



**Marshall Electronics**

**2010**  
Portable Camera-Top  
Field Monitors

Introduction

For three decades, Marshall Electronics has specialized in the development, manufacturing, and distribution of leading edge technology products for a wide range of professional Audio / Video applications. Marshall introduced one of the world’s first LCD Broadcast monitors at NAB in 1999, when many of our competitors were nonexistent or unknown. Since then, Marshall’s product offerings have grown to meet the demands of customers worldwide. We continue to offer the widest lineup of professional rack-mount and standalone LCD monitors in the industry.

Most of our products are designed, engineered, and assembled in the United States. Marshall’s corporate office, R&D Center, and Production facilities are located within a few miles of Hollywood, Burbank, and Universal City, which make Los Angeles the “Entertainment Capital of the World.” These products are designed specifically for the end-user by end-users, without compromise on service, quality, and innovation.

Marshall Electronics and its employees are dedicated to providing the highest quality and most technically advanced products with unparalleled customer service. Whether you’re professional or just getting started, we hope you will continue to look to Marshall for all of your Audio / Video needs.

- ▶ Quality
- ▶ Innovation
- ▶ Experience
- ▶ Customer Service

This brochure features our advanced 6.5”, 7”, and 8.4” Portable Field / Camera-Top monitors. These high-tech monitors are a great alternative to small-sized LCD screens and/or electronic viewfinders found on today’s cameras. We understand that it’s important to have the ability to monitor what you’re capturing. This is why we designed and engineered these fully-featured monitors to offer portability, flexibility, and affordability. You will see why professional camera operators, videographers, DSLR enthusiasts, and photo journalists choose and praise our products over the competition. At Marshall, good things come in all sizes.

V-LCD70XP-HDA 7” Lightweight High Resolution Portable Field / Camera-Top Monitor



The **V-LCD70XP-HDA** is the latest update to Marshall’s line of 7” portable field / camera-top monitors. These monitors have been upgraded with even more features and versatility, but without additional cost. These portable monitors are the perfect solution for DSLR and video professionals seeking to capture their best shots. This 7” monitor offers standard features including a wide variety of formats and markers, 4 user-configurable front panel function buttons, RGB Check Field / Field Detect, RGB gain and bias control, 4-pin XLR power jack, and optical grade polycarbonate screen protection. Two other major features include Marshall’s industry leading FALSE COLOR and PEAKING Filters. There are nine different battery configurations to choose from.

- High resolution 800 x 480 LCD panel
- Thin, durable, and lightweight construction
- Manual Gamma Adjustment
- Adjustable Backlight
- Image Flip
- 1/4”-20 mounts on all sides
- More robust Power switch
- Improved, more rugged front panel
- Variety of Markers, including user-adjustable
- False Color
- Peaking Filter
- Variety of User-Replaceable Battery Adapters available

1.2 TFT  
MEGAPIXEL

Specifications	Display (Viewing Area)	7.0-inch Diagonal	Dimensions	7.03" w x 5.67" h x 2.17" d
	Resolution (Pixels)	800 x 480	Power Consumption	Approx. 12W (12V @ 3.3A power supply included)
	Viewing Angle	L/R: 140° / U/D: 100°	Weight (approx.)	1.9 lbs.
	Pixel Pitch (mm)	0.1905mm(H) x 0.1905mm(V)	User-Replaceable Battery Adapters	
	Brightness (cd/m <sup>2</sup> )	450		
	Contrast Ratio	600:1	Available Battery Adapter Configurations* "CM" - (Canon), "JM" - (JVC), "PM" - (Panasonic), "PV" - (Panasonic) "SB" - (Sony B series), "SL" - (Sony L series), "SM" - (Sony M series) "AB" - (Anton/Bauer), "VM" - (V-Mount)	
	Inputs	Composite x 1, Component x 1		
	Loop-through outputs	Composite x 1, Component x 1		

\*There is a cost difference with larger batteries.

