datavideo

17.3" HD/SD TFT
LCD MONITOR
TLM-170P/TLM-170PM
/TLM-170PR
Instruction manual

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Disclaimer of Product and Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1).This device may not cause harmful interference, and
(2).This device must accept any interference received, including interference that may cause undesired operation.

Warnings and Precautions

1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
    a. When the power cord is damaged or frayed;
    b. When liquid has spilled into the unit;
    c. When the product has been exposed to rain or water;
    d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
    e. When the product has been dropped or the cabinet has been damaged;
    f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

- Datavideo equipment are guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date of purchase.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- All accessories including headphones, cables, and batteries are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

Three Year Warranty

- All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.

- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, Camera module, PCIe Card are covered for 1 year.
- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.

Disposal

For EU Customers only - WEEE Marking.

This symbol on the product indicates that it should not be treated as household waste. It must be handed over to an applicable take-back scheme for the recycling of Waste Electrical and Electronic Equipment. For more detailed information about the recycling of this product, please contact your local Datavideo office or your local recycling centre.

CE Marking is the symbol as shown on the left of this page. The letters "CE" are the abbreviation of French phrase "Conformité Européene" which literally means "European Conformity". The term initially used was "EC Mark" and it was officially replaced by "CE Marking" in the Directive 93/68/EEC in 1993. "CE Marking" is now used in all EU official documents.

1. Introduction

The Datavideo TLM-170P is a 17.3" TFT LCD monitor that delivers superb FULL HD 1080P image quality from various inputs including 3G-SDI. The monitor is a professional grade panel designed to give excellent colour and video performance across a range of formats and standards as well as 24/7 operation.

The TLM-170P front panel buttons allow quick and easy selection of source input as well as PIP, Aspect ratio, Blue only, Pattern (Colour Bars), Menu and audio controls. Input HD/SD sources via the rear panel SDI, HDMI, Component (Y, Pb, Pr) and Composite connections as well as monitoring RCA phono or embedded SDI / HDMI audio.

The Datavideo TLM-170P monitor has an on-screen display (OSD) menu which allows control and set up of brightness, contrast, saturation, hue, sharpness, colour temperature and picture in picture. It also has RJ-45 TCP/IP connector to allow remote set up of the monitor using a PC / Mac based web browser. The menus can also be used to display onscreen overlays for frame marker, 4:3 marker, 16:9 Marker, Cinema Zone Marker, Center Point, embedded SDI Timecode and Monitor Title.

The Datavideo TLM-170P monitor can be operated from AC or 12V DC power making it flexible for use in a Studio, Gallery, Post Production Edit Suite or even in an OB Van.

That's Datavideo; sharing the value!

To get more value out of this equipment please take a few minutes to read this manual thoroughly as this will help you familiarise yourself with all aspects of the TLM-170P monitor.

1.1 Features

- 17.3" FULL HD 1080p LCD Panel with Underscan and Overscan menu options.
- Digital Video Inputs: Single BNC HD-SDI or SDI and HDMI x2 [HDMI1, HDMI 2].
- Analogue Video Inputs: Component [Y,Pb,Pr], Composite x2 [CV1, CV2].
- Single BNC SDI /HD-SDI loop through / bypass.
- Composite loop through of CV2 input.
- Mono Audio Inputs: Single RCA phono socket for analogue inputs.
- Digital Audio Inputs: via SDI or HDMI inputs.
- Head phone 3.5mm stereo jack socket for discrete audio monitoring.
- Front Panel Buttons allow quick and easy selection of source input as well as PIP, Aspect Ratio, Blue only, Pattern (Colour Bars), Menu and audio controls.
- Colour temperature menu option has 3 modes (6500K, 9300K and user defined)
- OSD audio level peak meter for SDI and HDMI based digital audio inputs.
- On screen overlays for frame marker 80%, 90%, 4:3 marker, 16:9 Marker, Cinema Zone Marker, Center Point, embedded SDI Timecode and Monitor Title.
- Bi-colour Tally light and 3.5mm Jack Tally input socket.
- Analogue Audio external speaker outputs L-, L+ and R-, R+ [Max 5v p - p (2w)].
- RJ-45 TCP/IP connection allows remote set up of the monitor using a PC / Mac based browser.
- USB 2.0 port for easy update of firmware with a USB 2.0 pen drive.

