Marshall Electronics Broadcast A/V Division

M-LYNX-503

Triple 5” Rackmountable Monitor with HDMI, 3G-SDI and Composite Inputs

Operating Instructions

1. OVERVIEW

The M-LYNX-503 provides three independent wide-screen displays in only 2RU rack height and very slim 1.75” (44.5mm) depth. Each display has inputs for 3GSDI, HDMI and standard composite analog video sources. The SDI and HDMI digital inputs provide active loop-through connections while the composite input is self-terminating with passive loop-through.
Controls are conveniently placed on the front panel (computer not required). Menus are straight-forward and intuitive. Front panel headphone jacks allow monitoring of embedded digital audio (SDI and HDMI) as well as analog audio (for composite video AV input). Large, three color tally lights above each screen operate from standard GPI connections (contact closure or open-collector pull-down) for maximum compatibility with existing systems.

2. UNPACKING

Carefully unpack the M-LYNX-503 monitor and verify the following items are included:

1. M-LYNX-503 Monitor
2. Power supply with AC cord
3. Operating Instructions

Inspect the unit for any physical damage that may have occurred during shipping. Should there be any damage, immediately contact Marshall Electronics at (800) 800-6608. If you are not located within the continental United States, call +1 (310) 333-0606.

3. INSTALLATION

The M-LYNX-503 is designed to mount in a standard 19” equipment rack using the pre-installed mounting ears. Once mounted, the monitor may be tilted to the ideal viewing position. Care should be taken to allow sufficient slack in cables attached to the monitor so as not to bind when the monitor is tilted. Also, check that the ventilation holes are not obstructed by other equipment in the rack.

Connections, Power On and Initial Setup

Note: Each screen has its own full complement of video input connections.
Power, TALLY and LAN connections go to all screens

1. 4-pin Power Connector

4-pin XLR DC power input compatible with typical broadcast television camera 12-volt power supplies. Caution: Some 4-pin power supplies provide 24 volts. These are NOT compatible with this monitor. Please check the label on the power supply before connecting.

Pin number	Signal
①	GND
②	No connection
③	No connection
④	+12V

2. TALLY Connector

The tally light above each monitor is controlled by grounding the appropriate pin on the Tally connector as shown in the table. Caution: External power should never be applied to the Tally connector.

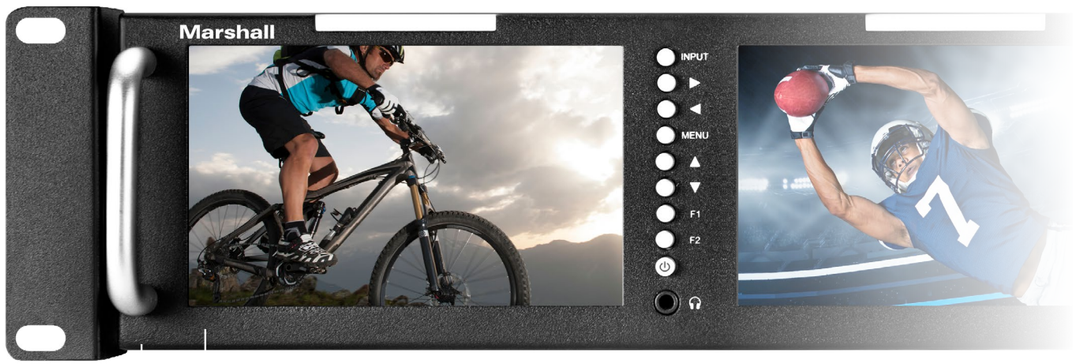
Screen #1	Screen #2	Screen #3	Tally
1	6	11	Green Light
2	7	12	Red Light
3	8	13	Yellow Light
4	9	14	Ground

Plug the included power supply into an AC power source (100 – 240 Volts @ 50/60 Hz). Attach the power connector to the back of the monitor. (Alternatively, a standard camera-type 12-volt power supply with an XLR-4 connector may be used).
Connect the required cables for video signal input and output.
The monitor defaults to “ON” when power is connected. The Marshall name will first appear then video will be automatically detected and displayed on the screen. If video does not appear, press the INPUT button on the front panel to select an active source. HDMI and SDI inputs have active loop through connections. Active loop-through does not work if main power is remove from the monitor. Front power buttons have no effect on loop-through operation.

4. BASIC OPERATION

When main power is first applied to the M-LYNX-503, the input selection defaults to the last used source. To see other sources, press the Input button to cycle through three choices: HDMI, SDI and AV (composite analog).
Headphone audio level may be quickly adjusted any time by pressing the ◄ and ► buttons.
The power button for each screen is located just above the headphone jack. The button lights up green when the screen is ON.
To confirm that main power is being supplied to the internal components, a red LED light for each screen is visible through the ventilation holes on top.

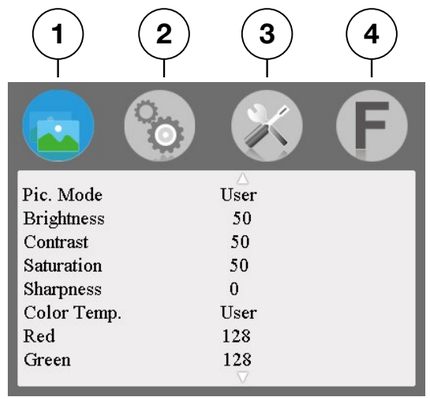
FRONT PANEL CONTROLS



INPUT – Select HDMI, SDI, AV sources
◄► - Headphone Volume and Menu navigation
MENU – Open / Back / Close the main menu window
▲▼ - Menu Navigation
F1 & F2 – Turn User Programmed Function On/Off
⏻ - Power On/Off
🎧 - Headphone Jack

5. MENU FUNCTIONS

When the Menu button is pressed, a screen similar to this picture appears:
Four icons across the top of the window represent four Main Menu categories.
Use the ◄► arrow buttons to move to the desired category.



