VM-Q401A CCTV Color Quad Processor

User’s Manual

www.cctvcamerapros.com/cctv-multiplexers
System Features

- Connects up to 4/8 Video Camera
  Adjustable Brightness, Contrast, Saturation, Hue and Sharpness

- High Resolution
  720X480 60Hz for NTSC
  720X576 50Hz for PAL

- Various Display Modes
  QUAD Split Mode
  Full Screen Mode
  PIP Screen Mode
  Non-realtime 8 Split Mode
  Dual Split Mode
  Auto Sequence Mode

- High Performance Freeze Function
  Flicker Free Image Capture

- High Performance Zoom Function
  Selectable Zoom Area

- Various Overlay Information
  Camera Title
  Real Time and Date
  Alarm/Loss/Motion Message

- Playback in QUAD or Full Screen Image

- Provide Various Event Input and Detection
  Alarm Input
  Video Loss Detection
  Motion Detection
  60 Event Report
  Built-in Buzzer and Relay Output

- Remote Control by Infrared Transmitter
Rear Panel Installation

Color Quad system with Audio

Camera Connection
Accept 8 composite video inputs from the camera.

Monitor Connection
Provide 1 composite video output for the main monitor.

VCR OUT Connection
Provide 1 composite video output for recording in the VCR.

VCR IN Connection
Accept 1 composite video input for playback from the VCR.

AUDIO IN Connection
Accept 4 composite audio inputs from the camera.

AUDIO OUT Connection
Provide 1 composite audio output for the main monitor.

Alarm Connection
Accept 8 alarm inputs and provide relay out.
Refer to the Alarm Interface section.

RS-232C Connection
Provide RS-232C interface to be controlled by HOST.
Refer to the RS-232C Interface section.

Power Jack Connection
DC 12V/1A, Center is positive.
Front Key Operation

Color Quad system front panel

MENU / ESC / A/B
Invoke menu setup / exit / change page A or B

AUTO / FREEZE
Invoke auto sequence function / freeze function

ZOOM / PIP / MODE
Invoke 2*ZOOM function / picture in picture / change display mode

VCR / ENTER
VCR playback / enter menu setup

Channel 1 (channel 5) display / up

Channel 2 (channel 6) display / down

Channel 3 (channel 7) display / left

Channel 4 (channel 8) display / right

Key Definition
Long Key
Press it in more than 1 seconds
Short Key
Press it in less than 1 second

Func2
Func1
Func2
Func1

Setup Menu Function / Quad A or B Display
Refer to the Setup Menu Operation section.
Key A/B selects page to be displayed. Page A and B is toggled for each A/B key.

MENU
A/B
Setup
MENU
A/B
Quad

Zoom Function
A zoomed area can be moved by pressing 4 arrow keys when zoom function is invoked. Freeze function can also be invoked while zoom function is invoked.

ZOOM
MODE
VCR
ENTER
Invoke Move Zoom Move Exit
Release

Freeze Function
All displayed channel is frozen when freeze function is invoked. Zoom function can also be invoked while freeze function is invoked.

AUTO
FREEZE
FREEZE
Freeze Exit

Playback Function
When playback function is running, 4 channel keys select camera to be displayed as single full screen and the MODE key makes quad display mode.

Audio Display (Only with Audio color Quad system)
The display modes are circulated as the following sequence.

Multi Channel Display
The display modes are circulated as the following sequence, Non-realtime 8 Split, 2 Picture-in-Picture, 1 Picture-in-Picture and Dual Split for each MODE key.

UP and DOWN key selects the channel in 2 Picture-in-Picture, 1 Picture-in-Picture and Dual Split mode, and then the selected channel boundary is blinked. The camera in the selected channel can be chosen by LEFT and RIGHT key.
Auto Sequence Display
AUTO key invokes auto sequence display mode and this mode can be maintained until any other display mode is selected.

Single Channel Display
Each channel button selects camera to be display as full screen. When pushing same button, camera is toggled to the other page.

PAL/NTSC System
System can be defined as NTSC or PAL standard with the following method. The first method is to power on with pressing RIGHT or LEFT key and the second one is to define in the setup menu.
Setup Menu Operation

The system provides a built-in GUI setup screen. For each menu, the key function is described in the lower region to help operation. The following figure shows the structure of GUI menu.
**Factory Reset Menu**

**FACTORY RESET**

WARNING!
THIS SYSTEM GETS TO LOSE
THE CURRENT SETTING VALUE
AND WILL BE INITIALIZED
WITH FACTORY RESET MODE.

ARE YOU SURE?
YES  NO

**Display Setup Menu**

**DISPLAY SETUP**

DISPLAY ON SCREEN
☑ TITLE ☑ DATE ☑ TIME

SCREEN POSITION X : 0
Y : 0

BORDER LINE COLOR
☐ BLACK
☑ GRAY1
☐ GRAY2
☐ WHITE
☐ OFF
Camera Setup Menu

Camera : 1

- Title : Camera1
- Brightness : 0
- Contrast : 0
- Saturation : 0
- Hue : 0
- Sharpness : 0
- Mirroring : Off

Auto Sequence Setup Menu

Page A Quad : 1 Sec
- Camera2 : 1 Sec
- Camera4 : 1 Sec
- Camera8 : 1 Sec
- Camera1 : 1 Sec
- Camera5 : 1 Sec
- Camera3 : 1 Sec

Page B Quad : 1 Sec
- Camera6 : 1 Sec
- Camera7 : 1 Sec
- Camera8 : 1 Sec

Title : Camera1
Contrast : 0
Hue : 0
Sharpness : 0
Brightness : 0
Miring : Off
**Motion Setup Menu**

**MOTION SETUP**

- **CAMERA**: 1
- **DETECTION TIME**
  - ALWAYS OFF
  - ON: 11:00:00
  - OFF: 12:00:00
- **SENSITIVITY**: 0
- **VELOCITY**: 0
- **MASKING AREA**
  - \([X,Y] = (0, 0)\)

**Event Setup Menu**

**EVENT SETUP**

- **BUZZER/REPORT**: ✓ CONTROL
- **CHANNEL**: 1 2 3 4 5 6 7 8
- **ALARM**: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
- **LOSS**: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
- **MOTION**: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

- **BUZZER HOLD TIME**: 05 SEC
- **REPORT HOLD TIME**: 30 SEC

**Controls**: ▲▼ SELECT  ◀▶ ADJUST  ENTER ENABLE MENU EXIT
## Event Report

### Event List Clear Menu

**WARNING!**
THIS SYSTEM GETS TO LOSE
THE CURRENT EVENT LIST
AND WILL BE INITIALIZED
WITH BLINK.

ARE YOU SURE?

**YES**  **NO**

**LIST CLEAR**