HDMI / 3G-SDI Triple Display

Installation and Operation Manual

500840

To insure the best operation and performance from this product, please read this manual carefully.

CAUTION

1. Only use the included power supply to power the unit.

2. Do not expose the product to direct sunlight, heat or excessive humidity.

3. Keep away from strong sources of light when using the product to obtain a clear, high contrast and colorful picture.

4. Do not drop the unit and avoid any heavy unit impact.

5. Do not use chemical solutions to clean the unit. Simply wipe with a clean soft cloth to keep the unit surface clean.

6. To avoid damaging the product, do not dismantle or attempt to repair the unit yourself. There are no user serviceable parts inside. Defective units must be returned to seller for repair, following RMA procedures.

1.0 Product Introduction

Thank you for purchasing the Muxlab HDMI/3G-SDI Triple Display (model 500840). This rackmount triple display unit supports an advanced design, with enhanced features and special TFT LED monitors. This is a stable performer, operating at a low power consumption. The unit supports HDMI (1080p), 3G-SDI, CVBS and AUDIO inputs, plus HDMI (1080p), 3G-SDI, CVBS, and stereo headphone outputs. It may be used in a wide range of applications, supporting a compact size, rackmount capability, and simple operation. Some of the advanced features include Center Marker, Safe Frames, Check Field, Focus Assist, Aspect Ratio, Image Flip, Pixel to Pixel, Image Freeze, and Color Temp.

2.0 Features

- Triple 5-inch TFT LCD displays
- Supports HDMI (1080p), 3G-SDI and CVBS with Audio
- Fits 19-inch rackmount @ 2 RU
- Tri-color Tally light indicator per display
- Supports advanced functions such as Center Marker, Safe Frames, Check Field, Focus Assist, Aspect Ratio, Image Flip, Pixel to Pixel & Image Freeze
- Customizable buttons tailored to customer needs
- Supports firmware update via mini USB
- Compact thin and lightweight design

3.0 Product Description

3.1 Front Panel Description
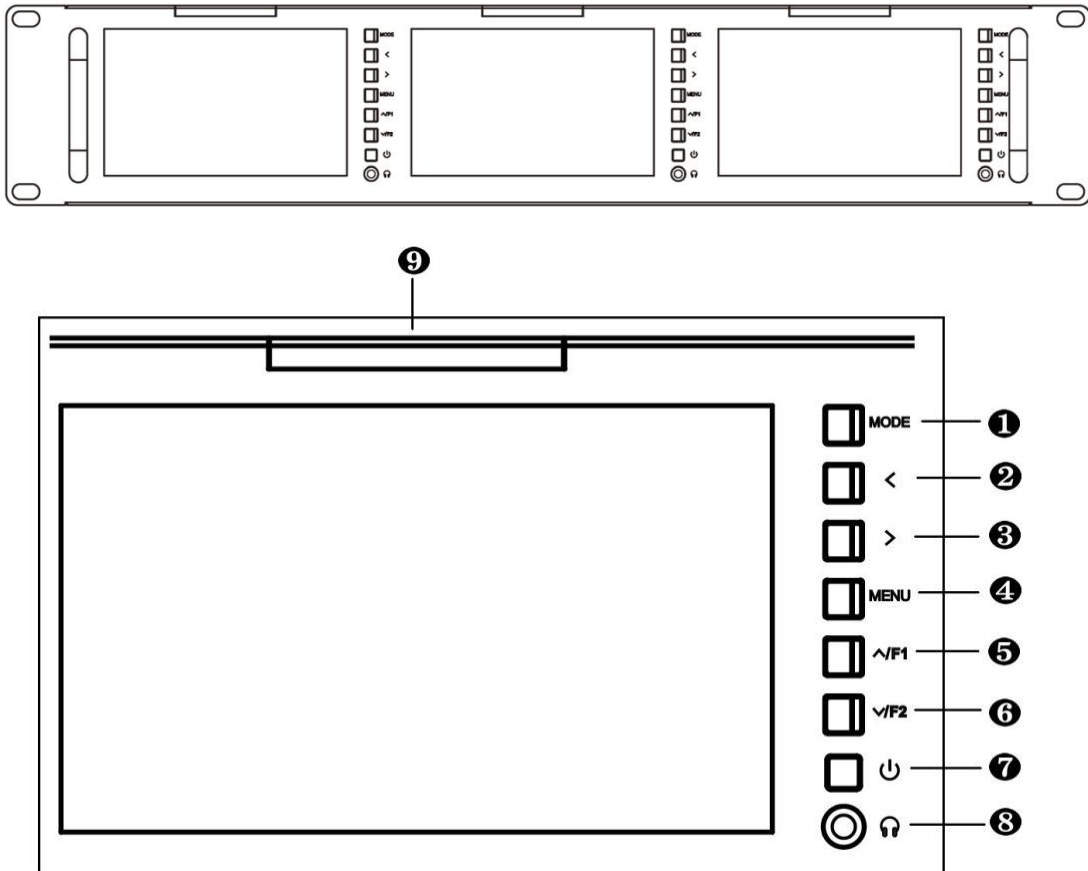
Each display supports a number of buttons for control and setting of a given display as follows:

