



Instruction Manual

LM-1750HD
Multiple Format 17" Color LCD Monitor

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1.0 INTRODUCTION

The LM-1750HD is a high performance Multi-format 17" Color LCD Monitor for the broadcast and professional market. A multitude of video signal formats may be accurately monitored. The high brightness, wide viewing angle, excellent contrast ratio and high definition color result in an outstanding image. The unit features inputs for SDI (either SD or HD) with an active output, HDMI, Analog RGBHV, YUV or YPbPr Component Video and 2x Composite Video. An YC input is available and can be used in lieu of one of the Composite inputs. NTSC and PAL Television Standards are supported and automatically detected. Five Stereo inputs are also provided and dual internal speakers driven by a 3 watt amplifier provide stereo audio monitoring capability. Front panel Tally LED's can be activated external via the DB9 connector. Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Seamless Switchers, Video Scalers, Up/Down/Cross Converters, Analog-Digital Converters (SD/HD-SDI, HDMI, DVI), Format Converters, Standards Converters, TBC/Frame Synchronizers, Matrix Routing Switchers, Signal Distribution Amplifiers and Cat.5 Transmission Systems.

1.1 Liability Statement

Every effort has been made to ensure that this product is free of errors. TV One cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

TV One reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

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1.2 Features

The LM-1750HD has many features that enable it to perform in a superior manner:

- Inputs: SD/HD-SDI, HDMI, Analog RGBHV, Component, Composite and YC (S-Video)
- Resolutions up to 1400x900, 1080p
- High Brightness, Pro Grade LCD Panels
- 16.7 Million Colors
- 5x Stereo Audio Inputs
- Blue Only and Sync Delay modes for easy setup
- Tally LEDs
- 160° Left/Right and 160° Up/Down Viewing Angles
- Vertically Tilttable Rackmount Housing

2.0 SPECIFICATIONS

| | |
|-------------------------------------|-----------------------------------|
| LCD Panel | |
| Display Size - Diagonal | 17.1" (434mm) |
| Display Area | 14.45"x 9" (367.2 x 229.5mm) |
| Panel Resolution | 1440x900 |
| Dot Pitch | 0.255mm |
| Color Resolution | 16.7 Million Colors |
| Contrast Ratio | 800:1 |
| Brightness | 250 cd/m2 |
| Response Time | 8 msec |
| Left/Right, Up/Down View Angle | 160° |
| Aspect Ratio | 16:10 |
| Video Inputs | |
| SD/HD-SDI | 1x via BNC with Active Output |
| HDMI | 1x via HDMI Type A |
| Analog RGBHV | 1x via HD-15 Female |
| Composite Video | 2x via BNC Connectors |
| YC (S-Video) | 1x via 4-Pin Mini-DIN Connector |
| YUV/YPbPr Component | 1x via 3 BNC Connectors |
| SD/HD-SDI Input Range | |
| SDTV | 480i, 576i |
| HDTV | 480p, 576p, 720p, 1080i, 1080p/30 |
| 625i | 720x625i @ 50Hz |
| 525i | 720x525i @ 59.94Hz |
| | 720x525i @ 60Hz |
| 720p | 1920x720P @ 50Hz |
| | 1920x720P @ 59.94Hz |
| | 1920x720P @ 60Hz |
| 1035i | 1920x1035i @ 59.94Hz |
| 1080i | 1920x1035i @ 60Hz |
| | 1920x1080i @ 50Hz |
| | 1920x1080i @ 59.94Hz |
| | 1920x1080i @ 60Hz |
| 1080p | 1920x1080PSF @ 23.98Hz |
| | 1920x1080PSF @ 24Hz |
| | 1920x1080P @ 23.98Hz |
| | 1920x1080P @ 24Hz |
| | 1920x1080P @ 25Hz |
| | 1920x1080P @ 29.97Hz, 30Hz |
| HDMI Input Range | |
| SDTV | 480p, 576p, 720p, 1080i, 1080p |
| HDTV | 480i, 576i |
| Analog Component Input Range | |
| SDTV – YUV | 480i, 576i |
| HDTV - YPbPr | 480p, 576p, 720p, 1080i, 1080p |
| Analog RGBHV Input Range | |
| 640x350 | 70, 85Hz |
| 720x350 | 70, 85Hz |
| 640x400 | 56, 70, 85Hz |
| 720x400 | 70, 85Hz |
| 640x480 | 60, 66, 72, 75, 85Hz |
| 800x600 | 56, 60, 70, 72, 75, 85Hz |
| 1024x768 | 60, 70, 72, 75, 85Hz |
| 1152x864 | 60, 70, 72, 85Hz |
| 1440x900 | 60, 70, 72, 85Hz |

