



LV5330 Portable HD/SD-SDI Monitor

- Highly portable, on your camera or in a soft carrying case yet rackmountable or stand-alone in your edit bay!
- Adds precision to any HD or SD production and helps avoid costly post-production headaches and reshoots!
- Engineering & Creative/Visual Tools Included.
- Multiple Screen Views & Captured Content Overlays Help Enhance Production Workflow.
- Error Logs Facilitate Automatic Material Quality Control.
- Screen Captures To USB drive for improved reporting and communication.
- Ethernet And Remote Control Capabilities.
- Available in both standard and rasterizer configurations.





LV5330 Portable HD/SD-SDI Monitor & LV7330 HD/SD-SDI Rasterizer Features

Equipped with the latest innovations in pro-video monitoring and test, the LV5330 and LV7330 represent a revolutionary solution for production and studio professionals. The instruments were

developed specifically to address the needs of both creative and technical talent, providing information in a variety of easy to use and easy to understand displays.

On-Picture measurements as well as true-color and false-color displays allow unprecedented understanding over picture levels and improve collaborative work between creative and technical personnel while providing the direction needed for the post production process.

Various multi-display combinations allow for complete and easy monitoring while full-screen presentations provide a wealth of information and enable detailed review of the material.





Picture, waveform, vector, 5-bar, audio, status as well as CINELITE and CINEZONE displays provide all of the features needed in the field and in the rack. USB drive connectivity allows you to capture pictures for documentation purposes, personalize presets and perform software updates. The LV7330 provides a DVI-I output for connection to your monitor. The LV5330 has a built-in display but no DVI output. Both instruments operate using the same software and specifications, The LV7730 adds analog audio input capabilities, expanded audio monitoring features and the ability to display Vector and 5-Bar representations on it's quad display.

- Monitors 2 HD/SD-SDI Sources And Displays Picture, CINELITE, CINEZONE, Waveform, Vector, 5-Bar, Audio and Status Displays In Various Combinations.
- Optional Histogram Display Is Now Available.
- Built-In, 6.5 inch TFT-LCD XGA Display (1024 x 768) For Superb, Crisp Waveforms And Picture Representations.
- CINELITE On-Picture Measurements, CINEZONE false color displays and peaking function facilitate quick camera focus and exposure setups.
- Effortlessly Monitors R,G,B Levels & Composite Gamut With Innovative 5-Bar Display.
- Time-Code Referenced Gamut Error Logs Facilitate Material Q/A And Improve Work Flows.
- User Settable Error Levels & Alarms Facilitate Worry-Free Monitoring.
- Embedded Audio Is Displayed And 2 Audio Channels (User Selectable) Are Fed To A Headphone Monitoring Output.
- Pictures And Waveform Representations Can Be Captured , Reviewed And Compared To Live.
- USB Connector Allows The Use Of A Jump-Drive For Storing Captured Screens, Presets And Software / Firmware Updates.
- 30 Presets Permit Quick Access To Setups; USB Storage Of Presets Allows Each User To Personalize The Instrument.
- Provides HD/SD-SDI Switched Output Of The Selected Source.
- Accepts Black-Burst As Well As Tri-Level Sync For External Reference And Facilitates System Timing.
- Rack-mounts In A Half-Rack Wide By 3 Rack High Space.
- Mounts on tripod (top and bottom mounts).
- Lightweight & Compact; 2.9 lbs, 8.5(W) x 5.5(H) x 2.6(D) inches.
- 10 18 Vdc Operation (XLR); AC Adaptor sold separately.
- Battery Attachment Plate Is Optional.

LV5330 & LV7330 Display Modes Summary

These instruments provide a number of operating modes and displays including picture, CINELITE, CINEZONE, waveform, vector, audio and status individually or in several screen combinations. The following provides some detail as to the operation of these modes :



When only the best will do, the LV5330's built-in XGA TFT color LCD really produces a dazzling image; it has to be seen live to appreciate its high resolution and superb contrast range. Picture display provides facilities for a variety of aspect ratios and markers. RGB ON/OFF control allows the observation of each RGB combination. A focus-assist function adjusts for aperture providing a crisper look for in-focus areas. Digital full-line-select has an onscreen strobe that is locked in picture, waveform, vectorscope and data dump modes to facilitate investigation of any sample within the raster.

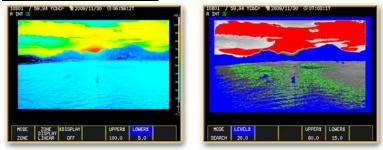
A zoom function allows for a pixel-for-pixel examination of picture detail. The screen can be captured and superimposed on live; screen captures can also be saved to USB thumb-drive for documentation purposes.