1. [MODE] Signal input selection.

2. [<] Dual function button. Typically used for headphone Volume Down. During menu operation, it is used for making menu and item selects.

3. [>] Dual function button. Typically used for headphone Volume Up. During menu operation, it is used for making menu and item selects.

4. [MENU] Used to enter and exit Menu mode.

5. [∧/F1] Dual function button. Typically used as the F1 custom button. During menu operation, it is used for navigating up the menu.

6. [∨/F2]   Dual function button. Typically used as the F2 custom button. During menu operation, it is used for navigating down the menu.

7. ⏻   On/Standby button

8. 🎧   Headphone jack

9. [TALLY light indicator] See rear panel Tally section for more details.
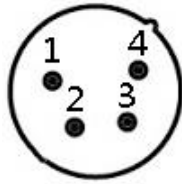
3.2 Rear Panel Description
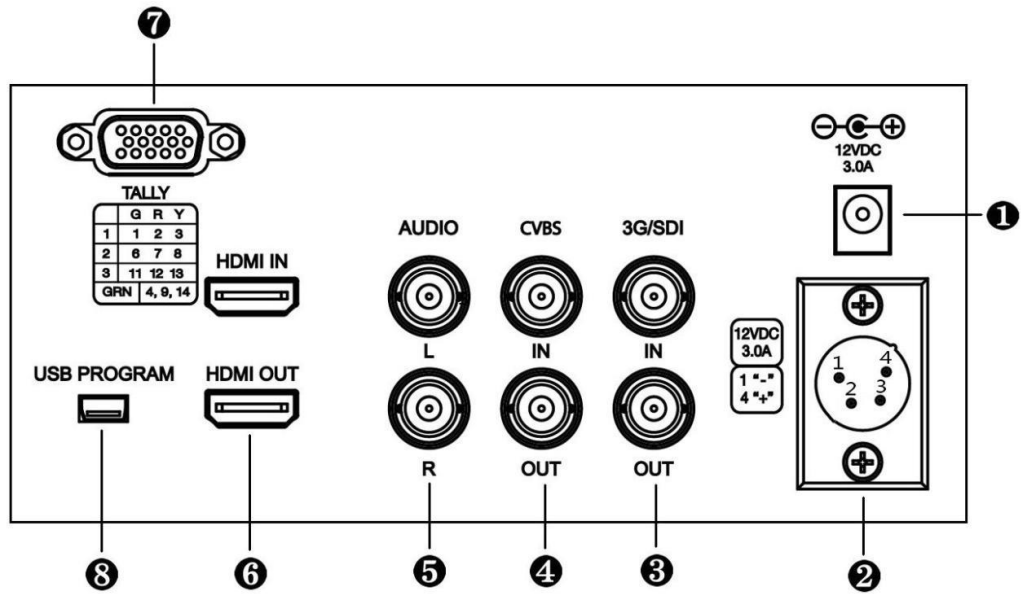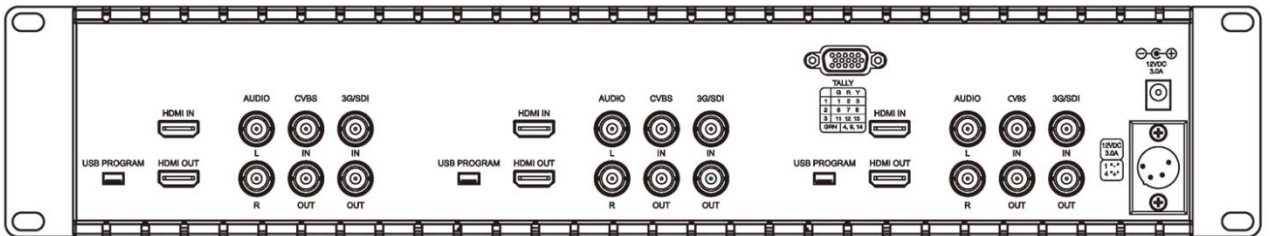
1.DC power input port (default input) :

