



## V5400QS Digital Color Quad Splitter

- Individual camera titles
- 4 alarm inputs and 1 output; alarms include motion detection and video loss
- Full, quad, PIP and auto-sequence modes
- 4 video inputs; 1 video output
- User-friendly on-screen programming menus
- Economical

The V5400QS Digital Color Quad Splitter accepts four camera inputs, processes them digitally, and displays all four on a single monitor screen. The complete video from each camera is displayed. All operating and programming functions are performed with the front panel keys.

The V5400QS features real time image processing and 2x digital zoom. It has a high resolution of 720x480 (720x512 PAL) (500 TV lines). The image can be put in a FREEZE mode. The splitter also features adjustable dwell time, PIP display, color adjustment and on/off selectable on-screen title, time and date display.

The V5400QS accepts both NTSC and PAL signals. The V5400QS requires 12 VDC input and is supplied with an appropriate power supply (120 or 230 VAC). The unit is also supplied with a rack-mounting kit for ease of rack installation.

### Auto-Sequencing

In addition to the quad screen display, the V5400QS offers a manually selected full-screen display of individual cameras and an auto-sequencing program that displays each camera full screen. A dwell period is menu-selectable. Dwell can be set from 1 to 999 seconds.

### Individual Camera Titles

Each camera can have a title of up to ten characters, selected from a character set of upper case A-Z and number 0-9. Time and date can also be displayed. Titles are displayed in green at the top of the screen. Camera titles and time/date display can be programmed to record.

### Alarm Operation

The V5400QS includes alarm response capabilities. A separate hardwired alarm input (which can be normally open or normally closed, menu-selectable) is provided for each camera channel, and an alarm relay output is provided for connection to an external device, such as a VCR. This output is normally open/normally closed.

When an alarm is activated, the associated camera video displays full screen. An audible alarm sounds and, if setup, the alarm output relay activates. If multiple alarms are activated, the screen switches the full screen video for each channel in turn. If one of the alarm activated channel buttons is depressed while the video is switching, the switching stops temporarily while the button is depressed and continues when the button is released. The audible alarm will sound for as programmed duration, 1-999 sec.

### Video Loss and Motion Detection

A built-in video loss detection system generates a visual alarm if video is lost from any of the four camera inputs. If video is lost from a camera, the screen goes blue, an audible sound occurs and VD Loss appears on the screen. Unaffected cameras continue to display video.

Motion detection is programmable for each camera. Motion detection can be setup for sensitivity and speed; the detection area is user defined. When motion is detected, an indicator appears on the screen.

An Event List is selectable from the Menu. The list displays up to 100 events, such as alarms, video loss or motion detection.

### Time/Date

The unit has an onscreen menu to set the time and date. The time/date can be programmed to display onscreen. The real time clock has a battery backup that can store data for two weeks without power.

### VCR Interface

The V5400QS has a VCR input BNC that accepts the video signal from the VCR and connects to the video output connector of the VCR. It allows the recorded tape to be played back. The VCR output BNC outputs the video signal to the VCR. This output is a quadrant display of video and any quad can be zoomed to full screen. It is connected to the video input connector of the VCR. The unit can continue to record during playback.

## VIDEO SIGNAL

- Television System:** NTSC/PAL standard 2:1 interlace.
- Video Inputs:** 4 inputs from cameras.  
1 input from VCR.
- Video Input Signal:** 1 V p-p composite video, 75 ohms.
- Video Input Termination:** Switch provided, 75 ohm on/off per channel. Nonlooping: 75 ohm.  
Looping: High-impedance.
- Video Outputs:** 4 looping outputs from camera inputs.  
1 output to monitor.  
1 output to VCR.
- Video Output Signal:** 1 V p-p, 75 ohm.
- Refresh Rate:** 30 frames/second for each input (120 fps total).
- Resolution:** Full Screen: 500 TV lines.  
Quad Screen: 325 TV lines.
- Digital Memory:** NTSC: 720 x 480. PAL: 720 x 512.

## ELECTRICAL

- Input Voltage:** 12 VDC; universal power supply provided.
- Current Drain:** 1.5 A
- Power Consumption:** 18 W, max.
- Heat Equivalent:** 1.0 btu/min. (0.26 kg-cal/min).  
NOTE: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.
- Power Supply:** Input: 120/230 VAC.  
Output: 12 VDC, 1 A. Standard DC jack. Plugs into a standard outlet; includes 6 ft (1.8 m) output cord with connector for V5400QS.

