

Video Fiber Microscopes

For Fiber Optic Termination Inspection



Westover Video Fiber Microscopes

Video-based fiber inspection microscopes

- Double your inspection speed... save time and money!
- See more sample detail... improve the quality of your inspections
- Economical... save money when compared to other microscopes
- Comfortable... improved ergonomics and reduced eyestrain
- Training & supervisor monitoring... improve personnel efficiency
- Several packages to choose from... for bench or field applications.

As bandwidth's continue to rise, polish quality and cleanliness become greater issues. Today, more than ever, you'll need a quality inspection device to provide an accurate image of your fiber end-face.

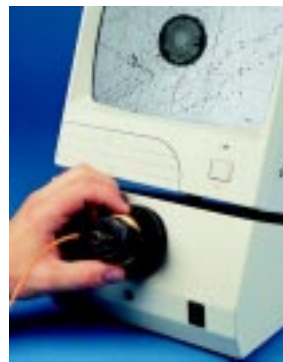
Westover's line of Video Fiber Microscopes provide the industry's highest level of performance at a price lower than many optical microscopes.

Now you can increase production efficiency by providing a more comfortable inspection tool for technicians. Increase quality control by utilizing a higher quality, precision optical instrument. Save money by maximizing your time and expenses.

We offer three configurations of our Video Fiber Microscopes:

- Our standard configuration features an video inspection microscope which is independent from the video monitor. (FV & FVW Systems)
- The new FVIW System provide a fully integrated workstation with minimum connections and cables to manage.
- Finally, our new portable inspection system (FVPW System) is ideal for field use.

Each type of configuration is available in either 80x, 200x, or 400x. Other magnifications are available upon request. To help you choose your magnification, please see the inset box below.



- Our newly redesigned fine-focusing mechanism allows for fast, comfortable adjustment of the image. (works for left or right handed operators)
- Bench-top models are now inclined to 22.5° to make insertion of the fiber easier and faster.
- Westover microscopes are pre-centered and do not require user alignment.
- Westover video fiber microscopes provide added laser safety insurance by directing any light from "live" lasers to the CCD instead of the user's eye.

Which Magnification Should I choose?

As a rule of thumb, singlemode applications require more magnification than multimode applications. With video systems, 200x is usually sufficient magnification-even for singlemode applications (since the image is "blown up" onto a 9" or 12" monitor). However our 400x models have proven to be very popular. When choosing your magnification, it is easiest to consider the desirable field of view. We have shown three images that demonstrate what you would see on your monitor. Keep in mind, the images shown will fill the entire monitor. The size of monitor you choose will determine the final size of the image seen.

MAGNIFICATION OPTIONS

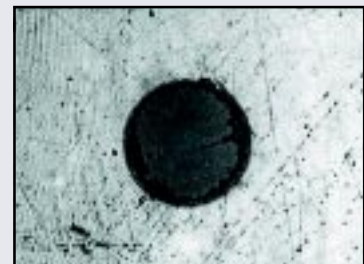
80x Image



200x Image



400x Image

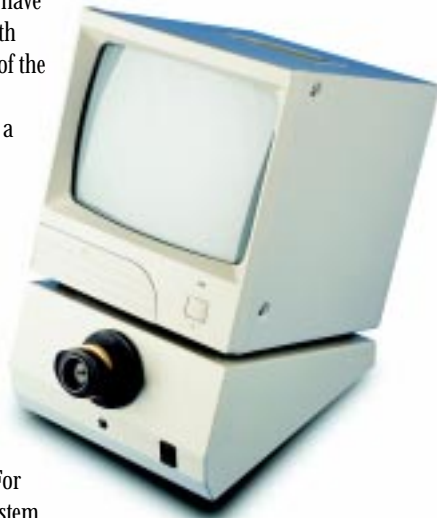


Fully Integrated Workstations

Complete integrated workstations with built-in monitor

- Easy setup - only the power cord to connect
- Inclined angle for more comfortable use
- Portable - built in handle makes it easy to move
- Smooth, convenient fine focus control

When asked for our recommendation of a video system, we first suggest our new FVIW system. Originally developed upon request from a leading manufacturer in the fiber industry, these systems have grown exceptionally popular with many other key companies. All of the FVIW systems include a video microscope, video monitor, and a 2.5mm universal adapter. As always, additional adapters can be purchased separately.



The advantage of the FVIW system is the combination of our video inspection microscope and a video monitor to form one complete unit. This makes setup easy and almost instant! For 110v systems, simply pull the system from its packaging, plug it in, and its ready to use! No complex connections, no wiring diagrams.

There is only one power cable in the rear. (220v models for Europe also require connecting a separate power supply)

The ergonomic design provides a more comfortable viewing angle by inclining the monitor back 22.5°. This significant feature works in tandem with the inclined face of the microscope to provide a better overall instrument/user interface.