1. **IMAGE**
2. **DISPLAY**
3. **MARKERS**
4. **USER FUNCTION**

1. IMAGE

Adjust appearance: chroma saturation, brightness, etc.
Pic. Mode: Select between three Presets and User setting.
Standard: Settings are in their mid-range.
Dynamic: Contrast and Chroma Saturation are boosted.
Mild: Brightness, Contrast and Saturation are reduced.
User: Brightness, Contrast, Saturation and Sharpness can be adjusted individually.
Color Temp: Select 6500, 9300 or User.
6500: Display white balance approximates 6500K (standard).
9300: Display white balance approximates 9300K (cool).
User: Red, Green and Blue gains may be adjusted to achieve the desired white balance.
Tint: Used to correct issues with composite video sources. All colors are affected.
Tint is generally not applicable to digital video sources.

2. DISPLAY

Set the On-screen language, aspect ratio, menu position and other basic display functions.
Language: Select the On-screen language for menus and messages.
Aspect Ratio: Select the displayed aspect ratio to fit the source.
Auto: The monitor will set the aspect ratio based upon characteristics of the incoming video.
4:3: Video is fit into a 4:3 window. This is a common setting for Standard Definition video
16:9: Video is fit into a 16:9 window. This is the standard aspect ratio for HD video.
Zoom 1: Picture is enlarged and cropped a small amount.
Zoom 2: Picture is enlarged and cropped twice as much as Zoom 1.
Just Scan: Picture is fit to just meet the edges of the display area.
Panorama: Picture is shown in “letter box” format (2.35:1 aspect ratio).

No Signal: Select the color background that appears when there is no video input.
OSD Trans: Adjust whether On Screen Display text is transparent.
OSD H: Adjust horizontal position of On Screen Display text.
OSD V: Adjust vertical position of On Screen Display text.
Zoom All: Expands the picture on the screen in all directions by pressing the ► button
Normal (default) setting is “0”.
OSD Time: Set the number of seconds text messages will remain on the screen.
U/D Zoom: Expands the picture on screen vertically using the ◄► buttons.
L/R Zoom: Expands the picture on the screen horizontally using the ◄► buttons.
USB Upgrade: Initiate firmware update from a computer attached to the USB port.
Reset: Press the ► button to set the display back to its original (default) state.
* Note: The current firmware version appears at the bottom of this page.

3. MARKERS

Select On-screen markers, image flip, focus assist and other assistance tools.
Center Marker: Places a “cross hairs’ marker in the exact center of the image.
Safe Frame: Creates a border to indicate a safe area for camera framing
Adjustable from 80% to 96% and 2.35 wide aspect.
Image Freeze: Holds the current image on screen until Freeze is turned off.
Image Flip: Flip the displayed image to compensate for special lenses or mirrors.
Use the ◄► buttons to choose:
H_V Flip: Image is flipped top to bottom and left to right.
H Flip: Image is flipped left to right (mirror).
V Flip: Image is flipped top to bottom.
Check Field: Use the ◄► to display a single primary color or no color (monochrome).
P2P: Pixel-to-Pixel mode. Image pixels are mapped 1:1 to display pixels. (Scaling
off). In most cases, this will have the appearance of expanding the image.
Focus Assist: This is a tool to assist setting sharp focus on a video camera.
When this mode is ON, the picture will be monochrome with a red border around objects in the image. As the camera lens is adjusted, the red border will be brighter or dimmer. Brighter = sharper focus.

4. FUNCTIONS

Program the user Function buttons.
F1: & F2: Use the ◄► and ▲▼ buttons to chose a function from this list:

Center marker
Safe Frame
Check Field
Focus Assist z
Aspect Ratio
Image Flip
P2P
Image Freeze

5. SPECIFICATIONS

Panel size	5.0-inch TFT LCD	
Resolution	800 x RGB x 480	
Backlight type	LED	
Dot pitch	0.045(W) x 0.135 (H)	
Aspect radio	16:10	
Brightness (in cd/m²)	400	
Contrast	500:1	
Finish	Anti-glare	
Viewing Angles (CR>=10)	70°/70°(L/R) 50°/70°(U/D)	
Input	HDMI / 3GSDI / AV (composite)	
AV	PAL - 4.43 / NTSC - 3.58	
HDMI with loop-through	480i /480p /576i /576p (59.94/50) 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p (60/59.94/50/30/29.97/25/24/24/23.98/23.98)	
3G-SDI with loop-through	ITU-R BT.656	576i
	SMPTE-125M	480i
	SMPTE-274M	1080i (60/59.94/50) 1080p (30/29.97/25/24/24/23.98/23.98)
	SMPTE-296M	720p (60/59.94/50/30/29/25/24/23.98)
	SMPTE-424M	1080i (60/59.94/50) 1080p (60/59.94/50)
Earphone jack	Stereo 3.5mm	
Input voltage	DC: 7.0~18.0V	
Power consumption	24W	
Dimensions (including connectors)	19.2”W x 5.14”H x 1.75”D 485.6mm W x 88mm H x 44.5mm D	
Weight (main body)	3.25lbs, 1.48 Kg	

Warranty

For Warranty information please refer to Marshall website page:

https://marshall-usa.com/company/warranty.php

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