



**DT-MVIEW-b**  
**Datatoys Multi-View Quattro™**  
**Video Processor**



**Manual and Connection Guide**

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## Introduction

Thank you for your purchase of the Datatoys Multi-View Quattro-b! The Quattro-b is capable of processing up to four (4) video signals combining them into a single video output stream, together with an accelerometer and timer overlays. The Quattro-b features an all metal enclosure, LED display, and a "screw type" Binder 712 high density mini circular connector.

This manual will guide you through the set-up, care and maintenance of your Quattro-b and its' many accessories.

The MultiView Quattro-b is sold in five variants:

DT-MVIEW-BASE	(Base)
DT-MVIEW-PLUS	(Single Cam)
DT-MVIEW-PLUS2	(Dual Cam)
DT-MVIEW-PLUS3	(Tri Cam)
DT-MVIEW-PLUS4	(Quad Cam)

## Contact

Datatoys	W: <a href="http://www.datatoys.com">www.datatoys.com</a>
500 W. Brown Deer Rd. Suite 216	E: <a href="mailto:Sales@Datatoys.com">Sales@Datatoys.com</a>
Milwaukee, WI 53217	P: +1-414-294-8017
F: 414.351.6555	

## Warranty

Motorsports-Exchange.com LLC (Datatoys) warrants that each new Multi-View Quattro-b will be free of defective materials and workmanship for a period of one (1) year from the date of original purchase. Motorsports-Exchange.com LLC will remedy and such defect by repair or replacement (at our option) of the unit, provided the unit is delivered to the address listed above, intact, with all transportation charges prepaid, and accompanied by a copy of the original receipt and return authorization number.

The provisions of the warranty shall not apply to any unit that has been subject to misuse, water exposure, neglect, incorrect installation, unauthorized modification, accident, or has been repaired or altered outside of our factory.

The express warranty contained herein is in lieu of all other warranties, expressed, or implied, or statutory, including without limitation any warranty of merchantability or fitness for a particular use. In no event will Motorsports-Exchange.com LLC be liable to the buyer and/or user for any damages, including special, incidental, indirect, or consequential.

For return merchandise authorization contact Datatoys.com at (414) 294-8017

## Packing List

### DT-MVIEW-BASE

1 – DT-MVIEW-b	MultiView Quattro-b Processor
1 – DT-MVIEW-B712	Binder 712 Harness
1 – DT-CABLE-2	RCA Video Out/ Power Input Cable

### DT-MVIEW-PLUS

1 – DT-MVIEW-b	MultiView Quattro-b Processor
1 – DT-MVIEW-B712	Binder 712 Harness
1 – DT-CABLE-2	RCA Video Out/ Power Input Cable
1 – DT-CAM-E580	Sony 580 Line Bullet Camera
1 – DT-MNT-SPRCMP	SuperClamp Mount
1 – DT-MNT-UNI	Universal Mount
1 – DT-MNT-CLICK	Click Mount Adapter
1 – DT-CABLE-2M	2 Meter Extension Cable

### DT-MVIEW-PLUS2

1 – DT-MVIEW-b	MultiView Quattro-b Processor
1 – DT-MVIEW-B712	Binder 712 Harness
1 – DT-CABLE-2	RCA Video Out/ Power Input Cable
2 – DT-CAM-E580	Sony 580 Line Bullet Camera
2 – DT-MNT-SPRCMP	SuperClamp Mount
2 – DT-MNT-UNI	Universal Mount
2 – DT-MNT-CLICK	Click Mount Adapter
2 – DT-CABLE-2M	2 Meter Extension Cable

### DT-MVIEW-PLUS3

1 – DT-MVIEW-b	MultiView Quattro-b Processor
1 – DT-MVIEW-B712	Binder 712 Harness
1 – DT-CABLE-2	RCA Video Out/ Power Input Cable
3 – DT-CAM-E580	Sony 580 Line Bullet Camera
3 – DT-MNT-SPRCMP	SuperClamp Mount
3 – DT-MNT-UNI	Universal Mount
3 – DT-MNT-CLICK	Click Mount Adapter
3 – DT-CABLE-2M	2 Meter Extension Cable

