



HDMI / 3G-SDI Dual Display
Installation and Operation Manual
500841

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To ensure 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

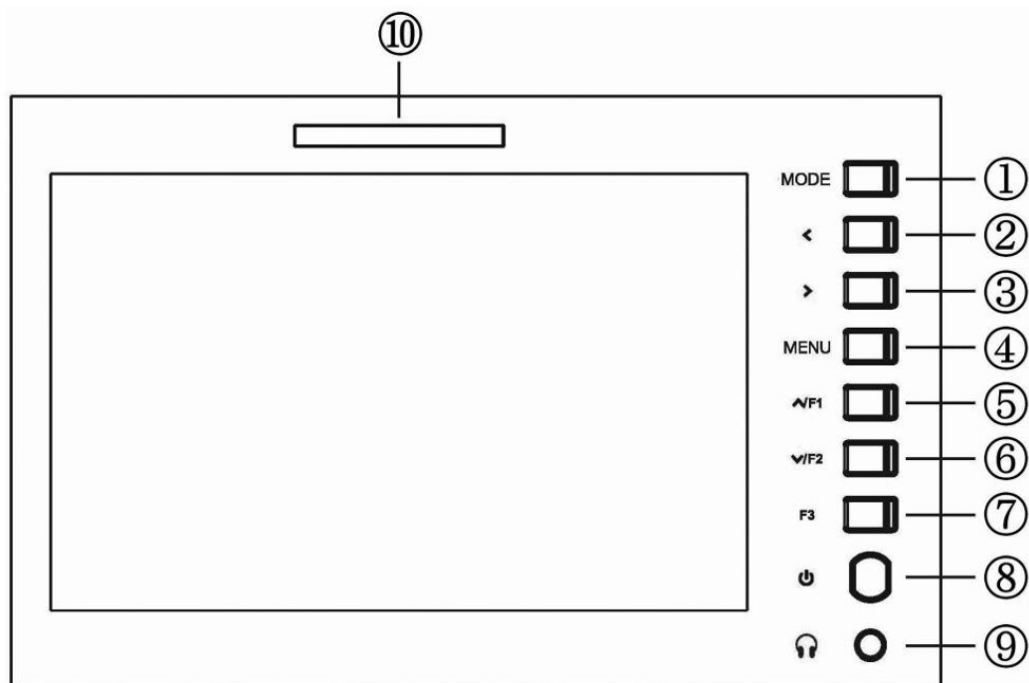
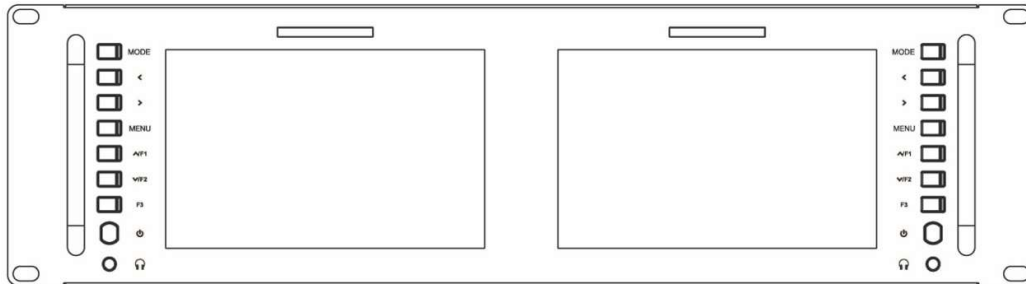
Rackmount Dual display unit monitor adopts advanced integrated circuits, high-quality IPS LCD panel which makes it brighter, stable performance, color temperature control, etc. Advanced features include Peaking Focus, Center Marker, Screen Marker, Image Flip, Check Field Color Temperature Adjustment etc. It is an ideal NLE (Nonlinear Edit) matching monitor. 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.

