
Color Bar Generator Operation Manual

NTSC/RS170/PAL/CCIR

Model CBG310F (Full Field)
Model CBG310S (Split Field)

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UNPACKING

The Color Bar Generator package includes the following items:

CBG310 Color Bar Generator Unit
6VDC 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 Color Bar Generator uses a 6VDC wall plug power supply. Connect the power supply to a suitable power outlet. This product will also operate from an external source of 5 to 7VDC, negative ground.

Composite Video Connections

The MicroImage Color Bar Generator will produce both composite and S-video outputs. Connect a suitable length video cable from the industry standard BNC output connector on the color bar generator to a 75 ohm terminated input of a video monitor or other video equipment. See the manuals provided with your other equipment for information on 75 ohm termination.

S-Video (YC) Connections

The MicroImage Color Bar Generator will produce both composite and S-video outputs. Connect a suitable length S-video cable from the industry standard 4 pin mini-DIN connector on the color bar generator to a terminated S-video input of a video monitor or other video equipment. See the manuals provided with your other equipment for information on 75 ohm termination.

NTSC/PAL SELECTION

The Color Bar Generator is designed to be easy to operate while also providing maximum flexibility, producing either NTSC or PAL compatible color bars.

An internal jumper allows the Color Bar Generator to select between NTSC and PAL color bars. To access the jumper, disconnect power, then remove the two philips screws holding either the front or back panel of the unit. Observe proper anti-static handling precautions. The circuit board should slide out of the housing.

For PAL operation, a small jumper should be placed across the 14 pin header labeled J7 at location G. These should be the two pins at the front end of the header. For NTSC operation, this jumper should be removed. When not in use, the jumper may be stored by placing it on only one of the pins.

When re-assembling the unit, the board should slide into the second lowest slot in the housing. Reinsert the two philips screws and tighten until snug. Do not apply excessive torque, or either the plastic end bezel or the housing threads may be damaged.

PATTERN TYPES

The CBG310F produces 8 vertical full field 100/75 digitally generated and encoded Color Bars.

The CBG310S produces SMPTE style ITU-BT656 digitally generated and encoded split field color bars.

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

CBG310S

Bar Type	SMPT E style, split field with reverse bars and pluge
Top bar order	75% - Gray, Yellow, Cyan, Green, Magenta, Red, Blue
Reverse bar order	75% - Blue, Black, Magenta, Black, Cyan, Black, Gray
Bottom row order	-I, White, Q, Black, Pluge (-4, 0, +4), Black
Generation Method	Digital, ITU-BT656 source, 4:2:2, MicroImage logic

CBG310F

Bar Type	Full field
Bar order	Gray, Yellow, Cyan, Green, Magenta, Red, Blue, Black

ALL UNITS

Digital to Analog conversion	10 bit, 2X oversampled (27MHz)
Modulation	Digital
Filtering	Anti-Aliasing filters on all output signals
Sync system	NTSC RS170A, PAL/CCIR
Chroma frequency	NTSC/RS170 - 3.579545MHz, PAL/CCIR - 4.43MHz
Horizontal frequency	NTSC/RS170 - 15.73426KHz, PAL/CCIR - 15.625KHz
Vertical frequency	NTSC/RS170 - 59.94Hz, PAL/CCIR - 50Hz
Scan lines	NTSC/RS170 - 525 total, PAL/CCIR - 625 total
Output levels	
Composite	1.00Vpp into 75 Ω , internal trim adjustment
S-video Y	1.00Vpp into 75 Ω , internal trim adjustment
S-video C	286mV burst into 75 Ω , internal trim adjustment
Connectors	
Composite	BNC Female
S-Video	4 pin mini-DIN Female (Std. S-Video conn.)
Power	2.5mm female phone jack, tip positive
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	5 - 7 VDC, 3W max
Size	3.9" (100 mm) x 2.8" (70 mm) x 1.2" (29 mm)
Weight	5 oz. (145 g)
Manufactured in Bechtelsville, PA USA by MicroImage Video Systems	

Standard Power Unit - 6VDC Wall Plug

Part Number	DPD060020-P1P
Input	120VAC, 60Hz, 9W
Output	6VDC, 200mA non-regulated
Type	Linear, very low leakage
Size	3.2" (78mm) x 1.9" (48mm) x 1.3" (32mm)
Weight	8 oz. (227g)

Specifications are subject to change without notice.

WARRANTY

MicroImage Video Systems warrants that each Color Bar 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 Color Bar 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
Mail service@mivs.com