### DT-MVIEW-PLUS4

1 – DT-MVIEW-b	MultiView Quattro-b Processor
1 – DT-MVIEW-B712	Binder 712 Harness
1 – DT-CABLE-2	RCA Video Out/ Power Input Cable
4 – DT-CAM-E580	Sony 580 Line Bullet Camera
4 – DT-MNT-SPRCMP	SuperClamp Mount
4 – DT-MNT-UNI	Universal Mount
4 – DT-MNT-CLICK	Click Mount Adapter
4 – DT-CABLE-2M	2 Meter Extension Cable

## Technical Specifications

### Quattro-b Processor:

Connectors:	Binder 712 8-pin high density, USB 2.0
Input Formats:	NTSC or PAL (automatic)
Output Formats:	NTSC or PAL (input dependant)
Resolution:	525 lines NTSC, 625 lines PAL
Output Resolution:	720 x 480 Standard NTSC 720 x 576 Standard PAL
Aspect Ratio:	4:3
Frame Rate:	29.97 fps NTSC, 25 fps PAL
ADC and DAC:	10 bit
Timer Resolution:	± 0.2 sec/hr
Power Input:	+9VDC to +15VDC
Power Output:	Same as input
Picture Modes:	38 Pictures in Picture (PIP) Split Screen; Vertical, Horizontal, Quad
Firmware:	Upgradable, via built in USB port
Chassis:	Anodized aluminum, black
Weight:	7.7oz (215g)
Dimensions:	109 mm x 85 mm x 30 mm
Operating Temperature:	0–50 °C

### Quattro-b Harness:

Inputs:	(4) 4-PIN Female mini-circular connectors (Video In + Power Out)
Output:	(1) 4-PIN Male mini-circular connector (Video Out + Power In)
Construction:	Fully shielded, Binder 712 8-pin high-density connector, Copper

## Maintenance and Care

Although the MultiView Quattro-b is designed for harsh environments, standard maintenance and care is needed to insure optimal performance.

### Before Each Use

- Clean and inspect connection contacts, insure that connection and contacts are dry and free of debris
- Check the unit for safe and firm mounting.
- Calibrate accelerometer
- Inspect cable for any abrasions or damaged. If any wire is exposed do not use and please send your unit back to us for repair.

## Installation Notes

*Safe and proper installation is the full responsibility of the owner and user. Please follow the connection and installation instructions to insure proper function and performance.*

- Insure that all mounts and attachments are tight can in a safe mounting position.
- Insure that the cabling is not pinched or sheered at any point.

NOTE: Cable Wrap and Zip Tie mounting of cabling to roll bars or hard surfaces must be done with care. Cable Wraps and Zip Ties have been known to cut, short, and shear the cabling.

- Choose a mounting route that avoids any communications or electronic equipment to avoid interference. If you have to cross a communications line at any point do so at a perpendicular angle.

4-PIN Locking connections should only be finger tight, over tightening or use of tools may damage the connector.

## Mounting Guide

The MultiView Quattro-b must be mounted properly not only for safety but optimal performance. If using the accelerometer the unit must be mounted level with the binder connection facing the direction of forward movement, and deviation will cause errors in the accelerometer reading or diminish its accuracy.

We recommend mounting the MultiView Quattro on a smooth and flat surface such as a floorboard or parcel shelf. The unit can be mounted using a variety of methods. We recommend ultra-strength 3M Dual-Lock Velcro on surfaces which are compatible with general adhesive.

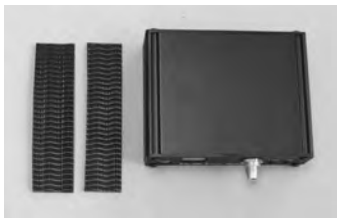
### Step 1

Find a smooth, flat and level surface to mount the unit with enough room for the harness to be mounted properly. Remember the binder connection must be mounted in the direction of travel



### Step 2

Cut two strips of Dual-Lock greater than 1"x4" which will be placed on the bottom of the Quattro-b in Step 6.