V-LCD70XP-HDMI 7” Lightweight High Resolution Portable Field / Camera-Top Monitor



The **V-LCD70XP-HDMI** is Marshall’s most popular portable field / camera-top monitor. These monitors have been upgraded with even more features and versatility, but without additional cost. These portable monitors are the perfect solution for DSLR and video professionals seeking to capture their best shots. This 7” monitor offers standard features including a wide variety of formats and markers, 4 user-configurable front panel function buttons, RGB Check Field / Field Detect, RGB gain and bias control, 4-pin XLR power jack, and optical grade polycarbonate screen protection. Two other major features include Marshall’s industry leading FALSE COLOR and PEAKING Filters. There are nine different battery configurations to choose from.

- High resolution 800 x 480 LCD panel
- HDMI Auto Color Space and Ratio detect
- Manual Gamma Adjustment
- Adjustable Backlight
- Image Flip
- 1/4”-20 mounts on all sides
- More robust Power switch
- Improved, more rugged front panel
- Variety of Markers, including user-adjustable
- False Color
- Peaking Filter
- Variety of User-Replaceable Battery Adapters available

1.2 TFT  
MEGAPIXEL

Specifications	Display (Viewing Area)	7.0-inch Diagonal	Dimensions	7.03" w x 5.67" h x 2.17" d
	Resolution (Pixels)	800 x 480	Power Consumption	Approx. 12W (12V @ 3.3A power supply included)
	Viewing Angle	L/R: 140° / U/D: 100°	Weight (approx.)	1.9 lbs.
	Pixel Pitch (mm)	0.1905mm(H) x 0.1905mm(V)	User-Replaceable Battery Adapters	
	Brightness (cd/m <sup>2</sup> )	450		
	Contrast Ratio	600:1		
	Inputs	Composite x 1, Component x 1, HDMI x 1		
	Loop-through outputs	Composite x 1, Component x 1	Available Battery Adapter Configurations*	
		"CM" - (Canon), "JM" - (JVC), "PM" - (Panasonic), "PV" - (Panasonic) "SB" - (Sony B series), "SL" - (Sony L series), "SM" - (Sony M series) "AB" - (Anton/Bauer), "VM" - (V-Mount)		

\*There is a cost difference with larger batteries.

V-LCD70XP-3GSDI 7” Lightweight High Resolution Portable Field / Camera-Top Monitor



The **V-LCD70XP-3GSDI** offers a 3G/HD/SDI input for compatibility with uncompressed 1080p digital cinema and television formats. These monitors have been upgraded with even more features and versatility, but without additional cost. These portable monitors are the perfect solution for videographers and camera operators seeking to capture their best shots. This 7” monitor offers standard features including a wide variety of formats and markers, 4 user-configurable front panel function buttons, RGB Check Field / Field Detect, RGB gain and bias control, 4-pin XLR power jack, and optical grade polycarbonate screen protection. Two other major features include Marshall’s industry leading FALSE COLOR and PEAKING Filters. There are nine different battery configurations to choose from.

- High resolution 800 x 480 LCD panel
- 3G-SDI loop-through for uncompressed 1080p
- Manual Gamma Adjustment
- Adjustable Backlight
- Image Flip
- 1/4”-20 mounts on all sides
- More robust Power switch
- Improved, more rugged front panel
- Variety of Markers, including user-adjustable
- False Color
- Peaking Filter
- Variety of User-Replaceable Battery Adapters available

1.2 TFT  
MEGAPIXEL

Specifications	Display (Viewing Area)	7.0-inch Diagonal	Dimensions	7.03" w x 5.67" h x 2.17" d
	Resolution (Pixels)	800 x 480	Power Consumption	Approx. 12W (12V @ 3.3A power supply included)
	Viewing Angle	L/R: 140° / U/D: 100°	Weight (approx.)	1.9 lbs.
	Pixel Pitch (mm)	0.1905mm(H) x 0.1905mm(V)	User-Replaceable Battery Adapters	
	Brightness (cd/m <sup>2</sup> )	450		
	Contrast Ratio	600:1		
	Inputs	Composite x 1, Component x 1, 3G/HD/SDI x 1		
	Loop-through outputs	Composite x 1, Component x 1, 3G/HD/SDI x 1	Available Battery Adapter Configurations*	
		"CM" - (Canon), "JM" - (JVC), "PM" - (Panasonic), "PV" - (Panasonic) "SB" - (Sony B series), "SL" - (Sony L series), "SM" - (Sony M series) "AB" - (Anton/Bauer), "VM" - (V-Mount)		

\*There is a cost difference with larger batteries.



