Datavideo TLM-433
3 x 4.3" TFT LCD Monitors

Instruction Manual

http://www.datavideo.info

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⚠ 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's 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

Datavideo warrants that the equipment it manufactures shall be free from defects in material and workmanship for a period of 12 months from the date of product purchased. If equipment fails due to such defects, Datavideo will, at its option, repair or provide a replacement for the defective part or product.
Equipment that fails after the warranty period, has been operated or installed in a manner other than that specified by Datavideo, or has been subjected to abuse or modification, will be repaired for time and material charges at the Buyer's expense.
This warranty does not affect your statutory rights within the Country of purchase.

Disposal

For EU Customers only - WEEE Marking.

This symbol on the product indicates that it will not be treated as household waste. It must be handed over to the applicable take-back scheme for the recycling of electrical and electronic equipment. For more detailed information about the recycling of this product, please contact your local Datavideo office.

Packing List

The following is a packing list, if any items are missing from your box please contact your dealer immediately.

1 x TLM-433 3 x 4.3" LCD TFT Monitor Bank
3 x BNC to BNC Cable 1.2m
1 x 1.5 ψ Allen Key
1 x 2.5 ψ Allen Key
1 x AC/DC Power Supply 12V 2.5A
1 x Power Cord
1 x Instruction Manual

Introduction

The Datavideo TLM-433 is a 19" rack mountable 3 x 4.3" LCD TFT Monitor Bank.
It is an ideal accessory for the Datavideo SE 1000 Vision Mixers, or many other 19" rack mount applications.
The all-metal construction makes the TLM-433 robust and durable; and the 12V power requirements make it easy to power in the field or studio.
The high resolution TFT screens have a wide viewing angle and feature NTSC / PAL auto detection and selectable 4:3 / 16:9 aspect ratio.

Features

Each monitor has a composite video input with loop-through output.

High resolution TFT Screens - 480 x 272 pixels

Individual adjustments of Brightness, Contrast, Colour Saturation and Backlight Level for each monitor

Pivoting mount to enable the screens to be angled up or down

Wide viewing angle - (Vertical) +40/-60 degree, (Horizontal) +60/-60 degree

Switchable Aspect Ratio - 16:9 / 4:3 selectable

2 Colour Tally Light (Red and Amber)

NTSC/PAL compatible (Automatic switching)

Functions - Front Panel

1.
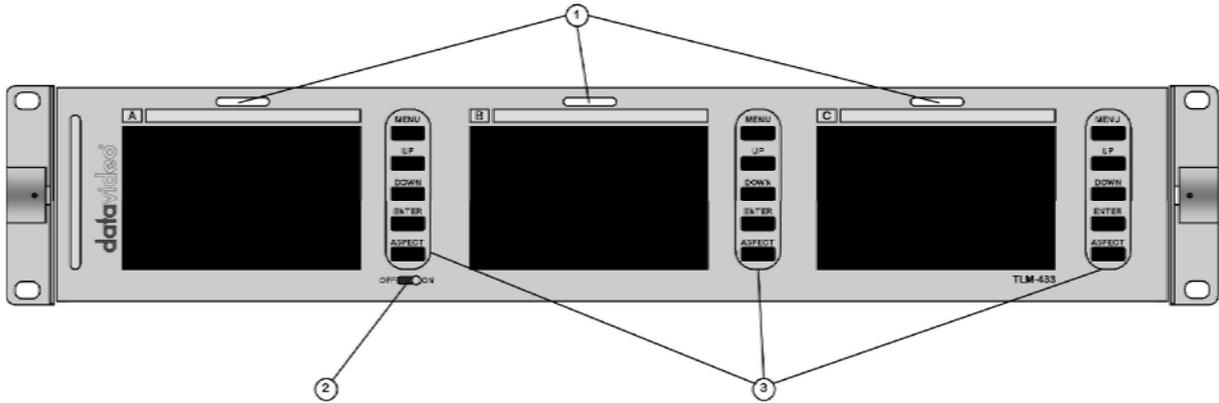
Each monitor has a bi-colour tally light indicator which can be connected to the Datavideo TB-10, or similar products. AMBER indicates Cued-Up and RED indicates Live (On-Air).

2.

Power On / Off switches the monitor bank On or Off

3.

Each panel has a set of control buttons alongside it.

