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World Leader of In-Rack, Audio, Video, Data Monitoring, and Closed Captioning Solutions

MON8-1 Series

- **MON8-1**
- **MON8-1/SDI**

8 Screen, 1RU Video Monitors

User Guide

Part Number 821626, Revision B

panorama®

the video division of Wohler

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MON8-1 Series
User Guide

Introduction

Overview

The MON8-1 Series monitors are eight-channel video monitors featuring eight backlit 1.8″ LCD displays with eight analog (CVBS) outputs (converted from the SDI inputs on the SDI model) all on BNC connectors. You can simultaneously view the eight inputs on the eight video monitors on the front panel. The MON8-1 units automatically sense NTSC or PAL video formats and configure themselves accordingly.

Topics

Safety Instructions

1. Read, keep, and follow all of these instructions; heed all warnings.

2. Do not use this equipment near water.

3. Use only a dry cloth to clean the equipment.

4. Do not block any ventilation openings. Install only in accordance with the instructions in the section entitled, "Installation Recommendations" on page 3.

5. Do not install near any heat source such as a radiator, heat register, amplifier, or stove.

6. Do not expose the equipment to rain or moisture.

7. Do not attempt to plug the unit into a two-blade outlet (with only two prongs of equal width).

IMPORTANT: By design, these monitors will only plug into a three-prong outlet for your safety. If the plug does not fit into your outlet, contact an electrician to replace the obsolete outlet.

8. Protect the power cord from being walked on or pinched, particularly at plug's source on the equipment and at the socket.

9. Use only the attachments/accessories specified by the manufacturer.

10. Unplug the equipment during lightning storms or when unused for long periods of time.

11. Refer all servicing to qualified service personnel. Servicing will be required under all of the following conditions:

    • The equipment has been damaged in any way, such as when the power-supply cord or plug is damaged.

    • Liquid had been spilled or objects have fallen onto the equipment.

    • The equipment has been exposed to rain or moisture.

    • The equipment does not operate normally.

    • The equipment has been dropped.

CAUTION! In products featuring an audio amplifier and speakers, the surface at the side of the unit, where the audio amplifier heat sink is internally attached, may get very hot after extended operation. When operating the unit excercise caution when touching this surface and ensure that external materials which may be adversely affected by heat are not in contact with it. There is a Hot Surface label (see diagram) attached to the aforementioned surface of the product.

Installation Recommendations

Mounting

The unit is designed to install into a standard 19" rack mounted at eye level for best visual observation of the monitor screens.

Heat Dissipation

The ambient temperature inside the mounting enclosure should not exceed 40° Celsius (104° Fahrenheit). Adjacent devices can be rack mounted (or stacked) in proximity to the unit if the above temperature is not exceeded. Allow a 1RU (1.75"/44.45mm) space above and below the unit for air circulation.

Important: To reduce noise, the monitor have no fans. As a result, the heat generated by the power supplies, and other components is vented by slots in the side of the unit. Therefore, as a safety precaution, we advise you to be sure to allow proper ventilation on both sides of the unit.

Power

The unit comes with a standard 24VDC/3.0A internal power supply and connects an A/C mains power source (65W, 100 to 240 VAC, 50/60Hz) to the IEC connector provided on the rear panel of the unit.

Applications

The MON8-1 Series is ideally suited for monitoring of multiple video feeds in VTR bays, mobile production vehicles, news and transmission control rooms, and duplication and post production applications.

Features

Common Features

- Eight 1.8" LED backlit LCD video displays

- Autosensing of NTSC and PAL video formats

- Only 1U rack space

- Light weight

- Low power requirements

MON8-1/SDI Features

- Eight SDI video inputs and re-clocked outputs on BNC connectors

- Eight analog outputs (from SDI in) on BNC connectors

MON8-1 Features

- Eight CVBS loop-through outputs on BNC

Specifications

Table 1—1   MON8-1 Series Specifications

Specification	MON8-1	MON8-1/SDI
Rack Space Required	1 RU	
Video Inputs	CVBS (1 V pk to pk) on 8 BNC	SD-SDI (SMPTE 259m -C/ D) on 8 BNC
SDI Video Outputs	–	8 BNC
CVBS Outputs	8 BNC	
	loop-through	converted from SDI
DC Power Consumption	30 Watts	
AC Mains Input	100-240VAC, 50-60Hz	
Weight	3.5 lbs. (1.5876 kg)	
Dimensions	1.842" H x 19" W x 7" D (36.5 x 482.6 x 27.4 mm)	
Screen Type	LCD, active matrix TFT	
Panel Illumination	LED Backlight	
Screen Size (diagonal)	1.8" (4.6 cm)	
Resolution (dot)	558 H x 234 V	
Dot Pitch	0.655 H x 0.117 V	
Number of Colors	16 million (full color)	
LCD Active Area	36.5 (H) x 27.4 (V) mm	
Color Configuration	RGB Delta	
Contrast Ratio	150 typical	
Brightness (cd/m^2)	180 NITs	
Surface Treatment	Anti-glare (typical 6% haze)	
Viewing Angle	Top = 10° Bottom = 30°; Left = 45° Right = 45°	
Video Signal	NTSC 525/60 or PAL 625/50	
Color Temperature (k)	7000	
Display Controls	Fixed, Factory Preset	