## ALARM

- Alarm Inputs:** 4 hardwired alarm inputs (normally open or normally closed) for each video channel. Video loss and motion detection are programmable.
- Alarm Output:** 1 (normally open or normally closed) contact output; goes active in response to a hardwired input on any camera channel.
- Alarm Relay Rating:** Nominal contact capacity (resistive load) is 1A/24 VDC.
- Alarm Annunciation:** Hardwired alarm inputs: associated camera video displays full screen, an audible alarm sounds for a programmed duration and the associated alarm output relay activates. Video loss: screen goes blue, an audible alarm sounds and VD Loss appears on the screen.  
Motion Detection: an indicator appears on screen.

## VIDEO FEATURES

- Display Modes:** Quad screen display: four quadrants separated by a selectable border with individual titles.  
Full screen: video from single camera input with title.  
Auto-Sequencing: video input from each camera displays for specified dwell time.  
PIP: picture-in-picture adjustable position display.  
VCR playback: single screen display.  
2x digital zoom: allows zooming in to picture.
- Sequencing Dwell:** Camera displays can be programmed for a specified dwell time of 1 - 999 seconds.
- Camera Titles:** Each camera may have an individual title of up to 10 characters from a character set of upper case alphabet and numbers 0-9.
- Output to VCR:** Video output to VCR is always quad screen display.
- Input from VCR:** VCR may be played back through V5400QS and is full screen; 2x digital zoom available.
- Looping Outputs:** Each camera has a looping video output that may be connected to other equipment. Video that is looped out must be terminated with 75 ohms at the last video device in line.

## CONTROLS AND CONNECTORS

### Front Panel

- Controls:** VCR/PIP/ENTER: selects VCR/PIP for display on monitor (requires use of SHIFT); ENTER in MENU mode.  
MENU/ZOOM: goes to MENU setup screens or 2x2 zoom function (requires use of SHIFT).  
AUTO/QUAD: enables quadrant display or initialtes auto-sequencing (requires use of SHIFT).  
CH1/ ▲ : displays camera 1 full screen; in programming, moves cursor up and selects entries.  
CH2/ ▼ : displays camera 2 full screen; in programming, moves cursor down and selects entries.  
CH3/ ◀ : displays camera 3 full screen; in programming, moves cursor left and selects entries.  
CH4/ ▶ : displays camera 4 full screen; in programming, moves cursor right and selects entries.  
Arrow keys also position PIP display. When programmed ON, an audible click is sounded upon key press.

## Technical Information (cont'd)

### Rear Panel Connectors:

Video Inputs: 4 BNCs.  
Video Outputs: 4 BNCs.  
Monitor Output: 1 BNC.  
VCR Input: 1 BNC.  
VCR Output: 1 BNC.  
Alarm In and Out: 9-pin D-sub connector video input and one output.  
Power Input: concentric pin-type jack.  
Power: Switch.  
Termination: 4-position DIP switch, 75 ohm ON/OFF (high-low).

### MECHANICAL

**Dimensions:** Height (H): 2.1 in. (52 mm).  
Width (W): 9.4 in. (238 mm).  
Depth (D): 8.2 in. (208 mm).

**Weight:** V5400QS: 2.9 lb (1.3 kg).  
Power Supply: 0.2 lb (0.09 kg).  
Rack Mount: 0.1 lb (0.05 kg)

**Shipping Dimensions:** Height: 4.5 in. (113 mm).  
Width: 13.5 in. (343 mm).  
Depth: 9.5 in. (241 mm).

**Shipping Weight:** 4.1 lb (1.9 kg).

**Shipping Volume:** 0.33 ft<sup>3</sup> (0.009 m<sup>3</sup>).

### ENVIRONMENTAL

**Operating Temperature Range:** 32 to 122° F (0 to 50°C).  
**Operating Humidity:** Up to 90% relative, noncondensing.

**Storage Temperature Range:** -31 to 185° F (-35 to 85°C).

**Storage Humidity:** Up to 95% relative, noncondensing.