### Step 3

Cut two strips of Dual-Lock slightly larger than the previous two. These will be mounted on the aircraft or vehicle.



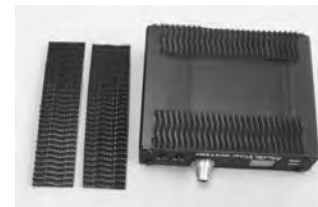
### Step 4

Thoroughly clean the mounting surface; be sure to remove all debris, dirt, oil and grease.

## Mounting Guide

### Step 5

Thoroughly clean the bottom of the Quattro-b; be sure to remove all debris, dirt, oil and grease.



### Step 6

Affix the Dual-Lock from Step 2 to the bottom edges of the Quattro-b



### Step 7

Attach the Dual-Lock from Step 3 to the Dual-Lock applied in Step 6.



### Step 8

Remove protective backing and place the Quattro-b in desired location, press and hold firmly for 30 seconds.

### Step 9

Check the firmness of the mounting. If satisfactory to your specific application mounting is complete.

### Step 10

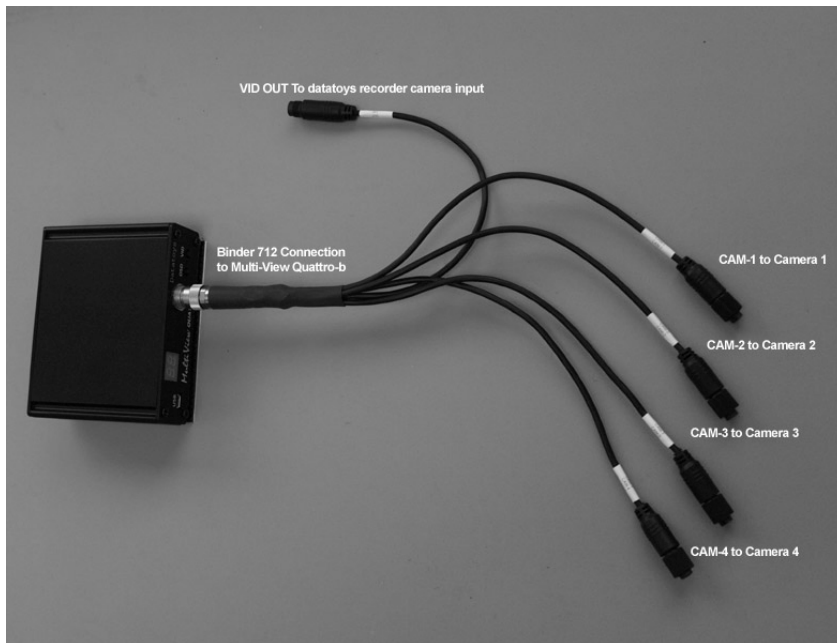
Calibrate your Quattro-b by following the calibration instructions.

## Connections

MultiView Quattro-b can be connected to a variety of cameras, monitors and recorders. The Quattro-b can accept any analog video input and will output a standard analog signal.

