

# The **SignVideo** FW16 16 Port ieee1394 Firewire Patch panel

## Operations Manual

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### **Theory of Operation**

The FW16 Firewire Patch Panel is a passive (non-powered) 16 port interconnection device.

The sixteen iee1394 firewire connectors on the rear panel are each directly linked to a single corresponding ieee1394 firewire connector on the front panel. Thus, for example, when you connect one end of a firewire patch cable to the number two jack on the *front* panel, you are making a direct electrical connection to any cable connected to the number two jack on the *rear* panel.

Taking this a step further, once you have a device connected by a firewire cable to the number two jack on the rear panel, plus you connect another device by running a firewire cable to the number four jack on the rear panel, you are in a position to connect the two devices together by connecting a patch cable from the number two *front* panel jack to the number four *front* panel jack.

Once you have several devices connected to the rear panel, you have the ability to choose which of these devices can be connected to another device. You are also in a position to make more than one connection at a time. You could connect device two to device four, while connecting device three to device one and so on.

ieee1394 firewire is bi-directional so any connection between two devices can run in either direction, limited only by the design of the devices being connected.

### **Front and Rear Panels Each Provide**

- 12 6 pin ieee-1394 firewire ports
- 4 4 pin ieee-1394 firewire ports

Note that the difference between four pin and six pin ieee1394 firewire is that six pin carries power and four pin does not.

### **Rack Mount Hardware Included**

Two rack mount brackets are included with each FW16 firewire patch panel and screw into the holes provided on each side of the unit. Once the brackets are attached, the unit can be mounted in a standard rack.

### **Short Patch Cables Included for Front Panel Connections**

- 3 12" 6 pin to 6 pin ieee-1394 firewire cables
- 3 12" 6 pin to 4 pin ieee-1394 firewire cables

The above patch cables are included as these lengths are hard to find in stores, but very useful for making short hop connections on the patch panel. Additional cables can also be used for longer hop connections. You may already have these or you can purchase them from Sign Video or your Sign Video dealer. They are available in six pin to six pin, four pin to four pin, and six pin to four pin.

### **Patch panel dimensions**

16 15/16" W x 1 3/4" H x 3 11/16" D  
(Width is standard rack mount width)

**Continued on Reverse →**

### **Using the Firewire Patch Panel**

Using a patch panel is the fast and easy way to switch and swap your IEEE-1394 firewire connections and to route your firewire signals where you want to go any time you want. You won't be crawling around behind your equipment any more and you won't risk damaging the firewire connections on your expensive equipment.

Just use firewire cables to connect from the firewire ports on your equipment to the firewire ports on the back of the firewire patch panel. The 16 firewire ports on the rear of the firewire patch panel connect directly to sixteen ports on the front panel of the firewire patch panel. Then you just use firewire patch cables to patch one port to another on the front panel. It's that simple.

The ports are numbered 1 to 16. Here are some examples of connections:

To route the signal from device 1 (the device connected to port 1 on the rear) to device 4 (the device connected to port 4 on the rear) just connect one end of a firewire patch cable to front panel port 1 and the other end of the same firewire patch cable to front panel port 4.

If at the same time you would like to connect device 3 to device 16, patch together 3 and 16 on the front panel in the same manner using a second firewire patch cable.

The two connections are separate, and even though they are made using the same firewire patch panel, they do not intersect, and do not interfere with each other. You can keep going, of course, making as many connections as the number of firewire ports allow.

### **Mixing Four Pin and Six pin Firewire Connectors**

Note that the difference between four pin and six pin IEEE1394 firewire is that six pin carries power and four pin does not. To make a cable connection between a six pin connector and a four pin connector, you can use a special cable that has a four pin connector at one end and a six pin connector at the other end. These are available from Sign Video or your Sign video dealer.

Many digital video cameras and digital video decks, for example, provide only four pin connectors, while computers and computer peripherals generally provide six pin connectors as the extra two pins carry power.

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