



## Videum 0016™ VO

Sixteen-Port Video Capture Card  
QuickStart Guide

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## PRODUCT DESCRIPTION

The Videum 0016 VO is a 16-channel video-only capture card that captures 16 simultaneous video streams from 16 independent video sources. This card also provides one video out channel, which can be used for independent monitoring of any input channel

The Videum 0016 board supports any PAL or NTSC composite video source like cameras, DVD players, and video recorders.

## SCOPE OF DELIVERY

- QuickStart Guide
- CD with software driver and documentation
- DVI to 17 x BNC breakout cable
- Watchdog reset cable
- Videum 0016 VO capture card

### DVI to 17 x BNC Breakout Cable

This cable is used to connect the video sources to the board's DVI connector. There are 16 BNC video-in connectors and 1 video-out connector.



### Watchdog Reset Cable

This cable is required for the Watchdog crash-recovery function.

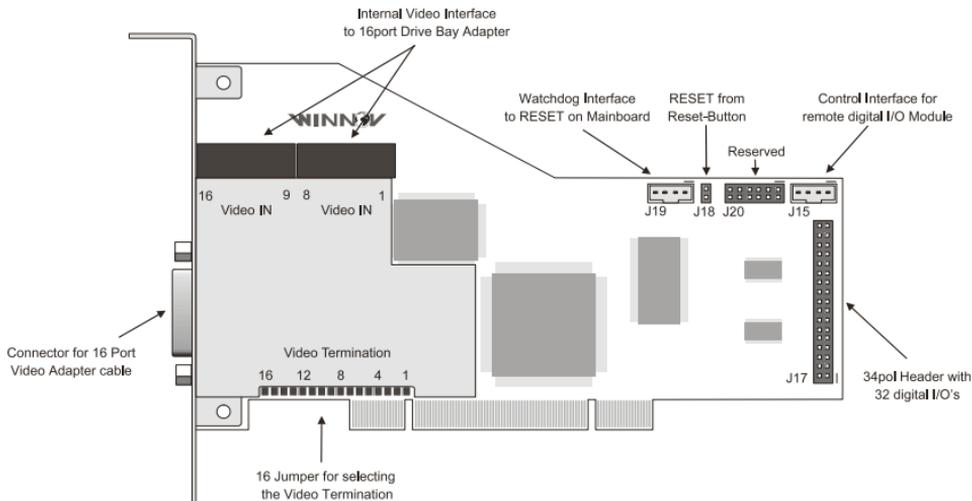


## SYSTEM REQUIREMENTS

- 1 GHz AMD and Intel
- 32/64 bit PCI slot, PCI 2.2 compliant
- 128 MB (32 or 64 MB recommended)
- Windows 2000, XP, Vista, Server 2003 (DirectX9 required)

## VIDEUM 0016 VO BOARD DRAWING

This drawing illustrates the Videum 0016 VO board.



## **SAFETY INSTRUCTIONS**

Power off the computer when installing and removing PC cards.

When the computer is turned off by using the power switch, there still might be power supplied to the motherboard. To ensure that your computer is completely shut down, unplug the computer's power cord from its power source.

Static electricity can damage your client adapter. Before removing the adapter from the antistatic packaging, discharge static by touching a metal part of a grounded PC.

## **GETTING SETUP**

To get initially set up, you need to:

- Install the Videum board.
- Connect your source(s).
- Install the software from the Videum CD.

## **INSTALLING VIDEUM**

This section describes how to install the Videum board, connect Winnov's Watchdog, connect Digital I/O, and modify Video Input Termination.

### **Installing the Videum Board**

To install the Videum board, do the following:

1. Turn off your computer and peripheral devices, and then disconnect the power supply.
2. Remove the computer cover and the adapter slot cover from the slot that matches your adaptor.
3. Firmly place the adapter edge connector into the PCI slot until it is fully inserted. Secure the bracket to the chassis.
4. Connect the Watchdog reset cable if you require this function.
5. Connect the Digital I/Os if desired – used for trigger input or event signaling output. See the section on Digital I/Os.
6. Modify the Video Input Termination if desired. See the section on Video Input Termination.
7. Replace the computer cover. Plug in the power cord and restart your system.

### **Installing Multiple Boards**

Winnov Videum enables you to install several Videum capture cards into your system. If you have installed multiple boards in one system, Videum software recognizes the number of devices that you have (rather than the number of capture cards).