### Connecting to Datatoys cameras and recorder:

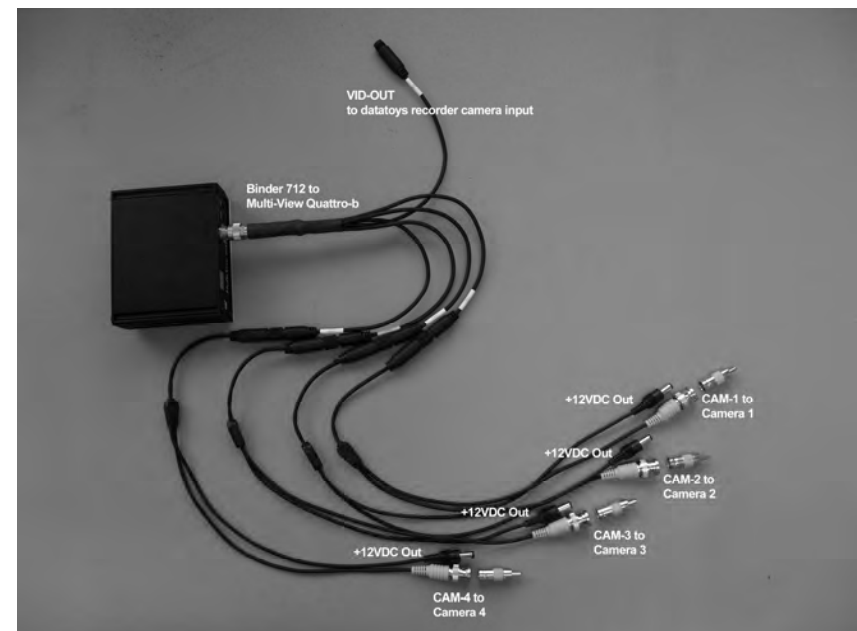
Connect the VID-OUT to the CAM-1 or CAM-2 lead on the Datatoys recorder. When the recorder is powered this will provide power to the unit as well as cameras. Then connect your Datatoys cameras to the CAM-1 through CAM-4 leads. The system will still display the G-Meter when no cameras are connected. If only one camera will be used it may be connected into any of the CAM- leads. If using multiple cameras ensure that your main camera is connected to CAM-1.



## Connections

### Connecting to "brand X" Cameras and Datatoys recorder

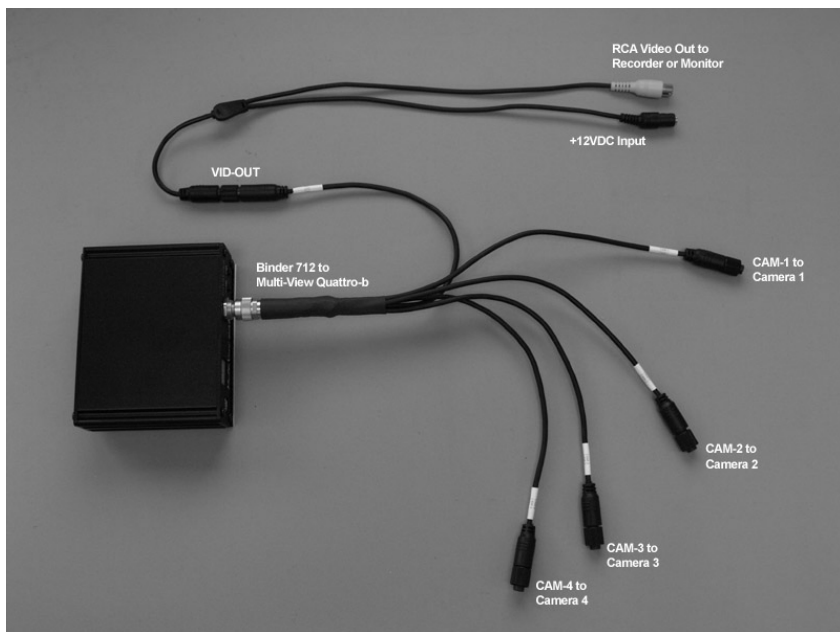
Connect the VID-OUT to the CAM-1 or CAM-2 lead on the Datatoys recorder. When the recorder is powered this will provide power to the unit as well as cameras. Install the optional MultiView Quattro-b Cable Pack (part number: DT-MVIEW-CABLE) as shown below. Then connect non-Datatoys cameras to the BNC connections or RCA connections by using the BNC to RCA adapters included with the cable pack. Then you may use standard 2.1x5.5mm barrel power connections to supply power to your cameras. Keep in mind the unit will supply 12VDC and is center pin positive. The system will still display the G-Meter when no cameras are connected. If only one camera will be used it may be connected into any of the CAM- leads. If using multiple cameras ensure that your main camera is connected to CAM-1.



