

## 23" & 32" Professional Color Wide-Screen LCD Monitors with Built-in 4-channel MUX



### Product Summary

The M230W and M320W series are high brightness and contrast TFT LCD monitors designed for public-view-monitor (PVM) applications. The monitors feature an integrated 4-channel multiplexing processor allowing simultaneous display of up to four cameras in various display modes. A Picture-on-Picture (POP) mode is supported for live video or motion detected video and the POP window may be positioned on the right or left of the main monitor window.

Composite, S-VHS and component video inputs provide direct connection with all professional video systems. A variety of PC input resolutions and component video formats are supported.

The monitors include programmable Video Motion Detection (VMD) capability for each of the internal and external camera inputs. The internal VMD capability allows the monitor view to switch to the camera where motion occurs. The VMD sensitivity, capture time and dwell time may be individually programmed for each camera. The monitors contain on-board field memory capable of storing up to 60 images. The images are automatically saved as a function of the video motion detection. Images may be played back and viewed on the monitor, or sent to a recording device using the VCR output connection.

The monitors offer a clean aesthetic appearance with unobtrusive front panel controls. The programming and switching from composite, S-VHS, component or PC is accomplished using the front panel controls or the supplied IR Remote Control.

The integrated multiplexer offers single-channel recording capability for all video inputs accessed from the record VCR connection. The monitors provide a Monitor Out video signal which is the same video as displayed in the main screen window or may be selected as motion detected camera video. A spot monitor output is also provided that may be programmed for one of the four

cameras, the Quad signal, or the sequence video output. A loop through video output connector is provided for each camera input for connection to multi-channel digital video recorders or other equipment. The monitors also feature two-channel audio and built-in stereo speakers.

A six-language on-screen menu is provided for ease of programming, and includes camera titling, camera and monitor contrast, brightness and sharpness settings. A motion adjust function is selectable to help discriminate image artifacts when objects are moving quickly in the camera's field of view. Individual multiplexer programming options are supported including camera priority record settings.

The monitor features a 100mm VESA mount connection point for use with various LCD mounts, and a 340mm x 320mm grid for use with the recommended CSW778CW or CSB778CW mounts.

The main monitor area will display a full-screen image of the manually selected or motion detected alarmed camera or the Quad image. Depending on the selection for the main display, the sub POP display image will be the four live video camera inputs or a single camera with a series of motion-detected video. In the case of the motion-detected video, the POP window will begin the series of saved images filling the four image areas from top to bottom. After the capture time has expired, the current motion camera video signal will be frozen on-screen and the next motion detected field of video will be displayed in the next window moving downward. This sequence will continue from top to bottom, returning to the top and repeat until the motion stops. The period between the saved images is programmed as the Capture Time in the Motion Alarm menu setting.

Main Display  
Full Display  
4CH QUAD Display

SUB Display  
4 Cameras Live Video  
Motion Detected Saved Video

### Features

- Compact attractive look for high visibility retail applications
- Built-in 4-channel real-time Mux (60 fps)
- Built-in stereo speakers
- (2) 2.5W stereo amplifiers
- Wireless remote control (included)
- Four external cameras inputs
- Full screen 16:9 or 4:3 aspect ratio display
- High resolution TFT-LCD display
- Multi-screen display (Quad, POP screen, Full screen)
- Switchable BNC / S-VHS / PC / Component Video Modes.
- PC Compatible Inputs to SXGA using Standard VGA Cable.
- Motion detection & storage, replay function
- Screen freeze capability
- Alarm input & output – NC or NO
- Video loss & motion detection alarm
- VCR inputs and outputs
- Key lock / menu password function
- Time-and-date stamp
- Three video outputs (monitor, spot, record)
- Six language selections
- 24VDC power adapter included. (M230W)
- 120VAC mains power (M320W series)

### Ordering Guide

SCN#	Item
M230W	23" Wide LCD Monitor, 1366 x 768, white case
M320WB	32" Wide LCD Monitor, 1366 x 768, white case
M320WBLK	32" Wide LCD Monitor, 1366 x 768, black case
CSW778CW	Ceiling/Wall Mount, white
CSB778CW	Ceiling/Wall Mount, black