1.2   TLM-170P Model Types

Model	TLM-170P	TLM-170PR	TLM-170PM
Image			
System	Desktop	7U Rack Mount	1U Mobile Tray Rack Mount

1.3   Compatible Resolutions and Formats

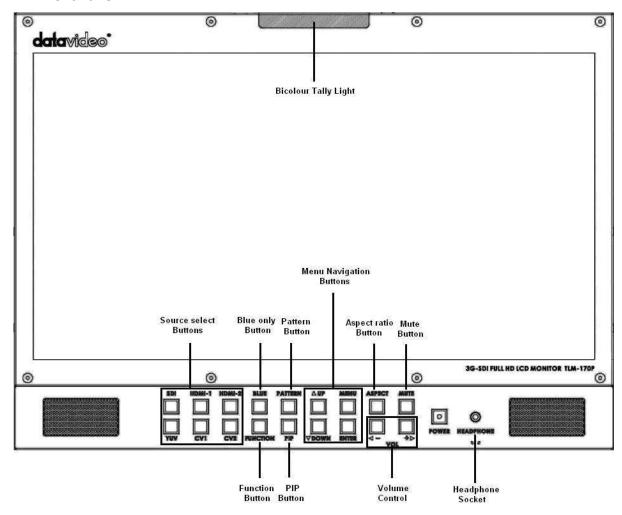| Format	TLM-170P Interface			
	HDMI	SDI	YPbPr	Composite
1920x1080P @ 59.94	Support	Support	x	x
1920x1080P @ 60	Support	Support	x	x
1920x1080P @ 50	Support	Support	x	x
1920x1080P @ 29.97	Support	Support	Support	x
1920x1080P @ 25	Support	Support	Support	x
1920x1080P @ 30	Support	Support	Support	x
1920x1080P @ 23.98	Support	Support	Support	x
1920x1080P @ 24	Support	Support	Support	x
1920x1080P @ 23.98SF	x	x	x	x
1920x1080P @ 24SF	Support	x	x	x
1920x1080i @ 59.94	Support	Support	Support	x
1920x1080i @ 60	Support	Support	Support	x
1920x1080i @ 50	Support	Support	Support	x
1280x720P @ 59.94	Support	Support	Support	x
1280x720P @ 60	Support	Support	Support	x
1280x720P @ 50	Support	Support	Support	x
1280x720P @ 23.98	x	x	x	x
1280x720P @ 24	x	x	x	x
720 x 480i (NTSC)	Support	Support	Support	Support
720 x 576i (PAL)	Support	Support	Support	Support

The TLM-170P panel will support/display the following 60Hz computer resolutions when supplied via a standard DVI to HDMI cable.

Please note the TLM-170P panel is natively 1920 x 1080 pixels so certain resolutions may be slightly edge cropped and bars/columns may be shown with other resolutions when the panel is switched between 16:9 and 4:3 using the aspect button.

	Resolution	Aspect
SVGA	800 x 600	4:3
XGA	1024 x 768	4:3
	1152 x 864	4:3
WXGA	1280 x 768	16:9
WXGA	1280 x 800	16:10

2. Connections and Controls

2.1 Front Panel

Bi-Colour Tally Light

Menu Navigation Buttons

Source select Buttons   Blue only Button   Pattern Button   Aspect ratio Button   Mute Button

3G-SDI FULL HD LCD MONITOR TLM-170P

Function Button   PIP Button   Volume Control   Headphone Socket

Bi-Colour Tally Light: Can be used to indicate Live (Red).

Source Select Buttons: Select the type of input you are using SDI, HDMI, YUV, CV; The active input will be indicated by a red LED on the Source Button.

BLUE: Press this button to eliminate the red and green component of input signals. Only the blue component of an input is displayed on the screen. This allows adjustments of chroma and phase. (Phase adjustment is effective with NTSC signals).

Function: Press this button to zoom in your HD-SDI video source on the screen.