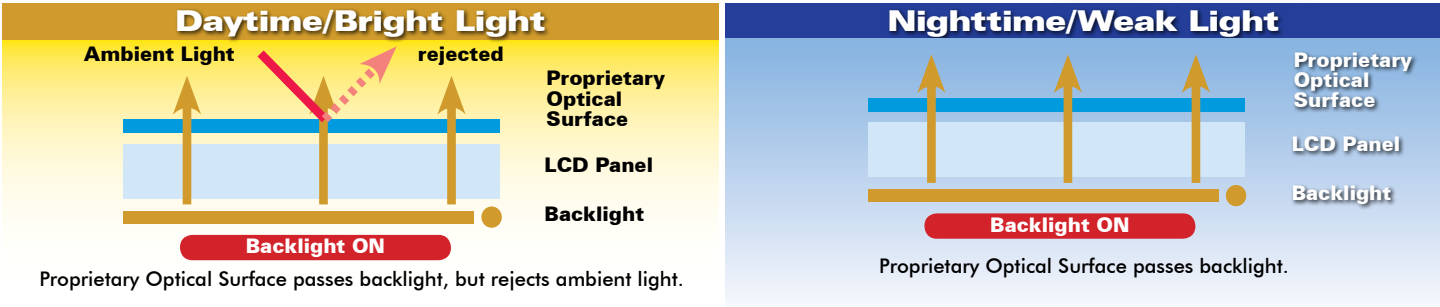
SUPERTRANSFLECTIVE

OUTDOOR MONITORS

Designed specifically for outdoor applications and challenging viewing environments

Proprietary Optical Surface technology passes backlight, but rejects ambient light while minimizing surface reflection

Marshall Electronics offers a full line of **Super Transflective Outdoor Monitors**, designed specifically for outdoor applications with high ambient light. Our technology minimizes surface reflection of both outdoor and indoor light, while featuring a much wider color reproduction range than typical transflective/reflective LCDs or even those with increased backlight performance. These outdoor super-transmissive LCDs provide improved visibility by producing high-contrast images and a wider viewing angle, even under diverse and challenging lighting environments. This innovative technology dramatically boosts the efficiency of the LCD backlight's light utilization, while maintaining extended temperature ratings and low power consumption for outdoor operation.



V-LCD651ST-HDA6.5" Lightweight High Resolution Super Transflective Portable Field / Camera-Top Monitor

2.4 TFTMEGAPIXEL

- The **V-LCD651ST-HDA** base model introduces a new durable and lightweight design, weighing in at only 1.3 pounds. It also features our completely digital TFT-MegaPixel high resolution LCD screen with 2.4 million pixels, 4-pin XLR power jack, and optical-grade polycarbonate screen protection. Analog signals are digitized using advanced 10-bit processing with 4x oversampling and adaptive 5-line comb filter. This monitor also includes a variety of screen formats and markers, four user-configurable front panel function buttons, RGB Check Field / Field Detect and RGB gain and bias control. Two other major features include Marshall's new False Color and Peaking filters. A variety of battery adapters are available for each configuration.\*
- Super Transflective 1024 x 768 LCD panel
  - Durable, thin, and lightweight construction
  - 650 cd/m<sup>2</sup> brightness, 500:1 contrast ratio
  - 4 user-configurable function buttons
  - RGB gain and bias control
  - Optional Heavy-Duty Protective Shield

- False Color On/Off
  - Peaking Filter On/Off
  - RGB Check Field/Field Detect
  - 16:9, 4:3, Pixel-to-Pixel modes
  - Variety of Markers
  - Variety of User-Replaceable Battery Adapters available\*