2. 4-pin XLR DC12V power input (alternate input) :

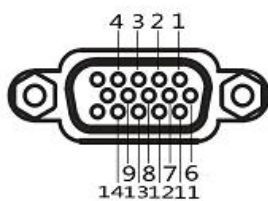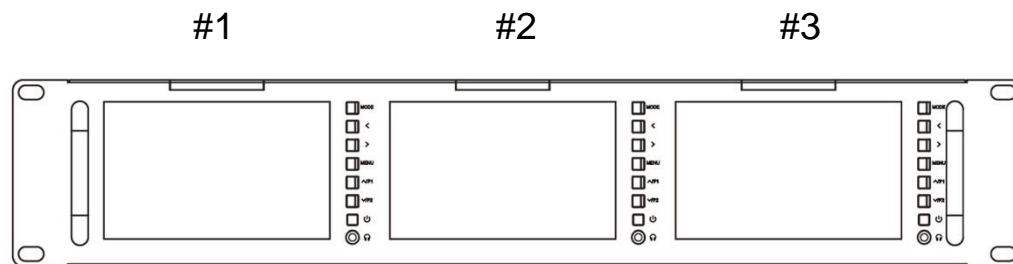| Pin number	Signal
1	GND
2	No connection
3	No connection
4	+12V

3. 3G/SDI : 3G-SDI input & output

4. CVBS : CVBS input & output

5. AUDIO : Audio input L / R

6. HDMI : HDMI (1080p) input & output

7. TALLY Light : Input signal. Each of the three Tally lights support three colors, green, red and yellow, depending on the input applied.

#1   #2   #3

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

8. USB Firmware Update : Used to update the embedded firmware.

4.0 Display Operation Instructions

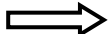Connect the DC12V power supply provided into the unit. The three displays will turn on, and the unit is ready to use. The user can operate and set each display as necessary via the corresponding buttons next to each screen.

4.1 Display Button Instructions

Each display has a number of buttons for controlling and adjusting setting for the given display.
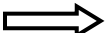
⏻ ⟹ Toggles the display power between On and Standby.

MODE ⟹ Selects the input signal.

MENU ⟹ Enter and exit the Menu.

> ⟹ Dual function. Typically used for headphone Volume Up.

While in the upper Menu operation, it is used for main menu bar selection

While in the lower Sub-Menu operation, it is used as a function selection, or to increase item values.

< ⟹ Dual function. Typically for headphone Volume Down.

While in the upper Menu operation, it is used for main menu bar selection

While in the lower Sub-Menu operation, it is used as a function selection, or to decrease item values.

∧/F1 ⟹ Dual function. Typically used as the F1 custom button.

While in the lower Sub-Menu operation, it is used for moving up the Sub-Menu items.

∨/F2 ⟹ Dual function. Typically used as the F2 custom button.

While in the upper Menu operation, pressing this button enters the lower Sub-Menus.

While in the lower Sub-Menu operation, it is used for navigating down the menu.

F1/ F2 ⟹ To set the F1 or F2 custom buttons, select F1/ F2 in the "F" upper Menu bar, then press the " > " or " < " button to

pop-up the "F" button functions and select between (Center Marker, Safe Frames, Check Field, Focus Assist, Aspect Ratio, Image Flip, Pixel to Pixel "P2P", or Image Freeze). Then press the ∧/F1 or ∨/F2 button to assign it to the F1 or F2 custom buttons respectively, then press the "MENU" button to confirm. Repeat operation for the second custom button.

4.2 Menu Instructions

Press the MENU button to bring up the pop-up main menu, and press the " < " or " > " button to enter menu selection, then press the "∨/F2" button to enter the sub-menu, and then use the "∧/F1" or "∨/F2" button to select the sub-menu item, then once in the sum-menu item, use the " > " or " < " button to adjust item parameters. Press the MENU button to exit after changes have been made.