Cat. No.	Description
FVIW-209	200x video system with integrated 9" monitor and adapter
FVIW-212	200x video system with integrated 12" monitor and adapter
FVIW-409	400x video system with integrated 9" monitor and adapter
FVIW-412	400x video system with integrated 12" monitor and adapter

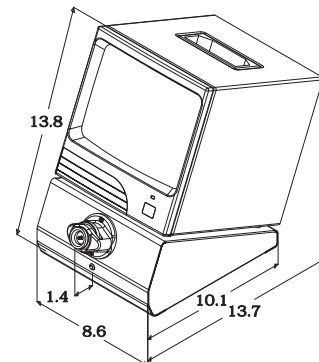
PAL Video Format

FVIW-209-P	200x video system with integrated 9" monitor and adapter
FVIW-212-P	200x video system with integrated 12" monitor and adapter
FVIW-409-P	400x video system with integrated 9" monitor and adapter
FVIW-412-P	400x video system with integrated 12" monitor and adapter

Specifications:

FVIW VIDEO FIBER MICROSCOPES

Weight:	8.6kg/19lb
Optical Magnification:	200x or 400x
Picture Tube:	9" or 12" monochrome
NTSC:	525 lines 60 Field/sec. 115V, 60 H, 0.2 Amps.
PAL Format:	625 lines 60 Field/sec. 230V, 50 H, 0.1 Amps.
Power Source:	120VAC 230VAC
Front Panel Controls:	H-Hold, V-Hold, Bright, Contrast



Modular Workstations



Cat. No.	Description
FV-080	80x Video Fiber Microscope (Requires Adapter and Monitor)
FV-200	200x Video Fiber Microscope (Requires Adapter and Monitor)
FV-400	400x Video Fiber Microscope (Requires Adapter and Monitor)
FVW-209	200x video system with 9" monitor and adapter
FVW-212	200x video system with 12" monitor and adapter
FVW-409	400x video system with 9" monitor and adapter
FVW-412	400x video system with 12" monitor and adapter

PAL Video Format

FV-080P	80x Video Fiber Microscope (Requires Adapter and Monitor)
FV-210P	200x Video Fiber Microscope (Requires Adapter and Monitor)
FV-410P	400x Video Fiber Microscope (Requires Adapter and Monitor)
FVW-209-P	200x video system with 9" monitor and adapter
FVW-212-P	200x video system with 12" monitor and adapter
FVW-409-P	400x video system with 9" monitor and adapter
FVW-412-P	400x video system with 12" monitor and adapter

Video systems with separate video system and monitor

- Independent units allow the monitor to be removed from workbench (put up on shelf) to provide smaller footprint
- Modular design allows user to use their own monitor if they prefer.
- Less expensive

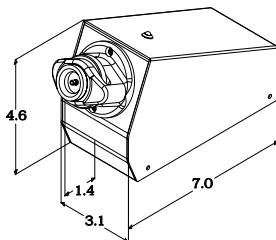
Our standard video microscopes can be purchased as individual units or in workstation configurations. Workstations include a video microscope, video monitor, and a 2.5mm universal adapter. As always, additional adapters can be purchased separately.

These versatile tools are ideal for work areas that lack space on the bench, but can accommodate the monitor up on a shelf at eye level. These systems produce the exact same image quality as the FVLW systems shown above and are less expensive.

Specifications:

FV AND FVW VIDEO FIBER MICROSCOPES

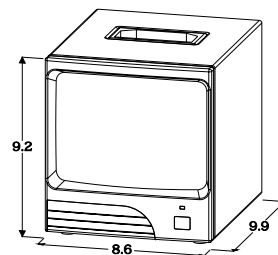
Video Fiber Microscope (FV):



Weight:	1.4kg/3lb
Optical Magnification:	80x, 200x or 400x
Power Requirements:	120VAC to 12V 500ma DC adapter 220VAC to 12V 500ma DC adapter
LED:	Rated life: 100,000 hrs.

Monitor:

Weight:	5.9kg/13lb
Picture Tube:	9" or 12" monochrome
NTSC:	525 lines 60 Field/sec. 115V, 60 H, 0.2 Amps.
PAL Format:	625 lines 60 Field/sec. 230V, 50 H, 0.1 Amps.
Power Source:	120VAC 230VAC
Input signal/Impedance:	1.0 Vp-p / 75 ohm composite video signal
Horizontal Resolution:	Above 800 TV lines
Video Gain:	Above 300dB
Front Panel Controls:	H-Hold, V-Hold, Bright, Contrast



Portable Video Systems

Portable video inspection microscopes

- Rugged, video-based field inspection microscope
- Compact, battery powered - sold as complete package
- Safe - ideal laser safety! (camera looks at fiber)

Westover's FVPW Portable Video Workstation is a professional inspection device for the field technician. A rugged, portable version of our popular bench-top models, this instrument brings the benefits of video based inspection to contractors and outside plant technicians.

The microscope is designed for convenience and efficiency. The video module can be attached to the side of the shoulder case and the entire assembly can be carried hands-free. When the technician is ready to inspect, they place the lightweight microscope in their hand, insert the fiber, and depress the momentary lighting switch. The fiber end-face is displayed on the video monitor and focus adjustments can be made.