Specifications	Display (Viewing Area)	6.5-inch Diagonal (132.096mm x 99.072mm)	Dimensions	6.8" w x 6.0" h x 1.9" d
	Resolution (Pixels)	1024 x 768	Power Consumption	Approx. 15W (12V @ 5A power supply included)
	Viewing Angle	L/R: 160° / U/D: 140°	Weight (approx.)	1.3 lbs. (0.590 kg)
	Pixel Pitch (mm)	0.129mm(H) x 0.129mm(V)	Available Battery Adapter Configurations*	
	Brightness (cd/m <sup>2</sup> )	650		
	Contrast Ratio	500:1		
	Inputs	Composite x 1, Component x 1		
	Loop-through outputs	Composite x 1, Component x 1		

\*V-Mount ("VM") and Anton/Bauer ("AB") battery configurations require factory installation and are NOT user-replaceable. There is also a cost difference with larger batteries.

V-LCD651ST-HDMI6.5" Lightweight High Resolution Super Transflective Portable Field / Camera-Top Monitor

2.4 TFTMEGAPIXEL

- Super Transflective 1024 x 768 LCD panel
- Durable, thin, and lightweight construction
- 650 cd/m<sup>2</sup> brightness, 500:1 contrast ratio
- 4 user-configurable function buttons
- RGB gain and bias control
- Optional Heavy-Duty Protective Shield

- False Color On/Off
- Peaking Filter On/Off
- RGB Check Field/Field Detect
- 16:9, 4:3, Pixel-to-Pixel modes
- Variety of Markers
- Variety of User-Replaceable Battery Adapters available\*

Specifications	Display (Viewing Area)	6.5-inch Diagonal (132.096mm x 99.072mm)	Dimensions	6.8" w x 6.0" h x 1.9" d
	Resolution (Pixels)	1024 x 768	Power Consumption	Approx. 15W (12V @ 5A power supply included)
	Viewing Angle	L/R: 160° / U/D: 140°	Weight (approx.)	1.3 lbs. (0.590 kg)
	Pixel Pitch (mm)	0.129mm(H) x 0.129mm(V)	Available Battery Adapter Configurations*	
	Brightness (cd/m <sup>2</sup> )	650		
	Contrast Ratio	500:1		
	Inputs	Composite x 1, Component x 1, HDMI x 1		
	Loop-through outputs	Composite x 1, Component x 1		

\*V-Mount ("VM") and Anton/Bauer ("AB") battery configurations require factory installation and are NOT user-replaceable. There is also a cost difference with larger batteries.

V-LCD651ST-3GSDI6.5" Lightweight High Resolution Super Transflective Portable Field / Camera-Top Monitor

2.4 TFTMEGAPIXEL

The **V-LCD651ST-3GSDI** offers the same great features found in our entry level HDA model, but adds a 3G/HD/SD input for compatibility with uncompressed 1080p digital cinema and television formats. It also features our completely digital TFT-MegaPixel high resolution LCD screen with 2.4 million pixels, 4-pin XLR power jack, and optical-grade polycarbonate screen protection. Analog signals are digitized using advanced 10-bit processing with 4x oversampling and adaptive 5-line comb filter. This monitor also includes a variety of screen formats and markers, four user-configurable front panel function buttons, RGB Check Field / Field Detect and RGB gain and bias control. Two other major features include Marshall's new False Color and Peaking filters. A variety of battery adapters are available for each configuration.\*

- Super Transflective 1024 x 768 LCD panel
- Durable, thin, and lightweight construction
- 650 cd/m<sup>2</sup> brightness, 500:1 contrast ratio
- 4 user-configurable function buttons
- RGB gain and bias control
- Optional Heavy-Duty Protective Shield

- False Color On/Off
- Peaking Filter On/Off
- RGB Check Field/Field Detect
- 16:9, 4:3, Pixel-to-Pixel modes
- Variety of Markers
- Variety of User-Replaceable Battery Adapters available\*