CINELITE DISPLAY



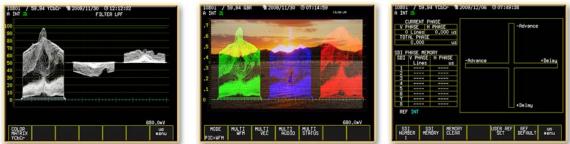
CINELITE provides on-picture cursor measurements in luminance (Y%), RGB levels or f-stops. Up to three simultaneous cursors are provided and the instrument reports the exact position of each cursor (line number and sample number). The spot being measured can be any absolute pixel or averaged in 3x3 or 5x5 pixel cells. Measurements are recordable via screen capture and provide an excellent way to provide level & color matching directions to other crews for consistency or to communicate post production expectations. As well, video centric measurements (Y%, RGB%) and film centric measurements (f-stops) allow DPs and DITs a clear means of communication during production.

CINEZONE DISPLAY



This new display from LEADER provides an instant view of luminance conditions in any composition. The instrument overlays false-colors on the image; the colors represent a rainbow scale – red representing highlights and blue representing shadows with the rest of the rainbow representing the values in-between. Top (highlights) and bottom (shadows) levels are adjustable allowing the user to zero in on any specific value range he desires.

WAVEFORM DISPLAY & TIMING DISPLAY



The XGA TFT LCD has a CRT-like quality for viewing high definition details, monoscope, sweep or multiburst to 30 MHz. There are separate intensity adjusts for waveform and targets. A full featured waveform monitor inclusive of various sweep speeds, expansion modes and cursors provides all of the facilities engineering would require for making adjustments and for troubleshooting. Waveforms are internally converted and displayed in various modes including Y, Pb, Pr, RGB and composite. YPbPr for engineering, RGB for creative and composite for those who need it. As well, the instrument provides comprehensive and easy to use facilities making system timing a snap! And, yes, the waveform can be superimposed on the picture (or not) and the RGB colors can be set to something other than the holiday colors shown above i.

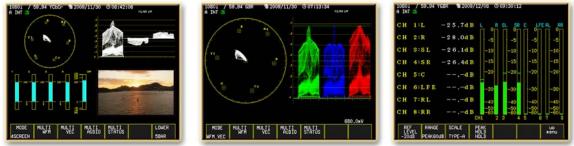
VECTORSCOPE & 5-BAR DISPLAY



The vectorscope can display 75% or 100% targets with color labels and it is suitable for color correction applications. Display of I&Q axes and graticule colors are selectable. Colorimetry follows the selected standard definition as well as high definition system formats. There are separate intensity adjusts for trace and targets. Vector magnification can be x5 or continuously adjustable to verify center dot collapse to black. Calibrated variable vectorscope gain facilitates use of the LT5330 with DSC Camera Allignment charts.

The vector mode also provides access to Leader's popular 5-bar display; perhaps the easiest display in the industry for simultaneously monitoring for composite and component gamut violations. Gamut errors are also logged and can be output to a text file for future review/correction.

MULTI-DISPLAY & AUDIO MONITOR



Picture, waveform, vector, 5-bar, audio, timing display and status can be viewed in full-screen mode as well as in several 2-screen or 4-screen combinations. Screen capture works in every mode and allows quick bitmap captures to aid in the documentation and communication process. **AUDIO :** Disembedded audio from groups (1&2 or 3&4) is monitored 8 channels at a time. Dynamic range can be selected as 60, 90 dB peak reading or as average VU ballistics. Peak hold decay time is selectable in half-second intervals from 0.5 to 5.0 seconds or hold. Level display shows 8 channel bars with digital readouts from 0 to –90.0 dBfs convenient for seeing noise floors, system reference or max held levels over an extended session. Two channels can be selected and output to a headphone connector for material monitoring.

STATUS

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MEADER WORDI: ERROR CORRECTION CONTINUTY INDEX	CONTINUITY INDEX STATION CODE DATE & TIME VIDEO CURRENT :	NEXT:	COUNTDOWN:	EAV EAV EAV	<1921) <1922) <1923)	000 000 000 274		
READER WORD2:	AUDIO CURRENT : DOWN MIX CURRENT:	NEXT: NEXT:	COUNTDOWN:		<1925>	198 198 20C 222 2A2		
HEADER WORDS: START PACKET FLAG END PACKET FLAG	TRIGGER SIGNAL Q1: Q2: Q3: Q9: Q10: Q11:		Q8: Q16:	ADF	<1927> (1928) (1929)	1C5 040 000 040		
TRANSMISSION MODE FORMAT ID	017: 018: 019: 025: 026: 027: COUNTER 01:	Q28: Q29: Q30: Q31:	024: 032:	DID		040 3FF 040 040 287		
NEADER NORD4: C.C. DATA ID LANGUAGE ID	COUNT DOWN Q1: STATUS SIGNAL S1: S2: S3:	Q2: Q3: Q4: Q2: Q3: Q4: S4: S5: S6: S7: S12: S13: S14: S15:	\$8: \$16:	DC UDH	<1933> <1934>	040 040 154 040		
DISPLAY CAPTION DUMP up NUMBER MODE Nemu TEXT 1 HEX	DISPLAY DUMP MODE TEXT HEX		next up Renu Renu		ISPLAY EAV	JUMP SAV JUMP	F.D USB MEMOR	r up wenu

The system status monitors and logs 20 key protocol indicators like automatic input format detection and display and external reference (trilevel or black burst0. Custom alarms can be set for upper and lower levels for gamut, chrominance and luminance levels Data dump can display serial, component or binary values of any sample within the raster. Jump to EAV and SAV menu keys speed monitoring of ancillary data and active video. Audio channel status metadata for control packets (DID, sample rate, active channels), channel status (format, emphasis, signal lock, bit resolution) and channel status bits are displayed. Vanc data analysis screens round out the engineering capabilities of this instrument.

