOT connect the above signals to the Antenna or ANT connectors on the VCR.

S-Video (YC)

Connect a S-Video (YC) cable from the camera or other video source to the YC INPUT connector on the Fixed Pattern Generator. Note that a special adapter cable may be required for some cameras.

Connect a YC (S-Video) cable from the YC OUT connector on the Fixed Pattern Generator to the S-Video INPUT connector on the VCR. Note that a VCR with YC capability such as an S-VHS VCR must be used.

Connect a YC (S-Video) cable from the S-Video OUTPUT connector on the VCR to the YC or S-Video INPUT connector on a YC monitor as described in the VCR instruction manual.

If the VCR has a switch to select NTSC(Video) or S-Video, Place the switch in the S-Video position. See the VCR operation manual for more information.

NOTE: The above VCR connections are for recording the Fixed Pattern Generator image on the video tape.

Operating Instructions

Connect Unit as specified in the ***Connections*** section of this manual.

Plug power cord into POWER connector on rear of unit.

Plug power cord into 120 VAC 60Hz AC power.

Turn on power. The green power indicator in the switch should come on.

Controls

DISPLAY SWITCH -	This switch turns the Pattern Generator display image on and off. The display is on when the LED in the switch is illuminated.
INTENSITY SWITCH -	This switch cycles the brightness level of the pattern from black to white. One of eight (8) brightness steps may be selected.

VCR Operation

For normal use, the Fixed Pattern Generator and the VCR may be left connected. However, both the Fixed Pattern Generator and the VCR (along with any other connected equipment) must have their power turned on in order to see a proper camera image on the video monitor. For camera operation without the Fixed Pattern Generator image, press the display switch to turn off the Fixed Pattern Generator display. A recording can then be made without

the Fixed Pattern Generator image. If the VCR is connected properly, it should pass the camera (and Fixed Pattern Generator image) just as if the VCR was not connected. If PLAY is pressed on the VCR, then you should see the video tape picture instead of the current camera image.

The exact procedure for recording and playing tapes on a VCR varies between different models. It is impossible to describe all the methods here. Please refer to your VCR operation manual BEFORE calling MicroImage Video Systems. If calling MicroImage Video Systems for assistance on VCR connection problems, please have the VCR operation manual handy. Manuals for other equipment are also good to have at hand. Not all VCR related problems are the VCR.

Precautions

DO NOT open unit. Lethal voltages are present inside. Refer servicing to authorized personnel.

DO NOT allow water or moisture to enter unit. Injury and/or damage may result.

Connect unit only to 110-125 VAC 50/60Hz.

Clean unit with only a mild cleaner. Strong cleaners may damage the finish. Spray cleaner on to a soft cloth and then wipe unit. NEVER spray cleaner directly into any electronic product. A lethal or severe shock may result!

Please put all manuals for a system in a safe place where they are easily found.

In Case of Difficulty

1 - No Picture:

Check all connections.

Make sure power is connected and unit is turned on. Power light should be illuminated.

Check camera and monitor for proper operation by connecting camera directly to monitor.

2 - Camera Picture on screen but no Fixed Pattern Generator image:

Make sure DISPLAY switch is on (indicated by red LED in switch)

Press INTENSITY switch several times. The Pattern Generator image may be "lost" in the picture.

3 - If the above steps do not solve the problem, contact MicroImage Video Systems. Many problems can be solved over the phone.

Technical Assistance

World Video Sales Co., Inc.
P.O. Box 331
Boyertown, PA 19512
Attention: Customer Service
Phone: (610) 754-6800

Specifications

Input Levels:	
NTSC	1.0 Vpp Composite, 75 Ω
YC	1.0 Vpp (Y), 75 Ω
	0.286 Vpp Burst Level (C), 75 Ω
RGBS	0.714 Vpp Non-composite (RGB), 75 Ω
	0.3 ~ 5.0 Vpp (Sync), 75 Ω
Output Levels:	Same as respective inputs ±5% into 75 Ω
Connectors:	
NTSC	BNC Female
YC	4 pin mini-DIN Female (Std. S-Video conn.)
RGBS	BNC Female
Matte Levels	from approx. 5% (Black) to 90% (White)
Bandwidth	Greater than 10Mhz
Temperature:	
Operating	0° ~ 40° C (32° ~ 104° F)
Storage	-40° ~ 60° C (-40° ~ 140° F)
Humidity:	
Operating	10% ~ 90% (noncondensing)
Storage	0% ~ 95% (noncondensing)
Power:	
Voltage	120 VAC 50/60 Hz
Consumption	25W max.
Size	11.6(W) x 10.2(D) x 2.5(H)
Weight	Approx. 7 lbs.

Specifications are subject to change without notice.

MicroImage Video Camera Systems

MicroImage Video Pointers

MicroImage Video Timer / Titlers

MicroImage Video Distribution Amplifiers (VDA)

MicroImage Split Screen Controllers

MicroImage Video Faders

MicroImage CrossLine Generators

MicroImage Passive Switch Boxes

CABLES

CAB11001	1 ft. BNC to BNC Cable
CAB11003	3 ft BNC to BNC Cable
CAB11006	6 ft BNC to BNC Cable
CAB11012	12 ft BNC to BNC Cable
CAB11025	25 ft BNC to BNC Cable
CAB12001	1 ft. S-Video (YC) Cable
CAB12006	6 ft S-Video (YC) Cable
CAB12012	12 ft S-Video (YC) Cable
CAB12020	20 ft S-Video (YC) Cable
CAB13006	6 ft RGBS BNC to BNC Cable set
CAB13010	10 ft RGBS BNC to BNC Cable set
CAB13015	15 ft RGBS BNC to BNC Cable set

MicroImage Camera adapter cables. Call MicroImage Video Systems for information regarding specific part numbers for different MicroImage cameras.

Call MicroImage Video Systems to check availability of cables not listed above.

All above items may be ordered from your MicroImage Video Systems Dealer.

World Video Sales Co., Inc. warrants that each MicroImage Fixed Pattern Generator is free of defects due to faulty materials or improper workmanship. World Video Sales Co., Inc. further warrants that any part which proves defective in materials or workmanship, within one 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 World Video Sales Co., Inc. prepaid, insured and properly packaged. Prior return authorization must be obtained from World Video Sales Co., Inc.

NOTE

This warranty covers the MicroImage Fixed 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 World Video Sales Co., Inc.

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. World Video Sales Co., Inc. 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 World Video Sales Co., Inc. be liable for any consequential or collateral damages.

Please call for a RMA Number and shipping address on all repairs.

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625 Hoffmansville Road
Suite 3
Bechtelsville, PA 19505
Attention: <RMA#>
Phone: (610) 754-6800