Specifications	Display (Viewing Area)	6.5-inch Diagonal (132.096mm x 99.072mm)	Dimensions	6.8" w x 6.0" h x 1.9" d
	Resolution (Pixels)	1024 x 768	Power Consumption	Approx. 15W (12V @ 5A power supply included)
	Viewing Angle	L/R: 160° / U/D: 140°	Weight (approx.)	1.3 lbs. (0.590 kg)
	Pixel Pitch (mm)	0.129mm(H) x 0.129mm(V)	Available Battery Adapter Configurations*	
	Brightness (cd/m <sup>2</sup> )	650		
	Contrast Ratio	500:1		
	Inputs	Composite x 1, Component x 1, 3G/HD/SDI x 1		
	Loop-through outputs	Composite x 1, Component x 1, 3G/HD/SDI x 1		

\*V-Mount ("VM") and Anton/Bauer ("AB") battery configurations require factory installation and are NOT user-replaceable. There is also a cost difference with larger batteries.

www.LCDracks.com

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# Feature Explanation

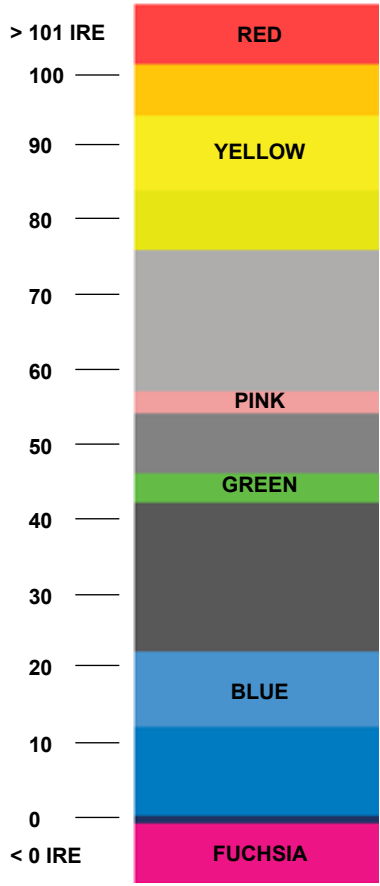
## False Colors

The **False Color** filter is used to aid in the setting of camera exposure.

As the camera Iris is adjusted, elements of the image will change color based on the luminance or brightness values. This enables proper exposure to be achieved without the use of costly, complicated external test equipment.

To best utilize this feature, you must understand the color chart and have a basic understanding of camera exposure. Normally, when shooting subjects like people, it is common practice to set exposure of faces to the equivalent of approximately 56 IRE. The False Color filter will show this area as the color PINK on the monitor. Therefore, as you increase exposure (open the IRIS), your subject will change color as indicated on the chart: PINK, then GREY, then a few shades of YELLOW. Overexposed subjects (above 101 IRE) on the monitor will be shown as RED. In addition, underexposed subjects will show as DEEP-BLUE to DARK-BLUE, with clipped-blacks indicated with a FUCHSIA-like color. Lastly, the color GREEN is used to indicate elements of the image that are approximately 45 IRE. This represents a “neutral” or “mid-level” exposure commonly used for objects (not people).