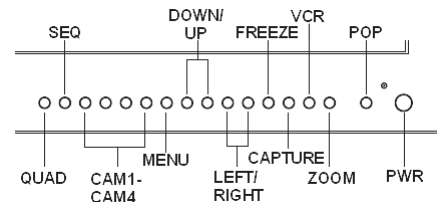
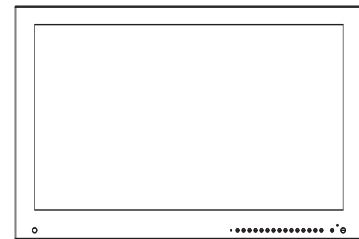
## Specifications

<b>Model</b>	<b>M230W</b> 23" color wide-screen	<b>M320WB / M320WBLK</b> 32" color wide-screen
<b>Electrical</b>	TFT LCD Panel	31.5 inches
LCD Panel	23.0 inches	
Active Display Area (diagonal)	1366 (H) x 768 (V), RGB vertical stripe	0.510mm x 0.510mm
Pixel Format	0.372mm x 0.372mm	
Pixel Pitch	8 Bit / 16.7M Colors	500 : 1 (Typical)
Color Depth	800 : 1 (Typical)	500 cd/m <sup>2</sup> (Typical)
Contrast Ratio	450 cd/m <sup>2</sup> (Typical)	88/88/88/88 (Typical)
Brightness	89/89/89/89 (Typical)	20EEFL / 50,000Hrs (Min.)
Viewing Angles (L/R/U/D)	6UCCFL / 50,000Hrs (Min.)	18ms
Light Source / Lifetime	17ms	
Response Time		
<b>Video</b>		
Video Mode	NTSC/PAL (Auto selection)	
	S-Video / 1080i, 720p, 480p, 480i Component	
Video Input Signals		
Composite	1.0 Vp-p, 75-ohms	
S-Video	Luminance: 0.7 Vp-p, 75-ohms Chrominance 0.3 Vp-p, 75-ohms	
Component	1.0 Vp-p, 75-ohms	
Video Input Connector		
Video Input/Output	BNC x 4	
Monitor/Record/Spot	BNC x 3	
S-Video	4 Pin Mini-Din x 1	
Component	RCA x 3	
<b>Audio</b>		
Audio Input Connector	RCA x 2	
Audio Output	2.5W x 2	
<b>PC</b>		
Input Signal	Analog RGB (0.714 Vp-p, 75-ohms), H & V Sync(TTL)	
Input Connector	15 pin D-sub	
Input Resolution (Max)	1280 x 768	
Plug & Play	DDC 2B	
<b>Alarm</b>		
Connector	7-pin terminal block	
Input	(1) w/ polarity selection	
Output	(1) N.O. and N.C with shared common	
<b>General</b>		
User Controls	Bright, Contrast, Tint, Color, Sharpness, etc	
OSD Language	English / French / German / Italian / Spanish / Polish	
Power Requirement	24VDC, 4.2A	100~240VAC, 1.6A
Power Consumption	101 Watts (Maximum)	160 Watts
Dimensions (W H D)	22.7" x 14.9" x 3.16" (578.2mm x 380mm x 80.4mm)	31.6" x 20.1" x 3.81" (804mm x 512mm x 96.8mm)
Weight	22.93 lbs (10.4 kg)	40.79 lbs (18.5 kg)
Operating Temperature	0° ~ +40°C (32° - 104°F)	
Storage Temperature	0° ~ +50°C (32° - 122°F)	
Case Color	White	
Case Material	Metal	
Accessories	DC Adapter, VGA cable, Power Cord, Manual, Driver Diskette, Remote Control	
Recommended Mount	CSW778CW CSB778CW	

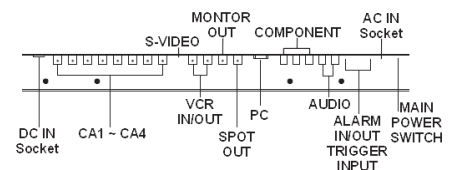
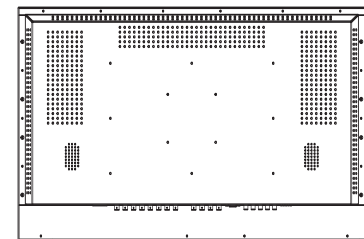
Specifications subject to change without notice.

## Dimensions

FRONT VIEW



BACK VIEW



## Display Configuration

The following diagram illustrates the wide-screen format (16:9) full-screen (1366x768) display window, the wide quadrant (683x384 each), the normal (4:3) full-screen (1024x768), normal quad screen (512x384 each) and the POP sub screen area (342x768) with 342x192 pixels for each stacked image quadrant.