FRAME CAPTURE

Frame capture allows capture and overlay display of the live signal to the captured information. Essentially any displayed screen can be captured and stored to USB thumbdrive. Frame captures are stored as *.bmp bit map files. Data dump and error logs are stored as *.txt files.

USB THUMB-DRIVE STORAGE & PRESETS

USB connection enables user friendly access to frame captures, storage of error logs, storage and recall of up to 30 presets for custom cloning and fast and convenient system software upgrades. Presets work as menu items and greatly simplify workflow and product use.

REAR PANEL (Shown Without Optional Battery Attachment Plate)



Two auto-detecting HD/SD-SDI inputs with a switched monitor output (outputs the selected channel) are provided. External reference with loop-thru output accepts both black-burst and tri-level sync. A viewfinder input accepts composite input and provides a picture-only display. Remote control connector accommodates legacy systems (switch closures) and recalls the first 10 instrument presets. Ethernet connector permits use of

Webserver application (remote control and screen view). XLR connector is used for power -12 - 18 Vdc



CONFIGURATION CAPABILITIES YOU'D LOVE

Camera/Tripod Mount :: Instrument is provided with ¼ inch screw on the bottom of the uint for tripod mounting applications; tripod mount can be moved to the top for "hanging" applications. Extra tripod mounting hardware is available from our Service department (you can permanently install one tripod mount on top and one on the bottom if you need to quickly change mounting configurations.



Fanless Operation :

The LV5330FL replaces the existing casing of the LV5330 with one that

permits additional air flow. This allows the LV5330 to operate in quiet (fanless) mode which is ideal for on-set and on-camera operation.





Shoulder Mount : The LV5330CC is a soft, padded carrying case with hood and strap for carrying the instrument in portable applications.

Shallow Depth Rackmount (LR2752U) and Blank Panel (LC2139U): Instrument mounts in 3RU, half rack space. The LR2752U rack-mount accommodates 2 LV5330s side-by-side. For single unit use, order blank panel LC2139U.



POWER FLEXIBILITY



The instrument accommodates (optional) both IDX and Anton Bauer battery attachment plates. A standard 4-pin XLR DC power connector is also provided. Your LV5330 can be powered from an external AC adaptor (Leader LP1960; included) or from camera umbilical cord. Operating range is 10 – 18 Vdc. Order OP74 for



IDX battery mount or OP73 for Anton Bauer mount. When ordering battery plates along with the main unit, they are installed and wired internally which allows the electronic battery indicator to work properly. Field installation is also possible with external wiring (provides XLR pigtail instead of internal wiring) which disables the electronic battery indicator but does allow for easy field installation and easy change (no soldering) from one battery attachment plate to another. Leader recommends internal wiring only but several customers chose to install their battery plates using an external (XLR) power connection.

POPULAR OPTIONS/VERSIONS AVAILABLE

<u>HISTOGRAM</u>

A picture histogram display is added with this option to allow production professionals a familiar view of their work. The histogram display is shown at the bottom of the picture and can be set up to show histogram for Y-only or for Y, R, G, B. Call 1 (800) 645-5104 for more details.



ANALOG VIDEO INPUT OPTION - PORTABLE

A multi-format analog-digital converter can be added to the LV5330 (in place of the battery attachment plate) and provide composite as well as Y, Pb, Pr analog inputs for the LV5330. Both SD and HD analog formats are supported. Order model LV5330AD.

ANALOG AUDIO/VIDEO OPTION – RACK or STANDALONE



Similar to the LV5330AD but mounted in a stand alone case (1RU/half-rack wide), this configuration provides composite and component analog video inputs as well as 4 analog audio channels. Order model LV7330AD for this option.

LV7330 RASTERIZER





Take the LCD display off the LV5330 and add an XGA output on the back and you have the same instrument features and functions as the LV5330 in a half-rack, onerack-unit-high instrument. One exception is the LV5330 has a composite input (picture only/used as a viewfinder for on-camera applications); the LV7330 does not have this

feature; instead, the LV7330 provides a 2-channel AES/EBU input (no external audio input in the LV5330). The LV7330 requires the use of an external monitor (sold separately).

LEARNING MORE ABOUT VIDEO MEASUREMENTS AND THE LV5330/LV7330

There are several ways to learn more about pro-video testing and Leader's offering of HD/SD test products. Our Business Development Managers can offer you product demonstrations at your facility. As well, we conduct SMPTE and SBE training seminars throughout the USA where we deliver our HDTV & DTV Primer seminar and our Camera Alignment seminar full of information on digital video theory and practice.

For more information on Leader's exciting line of HD/SD test solutions, please contact Leader at 1 (800) 645-5104, see us on the web at www.LeaderUSA.com or e-mail us at Sales@LeaderUSA.com





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