

Model CL741
CrossLine Generator

Microlmage Video Systems
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Version CL741-00 Rev 00 05-07-1998 JWS

UNPACKING

The CL741 package includes the following items:

CL741 CrossLine Unit
CAB05006 Power Cord
This Operation Manual

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

CONNECTIONS

Power

The CL741 uses an industry standard, detachable 3 wire power cord which is included with the unit. For medical applications, a special low leakage cord (part # CAB01006) is available. Connect the cord to a suitable power source of 120VAC, 50-60 Hz.

Video Connections

The MicroImage CL741 Video CrossLine Generator will operate with a variety of video signal formats. It automatically detects the correct signal. The CL741 can process and drive all signals at the same time, however all signals must be synchronous (from the same source).

RGB Video

Connect the video source (i.e. camera) Red, Green, Blue and Sync signals to the RGB IN connector on the CL741.

Connect the RGB OUT signals from the CL741 to the video display.

Note that a special cable may be necessary in order to use the RGB signals. The CL741 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)

Connect the video source (i.e. camera) to the S-VIDEO IN connector on the CL741.

Connect the S-VIDEO OUT signal from the CL741 to the video display.

The CL741 uses industry standard mini-DIN connectors for S-Video

Video (NTSC Composite or B&W)

Connect the video source (i.e. camera) to the VIDEO IN connector on the CL741.

Connect the VIDEO OUT signal from the CL741 to the video display.

OPERATION

The CL741 is designed to be easy to operate while also providing maximum flexibility. All the controls are listed below.

POWER

The Power Switch and power indicator are located on the right side of the front panel. When power is first applied, the other four front panel lamps should blink briefly while the power indicator remains illuminated.

Axis controls

These controls adjust the position of the lines. Two controls are for the X axis (left to right movement) and two controls are for the Y axis (up and down movement).

LOCK

There is a lock switch for each set of controls (2 total). Press this switch to lock the controls so the associated lines will not be moved if a control is accidentally altered. An LED will light to indicate that the control is locked.

ENABLE

There are four ENABLE switches, one for each

axis. Pressing the switch cycles through three settings for the affected control. The settings are OFF (line not visible), SOLID (continuous line) and SERRATED (dashed line).

BOX Pressing this switch enables the box mode. Pressing it again changes the unit back to line mode. When the CL741 is placed into box mode, all lines are enabled automatically.

ABS Absolute mode is where all lines operate independently. An LED lights to indicate absolute mode. When the LED is off, the unit is in Relative mode. In relative mode, the distance between a set of lines is adjusted by one axis control while the position of both lines is adjusted by the other same axis control.

DISP The Display switch will turn all lines on or off. An LED indicates if the display is turned on.

B/W The Black/White switch selects the brightness of the lines (black or white).

In addition to the front panel controls, the CL741 has a rear panel dip switch with four switches. These switches are used to alter the operation of the device. At this time, only one of the switches (# 1) is used. They are numbered 1 through 4.

Dip Switch 1 In the off position, interlace mode is selected. The on position selects non-interlace mode.

Interlace mode generates less flicker on a video monitor but has thicker Y-axis lines.

Non-Interlace mode generates thinner lines that are the same thickness as the X-axis lines but results in more flicker. The amount of flicker depends on the monitor used. Non-Interlace may generate much clearer lines if a video printer is used or if captured into a computer.

RS232 REMOTE CONTROL

In order to use the RS232 port to control or query the CL741, custom software must be written or a standard MicroImage software package can be used (available separately). A manual describing how to control the unit is available from MicroImage Video Systems for a nominal charge. This information may also be available on the MicroImage web site at www.mivs.com

When RS232 control is used, it may affect the operation of the front panel switches and controls depending on how the modes are set by the remote software. Not all CL741 units have RS232 remote capability.

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

Front panel controls	Line position controls (2 X and 2 Y axis), multi turn, precision optical encoders
Front panel switches	Display on / off, Position lock (2), B/W, Absolute mode, Box mode, Individual Line Enables (4) and Power
Remote port (optional)	RS-232 - 8 pin mini Din connector
Data rate	9600 baud, 7 data bits, even parity, 1 stop bit
Data format	MicroImage Control Language (MICL)
X axis line width	81.5 μ S (12.27Mhz)
Y axis line width	2 scan lines (interlaced) 1 scan line (non-interlaced)
Line resolution	640 x 480 (Interlaced) Square pixel 640 x 240 (non-interlaced)
Adjustment range	100% of raster typical
Sync system	RS170A (North American NTSC timing)
Genlock	Precision Phase Locked Loop (PLL)
Input levels	
NTSC	1.0 Vpp composite, 75 \bar{U}
S-Video	1.0 Vpp (Y), 0.286 Vpp burst (C), 75 \bar{U}
RGB	0.715 Vpp non-comp / 1.0 Vpp comp, 75 \bar{U}
Sync	0.3 - 4 Vpp, 75 \bar{U}
Output levels	
NTSC, S-Video, RGB	Same as respective input \pm 5% into 75 \bar{U}
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.)
RGBS	9 pin D-sub female
Temperature	
Operating	0° ~ 40° C (32° ~ 104° F)
Storage	-40° ~ 60° C (-40° ~ 140° F)
Humidity	
Operating	10% ~ 90% (noncondensing)
Storage	5% ~ 95% (noncondensing)
Power	
Voltage	110 ~ 125 VAC 50/60 Hz (230 VAC optional, contact factory)
Consumption	12W
Size	8.5" (W) x 7.2" (D) x 2.25" (H) 216 mm (W) x 183 mm (D) x 57 mm (H)
Weight	2.25 lbs

Manufactured in Bechtelsville, PA USA by MicroImage Video Systems

WARRANTY

MicroImage Video Systems warrants that each CL741 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 CL741 Video CrossLine 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