

# FiberChek™

Fiber End-face Inspection & Analysis System

## Quick Start Guide



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**ZP-PKG-0317**

REV 0

## CERTIFICATION

### Tested Equipment

All pre-qualification tests were performed internally at Westover Scientific, Inc., while all final tests were performed externally at an independent, accredited laboratory. This external testing guarantees the unerring objectivity and authoritative compliance of all test results. Westover Scientific's Commerce and Government Entities (CAGE) code under the North Atlantic Treaty Organization (NATO) is 0L8C3.

### FCC Information

Electronic test equipment is exempt from Part 15 compliance (FCC) in the United States.

### European Union

CE Electronic test equipment is subject to the EMC Directive in the European Union. The EN61326 standard prescribes both emission and immunity requirements for laboratory, measurement, and control equipment. This unit has been tested and found to comply with the limits for a Class A digital device.

### Independent Laboratory Testing

This unit has undergone extensive testing according to the European Union Directive and Standards.

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# Quick Start



**IMPORTANT!** *Install the software before attaching the probe to PC.*

## 1. Insert CD or Download FiberChek

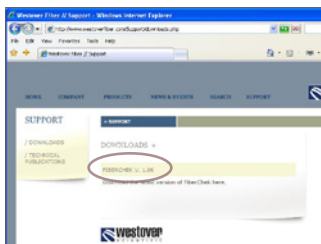
- Insert FiberChek CD or download from Westover web site:

**<http://www.westoverfiber.com/Support/downloads.php>**

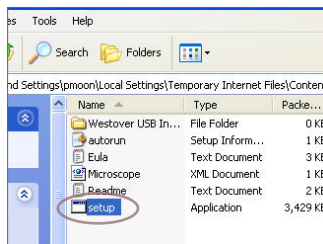
and wait for the automatic **Welcome to the FiberChek Setup Wizard** menu  
OR locate and open the **setup** file on the software CD or downloaded installation files.

### System Requirements (Minimum)

- PC with Pentium® II 266 Ghz CPU or higher
- Windows® 98, 2000 or XP Operating System
- 30 MB of hard drive space for application software
- One open USB port
- 128 MB RAM



Download from Westover



Locate "setup" File and Open

## 2. Install FiberChek Software

- a. At the *Welcome to the FiberChek Advanced for USB Setup Wizard* menu click **Next** to continue.
- b. At the *License Agreement* menu select **I accept the agreement** button, then click **Next** to continue.
- c. At the *Select Destination Location* menu accept the default location (*strongly recommended*) for the application files OR click *Browse* to select a user-defined location then click **Next** to continue.
- d. At the *Video Input Source* menu select either **NTSC** or **PAL** button, then click **Next** to continue.
- e. At the *Select Additional Tasks* menu select options for FiberChek icon placement then click **Next** to continue.
- f. At the *Ready to Install* menu confirm settings then click **Install** to continue.
- g. At the *Information* menu click **Next** to continue.
- h. At the *Completing the FiberChek Advanced for USB Setup Wizard* menu click **Finish** to complete software installation.

## 3. Connect USB Module to Probe and Attach to Computer

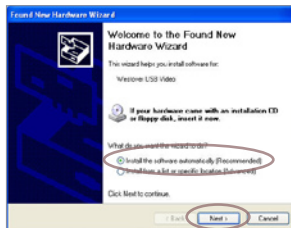
- After installing/attaching hardware to computer, wait for the automatic **Found New Hardware Wizard** menu to appear.



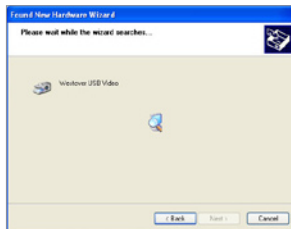
## 4. Install Hardware Driver

- a. At the *Welcome to the Found New Hardware Wizard* menu select the **No, not this time** button then click **Next** to continue.

- b. At the next dialog select the **Install the software automatically (Recommended)** button then click **Next** to continue.



- c. The Wizard will begin to search for the USB video driver.



- d. At the *Hardware Installation* caution dialog, click **Continue Anyway** to continue.



- e. At the *Completing the Found New Hardware Wizard* menu click **Finish** to complete hardware/driver installation.