2.0 Features

- Dual IPS 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



3.0 Product Description

3.1 Front Panel Description

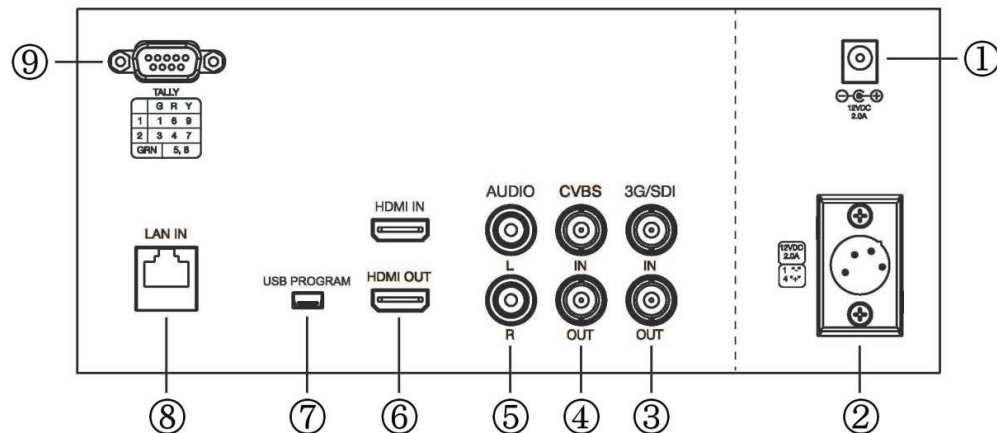
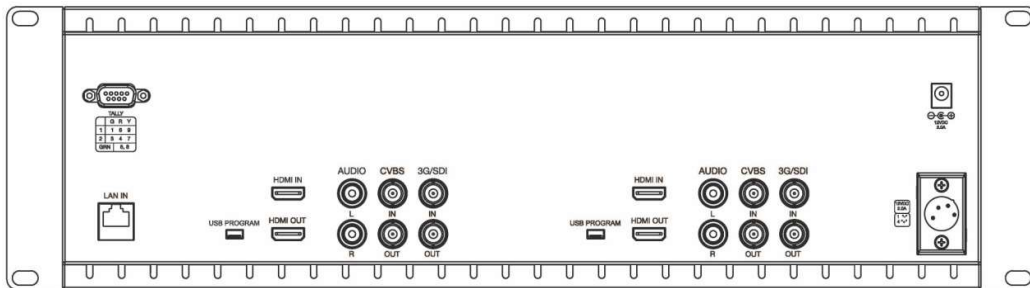


Each display supports a number of buttons for control and setting of a given display as follows:

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. [**v/F2**] Dual function button. Typically used as the F2 custom button. During menu operation, it is used for navigating down the menu.
7. [**F3**] Custom button F3
8.  On/Standby button
9.  Headphone jack
10. [**TALLY light indicator**] See rear panel Tally section for more details.

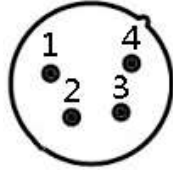
3.2 Rear Panel Description



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

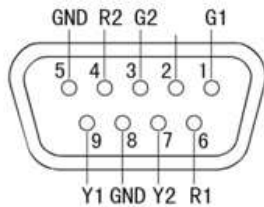
5. AUDIO: Audio input L / R

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

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

8. LAN IN: Ethernet LAN Connector

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



Indicator Color	Pin Connection	
	1 Screen	2 Screen
Green	1-5	3-8
Red	6-5	4-8
Yellow	9-5	7-8

GND port 5 and 8 is sharing

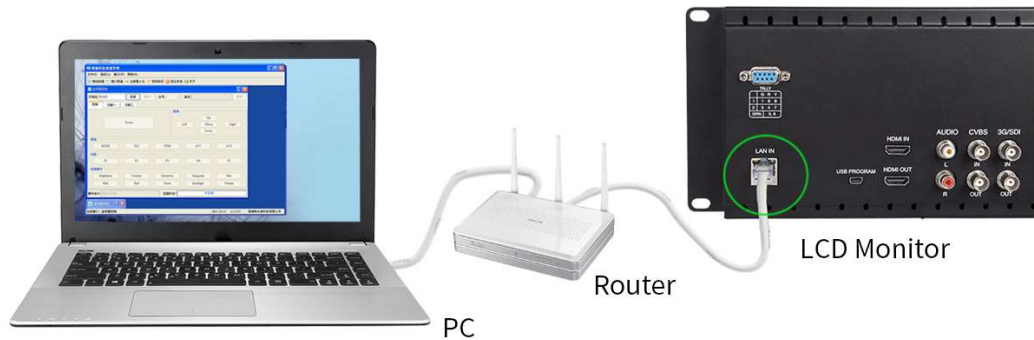
4.0 Display Operation Instructions


Connect the provided power supply provided into the unit. The two 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.