MENU calls up the on-screen adjustment menu. (see on-screen menu settings).

UP / DOWN navigate the on-screen menu and set the levels.

ENTER confirms the new settings and closes the on-screen menu.

ASPECT sets the LCD aspect ratio to 16:9 or 4:3

On either side of the TLM-433 are small Allen Key screw tension adjustments. These alter the tension on the pivoting mechanism. If you want to change the angle of the monitors, i.e. aim them up or down, you can loosen these screws and adjust the TLM-433. Once you have set the correct angle tighten the screws back up.

Functions - Rear Panel

1.
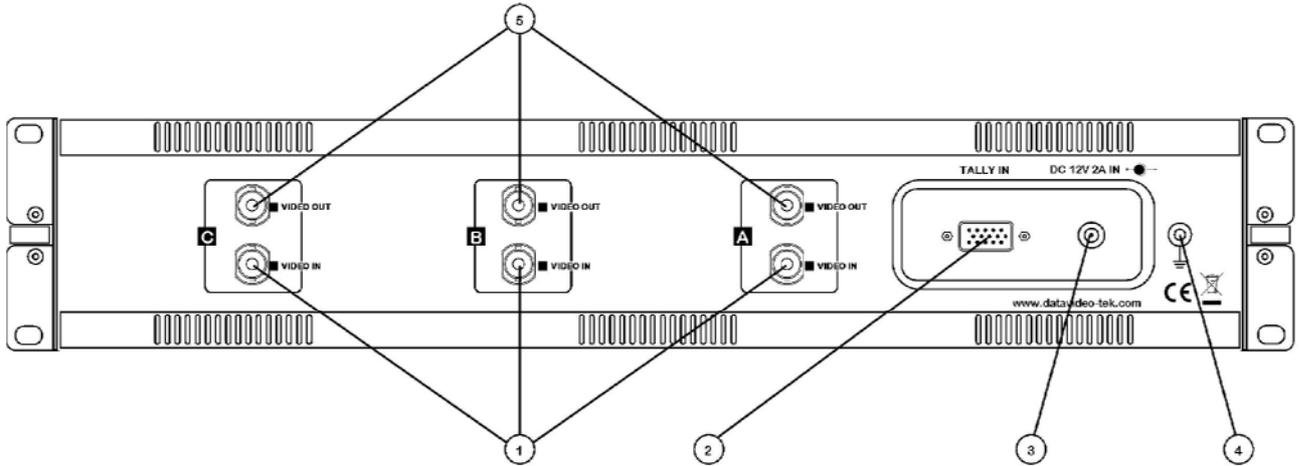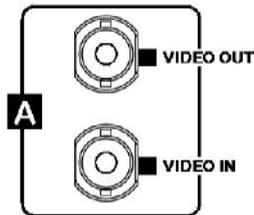
Each monitor has a composite video input, with a loop-through output (5). The video input can be PAL or NTSC, the TLM-433 will automatically detect the video standard.

2.
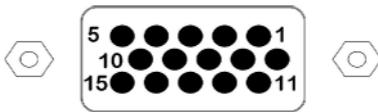
15 Pin Tally Light Input. The TLM-433 has bi-colour tally lights above each monitor, these are controlled via the 15 Pin tally input socket. The Datavideo TB-10 can be connected to supply tally information from the SE-1000 switcher. (For other tally systems, see Tally Light Socket Wiring for more details)

3.
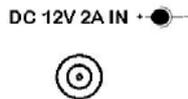
Connect the supplied switch mode power supply to this socket. The locking collar screws into place once the plug has been inserted. It is also possible to power the TLM-433 from other regulated 12V supplies (min 2.0A).

4.

The earth terminal can be used with other equipment that has the same feature. Connect all items together to ensure that they are grounded.

5.
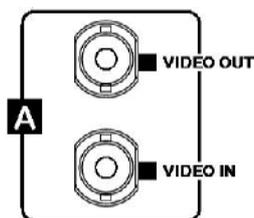
Each monitor has a composite video input (1), with a loop-through output. The video input can be PAL or NTSC, the TLM-433 will automatically detect the video standard.

On-Screen Menu Settings

Each monitor is set up from an on-screen menu.

To call up the menu press the MENU button.