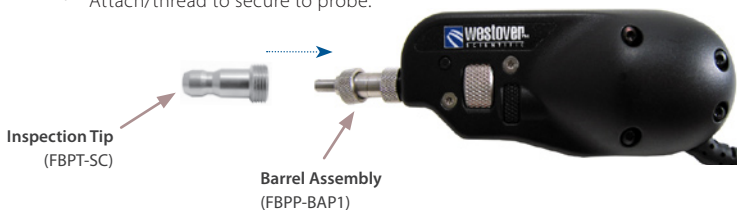
## 5. Open/Launch FiberChek

- Locate FiberChek application and open.



## 6. Attach Inspection Tip to Probe

- Select the appropriate inspection tip that corresponds to the connector being inspected.
- Attach/thread to secure to probe.



## 7. Calibrate

- Calibrate the system with a pristine connector or artifact.

*Refer to the FiberChek **UserGuide.pdf** for information on **Calibration Procedures**.*

## 8. Attach Fiber to Probe

- Attach the fiber to the probe.



## 9. Focus Fiber Image on Screen

- Adjust focus of the fiber end-face image on the computer screen by turning the **Focus Control**.



Focus Control

FBP-P500

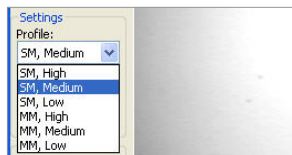
QuickCapture™ Button

click to toggle between captured/inspect and live image (QuickCapture™ probes only)

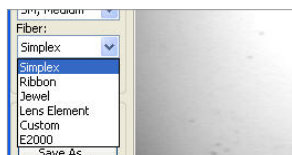
## 10. Select Profile and Fiber Kind

- From the pre-configured **Profile** settings drop-down list, select the appropriate profile and fiber kind being inspected. (See page 11 for **Profile** descriptions.)

Refer to the **FiberChek UserGuide.pdf** for additional information on **Profile** and **Fiber Kind** settings.



Profile Settings



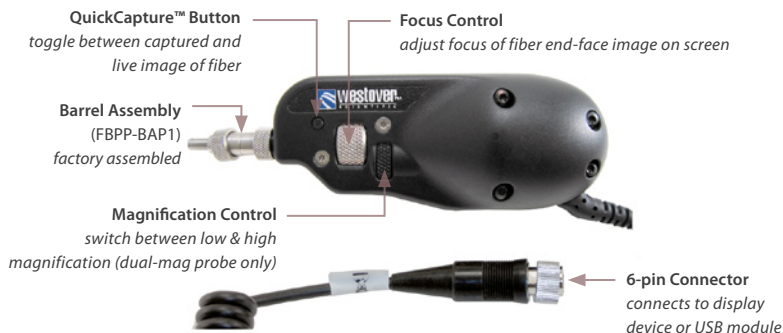
Fiber Kind

## 11. Test/Inspect

- Press the **QuickCapture™** button on the probe (if available) OR click the **Test Fiber** button on the FiberChek toolbar to inspect.

# FBP Series Probe Microscope

FBP-P500 shown



FBP Series Probe Specifications	
Dimensions	14.0 cm x 4.6 cm x 4.4 cm
Weight	180g
Low Mag FOV:	Horizontal: 650 $\mu$
	Vertical: 620 $\mu$
	Diagonal: 747 $\mu$
High Mag FOV	Horizontal: 425 $\mu$
	Vertical: 320 $\mu$
	Diagonal: 489 $\mu$
Cord Length	240 cm coil
Connector	4- or 6-pin Hirose™ male
Camera/Sensor	1.27 cm CMOS
Video Output	NTSC or PAL
Light Source	Blue LED, 100,000+ hour life
Lighting Technique	Coaxial
Power Source	From display device
Certification	CE
Warranty	1 year

## Focus Control

The **Focus Control** allows the user to adjust focus of the live fiber end-face image.

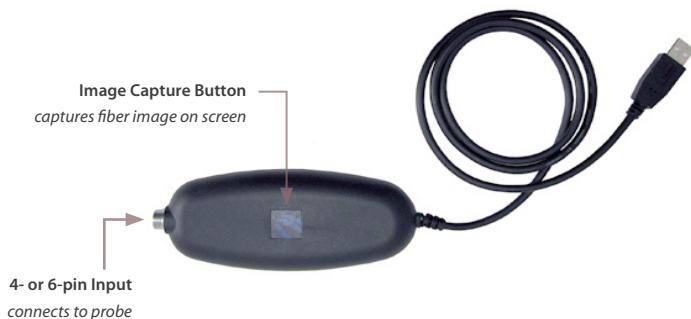
## QuickCapture™ Button

The **QuickCapture™** button allows the user to capture and test the fiber end-face image instantly. This unique one-hand, one-motion feature makes the inspection and analysis process more efficient by allowing the user more mobility.