## Connections

### Connecting to Datatoys cameras and “brand X” recorder or monitor

Connect the VID-OUT to the 4-PIN female to RCA female + 2.1x5.5mm power female cable. The RCA connection will then connect to your recording device or monitor. Connect the power input connection to a 12VDC regulated power supply. The connection is center pin positive. This will provide power to the unit and the cameras. Then connect your Datatoys cameras to the CAM-1 through CAM-4 leads. The system will still display the G-Meter when no cameras are connected. If only one camera will be used it may be connected into any of the CAM-leads. If using multiple cameras ensure that your main camera is connected to CAM-1.



## Setting Picture Mode

The Quattro-b has 38 selectable picture modes. Each mode corresponds to a number that is shown on the units LED display. In order to set a specific picture mode, please follow the steps shown below:

### Step 1

Install the Quattro-b connecting all cameras and recorders.

### Step 2

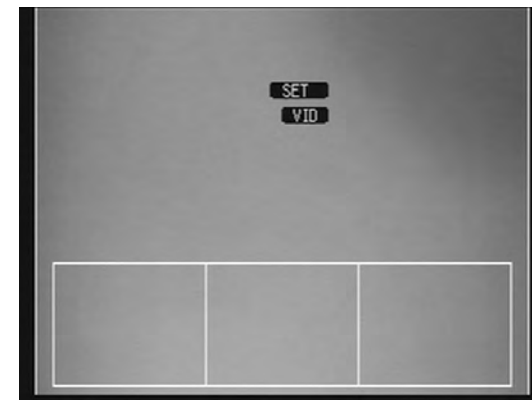
Although helpful a monitor is not needed for configuration. \*optional\* Connect monitor to recorder and insure you are getting video output from cameras though the Quattro-b.

### Step 3

To enter “set mode” press and hold the “VID” button located on the front of the Quattro-b until the “SET + VID” icons appears on the monitor or, if you are not using a monitor, until the LED display no longer reads “CA”. Step 4 must be initiated with in 3 seconds or set mode will be aborted.

### Step 4

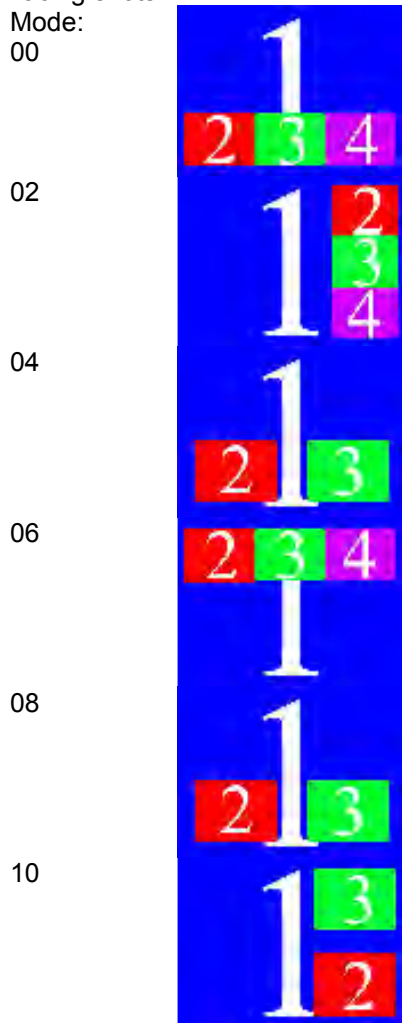
Once in set mode press “VID” to increase the number corresponding to the picture mode or press “OSD” to decrease the number corresponding to the picture mode. If no input is entered for 3 seconds the picture mode displayed on the LED will be set and “set mode” will be exited.



*Note: when selecting a picture mode notice that all even numbered picture modes are in standard configuration and all odd number modes have the second cam reversed for rearward facing cameras.*

## Picture Modes

The MultiView Quattro-b has 38 picture modes, of which 19 are distinct and the other 19 have camera 2 reversed for rearward facing shots.



