

CleanBlast™ Fiber Optic Connector End-Face Cleaning System



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Fiber Optic Connector Cleaning System

CleanBlast™ Introduction

Westover Scientific's line of CleanBlast systems provide rapid, controlled cleaning and removal of contamination from fiber optic connector end-faces. This patent-pending design utilizes a connector interface that creates a flow of highly-filtered gas across the surface of the fiber. A solvent is then introduced and atomized to create a cleaning mist. All exhaust is reclaimed through a controlled retrieval circuit. The quick-drying solvent used is non-flammable, non-conductive, and residue-free. A Material Safety Data Sheet (MSDS) is available.

All systems utilize interchangeable tips or adapters, which are compatible with most common connectors. CleanBlast base systems are available in Bench-Top or Portable (transport case-mounted) models. Most of the systems can be configured for Bulkhead, Patch Cord, Transceiver, Backplane, or Mil Spec terminus cleaning applications.

- Faster, more effective, and less costly than using swabs or other cleaning methods.
- Excellent at removing - instead of spreading - debris and oils around the ferrule surface.

CleanBlast™ Bench-Top Systems

The Bench-Top Systems are most commonly used in production, manufacturing, and QC environments. They are high-throughput, low-maintenance systems and require a clean, compressed air source. The basic Bench-Top model can be configured and customized for many different applications, including automation

BENCH-TOP SERIES SPECIFICATIONS

Power Requirements:	110VAC-220 VAC, 2Amp.
Dimensions:	8" L x 9" W x 7" H 20cm L x 23cm W x 18cm H
Weight:	12 lbs. / 5 Kg.
Air Source:	External, compressed air or Nitrogen; regulated between 60-250psi.
Solvent Consumption:	9,500 Cleaning cycles per refill
Maintenance:	100,000 cycles per filter change, (2) 0.01 micron air filters required
Video Output:	NTSC (BNC to video monitor) or DIN connector to optional LCD
Digital Output:	USB 1.1 (Includes USB cable and FiberChek™ Software)
Cleaning Cycle Time:	0.8 seconds
Certification Information:	CE Approved



CleanBlast™ Portable Systems

The Portable series are complete systems contained inside a rugged Pelican® 1450 transport case. They are ideal for mobile and field applications or for areas where there is no regulated, compressed air supply available - the Portable series contain a built-in compressor! Standard Portable systems include a 5 ft. durable, flexible cleaning umbilical. Handset options include standard straight bulkhead, long-reach (for motherboard applications), and 90° angled.

PORTABLE SERIES SPECIFICATIONS

Power Requirements:	110 VAC-220 VAC, 2Amp.
Dimensions:	16" L x 13" W x 7" D 40cm L x 33cm W x 18cm D
Weight:	21 lbs. / 9.5 Kg.
Air Source:	Internal compressor; regulated output 40psi.
Solvent Consumption:	9,500 Cleaning cycles per refill
Maintenance:	100,000 cycles per fine air filter change, (2) 0.01 micron air filters required
Video Output:	NTSC (BNC) or DIN connector to optional LCD
Digital Output:	USB 1.1 (Includes USB cable and FiberChek™ software.)
Cleaning Cycle Time:	5 seconds
Certification Information:	CE Approved



(FCL-B6000 and FCL-P6100 Series)

▲ Bulkhead Handset

Our most common configuration, the bulkhead handset was designed to clean connectors that are mounted with bulkheads, devices, or alignment sleeves. This handset can also be used to clean patch cords with the use of compatible CleanBlast™ Mating Adapters. With a push of a button on the handset,

the CleanBlast nozzle delivers a precise, controlled combination of filtered air and solvent. An internal spring-loaded safety release switch prevents accidental discharge of cleaning solvent. All of the CleanBlast handsets utilize precision-machined, interchangeable tips incorporated with exact-flow nozzles to achieve maximum cleaning efficiency.

(FCL-B1000, FCL-B3000, and FCL-P1100 Series)

▶ 90° Handset

The 90 deg. handset can be installed on either Bench-top or Portable System configurations. This handset is particularly useful when cleaning termini inside Mil type connectors mounted in hard to reach locations. The most common tip (sold separately) for this handset is the FCLT-MIL-2R (shown in photo).

This dual-function tip can be used to clean both pins & sockets inside Mil38999 (29504/4/5) connectors. Similar to the standard bulkhead handsets, this handset has a safety switch installed to prevent accidental discharge of the cleaning cycle.