| | |
|---------------------------------------|--|
| Composite & S-Video Input | |
| Vert. Frequency | NTSC 60Hz, PAL 50Hz |
| Horiz. Frequency | NTSC 15.75KHz, PAL 15.625KHz |
| Audio Inputs | |
| Stereo Audio | 4x via 2 RCA Connectors (R/L) |
| Computer Audio | 1x via 3.5mm Mini-Stereo Jack |
| Tally Control | |
| Tally Input | 1x via DB9 Connector |
| General | |
| Display Element | Active Matrix TFT |
| Video Adjustments | Brightness, Contrast, Sharpness, Color, Hue, Black Stretch |
| Menu Languages | English, French, German, Portuguese |
| TV Standards | NTSC/ PAL/SECAM Auto-detect |
| Color Depth | 24 bit |
| Aspect Ratio Modes | 16:9, 4:3, 1:1 |
| HDMI Compliance | Version 1.2 |
| SD-SDI | 270Mbps (525/625 Line) |
| HD-SDI | 1.485, 1.4835Gpbs |
| Blue Only Mode | For Setup with Color Bars |
| Sync Delay Mode | For Checking Sync |
| Speakers | Internal – Right & Left Channel |
| Audio Controls | Volume, Balance, Bass, Treble, Super Bass |
| Front Panel Control Buttons | |
| Menu Navigation | Menu, Left, Right, Up, Down |
| Input Select | HDMI, PC, YPbPr, SDI, AV1(YC or CV), AV2 (CV) |
| Power | On/Off |
| Limited Warranty | |
| Unit, except LCD | 1 Year Parts and Labor |
| LCD Panel | Panel Manufacturer's Terms |
| Mechanical – With Rackmount | |
| Size (H-W-D) | 483.5x310x59.7mm(19"x12.25"x2.33") |
| Weight (Net) | 9.0 kg (19.8 lbs) |
| Rackmount | 7RU - Tilt Up/Down |
| Mechanical – Without Rackmount | |
| Size (H-W-D) | 437x300x59mm(17.2"x11.8"x2.3") |
| Weight (Net) | 8.0 kg (17.6 lbs) |
| Wall Mount | VESA Standard |
| Environmental | |
| Operating Temperature | -10° to +50° C (+14° to +122° F) |
| Operating Humidity | 10% to 90%, Non-condensing |
| Storage Temperature | -10° to +60° C (-14° to +140° F) |
| Storage Humidity | 10% to 90%, Non-condensing |
| Power Requirement | |
| External Power Supply | 12VDC @ 4A |
| Regulatory Approvals | |
| Monitors | FCC, CE, RoHS |
| Power Supplies | UL, CUL, CE, PSE, GS, RoHS |
| Accessories Included | |
| 1x Power Adapter | US, UK or Euro |
| 1x Operations Manual | |
| 4x Rackmount Screws | |
| 1x Set Rackmount Ears | Tiltable Configuration |