* See **Function Button – Pixel zoom feature** for more details.

Pattern Button: When pressed displays internally generated SMPTE 75% Colour Bars. Press again to return to the previously selected video input.

PIP Button: Activates Picture in Picture Mode.

Menu Navigation Buttons: Display and navigate the set up menus - *See Menu Options for more details.*

Aspect Ratio Button: Sets the Aspect Ratio to 16:9 / 4:3
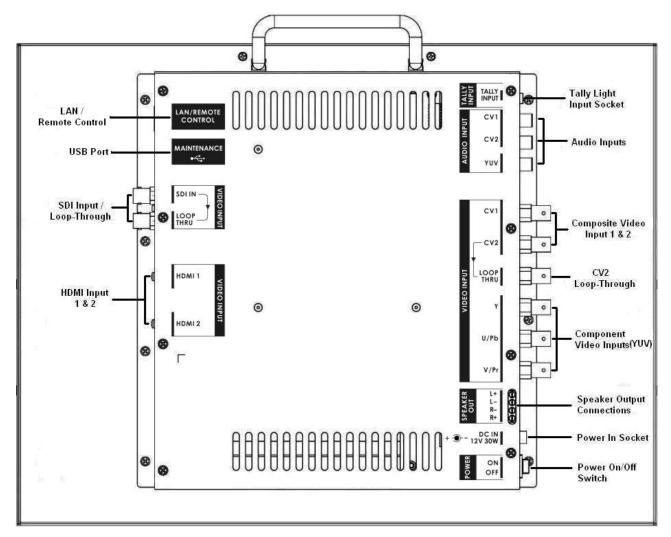
Mute Button: Mutes the audio from the internal speakers or headphone socket.

Volume Control: Adjusts the speaker / headphone volume up / down.

Headphone Socket: 3.5mm headphone socket; internal speaker circuit will automatically mute when headphones are connected.

N.B. Main Power On/Off switch is located on the rear of the TLM-170P.

2.2   Rear Panel

LAN Remote Control: Use a crossover Ethernet cable for direct connection between TLM-170P and the PC RJ-45 port. *See **Remote Control Setup section** for more details.*

USB 2.0 Port - For firmware updates only. See ***Firmware Update section*** for more details.

SDI Input & Loop Through: BNC Input for HD / SD SDI with a loop through output.

HDMI Input - Video and Audio input from HDMI.

3.5mm Tally Light Input: Tally light information can be supplied to the TLM-170P from the Datavideo RMC-140, TB-5 or TB-10 or the ITC-100SL / ITC-200B/E via this socket.

Analog Audio Inputs: Mono audio inputs to correspond to the analogue video inputs (CV 1 & CV 2).

Composite Video Inputs 1 & 2: BNC connectors for composite video with one loop through output.

Component Video Input: BNC connectors for Component (YUV (Y/R-Y/B-Y)) Video.

External Speaker Output Connections: Speaker Output connections Max 5v p - p (2w)

DC In Socket: 2.1mm, In Line Power Socket with screw lock, for connecting the suitable 12v 30W feed.

On / Off Switch: Main on / off switch, switches the TLM-170P on and off.

3   Function Button - pixel zoom feature

This feature is designed for use with HD-SDI and HDMI sources above 720p resolution. Press this button to zoom in to the video on the display. This is strictly a zooming function and does not alter the native aspect ratio of the source pixels to fill the screen.

The **FUNCTION** button allows you to toggle the Pixel Zoom feature between **zoom x1, x2, x4** and **x8**.

When turned ON the zoomed display may be moved left or right using the **VOL + /- ZOOM** keys and up or down using the **up/down** keys.

A Flashing **FUNCTION button light** will be activated whenever you are in a zoomed mode as a reminder/warning that the entire incoming signal is not being shown on the monitor.

To exit zoomed mode, simply press down on the MENU key. To exit the Pixel Zoom feature entirely simply press the MENU button once more.

4.   OSD Menus

The TLM-170P is set up using an OSD menu system. To display the OSD menu press the MENU button. This menu system is navigated using the Up / Down buttons to change a value or to highlight a menu option. Press the Enter button to select an option or confirm a value.