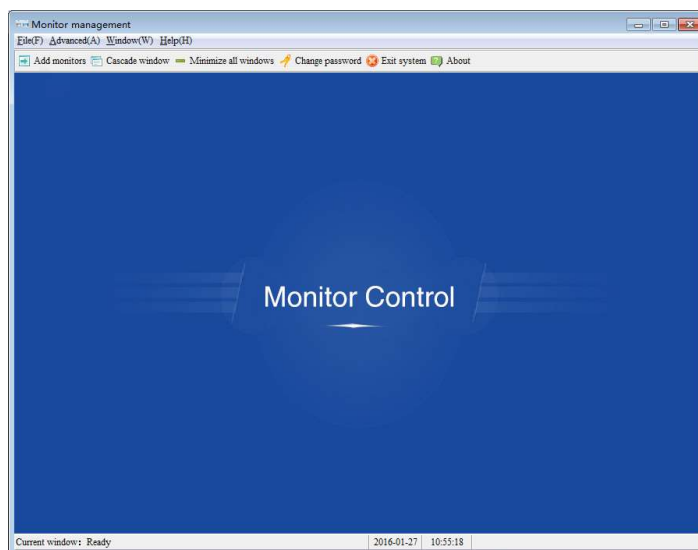
4.1 Ethernet connection

The 500841 can be managed through the LAN port using the software control. Follow these instructions to control the display.

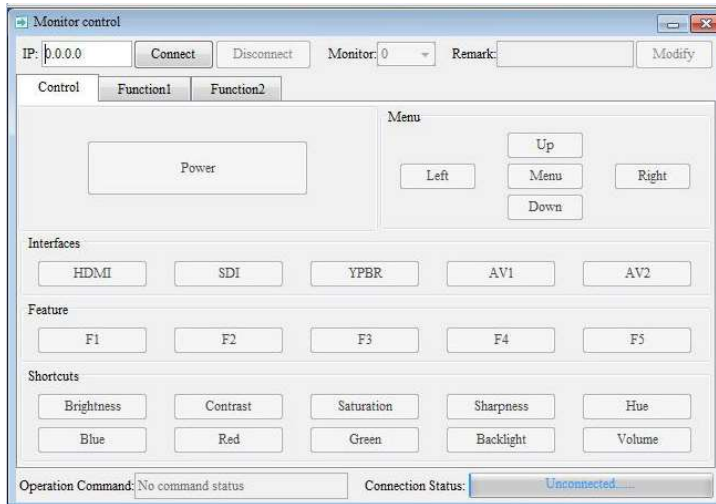
1. Connect your computer into the Ethernet port (or through a network switch/router). IP address will be displayed in the monitor.



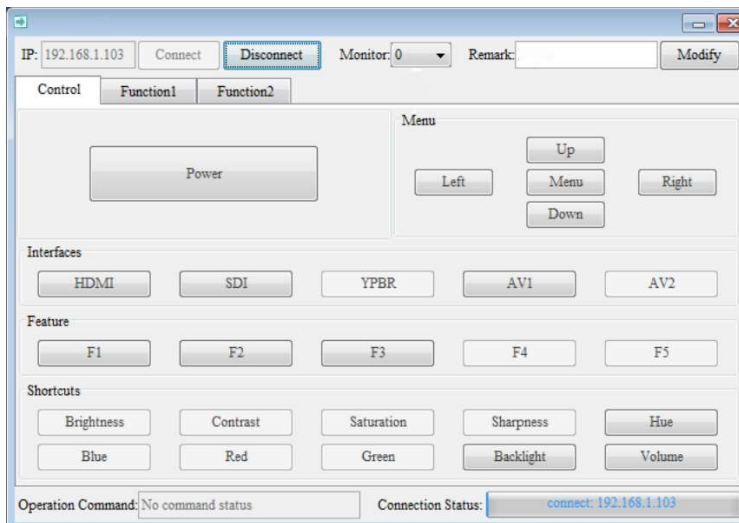
2. Open the  GPIO folder which should be previously downloaded in the computer and click on the Monitor Control.exe icon
3. Login and add monitor