<div align="center">

MAIN MENU

OUTLINE FRAME
BACKLIGHT
BRIGHTNESS
CONTRAST
SATURATION

RESET / DEFAULT

</div>

There are options for Outline Frame, Backlight, Brightness, Contrast, Saturation and Reset/Default, which are navigated via the UP / DOWN and ENTER buttons.

Outline Frame - Each monitor can be set to display a "safe area" border frame (16:9 Aspect Ratio only) of either 80% or 90%. When Outline Frame is on you will see a white dotted line detailing the safe area.

MAIN MENU

OUTLINE FRAME	OFF
BACKLIGHT	90%
BRIGHTNESS	80%
CONTRAST	
SATURATION	

RESET / DEFAULT
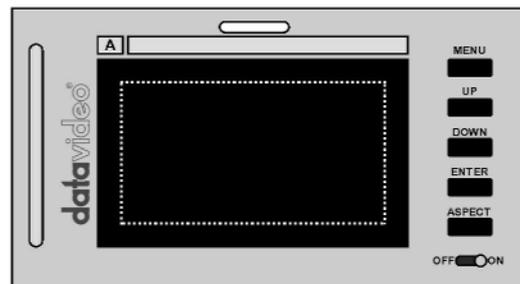
Backlight - There are 3 preset backlight levels which control the overall brightness of the monitor output. In a bright area it may be necessary to set Level 3 for maximum output, whereas in subdued lighting Level 1 will be adequate.

MAIN MENU

OUTLINE FRAME	
BACKLIGHT	LEVEL 1
BRIGHTNESS	LEVEL 2
CONTRAST	LEVEL 3
SATURATION	

RESET / DEFAULT

Brightness / Contrast / Saturation - Each monitor can be individually adjusted for brightness, contrast and colour saturation. The settings are all done in a similar way.

Select the adjustment that you want to make and press the ENTER button. The adjustment bar will appear on the screen, and can be adjusted using the UP / DOWN buttons. Once set as required press the ENTER button.

MAIN MENU

OUTLINE FRAME
BACKLIGHT
BRIGHTNESS
CONTRAST
SATURATION

RESET / DEFAULT

BRIGHTNESS
44
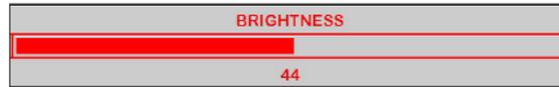
**Reset / Default** - This can be used to return the monitor to the factory default settings.

Tally Light Socket Wiring

The Tally Light Socket controls the tally lights which are above each monitor.
The Tally Lights are bi-colour - RED indicates the source is LIVE (On-Air) AMBER indicates the source is (CUED UP).

The socket works on simple contact closure between pins, the following table shows the pins for each monitor.
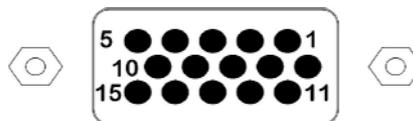
Monitor A	**Monitor B**	**Monitor C**
Pins 1 - 4 = RED	Pins 6 - 9 = RED	Pins 11 - 14 = RED
Pins 3 - 4 = AMBER	Pins 8 - 9 = AMBER	Pins 13 -14 = AMBER

Specifications

- LCD Display   3 x 4.3" TFT LCD active matrix, resolution 480 x 272 pixels

- Aspect Ratio   4:3 and 16:9 selectable

- Brightness (Luminance)   500 cd/m²

- Contrast Ratio   300

- View Angle

	Top:	40 deg
	Bottom:	60 deg
	Left:	60 deg
	Right:	60 deg

- Video Input   CV input 1.0Vp-p, with self Loop-Through output

  (75 Ohm-terminated)

- Video System   NTSC/PAL auto recognition

- Colour Adjustment   Brightness, Contrast, Colour Saturation

- Tally Indication   Bi-Colour Tally LED indicators

- Operation condition   Operation temperature from 0℃ to 50℃, RH less than 90%

- Power Consumption   DC12Volt, 2.0Amp

- Dimension of LCD Panel   484mm x 88mm x 75mm (W x H x D)

Service and Support

It is our goal to make your products ownership a satisfying experience. Our support team is available to assist you in setting up and operating your system. Please refer to our web site www.datavideo-tek.com for answers to common questions, support requests or contact your local office below.

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