4.1   MAIN MENU

You can choose: **MAIN ADJUST**
                    COLOR ADJUST
                    SCAN SETTING
                    INFORMATION
                    PIP SETTING
                    LANGUAGE
                    SETUP MENU
                    SPECIAL FUNCTION I
                    SPECIAL FUNCTION II
                    SETUP NETWORK
                    SETUP F. W.
                    FACTORY RESET
                    AUDIO CONTROL
                    EXIT

4.2   MAIN ADJUST

You can choose: **BRIGHTNESS**   **0~100**
                    CONTRAST   **0~100**
                    SHARPNESS   **0~100**
                    SATURATION   **0~100**
                    TINT   **0~100**
                    BACK LIGHT   **0~100**
                    3D COMB   **DISABLE / ENABLE**
                    NR   **HIGHD / MID / LOW / OFF**
                    MPEG NR   **HIGHD / LOW / OFF**

DLC	**DISABLE / ENABLE**
VOLUME	**0~100**
EXIT	

3D COMB is for video noise suppression.
NR is for video Noise Reduction.
MPEG NR is for MPEG format Noise Reduction.
DLC is for Dynamic Luminance Control.

4.3   COLOR ADJUST

You can choose: **6500**
               9300
               USER COLOR

RED	**0~100**
GREEN	**0~100**
BLUE	**0~100**

               EXIT

4.4   SCAN SETTING

You can choose: **UNDER SCAN**   full image
               OVER SCAN   cropped image

4.5   INFORMATION

Display: **H. FREQUENCY**
               V. FREQUENCY
               RESOLUTION   **NTSC / PAL / SECAM**

This mode will display the video resolution.

4.6   PIP SETTING

You can choose: **PIP**   **ON / OFF**
                        SOURCE   *see below
                        POSITION   **LF-TOP / RT-TOP / RT-BOT / LF-BOT**
                        SIZE   **LARGE / SMALL / MID**
                        SWAP   swap PIP source and Main source
               EXIT

Main/Background source is chosen on the front panel first before entering the PIP menu.
PIP window must be an analogue source if Main source is a digital source, or vice versa.
It is not possible to use analogue inputs for both PIP window and Main source.
It is not possible to use digital inputs for both PIP window and Main source.

Examples
If main source = HD-SDI [digital] then PIP window choice = YUV or Composite [analogue]
If main source = HDMI   [digital] then PIP window choice = YUV or Composite [analogue]

If main source = YUV   [analogue] then PIP window choice = SDI or HDMI [digital]
If main source = CV1   [analogue] then PIP window choice = SDI or HDMI [digital]

4.7   LANGUAGE

You can choose: **English**
                    [default]
                    Español
                    Deutsch
                    Español
                    Italiano
                    Dutch
                    Português
                    EXIT

4.8   SETUP MENU

You can choose: **OSD TIMEOUT**   5~120 sec
                    EXIT

4.9   SPECIAL FUNCTION I

You can choose: **FRAME RATIO**   **80 / 90 / 0FF**
                    4:3 MARK LINE   **ON / OFF**
                    CENTRAL MARK   **ON / OFF**
                    CINEMA ZONE   **ON / OFF**
                    MARK
                    MARK TYPE   **OVERLAY / TRANSPARENT**
                    EXIT

4.10   SPECIAL FUNCTION II

You can choose: **TIMECODE SETUP (VALID FOR SDI ONLY)**
                    TITLE EDIT   **TITLE DISPLAY**   **ON / OFF**
                                             TITLE POSITION   **MID-TOP / MID-BOT**
                                             FONT SIZE   **SMALL / LARGE**
                                             FONT COLOR   **RED / GREEN / ORANGE / WHITE**
                                             EDIT TITLE   **A~Z**
                    EXIT

4.11   SETUP NETWORK

You can choose: **DHCP**   **ON / OFF**   **User choice**

                    IP   **127.127.127.127.**   **User defined**
                                                                   Or set by DHCP if DHCP=ON
                    MASK   **255.255.255.255.**   **User defined**
                                                                   Or set by DHCP if DHCP=ON
                    GATEWAY   **127.127.127.127**   **User defined**
                                                                   Or set by DHCP if DHCP=ON