4.2.1 Main Menu Bar – Picture

 Picture

Blue	128
Tint	50
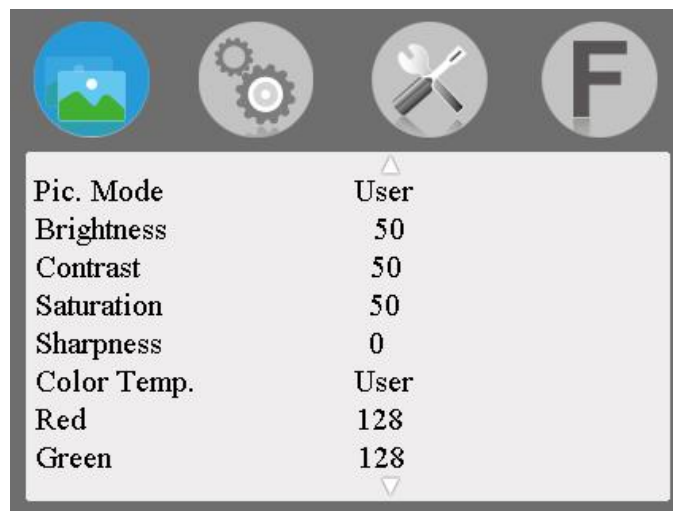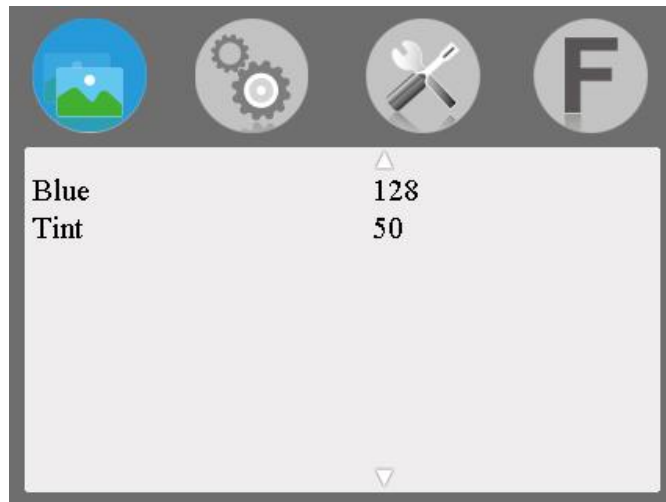
Pic. Mode: Standard, Dynamic, Mild, User.

                  Standard, Dynamic and Mild are presets.

                  Select "User" to adjust Brightness, Contrast, Saturation, Sharpness according to site conditions.

Brightness: Adjust image brightness.

Contrast: Adjust image contract.

Saturation: Adjust color concentration.

Sharpness: Adjust image edge sharpness.

Color Temp.:   Adjust the color temperature to 6500, 9300, or to User.

                  When "User" is selected, adjust the R/G/B to meet the specific requirements for the desired color temperature.

Tint: In NTSC video mode, color tint is adjusted by Tint.

4.2.2 Main Menu Bar – Settings

 Settings
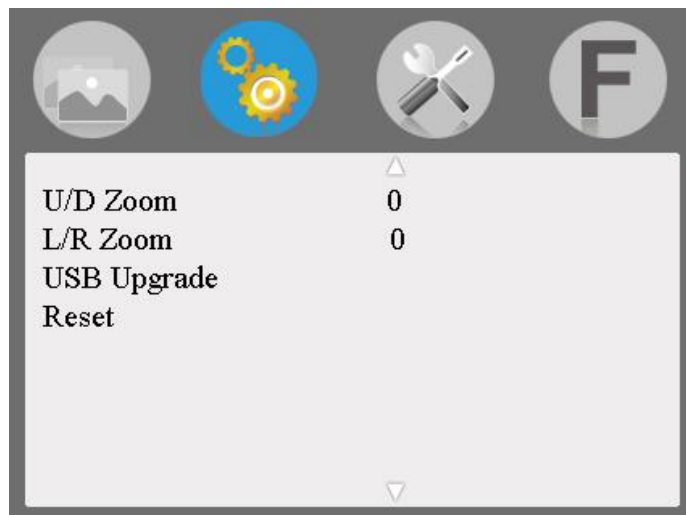
Language: Select the Language for the On Screen Display (OSD):
English, 中文, Español, Português,
Français, Nederlands, Deutsch, 日本語

Aspect Ratio: Change the aspect ratio between: Panorama, Just Scan,
Zoom 1, Zoom 2, 16:9, 4:3, and Autom.

No Signal: Color option of screen background when no
Signal is present: Blue Screen, Red Screen, Green Screen,
Black Screen, or White Screen.

OSD Trans.:   To adjust the level of OSD transparency.

OSD H: To adjust the OSD horizontal position.

OSD V: To adjust the OSD vertical position.

Zoom All : Use the " < " or " > " button to Zoom-In or Zoom-Out of the image/video.

OSD Time : OSD Menu display time-out options: 30s, 20s, 10s, Off.