## False Color Key



## CAMERA FEED WITHOUT FILTER

## WITH FALSE COLOR FILTER



## OVEREXPOSED

Overexposed objects will display as RED



## UNDEREXPOSED

Underexposed objects show as DEEP-BLUE to DARK-BLUE



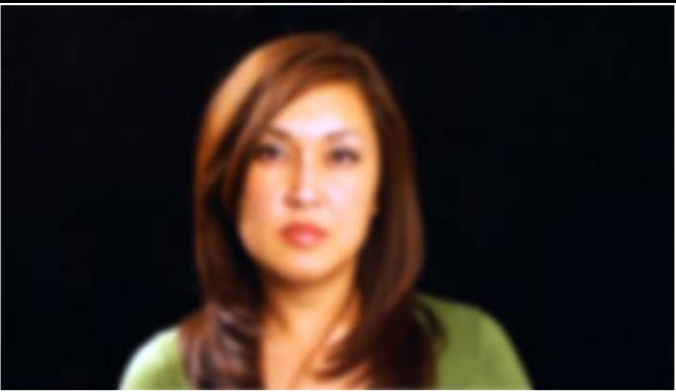
## PROPERLY EXPOSED

Properly exposed objects will display elements of GREEN and PINK

## Peaking Filter (Focus Assist)

The **Peaking Filter** is used to aid the camera operator in obtaining the sharpest possible picture. When activated, all color will be removed from the display and a black-and-white image will remain. The internal processor will display RED color on the screen where sharp edges appear. When the camera operator adjusts (or “racks”) the focus control (on the camera lens), different parts of the image will have RED colored edges. This indicates that this portion of the image is sharp or in focus. Final focus is achieved by racking the camera lens focus control back and forth until the desired portion of the image has RED colored edges. Please note that this feature is most effective when the subject is properly exposed and contains enough contrast to be processed.

## SUBJECT OUT-OF-FOCUS WITH FILTER OFF



## SUBJECT IN-FOCUS WITH FILTER OFF



## SUBJECT OUT-OF-FOCUS WITH FILTER ON



## SUBJECT IN-FOCUS WITH FILTER ON



## Accessories



Short Sun Hood  
V-H700



Optional Heavy-Duty 6.5"  
Protective Shield  
V-LCD-PS65



Camera Mounts  
V-NF1108-CA  
V-DG1108-CA  
V-MG1106





















Camera Hot  
Shoe Mount  
V-LCD-MT-01



HDMI Extender  
V-X-HDMI

6.5" and 7" Monitor Battery Compatibility

Optional Field-Interchangeable Battery Adapters			
MARSHALL MOUNTING PLATE ADAPTER		BATTERY TYPE	RECOMMENDED BATTERY / VOLTAGE
Field-Interchangeable Battery Adapter Options			
	CM Part # 0071-1307-A	 Canon	Canon BP-970G 7.2V
	JM Part # 0071-1308-A	 JVC	JVC BN-V438U 7.2V
	PM Part # 0071-1306-A	 Panasonic	Panasonic CGA-D54 7.2V
	PV Part # 0071-1309-A	 Panasonic	Panasonic VW-VBG6 7.2V
	SB Part # 0071-1305-A	 Sony B Series	Sony BP-U60 14.4V
	SM Part # 0071-1304-A	 Sony M Series	Sony NP-QM91 7.2V
	SL Part # 0071-1303-A	 Sony L Series	Sony NP-F970 7.2V
Factory Configured Battery Adapter Options*			
	AB Part # 0032-1302-A (Uses Anton Bauer Gold Mount plate)	 Anton Bauer	Anton Bauer Hytron 50 14.4V
	VM Part # 0032-1301-A (Uses IDX plate with riser)	 V-Mount	IDX E-7S 14.4V

\*V-Mount ("VM") and Anton/Bauer ("AB") battery configurations require factory installation and are NOT user-replaceable on the 6.5".

Marshall Watertight Protective Cases



Protect your investment with Marshall's watertight protective cases. These new cases are made of high impact plastic with watertight seals, integrated pressure release valve, customer configurable foam inserts, and provisions for security locks or customs seals. Our lightweight cases are available in variety of sizes depending on your specific requirements.

Model #	Internal Dimensions		
	Width	Height	Depth
VC-451	3.5"	6.25"	9.25"
VC-452	5.5"	6.25"	9.25"
VC-453	4.25"	7.25"	12"
VC-454	6.25"	7.25"	12"
VC-455	5.75"	9.25"	14"
VC-456	4.25"	10.75"	15.5"
VC-457	7"	10.75"	15.5"
VC-458	7.5"	12.5"	17.25"
VC-459	7.75"	14.5"	21.5"
VC-4510	10.5"	14.5"	21.5"

Marshall User Profiles

PHILIP BLOOM

Philip Bloom is a London-based Director of Photography and Director. He has been working in Television for over 20 years.