MAC	**xx.xx.xx.xx.xx.xx**	**unique to monitor** **cannot be changed**
EXIT		

*See **Remote Setup sections** for more details.*

4.12 UPDATE F.W.

You can choose: **UPDATE SCALER F.W.**
SCALER VER:
UPDATE FPGA F.W.
FPGA VER:
EXIT

*See **Firmware Update Procedure section** for more details.*

4.13 FACTORY RESET

Push ENTER button to reset the TLM-170P to restore the factory settings or default settings.

4.14 AUDIO CONTROL

You can choose: **INTERNAL AUDIO**   **ON / MUTE / MUTE CTROL**
EXTERNAL AUDIO   **ON / MUTE / MUTE CTROL**
AUDIO INDICATOR*   **ON / OFF**
AUDIO CHANNEL L   **1**
AUDIO CHANNEL R   **2**
EXIT

*dBFS audio peak meter shown as overlay in bottom left hand corner of display when this option is ON. This display shows 8 channels of audio with SDI sources and 2 channels with other sources.

5. Remote Set Up using an existing DHCP Network

The TLM-170P can be remotely set up using a computer web browser and the existing DHCP LAN. In this way a gallery of TLM-170P monitors can be set up from one computer if enough network connections exist.

1. Use a normal Ethernet RJ-45 patch cable, straight through, to connect TLM-170P to an existing LAN wall socket/switch.

2. Power on the TLM-170P monitor and press the MENU button to display the OSD menu.

3. Using the Up / Down buttons highlight SETUP NETWORK and press ENTER.

4. Set the menu option DHCP to ''ON'' and press ENTER.

   The same OSD menu screen will now show the IP address given by the network to the TLM-170P monitor. Make a note of this displayed IP address.

5. From a computer on the same DHCP LAN network open a web browser such as Internet Explorer or Google Chrome. Delete the contents of the address bar at the top of the browser window and enter the IP address of the TLM-170P that you just made a note of earlier and press ENTER.

6. The TLM-170P REMOTE SET UP interface should now be displayed in the web browser.

7. You can now use the computer's mouse and keyboard to change the monitor's settings.

Once the above steps have been completed the next time you want to change settings remotely you can re-start from step 5.

6.   Remote Set Up using a direct computer connection

The TLM-170P can be remotely set up using a computer web browser and an Ethernet crossover cable. No existing computer network is used. The Ethernet crossover cable is connected to the TLM-170P monitor and the computer/laptop being used.

1. Use an Ethernet RJ-45 *crossover cable* to connect the TLM-170P directly to the computer being used.

2. Power on the TLM-170P monitor and press the MENU button to display the OSD menu.

3. Using the Up / Down buttons highlight SETUP NETWORK and press ENTER.

4. Set the menu option DHCP to ''OFF'' and press ENTER.

5. Then enter into the **TLM-170P** …

> IP Address: 192.168.0.210
>
> Subnet Mask: 255.255.255.0
>
> Gateway: 192.168.0.1

6. Now open the Network and Sharing Center window on the Windows computer. Open the Local Area Network Properties window and make a note of any displayed IP address or settings so you can return the computer back to its original settings later if necessary.

7. Now change the Computer's TCP/IP property settings as shown below.

   Select '*Use the following IP Address'* radio button.

   Then enter into the **computer** …

> IP Address: 192.168.0.205
>
> Subnet Mask: 255.255.255.0
>
> Gateway: 192.168.0.1

8. Now save and close any open network related windows on the computer.

9. From the computer desktop open a web browser such as Internet Explorer or Google Chrome.

10. Delete the contents of the address bar at the top of the browser window and enter the IP address of the TLM-170P which should be **192.168.0.210** if you are following the example here.

11. When you enter the IP address in the web browser the TLM-170P's remote settings interface should be displayed in the browser window.