## USB Image Capture Module

The USB Image Capture Module allows an analog FBP probe with a 4- or 6-pin connector to be connected to a Windows® PC via a USB 1.1 port or higher. This connection allows the probe to be used with Westover's fiber inspection software (FiberChek™) to perform automated fiber end-face analysis.



### USB Module Specifications

Dimensions	15.0 cm x 5.8 cm x 1.8 cm w/ 3' USB cable
Weight	80g
Power Source	USB Port
Output	USB 1.1
Warranty	1 year

### Image Capture Button

The **Image Capture** button allows the user to toggle between a live fiber image and a captured fiber image.

# FiberChek™ Overview

**FiberChek™** is an advanced application that determines the acceptability of optical fiber end-faces through automated inspection and analysis. It identifies and characterizes defects and contamination, and determines their location relative to the fiber core. It then provides a PASS or FAIL result according to the pre-configured failure criteria. It is an intuitive, effective and practical solution for fiber end-face grading and inspection.

As different types of contamination are located and identified, FiberChek™ measures the size of each individual feature and determines the PASS or FAIL result of the fiber according to the parameters configured for each **Profile** setting.

Since defects and contamination on or near the core surface typically affect the transmission of light the most, they must be examined most aggressively. FiberChek™ defines the concentric areas around the core as **Zones**. These Zones allow the user to establish **failure criteria** by evaluating various defect categories, which include Contamination, Pit/Chip and Scratches.

When used in conjunction with Westover's FBP Series Probe Microscope and USB Image Capture Module, FiberChek™ is an effective and sensible solution for automated inspection and analysis of fiber optic end-faces.

## ***FiberChek™ performs the following automated procedures:***

1. Acquires the fiber image
2. Analyzes the image
3. Finds defects and their location to fiber core
4. Measures and evaluates the defects within each specified Zone
5. Determines whether defects within the Zones are acceptable according to the pre-configured failure criteria for each Zone
6. Displays the results as PASS or FAIL
7. Saves or prints all relative results in designated directory or printer, respectively

## Profile Settings

Profiles contain the analysis parameters by which PASS/FAIL criteria are determined within FiberChek™.

A set of pre-configured Profiles are included with FiberChek™. These settings are in accordance with industry surveys and consensus.

**Note:** *Westover strongly recommends using the pre-configured Profiles.*

- **SM, High** Single-mode, Factory Post-polish
- **SM, Medium** Single-mode, Patch Cord In-use
- **SM, Low** Single-mode, Field Termination Coarse Polish
- **MM, High** Multimode, Factory Post-polish
- **MM, Medium** Multimode, Patch Cord In-use
- **MM, Low** Multimode, Field Termination Coarse Polish

## Fiber Kind

Fiber contain the analyses parameters by which PASS/FAIL criteria are determined within FiberChek™.

- **Simplex** Single Fiber (Ceramic Ferrule)
- **Ribbon** Multi-fiber
- **Jewel** Ruggedized Single Fiber with Polyimide Coating
- **Lens Element** Fiber Connectors/Transceivers with Special Lens Element
- **Custom** User-defined Fiber Setting
- **E2000** E2000 Fiber

## Contacting Customer Support

Please have the following information available:

### For Product Problems:

- Catalog Number and Serial Number (*if applicable*) of the product(s)
- Description of problem

### For Software Problems:

- Type of computer you are using
- Operating System you are using
- Software version (*right-click from Active Window Title Bar [FiberChek - Westover Scientific], select About FiberChek...*)

## Customer Service

### TOLL FREE (US & Canada)

► Customer & Technical Service      **800-304-3202**

### Local & International

► Customer Service      **+1 425-398-1298**

► Fax      **+1 425-398-0717**

*US Customer Service business hours are 7:00 a.m. – 5:00 p.m.  
Pacific Standard Time (PST).*