(FCL-B2000 and FCL-P2100 Series)

▼ Patch Cord Module

The Patch Cord cleaning module is connected to a CleanBlast Bench-Top System base unit via a 5 ft. umbilical hose. The base unit can therefore be remotely located and the module kept near the user to save on workspace. Precision

interchangeable cleaning Adapters thread onto the adapter mount. The adapter mount has a spring-loaded safety switch to prevent accidental discharge of the cleaning cycle. The Patch Cord module can be secured to a workbench using the mounting holes located on the base of the unit.

Various CleanBlast Adapters are available for most common connector types.

(FCL-B3000 and FCL-B4000 Series)



▲ Backplane Cleaning Wand

As fiber optic connectors become more common in backplane applications, the cleaning of these critical components often challenges the successful installation and troubleshooting of new systems. Typically, in order to clean optical connectors in the backplane, the user must remove the daughtercard and then access the motherboard through a slot as little as 1" wide and at least 10" deep.

The CleanBlast backplane wand was specifically designed for long-reach backplane applications. It attaches to a specially designed bulkhead handset and can be

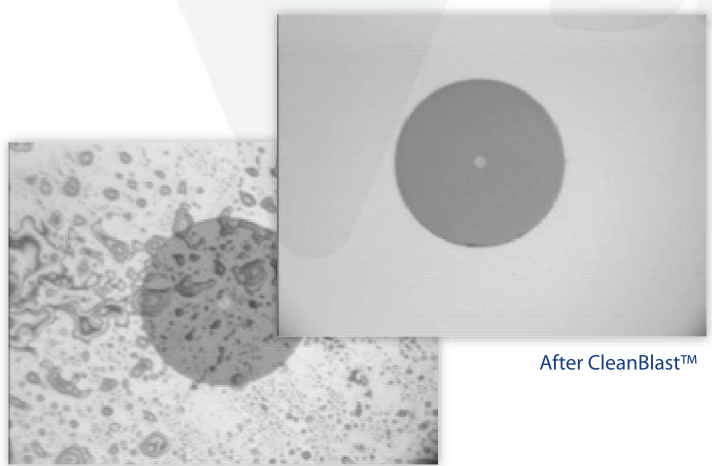
configured to work with either Bench-Top or Portable CleanBlast Systems. Because of its long, slender design, the wand can easily fit into the narrow space and reach backplane connectors. The wand can be detached from the handset for convenient cleaning of the daughtercard and faceplate. The standard length wand is 12" long, but they can be built in nearly any length on a custom basis. Tips can be configured to clean 1 or 2 connectors and custom options exist for automated cleaning of the entire backplane. Call us for more details.



▼ Transceiver Cleaning Module

This innovative workstation is designed for both cleaning and inspecting optical transceivers. Positioned side by side, the cleaning and inspection process is very fast, convenient, and repeatable. The cleaning/inspection module utilizes a CleanBlast™ Bench-Top System as the base unit and also includes the Westover Scientific FBP-P5 dual-magnification

Video Inspection Probe and a 6.4" TFT LCD for quick inspection of the fiber stub or ball lens before and after cleaning. Inspection and cleaning tips are available for both SC and LC connector interfaces.



Before CleanBlast™

After CleanBlast™



(FCL-B5000 Series)