7.   Firmware update procedure

From time to time Datavideo may release new firmware to either add new features or to fix reported bugs in the current TLM-170P firmware. Customers can update the firmware themselves if they wish or they can contact their local dealer or reseller for assistance should they prefer this method.

This page describes the firmware update process and it should take **approximately 15 minutes total time to complete**.

As well as a working TLM-170P you will need:

➢ The latest firmware update for the TLM-170P *monitor*.
   This firmware file can be obtained from your local Datavideo office or dealer.
➢ USB 2.0 pen drive 128MB or larger with a USB A connector.

Once started **the update process should not be interrupted in any way** as this could result in a non-responsive unit.

How to update the Scaler firmware

1. Unzip / extract the supplied zipped archive or rar folder.
2. Wipe the contents of the USB 2.0 pen drive so it is empty.
3. Transfer / copy the unzipped / extracted file to the USB 2.0 pen drive.
4. Plug the USB 2.0 pen drive into the USB 2.0 port labelled MAINTENANCE on the rear of the TLM-170P monitor.
5. Power the monitor on and press the MENU button to display the OSD Main Menu.
6. Using the OSD Menu buttons [UP, DOWN & ENTER] highlight and select the SETUP F.W. option.
7. Using the OSD Menu buttons [UP, DOWN & ENTER] highlight and select UPDATE SCALER F.W.
8. The TLM-170P tally light will flash different colours whilst the update is in progress.
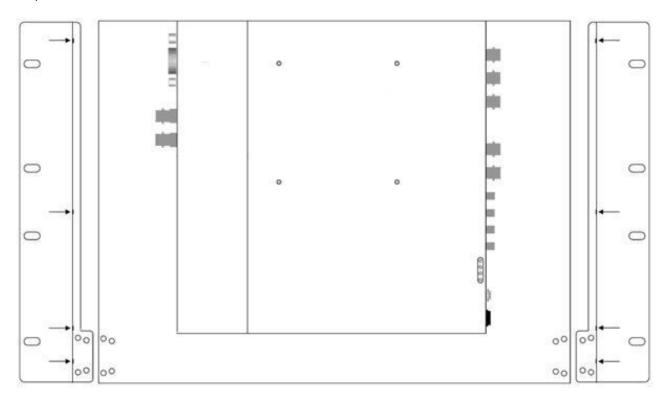9. The TLM-170P monitor will reboot itself at the end of the process.

How to update the FPGA firmware

1. Unzip / extract the supplied zipped archive or rar folder.
2. Wipe the contents of the USB 2.0 pen drive so it is empty.
3. Transfer / copy the unzipped / extracted file to the USB 2.0 pen drive.
4. Plug the USB 2.0 pen drive into the USB 2.0 port labelled MAINTENANCE on the rear of the TLM-170P monitor.
5. Power the monitor on and press the MENU button to display the OSD Main Menu.
6. Using the OSD Menu buttons [UP, DOWN & ENTER] highlight and select the SETUP F.W. option.
7. Using the OSD Menu buttons [UP, DOWN & ENTER] highlight and select UPDATE FPGA F.W.
8. The TLM-170P tally light will flash different colours whilst the update is in progress.
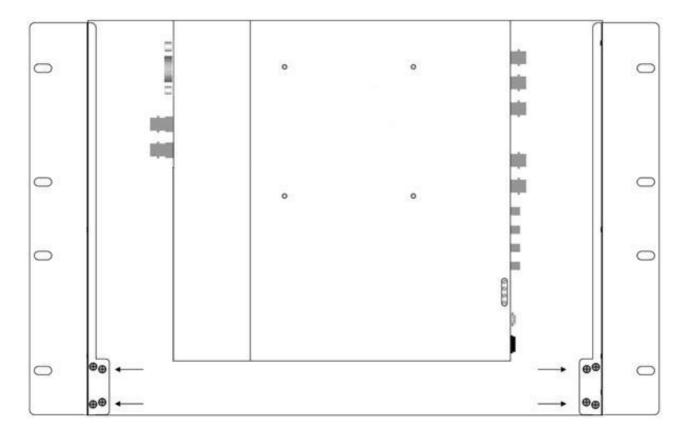9. The TLM-170P monitor will reboot itself at the end of the process.