U/D Zoom: Press the " < " or " > " button to Zoom In or Zoom Out (stretch or shrink) the image/video vertically.

L/R Zoom Press the " < " or " > " button to Zoom In or Zoom Out (stretch or shrink) the image/video horizontally.

USB Upgrade: To upgrade the embedded firmware application, copy the upgrade file to a USB drive, and via a USB cable, connect the USB drive to the USB upgrade port. Then press the " > " key to begin the upgrade process. After the upgrade is complete, the device will automatically restart. To avoid any issues, upgrading this device should be performed with the assistance of Technical Support.

Reset: While in the Reset Sub-Menu, press the " > " button, to return the unit to its original settings**.**

4.2.3 Main Menu Bar – Functions

![Functions icon] **Functions**

Center Marker: Use to set the center mark (cross mark) on the display.

Safe Frames: To adjust screen marker to (off, 96%, 93%, 90%,85%, 80%, or 2.35:1)

Image Freeze: Freeze the video for screen capture.

Image Flip: Flip the image/video horizontally and vertically (H_V Flip), horizontally (H Flip), or vertically (V Flip) around flip, or set to Off (default).

Check field: To switch the screen between: Color, Monochrome, Red, Green, and Blue modes.

P2P: Pixel to Pixel, forces the resolution of the image/video to be consistent with display physical resolution.

Focus Assist : This function helps the user focus an HDMI image/video. When Focus Assist is enabled (turned On), the image/video received switches to a monochrome view and a red outline is added to high contrast edges. This makes it easier to manually focus sources such as cameras, etc. Once focus is achieved, disable (turned Off) Focus Assist.

4.2.4 Main Menu Bar – Custom Buttons

 Custom Buttons

F1 :   Setting custom button F1: Select custom button "F1", press the " > " or " < " button to pop-up the "F" button functions and select between (Center Marker, Safe Frames, Check Field, Focus Assist, Aspect Ratio, Image Flip, Pixel to Pixel "P2P", or Image Freeze). Then press the "∧/F1" button to assign it to the "F1" custom button, then press the "MENU" button to confirm.

F2 :   Setting custom button F2: Follow the same procedure as above, but substitute with the "F2" and "∧/F2" buttons.

5.0 Technical Specifications

Panel Size	5.0inch
Panel Type	TFT LCD
Resolution	800×480×3(RGB)
Backlight	LED
Dot Pitch	0.045(W) x 0.135 (H) mm
Aspect Ratio	16:9
Brightness	500cd/㎡
Contrast	500:1
Response Time	TON=10ms; TOff=15ms
Viewing Angle	70°/70°(L/R) 50°/70°(U/D)
Input Signal	HDMI/ 3G-SDI/ Video/ Audio(L/R)
Output signal	HDMI/ 3G-SDI/ Video
Color Video Format	PAL-4.43 / NTSC-3.58
HDMI Support Format	480i /480p /576i /576p 720p (60/59.94/50/30/29/25/24/23.98) 1080i (60/59.94/50) 1080p(60/59.94/50/30/29.97/25/24/24fps/23.98/23.98fps)
SDI Support Format	480i/576i 720p(60/59.94/50/30/29/25/24/23.98) 1080i(60/59.94/50) 1080p(60/59.94/50/30/29.97/25/24/24fps/23.98/23.98fps)
Headphone Output	Stereo headphone output 3.5 mm interface
Input Voltage	DC：9.0～24.0V
Power Consumption	≦25W
Unit Size (mm)	482.6Lx88Hx34D mm
Unit Weight	≈1570g
Working Temperature	- 20～55℃
Storage Temperature	- 30～65℃

6.0. Trouble Shooting

6.1 Only Monochrome or Single Color Image/Video：

①Check the Saturation, Brightness & Contrast adjustment.

②Check the unit "Check Field" settings. Is "Check Field" in Monochrome image/video, or in another single color state? If so, change to "Color" mode.

6.2 No Image/Video after Power On

①Check condition of the signal cable and connection. Also if the display is correctly synchronized with the input signal. Press the "Mode" button to test and confirm the correct setting.

②Make sure to use a standard AV connector/adapter to connect to the unit.

6.3 No Sound Output

①Volume control may be too low. Press the Volume Up button to increase the volume.

②Check the source Audio signal and confirm that Audio is present. If available, test on a separate device.

Important Note:

If you still cannot diagnose the problem, please call MuxLab Customer

Technical Support at 877-689-5228 (toll-free in North America) or (+1)

514-905-0588 (International).

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