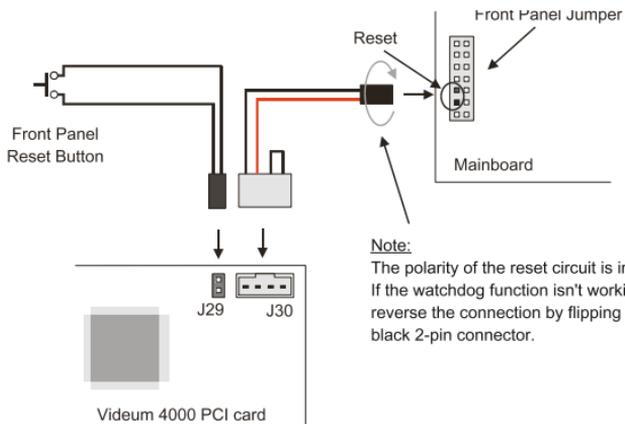
A device is an audio and video data stream that is assigned a unique number. For example, if you install two Videum 0016 boards, there are 32 devices.

## Connecting the Watchdog Reset Cable

The Watchdog Reset is a crash recovery function that automatically reboots the system in the event of a software lock-up, thus allowing unattended operation.

To establish Watchdog, do the following:

1. Unplug your computer's reset cable where it connects to the motherboard.
2. Connect your computer's reset cable that you disconnected to the pin connector (J18) on your Videum board.
3. Connect the Watchdog's reset cable (red/black) to the reset pins now opened on the motherboard.



### Note:

The polarity of the reset circuit is important. If the watchdog function isn't working, reverse the connection by flipping the black 2-pin connector.

## Connecting Digital I/O

Your Videum board provides 32 digital I/O which can be used as trigger input or as event signaling output. Each input and output is used individually as input or output. The Digital I/O interface on the board is controlled through Winnov's ActiveX software and the Videum SDK (Software Development Kit).

I/O 32 –		– I/O 31
I/O 30 –		– I/O 29
I/O 28 –		– I/O 27
I/O 26 –		– I/O 25
I/O 24 –		– I/O 23
I/O 22 –		– I/O 21
I/O 20 –		– I/O 19
I/O 18 –		– I/O 17
+5V –		– GND
I/O 16 –		– I/O 15
I/O 14 –		– I/O 13
I/O 12 –		– I/O 11
I/O 10 –		– I/O 9
I/O 8 –		– I/O 7
I/O 6 –		– I/O 5
I/O 4 –		– I/O 3
I/O 2 –		– I/O 1

J17

When an I/O is configured as an input, the output FET's are off, creating high impedance input with a weak pull-up to +5V. If the I/O is configured as an output, then the output FETs are active depending on the state of the Output Port register.

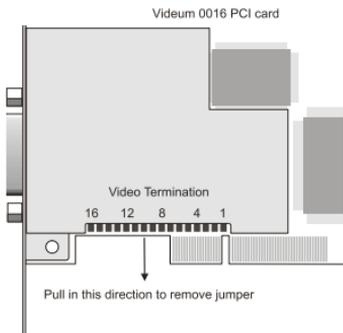
**Note:** Care should be exercised if an external voltage is applied to an I/O configured as an output because of the low impedance path that exists between the pin and either +5V or GND.

## Modifying Video Input Termination

Each video input (Video Source 1-16) is terminated with 75 Ohm. For proper video reception this termination is required. In some cases, termination is not desired, for example:

- The card is inserted into an existing video link via a T-piece.
- Some inputs are fed from one video source, for example, to provide 4 streams with different resolutions from the same video stream.
- Several Videum cards are cascaded or run in parallel to other video equipment.

In these cases, the video termination requires a video amplifier or repeater. This can be avoided by individually disabling the termination by removing the jumper. One termination must remain per video link and be as close as possible to the end of the whole link.



If the jumper is removed, the video termination is disabled. If the jumper is replaced, the video termination is enabled (default).

## CONNECTING VIDEO AND AUDIO SOURCES

To connect your video sources, do the following:

- Connect the DVI to 17 x BNC breakout cable to the DVI connector on the Videum 0016 card
- Connect the video sources to the BNC receptacles of the breakout cable. Each BNC receptacle has a label (e.g. Vin-CH10) attached to its wire. This label corresponds to the video source naming of the software driver.

## INSTALLING THE VIDEUM SOFTWARE

The Videum Software CD contains the Drivers required for using the Videum board, applications, and documentation.

**Note:** If the “Found New Hardware Wizard” popup appears after you start up your system, be sure to cancel out of it. It may take up to four cancellations (depending on the capture card that you installed) to dismiss the popup.

1. Start your computer and insert the Videum Software CD.
2. From the Videum Software CD menu, select your preferred language and click to run Setup. Alternatively, run the “Setup.exe” application directly from the root directory of the CD.

The installer guides you through the software installation process. It is recommended that you use the defaults.

## **TECHNICAL SUPPORT AND DRIVER UPDATES**

The latest drivers, utilities, and documentation are available at Winnov's support website at [www.support.winnov.com](http://www.support.winnov.com).

To obtain help or information associated with your Videum board or Videum applications, use the Videum SDK's help menus, supplied documentation (on the CD), or contact Winnov support via e-mail at [support@winnov.com](mailto:support@winnov.com).

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