Over the past three years, he has become a trailblazer for the indie film community. Philip's vision and creativity has allowed him to educate and prove that getting a "cinematic look" to your work does not mean spending a fortune. Philip has been busy carrying the torch for the HD-DSLR market and showing just how groundbreaking these new cameras are.

Philip continues to film all over the world and is in constant demand on the lecture circuit. He is also co-host of the popular internet show "Critics." Philip also runs and manages his very popular blog which currently receives around 1 million views a month.

<http://www.philipbloom.co.uk>



VINCENT LAFORET

Vincent Laforet is a Los Angeles-based commercial director and photographer who is regularly commissioned to work on a variety of advertising, fine art, corporate and editorial projects. His approach to aerial photography has been singled out as one of the most unique and interpretive amongst photographers today.

At the age of 35, his work has been published in most major publications around the world and he has been sent on assignment by *Vanity Fair*, *The New York Times Magazine*, *National Geographic*, *Sports Illustrated*, *Time*, *Newsweek*, and *Life Magazine*. In 2006, Laforet modified his staff position at *The New York Times* to become their first national contract photographer.

Vincent's fine art prints are exhibited in galleries internationally including the International Center of Photography in New York City and Visa Pour L'Image in Perpignan. Vincent was recognized as one of the "100 Most Influential People in Photography" by *American Photo Magazine* in 2005 and was named one of "30 Photographers to Watch Under 30" by PDN in 2002. He and four other photographers were awarded the Pulitzer Prize in Feature Photography for their post-9/11 coverage overseas in 2002. He and his work have also been profiled on CNN and Good Morning America.

<http://www.laforetvisuals.com>











OR-841-HDSDI High-End 8.4" Rack Mountable / Camera-Top / Portable Field Monitor



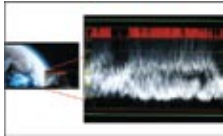
The **OR-841-HDSDI** 8.4" ORCHID™ rack mountable / portable field monitor has all the features that customers have asked for and more. The OR-841-HDSDI is 4RU and has 9 user-assignable function keys as well as a rotary menu system. The built-in waveform monitor (which includes adjustable White and Black clip level indicators) can be displayed in three different aspect ratios including Full Screen. The built-in Vectorscope displays in full color and can also be displayed in three different ratios. The Vectorscope has adjustable gain from 1x to 5x. The OR-841-HDSDI will also de-embed and display up to 16 channels of audio and allow the user to monitor any two channels at once through the headphone jack or rear line output jack. Also includes built-in front panel speaker and rear panel stereo input for audio monitoring. The 64-segment tri-color bar graph meters have user-adjustable reference levels. The OR-841-HDSDI comes standard with auto-sensing HDSDI inputs and re-clocked output. This unit can be used in a rack, on a desktop, in the field, or mounted to a camera.

- Real-Time Waveform Monitor
  - Real-Time Color Vectorscope
  - Auto White Balance Calibration
  - Sixteen 64-segment Tri-color Audio Meters
  - Tri-Color Tally Indicator
  - On-Screen Time Code
  - 7 assignable GPI inputs
  - Adjustable Color Temperature
  - Auto-Sensing Front Panel Headphone Jack
- Auto-Sensing Rear Unbalanced Stereo Output
  - Adjustable Clipping Indicator
  - Precision Gamma Settings
  - Adjustable Color Temperature
  - Variety of Safety Markers
  - HDSDI / SDI Inputs and Output
  - Supports 3 different Battery Adapters
  - Factory-installed Protective Screen
  - Adjustable / Detachable Stand with top handle

Specifications	Display (Viewing Area)	8.4"	Power Consumption	18W (1.5A)
	Resolution (Pixels)	1024 x 768	Power Supply	DC 12V 4-Pin XLR
	Aspect Ratio	4:3	Weight	Approx. 4 lbs. (4.6 lbs. with Power Adapter)
	Brightness (cd/m²)	400	Dimensions	8.6"W x 8.2 "H x 1.7"D
	Contrast Ratio	500:1	Available Battery Adapter Configurations	Configurations "AB" - (Anton/Bauer) / "VM" - (V-Mount) / "SB" - (Sony B series)
	Available Input Types	HDSDI x 2		
	Available Audio Output	2 Stereo (3.5mm - Front and Rear)		