3.0 CHECKING PACKAGE CONTENTS

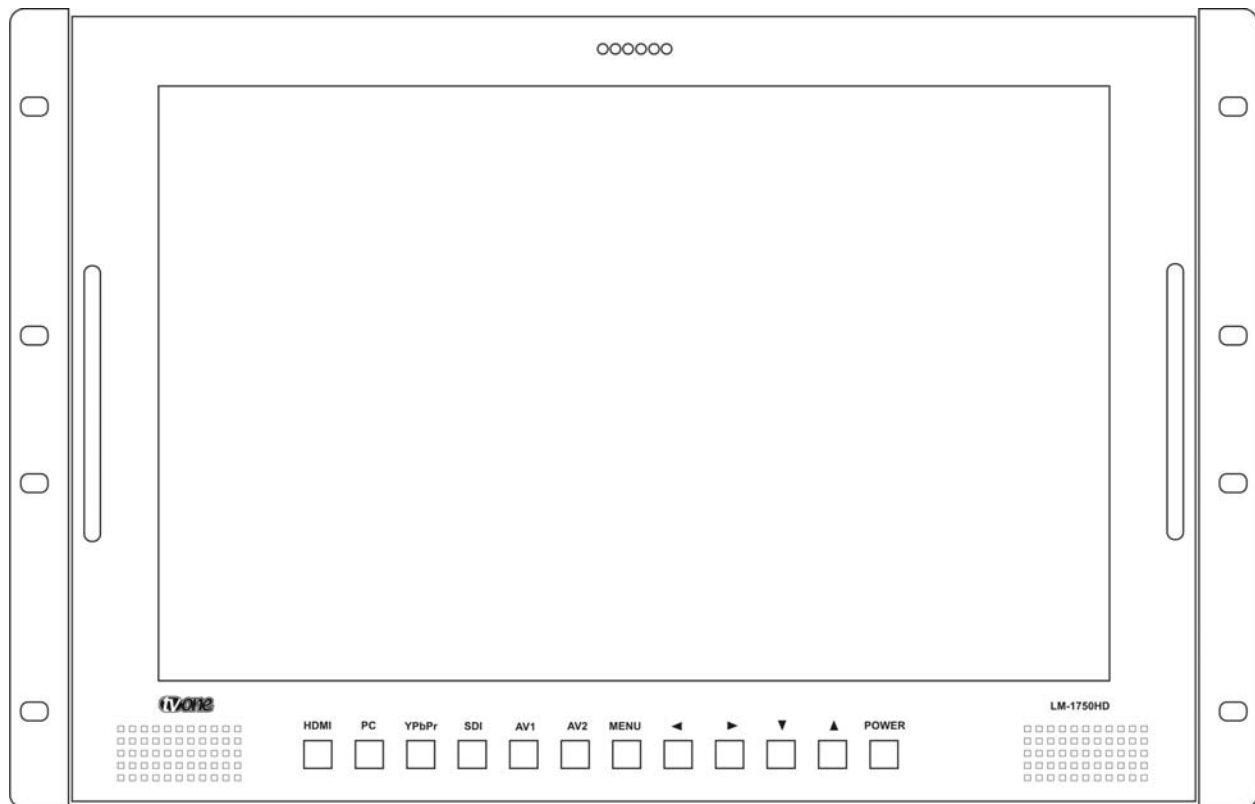
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x LM-1750HD 17" Color LCD Monitor
- 1x Operations Manual
- 4x Rackmount Screws
- 1x AC Power Adapter Mounting Bracket
- 1x AC Power Adapter

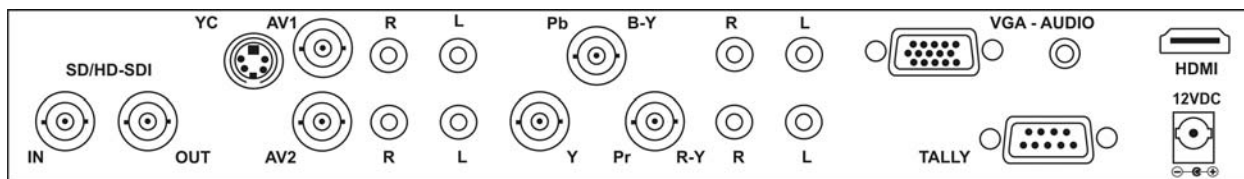
Note: Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or TV One immediately. Have the Model Number, Serial Number and Invoice available for reference when you call.

4.0 CONNECTING THE HARDWARE

Refer to the illustrations below. The first drawing is the front view of the LM-1750HD. This drawing will allow familiarization with the overall layout the unit.



The next drawing shows the Input and Output connectors plus the DC Power Input.