## Picture Modes

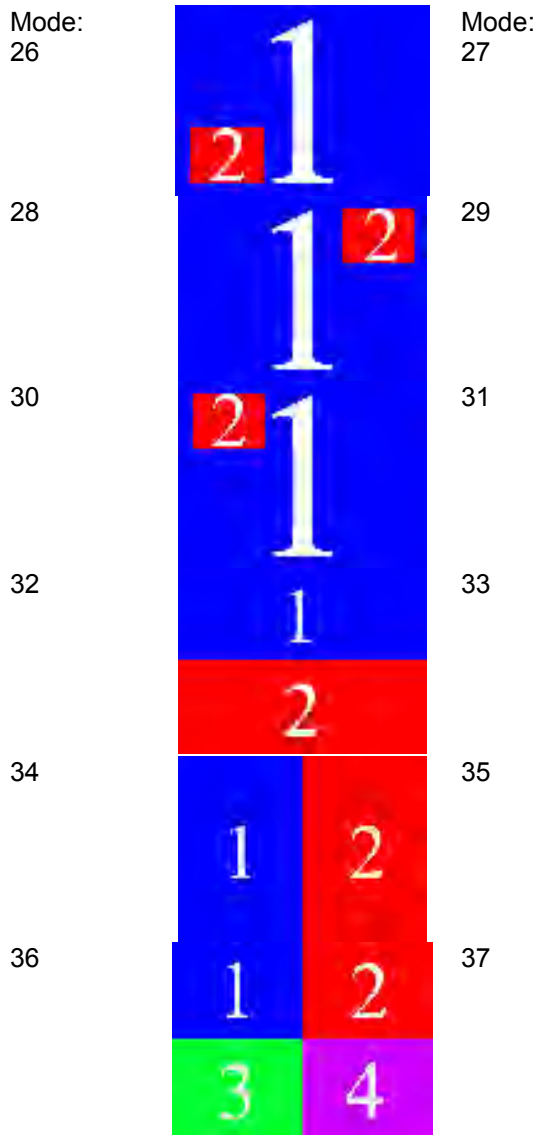
Mode: 12



Mode: 13



## Picture Modes



## Setting Overlay Mode

The MultiView Quattro-b has 13 selectable accelerometer/timer modes. Each mode corresponds to a number that is shown on the units LED display. Please follow the following steps to set a picture mode.

### Step 1

Install the Quattro-b connecting all cameras and recorders.

### Step 2

Although helpful a monitor is not needed for configuration. \*optional\* Connect monitor to recorder and insure you are getting video output from cameras though the Quattro-b.

### Step 3

To enter "set mode" press and hold the "OSD" button located on the front of the Quattro-b until the "SET OSD" Icons appears on the monitor or, if you are not using a monitor, until the LED display no longer reads "dA". Step 4 must be initiated within 3 seconds or set mode will be aborted.

