

Sencore VideoPro Generators — Jack of all Trades

The Sencore VP400, VP401, and VP403 VideoPro Multimedia Video Generators are veritable "jack of all trades" tools for video signal generation. They provide a full range of features to assist you in testing and calibrating all types of flat panel, CRT, rear projection, and front projection displays.

The VideoPro generators provide you with a full range of signal types, formats, and test patterns for testing all displays large to small, low resolution to high resolution, with analog or digital inputs. Plus, they go anywhere you need to operate - in the home, in the factory, or in the field.



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All Signal Types

The VideoPro Video Generators provide you with all the signal types you need, whether you are testing or calibrating analog or digital input video monitors, integrated HD receivers, computer monitors, or projectors. These signal types include composite, s-video, NTSC and ATSC RF, YPbPr component, RGBHV, DVI/HDMI, and SDI/HDSDI.

Depending on your individual needs, you can get a VideoPro generator configured to provide the types of video or computer monitor test signals that you need to boost your productivity when you are testing or calibrating any type of display. Eight different model combinations of the VP40x means there is a VideoPro model just right to fill your needs. The following table specifies the available analog and digital signal types from each of the VideoPro generator models.

	VP400	VP400SH	VP401	VP401SH	VP403	VP403SH	VP403C	VP403C SH
Analog Video Signals								
SD and HD component video signals (YPbPr)	■	■	■	■	■	■	■	■
SD and HD RGB signals	■	■	■	■	■	■	■	■
VESA/Mac RGB computer monitor signals	■	■	■	■	■	■	■	■
NTSC and PAL composite and s-video signals	■	■	■	■	■	■	■	■
NTSC RF-modulated signals					■	■	■	■
Digital Video Signals								
SD and HD DVI/HDMI video signals			■	■	■	■	■	■
VESA/Mac DVI/HDMI computer monitor signals			■	■	■	■	■	■
SDI and HDSDI serial video signals		■		■		■		■
SD and HD ATSC RF 8VSB video signals					■	■	■	■
ATSC RF photo images and motion video clips							■	■

Table 1. Analog and Digital Signal Types Available in Sencore VideoPro models.

All Formats

You usually need a full range of signal formats when you are testing or calibrating video or computer monitor displays, to match the full range of normal input signals to the display you are working with. You may need low resolution NTSC video signals or VGA computer monitor signals, for compatibility with legacy, low-resolution signal sources. Plus, you probably need high resolution 1080p video signals or 1600 x 1200 (or higher) computer monitor signals to match current generation higher-resolution signal sources.

The VideoPro generators provide a full range of signal formats, at low, medium, and high resolutions, to substitute for all the normal signal sources that feed the displays you test and calibrate. The current firmware version (v2.10s) of the VideoPro generators provides:

- 22 analog YPbPr and RGB video formats
- 24 digital DVI/HDMI video formats

- 18 digital DVI/HDMI computer monitor formats
- 55 analog RGB computer monitor formats
- 13 digital SDI/HDSDI video formats
- 18 digital ATSC RF video formats
- NTSC and PAL composite (CVBS), s-video, YPbPr, and RGB formats

1080p Upgrade Program

The 1080p YPbPr and RGB analog video formats have always been available from the VP40x VideoPro generators. Now there is a factory-installed firmware upgrade (version 2.10) available for the newer VideoPro generators that also provides three new 1080p digital formats over the DVI/HDMI interface. These resolutions are 1080p60, 1080p59, and 1080p50. Most new video displays support these resolutions, and previously there has been no handheld generator available to drive these signals.

Due to unit revisions required to support this firmware upgrade, this is a factory service upgrade, offered for \$199, and includes shipping both ways and calibration. This upgrade is available for the newer VP401, VP401SH, VP403, VP403SH, VP403C, and VP403CSH models. There are two ways to tell if this upgrade is available for a VideoPro you already own:

- 1) there is an "SDI/HDSDI" label on the output jack panel; or
- 2) the firmware version is 2.0x (shown at the bottom of the startup screen).

To get your generator upgraded, fill out the form at <http://www.sencore.com/forms/servicerua.asp>. A service representative from Sencore will provide you with an RMA number and schedule the pickup.

Full Range of Test Patterns

The VideoPro video generators provide a full range of test patterns, to support your display testing and calibration needs. The VideoPro generators provide 26 innovative test patterns. These include PLUGE patterns for adjusting display black level, patterns for testing or adjusting peak white level, color/tint, sharpness/edge enhance, white balance/grayscale tracking, color decoder, size/centering, video frequency response, and many others.



Figure 1. The Sencore VideoPro provides a full range of test patterns.

The complete selection of test patterns makes it easy for you to quickly perform desired display tests and calibration adjustments. Plus, the VideoPro generators provide:

- Window and Raster pattern 0 to 100 IRE level changes
- Red, green, and blue test pattern color gating, except on ATSC RF output
- NTSC/PAL 0/7.5 IRE black level setup selection

LG Patterns

Some LG brand displays are able to auto calibrate the internal video processor board's voltage levels after that board has been replaced. To do this, the display requires two special color bar test patterns, with known colors and white levels. These special LG service patterns are also included on the VP40x video generators.

Video Clips

Motion video test clips are available at 720p and 1080i, and photo still images are available at 480i, 480p, 720p and 1080i from the ATSC RF output on the VP403C and VP403CSH. The motion video clips include movies of hot-air balloons taking flight, and beautiful Hawaii nature scenes. For more information, see [Motion Video from a Handheld Battery Operated Generator??](#)

This actual program material allows you to verify proper operation with high quality, true high definition motion and still pictures, even when another HD source is not available. This ATSC RF signal plays through the integrated tuner input on an HDTV receiver.

Miscellaneous

The VideoPro generators also include a number of miscellaneous features that help make your video display, projector, or computer monitor display testing more convenient and comprehensive. These include:

- Handheld, battery operated, for convenient all day operation
- Automated control capability from calibration software
- Optional HDCP compatibility testing over DVI/HDMI
- Auto pattern rotate for burn-in protection

Try One Today

To learn more about the Sencore VideoPro generators, or to find out how you can try one at your location, call Sencore at 1-800-SEN CORE (736-2673), or visit us on the web at <http://www.sencore.com>. Discover how a Sencore VideoPro video generator can enhance your display testing and calibration.

Learn more - VP40x VideoPro Multimedia Video Generators: <http://www.sencore.com/vp400/index.htm>

Learn more - VP403C VideoPro Multimedia Video Generator with video clips: <http://www.sencore.com/products/vp403c.htm>

Learn more - VP40x-SH VideoPro SDI-HDSI Multimedia Video Generator: <http://www.sencore.com/products/vp40xsh.htm>