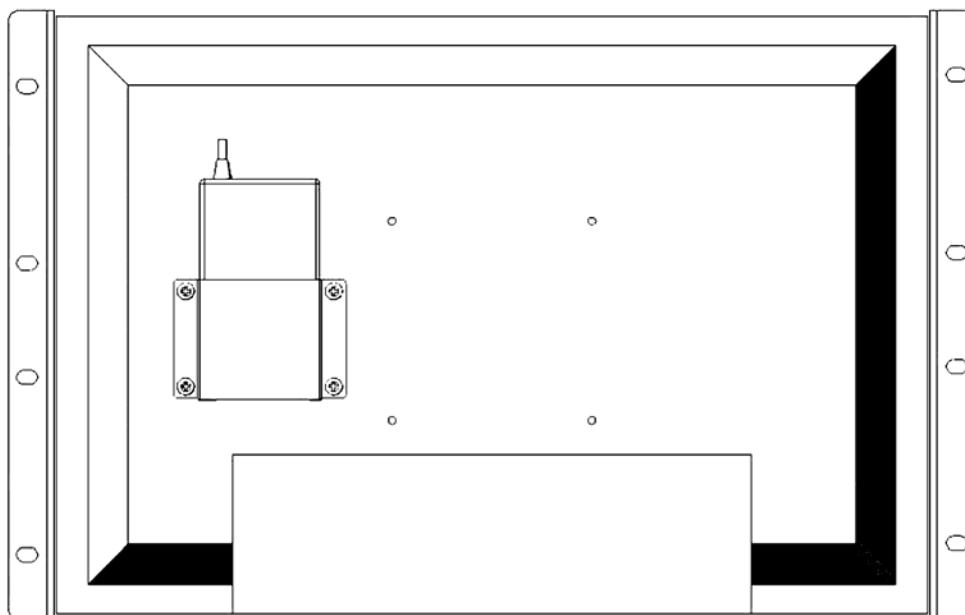
Connect the cables from the desired video or PC source to the appropriate input. In the case of the SDI/HD-SDI input, you may loop the output to another device if you wish.

Connect the furnished AC to 12 VDC adapter and gently rotate the connector barrel to lock in position. Lastly, if tally operation is desired, wire a mating DB-9 plug for the tally connector and connect it to the monitor. Shorting pins 1 and 6 on the Tally connector will cause the Tally LEDs at the top of the front panel to illuminate.

4.1 Power Supply Bracket and VESA Mounting Provision

As seen in the illustration below, a bracket is provided that can be affixed to the left, rear of the monitor to hold the AC Adapter. If desired, attach the bracket and place the AC adapter in the bracket in such a manner as to prevent physical interference with other equipment in the rack.

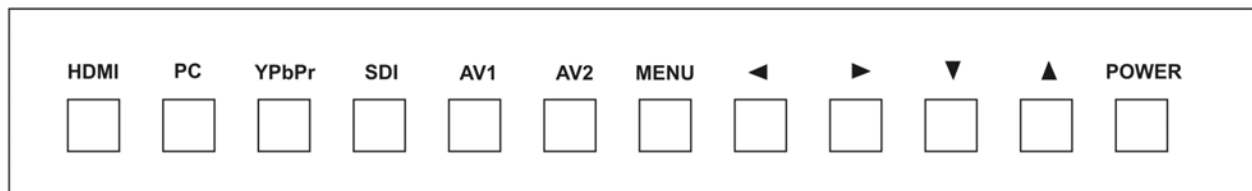
Four (4) pre-drilled and threaded attach points are provided in the center to allow mounting of the LM-1750HD directly to a wall or other structure using VESA 100mm standard mounts available from third party vendors. Please note that the rack ears remain in place, even when a VESA mount is used. Also, use of a VESA mount may preclude the use of the AC adapter mounting bracket.



5.0 OPERATION OF THE LM-1750HD

After mounting the LM-1750HD in a rack and connecting the appropriate cables and the AC adapter, press the power button, select the appropriate input and adjust the vertical viewing angle if desired.

Input selection is made by pressing the appropriate button on the front panel. The possible selections are HDMI, PC, YPbPr, SDI, AV1 (either Composite Video or S-Video, but not both at the same time) and AV2 (Composite Video).



Once the input selection has been made, you may choose the image's aspect ratio and also adjust the audio volume of the monitor's built in speakers.

5.0.1 Aspect Ratio Adjustment

The vertical arrows allow you to cycle through three possible aspect ratios: 4:3, 16:9 and 1:1. 4:3 is the standard analog aspect ratio used in NTSC and PAL formats for most video signals. 16:9 is the de-facto standard for High Definition Video signals as well as some standard definition video such as the occasional non-HDTV DVD video signal. The 1:1 selection equals a pixel ratio of 1:1. It allows a display of signals in their native resolution. If the signal does not fill the screen due to its resolution, it will be displayed in actual size. Resolutions beyond the capability of the LM-1750HD will not be visible.