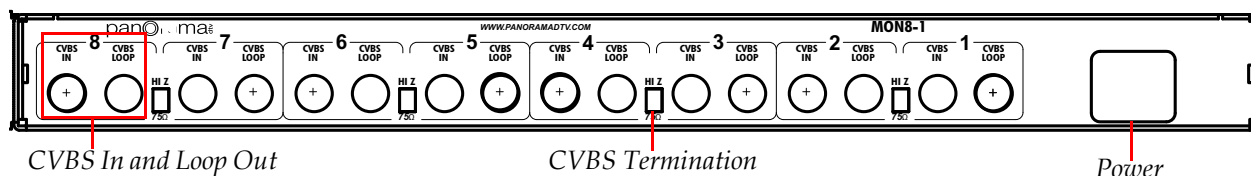# Front Panel Features

Figure 1–1   MON8-1 and MON8-1/SDI Front Panel

View input video sources through these eight 1.8" diagonal LED backlit LCD displays. Screen image parameters are factory preset for optimum performance. The numbers shown at the lower right of each display (1 through 8) correspond to the numbers of the associated input sections on the rear panel.
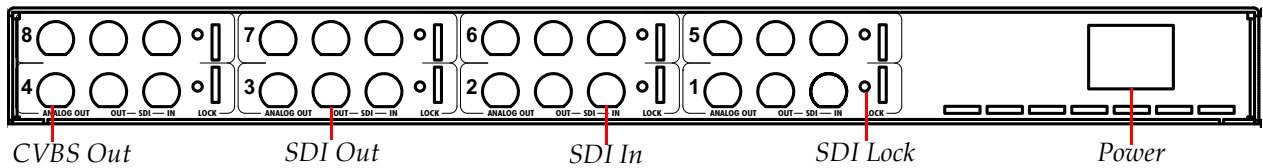
Rear Panel Connectors

Figure 1–2   MON8-1 Rear Panel

CVBS In and Loop Out   *CVBS Termination*   *Power*

- **CVBS Video** (1 through 8): Each unit is configured with eight CVBS inputs and eight loop-through outputs. Each input section is numbered (1 to 8) to correspond to the associated display on the front panel.

    - **CVBS In**: Connect standard composite analog (CVBS) video signals here. NTSC or PAL standards are accommodated automatically. Termination is 75 Ω when applied.

    - **CVBS Loop Out**: This connector is a loop-through output of the signals entering vthe **CVBS In** connector. If this output is connected to downstream equipment, then the termination should be removed for the input.

- Termination DIP Module (CVBS Video Inputs): Each switch in this two-section DIP module is used to set the termination characteristics for the input connector next to it. If the **CVBS Loop Out** is connected to downstream equipment, set up to unterminate the input. If *no* downstream equipment is connected, then set down to terminate the input.

- **Power Connector**: Attach a standard IEC-320 power cord between this connector and mains power.

Figure 1–3   MON8-1/SDI Rear Panel

CVBS Out   SDI Out   SDI In   SDI Lock   Power

- **CVBS Output** (1 through 8, Converted From SDI Input): These female BNC connectors output CVBS (analog) video signals as converted from the SDI Input Connector.

- **SDI Output** (1 through 8, Re-Clocked): This female BNC onnector supplies a re-clocked replica of the video signals entering the SDI Input Connector .

- **SDI Input** (1 through 8): This female BNC connector accepts SDI video signals and is terminated at 75 Ω.

- **SDI Lock Indication LED** (1 through 8, Green): When a valid (and locked) SDI video signal is received at the SDI Input Connector this LED lights green.

Technical Functional Overview

Figure 1–4 below and Figure 1–5 on page 9 illustrate the functionality of the MON8-1 and the MON8-1/SDI respectively.
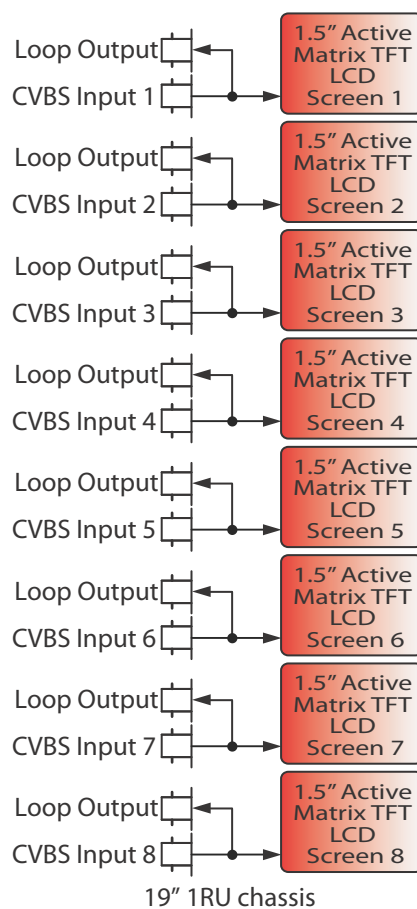
Figure 1—4   MON8-1 Block Diagram

Figure 1–5   MON8-1/SDI Block Diagram