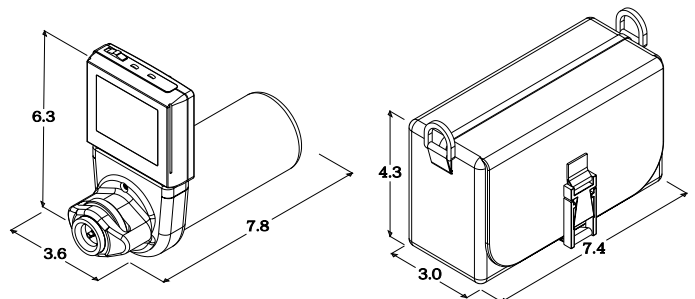
The FVPW provides added laser safety insurance by directing any light from "live" lasers to the CCD instead of the user's eye. While all Westover brand fiber microscopes include laser safety filters, many other brands do not. This important issue should not be overlooked.



Specifications:

Weight:	0.9kg/ 2lb Video module
	1.4kg/3lb Battery pack
Optical Magnification:	200X
LED:	Rated life: 100,000 hrs.
LCD Display:	2.9" (Measured diagonally)
No. of pixels:	146 x 648
Power Supply:	12V rechargeable battery, AC adapter
Controls:	Tint, Brightness

FVPW PORTABLE VIDEO FIBER WORKSTATIONS



Every year, demands on bandwidth increase. High bandwidth requires cleanliness. The Westover FVPW ensures you can accurately inspect terminations and reduce attenuation. Using the clear LCD screen, debris, contamination, scratches, and core damage is readily identified. Since it is a video system, it is ideal for training and/or group discussions.

The FVPW is a self contained package that includes everything you need to begin field inspection. Each system includes: a video fiber microscope with 2.9" LCD monitor, a 2.5mm universal adapter, battery pack in carrying case, battery charger, AC adapter, and a hard-sided case for transportation. As always, additional adapters can be purchased separately.

The FVPW is faster, easier, and safer than any other field inspection microscope. It is truly the ideal inspection tool for professionals in the field.

Cat. No.	Description
FVPW-203	200x* video system with integrated 2.9" LCD monitor and adapter.

* Other magnifications available upon request



Adapters and Accessories

Adapters

Westover Scientific adapters are interchangeable. We recommend using the Universal Adapter for fastest operation. Their "slip-grip" design allows for fast insertion and removal of a connector without requiring you to hold it in place. We also stock a complete line of dedicated adapters that are shown below. Other adapters are in development. For special or custom adapters, please give us a call.



FMA-U25	Universal adapter for 2.5mm ferrules with "slip-grip" mechanism
FMA-UAPC	Universal adapter for APC type (8°) 2.5mm ferrules with "slip-grip" mechanism
FMA-U12	Universal adapter for 1.25mm ferrules with "slip-grip" mechanism (for LC, MU, etc.)
FMA-ST	ST adapter
FMA-SC	SC adapter
FMA-FCPC	FC/PC adapter
FMA-SMA	SMA adapter
FMA-E2	E2000 adapter
FMA-BIC	Biconic adapter
FMA-D4	D4 adapter
FMA-BF1	Bare Fiber adapter
FMA-LC	LC adapter
FMA-MTRJ-1	Simple adapter for MTRJ connector, user removes and rotates connector to change view from one fiber to the next
FMA-MTRJ-2	Rotating adapter for MTRJ, connector is inserted one time and rotates in adapter to view each fiber (with a click stop)
FMA-MMT-2	Rotating adapter for Mini-MT ferrule (for assembly shops building the MTRJ connector)

Parts and Accessories

Catalog Number	Description
FVP-VT1	Video "T" adapter to split video signal
MP-OS004	4x achromatic objective
MP-OSJ006	6x achromatic objective
MP-OS010	10x achromatic objective
MP-OMS020	20x achromatic metallurgical objective
VM-9BW	Black & White Monitor, 9"
VM-12BW	Black & White Monitor, 12"
VM-9BW-PAL	Black & White Monitor, 9" for PAL video format, 220VAC
VM-12BW-PAL	Black & White Monitor, 12" for PAL video format, 220VAC
VPS-2UK	220v power supply for United Kingdom

CALL TODAY FOR A DEALER NEAR YOU:

All Westover Fiber Microscopes are warranted to be free of all defects in material and workmanship for a period of 12 months (1 year) from the date of delivery. The warranty does not apply to any instrument which has become worn, defective, damaged or broken due to abuse, misuse, tampering, or unauthorized repairs. Under this warranty, Westover Scientific will repair or replace, without charge to the purchaser, any part which upon our examination, appears to be defective in materials or workmanship.



800.304.3202

15100 Wood-Red Rd., Ste 600 • Woodinville, WA 98072

www.westoverfiber.com

800.304.3202 • 425.398.1298 • Fax: 425.398-0717