5.0.2 Audio Level Adjustment

To adjust the audio level, use the two horizontal arrows. The right arrow increases the audio level and the left arrow reduces the audio level.

5.1 Using the On Screen Display Menus

Beyond simple use of the monitor, users should acquaint themselves with the On Screen Display (OSD) and Menu structure. Within this functionality the user can fine tune the operation of the unit and often make improvements to the appearance of the displayed image. Using the OSD menu is not difficult and allows you to adjust the picture quality of the monitor.

5.1.1 Menu Navigation:

To utilize the menu and the OSD, press the Menu button. This makes the Menu list appear and you will then use the four arrow buttons to navigate the list and make adjustments. The up and down arrow buttons allow you to scroll through the list and the left and right arrow buttons allow an adjustment or selection to be made.

The Menu List and Function are as follows:

| Menu Item | Function |
|-------------------------|---|
| Brightness | Adjust Brightness of image - 0-100 Relative Indication |
| Contrast | Adjust Contrast of image - 0-100 Relative Indication |
| Sharpness | Adjust Sharpness of image - 0-100 Relative Indication |
| Color | Adjust Color Level of image - 0-100 Relative Indication |
| Tint | Adjust Color Tint of image - 0-100 Relative Indication |
| Black Extension | Black Stretch |
| Aspect Ratio | Selects 4:3, 16:9 or 1:1 Aspect Ratio |
| Blue Key | Selects only the Blue Channel for Display of Image |
| Sync Delay (H/V delay) | Used for Displaying Sync and Blanking Timing |
| Language: | English/French/German/Portugal OSD Language |
| Blue Screen | Selects Blue screen or Black Screen upon Signal Loss |
| Color Mode: | Allows Independent Adjustment of R,G or B Color Level |
| USER R | Sub Menu from Color Mode. Sets Red Channel Gain |
| USER G | Sub Menu from Color Mode. Sets Green Channel Gain |
| USER B | Sub Menu from Color Mode. Sets Blue Channel Gain |
| Load Default: | Reverts all settings to factory defaults. |
| Backlight | Sets LCD Display Backlight Level |
| Sleep | Allows Power Down in 15 minute increments |
| No TV Signal OFF | No Function for this Model Monitor |
| No Signal OFF | No Function for this Model Monitor |
| No Operation OFF | No Function for this Model Monitor |
| Balance | Balances Audio Outputs Between the Speakers |
| Bass | Adjust Bass Audio Level |
| Treble | Adjusts Treble Audio Level |
| Super Bass | Enhances Bass Level above Standard Response |

6.0 TROUBLESHOOTING

If the LM-1750HD 17" LCD Monitor does not appear to be functioning properly, be certain that the source and any other device connected to the unit is functioning correctly by connecting each device currently connected to the LM-1750HD to another monitor. (In other words, bypass the LM-1750HD to insure that the problem is not with the source device.) If the signal is present under those conditions, make certain that power is present to the LM-1750HD. If it is, check all cables for damage. Cables should be undamaged, as short as possible and should be premium quality.

Note: It is strongly recommended that you use premium cables in order to achieve maximum distance cable runs and the best performance possible.

After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting TV One. Should the dealer's technical staff be unable to assist you, contact TV One via our support website:

<http://tvone.crmdesk.com>. Create a technical support request on the site and our support team will respond within a short period of time.

7.0 LIMITED WARRANTY

LIMITED WARRANTY – With the exceptions noted in the next paragraph, TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in TV One's opinion, prove defective within this warranty period, TV One, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of TV One. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into TV One products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to TV One.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from TV One and return the product to a location designated by TV One, freight prepaid. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS - All products sold are "as is" and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to two years from the date of purchase. TV One assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

TV One makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of TV One with respect to any defective products will be limited to the repair or replacement of such products. In no event shall TV One be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

8.0 REGULATORY COMPLIANCE

The LM-1750HD has been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supply has been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. This Product and Power Adapter is RoHS Compliant.

9.0 CONTACT INFORMATION

Should you have questions or require assistance with this product in areas not covered by this manual, please contact TV One at one of these locations.

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End of Manual