Optional Field-Interchangeable Battery Adapters			
MARSHALL MOUNTING PLATE ADAPTER		BATTERY TYPE	RECOMMENDED BATTERY / VOLTAGE
	<b>SB</b> Part # 0071-1305-A		<b>Sony B Series</b>  <b>Sony BP-U60</b> 14.4V
	<b>AB</b> Part # 0032-1302-A (Uses Anton Bauer Gold Mount plate)		<b>Anton Bauer</b>  <b>Anton Bauer Hytron 50</b> 14.4V
	<b>VM</b> Part # 0032-1301-A (Uses IDX plate with riser)		<b>V-Mount</b>  <b>IDX E75</b> 14.4V

ORCHID Features



WAVEFORM MONITOR

The built-in waveform monitor (which includes adjustable White and Black clip level indicators) can be displayed in various aspect ratios, positions, and transparency options. The Waveform Monitor not only monitors luminance, but can also warn the user for out-of-range conditions such as overexposure or “blacker-than-black” errors with fully user-adjustable warning limits.



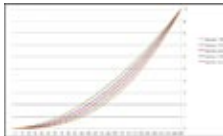
REAL-TIME COLOR VECTORSCOPE

The built-in Vectorscope allows users to monitor color gamut range in real time. It displays in full color and can also be displayed in various sizes, positions, and transparency options. The Vectorscope has adjustable gain from 1x to 5x.



CLIP GUIDE

The Clip Guide function operates with both the Waveform display and Monochrome/Color picture display. Both the upper and lower Clip Guide levels are user-adjustable in order to accurately display over-and-under exposures during different shooting conditions. For example, the upper Clip Guide limit may be set to 85 IRE and the lower limit to 10 IRE. With these settings, any exposures over the set limit of 85 IRE will display red on both the Waveform and picture (if selected). The same will be true for blacks under 10 IRE.



PRECISION GAMMA

It is important that LCD monitors match the color and gamma characteristics of a CRT monitor. To emulate CRT gamma, the non-linear curves are corrected by software algorithms. This process is complicated because the three non-linear colors (RGB) should be corrected simultaneously. The ORCHID gamma correction overcomes this problem and ensures correct matching between panels and channels.



AUDIO LEVEL METERS

De-embeds and displays up to 16 channels of audio using sixteen 64-segment tri-color Audio Meters with user-adjustable reference levels. The Audio Level Meters provide numerical indicators and headroom levels, as well as peak hold function. Audio Channel Loss Warning prevents errors during monitoring.



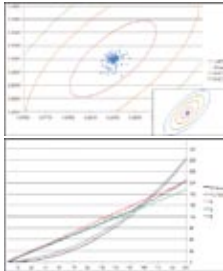
FRONT AND REAR PANEL AUDIO OUTPUT

Monitor any two channels at once through the front audio output jack or rear line output jack.



ONE BUTTON COLOR CALIBRATION

The ORCHID operating system includes an Automatic White Balance function that allows a “One Button” calibration procedure when used with a Konica Minolta CA-210 color analyzer. All ORCHID Series LCD panels are calibrated at the factory to ensure color conformity between screens.



WHITE BALANCE

White balance adjustment is essential in order to render colors correctly. To display colors correctly, gray scale should maintain identical color temperature. The white balance for ORCHID monitors defaults to D65 (6500K) so the user does not need to adjust white balance. LCD monitors have color-matching issues because white balance can be affected by a change in luminance level. Our unique color management system solves this problem.

Optional Accessories for OR-841



OR-8HA Side Handle



OR-8HO Hood



OR-8RK Rack Mount Kit (Mounts two units side-by-side)

## **Marshall Electronics**

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