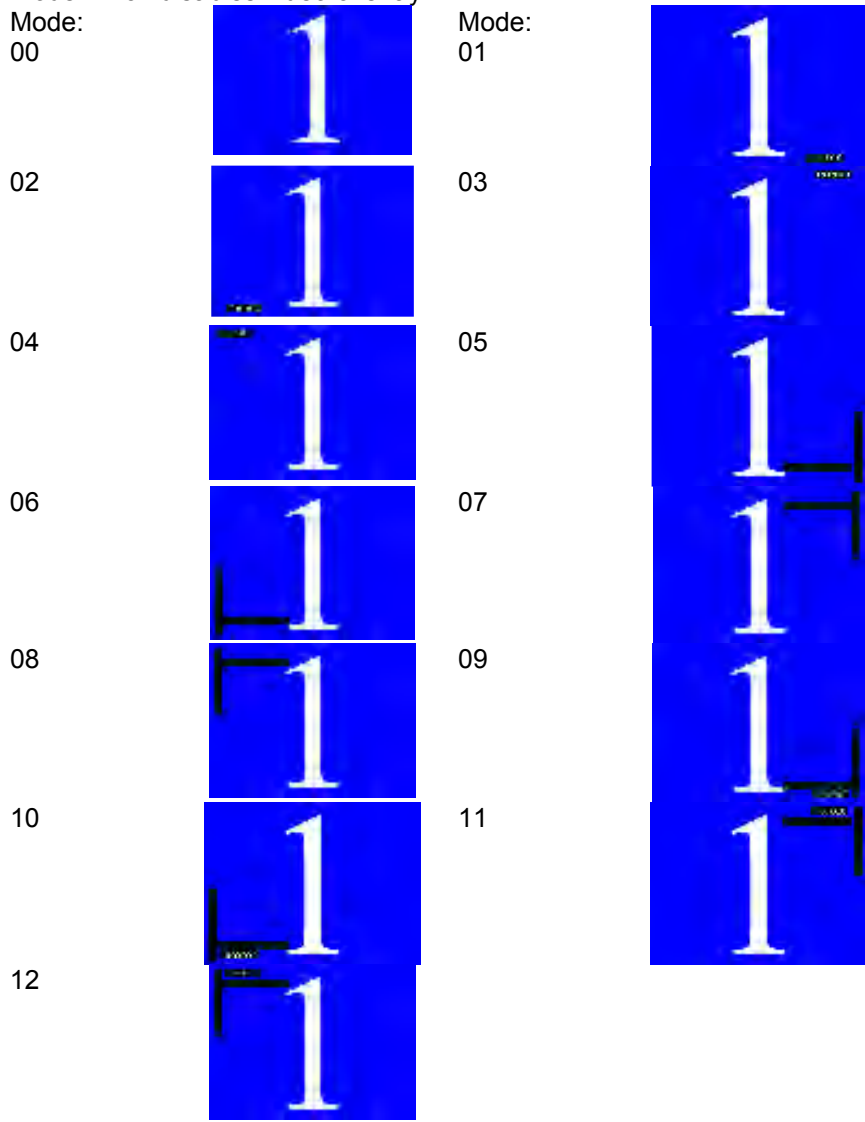


### Step 4

Once in set mode press "VID" to increase the number corresponding to the overlay mode or press "OSD" to decrease the number corresponding to the overlay mode. If no input is entered for 3 seconds the picture mode displayed on the LED will be set and "set mode" will be exited.

## Overlay Modes

The MultiView Quattro-b has 13 overlay modes. These include 4 clock-only, 4 accelerometer-only, 4 accelerometer + clock, and 1 neutral mode which disables video overlay.



## Calibration

To maintain accuracy we recommend you calibrate the MultiView Quattro-b before operating. Calibrating the Quattro-b will set the accelerometer levels to zero.

### Step 1

Install the Quattro-b connecting all cameras and recorders.

### Step 2

Although helpful a monitor is not needed for configuration. \*optional\* Connect monitor to recorder and insure you are getting video output from cameras through the Quattro-b.

### Step 3

To enter "calibration mode" press and hold the "VID" and "OSD" buttons, located on the front of the Quattro-b, simultaneously. Hold buttons until "SET ZERO" icons appears on the monitor or, if you are not using a monitor, watch the LED display, the unit will display "CL" and after 3 seconds the light will blink once and stay lit, once this occurs you are in calibration mode. Step 4 must be initiated within 5 seconds or calibration mode will be aborted.



### Step 4

Once in calibration mode press "OSD" to set calibration or "VID" to cancel. After unit is calibrated the accelerometer should read +0.00 and +0.00.



## Accessories

Datatoys offers a wide range of accessories for the Multi-View Quattro-b. All accessories are available at [www.datatoys.com](http://www.datatoys.com).

### Cabling



#### Extension Cable

DT- CABLE-XM

The extension cable is used to extend all Datatoys 4-PIN connections and is available in 1,2,3,4, and 10 meter lengths.



#### BNC Camera Break-Out Cable

DT-CABLE-3

The BNC Camera Break-Out Cable is used to connect the Multi-View Quattro-b to a BNC device.



#### RCA Camera Break-Out Cable

DT-CABLE-2

The RCA Camera Break-Out Cable is used to connect the Multi-View Quattro-b to an RCA device.

### Power



#### Cig Plug Adapter

DT-PWR-CIG

The Cig Plug Adapter can be used in a standard cigarette lighter socket and power Datatoys cameras and systems.