4. Enter IP address



5. Select the display you wish to control



If the unit is connected, the IP will be displayed at the bottom

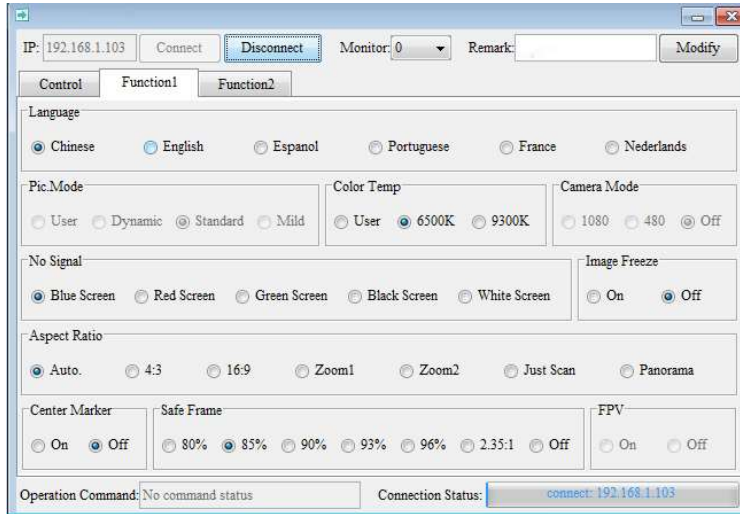
6. Three tabs will appear: Control, Function1 and Function2

Control Tab

It allows you to navigate through the menu, access to the interfaces among others functionalities.

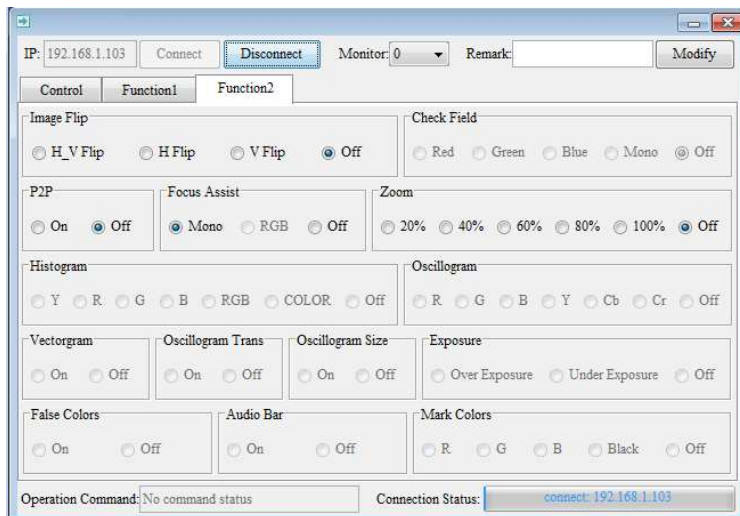
Function1 Tab

It allows you to change the language, control aspect ratio, center marker, etc. See screenshot for details.



Function2 Tab

In this tab, user has access to Image flip, check field, Zoom among others parameters. See below for more details:








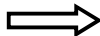

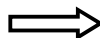


4.2 Display Button Instructions

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.
- F3**  Custom button F3
-   Power switch.