Once started **the update process should not be interrupted in any way** as this could result in a non-responsive unit.

8.   TLM-170PR: Fitting the 19" Rack Ears to the TLM-170P

The TLM-170PR is supplied with 19" Rack Ears which allow the monitor to be rack mounted (19" 7U).

Use the supplied screws to attach the left and right rack ears. You will see there are four screws on either side, as illustrated above, plus additional screws at the base of each rack ear, as illustrated below.
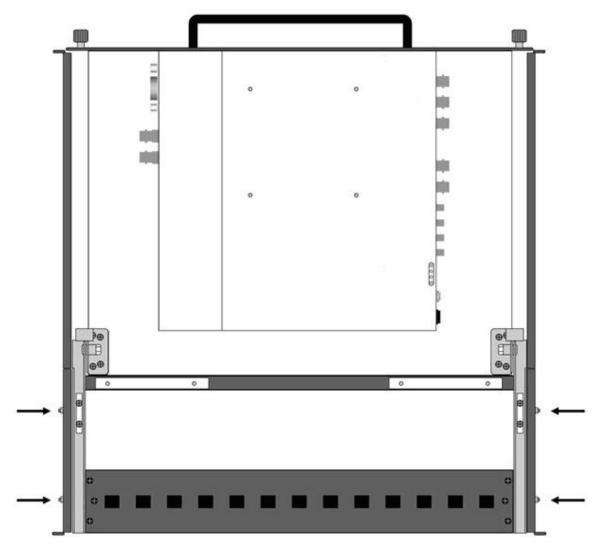
## 9.	TLM-170PM: Fitting the monitor to a 19" Rack

The TLM-170PM is designed to rack mount. When folded away it is 1U high, please bear in mind that when opened for operation the monitor is 7U high, so leave adequate room above for this.

The monitor arrives already fitted with sliding rack rails, these have a length adjustment at the rear to suit the distance between the front and rear rack rails of your cabinet.

To adjust the length loosen the four adjustment nuts as illustrated below, and pull the side rails back as far as is required. Then re-tighten the nuts.

Mount the monitor in your rack with the rear panel facing upwards. Ensure the rack mounting screws are secured both front and rear.

Once mounted and secure to the rack, unscrew the two locking screws on either side of the front panel, and pull the monitor forward using the handle. Once the monitor is fully forward simply hinge it up into a vertical position.

To fold away, pull the top of the monitor forward, so that it hinges down to a horizontal position, then push it back into the rack until you are able to screw in the locking screws.

N.B. When folding the monitor away be careful not to trap your fingers or scrape your hand on the rack cabinet.

10.   Specifications

LCD	Size	17.3''
	Resolution	1920 x 1080
	View Angle	Top: 60 deg Bottom: 60 deg Left: 80 deg Right: 80 deg
	White Luminance	400cd
	Contrast	600
Video INPUT	HDMI x 2	HDMI Ver. 1.3
	BNC x 1	3Gbps/ HD/SD-SDI
	BNC x3	Component
	BNC x 2	Composite
Video OUTPUT	BNC x 1	HD-SDI Loop Through Output
	BNC x 1	CV2 Loop Thru Output
SDI Signal Format	SMPTE-425M-A/B SMPTE-292M SMPTE-274M	1080p (60/59.94/50/30/25/24) 1080i (60/59.94/50) 1080p (30 / 29.97)
	SMPTE-296M	720p (60 / 59.94 / 50)
	SMPTE-259M	480i (59.94) 576i(50)
Audio Input	Supports SD/HD-SDI embedded audio	
	Supports HDMI embedded audio (Ver.1.3)	
	Speaker cable output connections (L-, L+, R-, R+) Max 5v p - p (2w)	Speaker Output connections Max 5v p - p (2w)
Audio Output	Internal Speaker	
Maintenance	USB x 1	USB 2.0 FW Auto Upgrade
Power	DC 12V	
Operating Temperature	0 °C to 50 °C	
Storage Temperature	-10 °C to 60 °C	
Accessory	New professional Stand	
Weight	6 Kg	

Service & Support

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