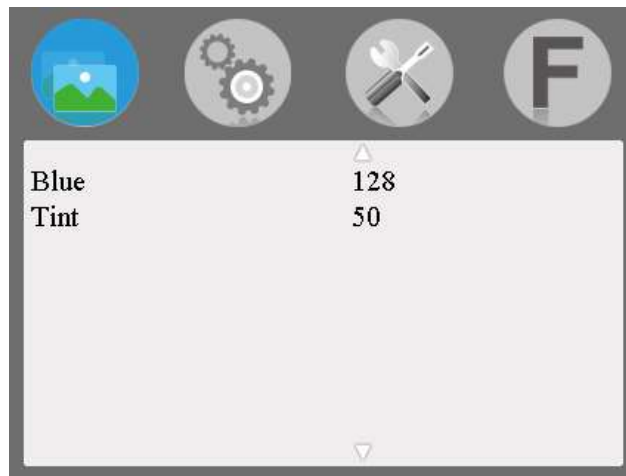
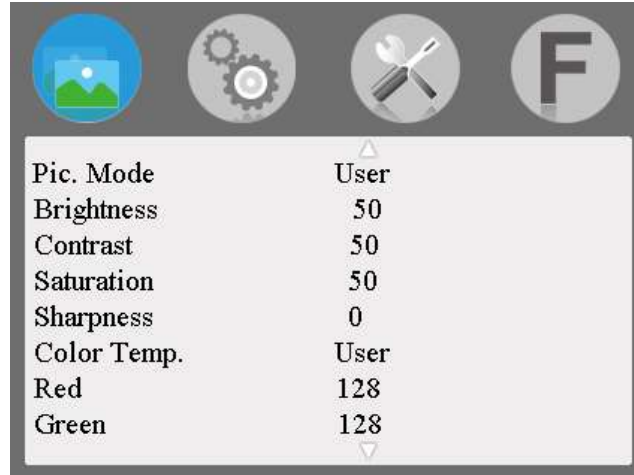
4.2 Menu Instructions

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



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.

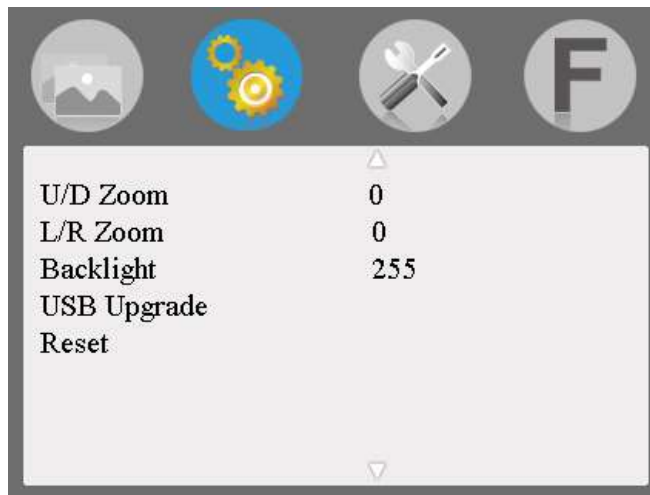
When “User” is selected, adjust the R/G/B to meet the specific requirements for the desired color temperature.

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 Autome.
- 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.
- Backlight** To adjust the monitor backlight brightness.
- 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



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.
- F3:** Customized button. Procedure is the same as F1.

5.0 Technical Specifications

Panel Size	7" IPS
Panel Type	TFT LCD
Resolution	1280 x 800 pixels
Backlight	LED
Dot Pitch	0.117 (H) × 0.117 (V) mm
Aspect Ratio	16:10
Brightness	400cd/m ²
Contrast	800:1
Response Time	Tr=14ms; Tf=11 ms
Viewing Angle	89°/89°(L/R) 89°/89°(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	≤20W
Unit Size (mm)	482.6 L × 130.0 H × 30.5 D mm
Unit Weight	≈1890g
Working Temperature	- 20 ~ 55°C
Storage Temperature	- 30 ~ 60°C

6.0. Troubleshooting

6.1 Only Monochrome or Single Color Image/Video:

- ① Check the Saturation, Brightness & Contrast adjustment.
- ② Check 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

- ① Check 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.
- ② Make sure to use a standard AV connector/adaptor to connect to the unit.

6.3 No Sound Output

- ① Volume control may be too low. Press the Volume Up button to increase the volume.
- ② Check 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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