COMMON CONFIGURATIONS OF CLEANBLAST™ SYSTEMS

Cat. Number	System Type		Probe Output		Umbilical Type / Length						Display	Inspection Probe	Tips & Adapters Included
	Bench-Top	Portable	Analog	Digital USB 1.1	Straight Bulkhead Handset	90°	Patch Cord Module	Tranceiver Module	Umbilical Length	Backplane Extension Wand	6.4" TFT LCD		
FCL-B1000 Series													
FCL-B1000	X		X		X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1000-22	X		X		X				22'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1000-EU	X		X		X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1000-UK	X		X		X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1100	X			X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1100-EU	X			X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B1100-UK	X			X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B2000 Series													
FCL-B2000	X		X			X			5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B2000-22	X		X			X			22'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B2100	X			X		X			5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-B3000 Series													
FCL-B3000	X		X		X		X		5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip & FCLA-U25 Universal 2.5mm patch cord adapter
FCL-B4000 Series													
FCL-B4000	X		X				X		5'				FCLA-U25 Universal 2.5mm patch cord adapter
FCL-B4100	X			X			X		5'				FCLA-U25 Universal 2.5mm patch cord adapter
FCL-B4000-EU	X		X				X		5'				FCLA-U25 Universal 2.5mm patch cord adapter
FCL-B5000 Series													
FCL-B5000	X		X					X	5'		X	FBP-P5 (200x/400x) Analog Probe	NONE
FCL-B5100	X			X					5'		X	FBP-P505 (200x/400x) Digital Probe	NONE
FCL-B6000 Series													
FCL-B6000	X		X		Modified for BP ext. wand				5'	X			FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P1100 Series													
FCL-P1100		X		X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P1100-08		X		X	X				8'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P1100-EU		X		X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P1100-UK		X		X	X				5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P2100 Series													
FCL-P2100		X		X		X			5'				FCLT-U25 Universal 2.5mm bulkhead cleaning tip
FCL-P6100 Series													
FCL-P6100		X		X	Modified for BP ext. wand				5'	X			FCLT-U25 Universal 2.5mm bulkhead cleaning tip

CLEANBLAST™ TIPS & ADAPTERS

Cat. No.	Description
FCLA-E2	E2000 Cleaning Adapter for patch cord assemblies.
FCLA-LC	LC Cleaning Adapter for patch cord assemblies.
FCLA-U12	Universal 1.25mm Cleaning Adapter for patch cord assemblies.
FCLA-U25	Universal 2.5mm Cleaning Adapter for patch cord assemblies.
FCLT-E2-250	E2000 Bulkhead Cleaning Tip. (2" length)
FCLT-HBMT1	HBMT Bulkhead Cleaning Tip.
FCLT-HBMT2	HBMT Dual Bulkhead Cleaning Tip.
FCLT-HBMT2-DC	HBMT Dual Daughtercard Cleaning Tip.
FCLT-LC	LC Bulkhead Cleaning Tip.
FCLT-LC-A6	LC Bulkhead Cleaning Tip, Angled at 60°.
FCLT-LC-MA	LC Cleaning Tip- Mating Adapter for patch cord assemblies.
FCLT-MIL1	MIL29504/14/15 Cleaning Tip for pin & socket termini.
FCLT-MIL1-R	MIL29504/14/15 Cleaning Tip for pin & socket termini. Rugged with safety trigger.
FCLT-MIL2	MIL29504/4/5 Cleaning Tip 38999, for pin & socket termini.
FCLT-MIL2-A6	MIL29504/4/5 Cleaning Tip 38999, for pin & socket termini. Angled at 60°.
FCLT-MIL2-CPA	Glenair probe adapters Cleaning Tip.
FCLT-MIL2-R	MIL29504/4/5 Cleaning Tip for pin & socket termini. Rugged with safety trigger.
FCLT-MPX	MPX Bulkhead Cleaning Tip.
FCLT-MT	MT Bulkhead Cleaning Tip.
FCLT-MT-MA	MT Ferrule Cleaning Tip - Mating adapter for patch cord assemblies.
FCLT-MT-MB	MT Motherboard Cleaning Tip.

Cat. No.	Description
FCLT-MT-MB-JSF	MT Motherboard Cleaning Tip, for Joint Strike Fighter (JSF) Program.
FCLT-MT45	MT Cleaning Tip, Angled at 45°.
FCLT-MTP	MTP Bulkhead Cleaning Tip.
FCLT-MTP-A6	MTP Bulkhead Cleaning Tip, Angled at 60°.
FCLT-MTP-MA	MTP Cleaning Tip- Mating Adapter for patch cord assemblies.
FCLT-MTRJ	MTRJ Bulkhead Cleaning Tip.
FCLT-PHD1-8	ITT CANNON PHD Cleaning Tip, pin and socket termini. Use with FBPT-PHD1-8SK.
FCLT-SC-250	SC Bulkhead Cleaning Tip, 2" in length.
FCLT-SC-A6	SC Bulkhead Cleaning Tip, Angled at 60°.
FCLT-SCFC-A6	SC or FC Bulkhead Cleaning Tip, Angled at 60°.
FCLT-SCX	SC Bulkhead Cleaning Tip, 1" in length; made with hardened stainless steel.
FCLT-SMA	SMA Bulkhead Cleaning Tip.
FCLT-TFOCA1	TFOCA1 Cleaning Tip for pins and sockets termini.
FCLT-TFOCA2	TFOCA2 Cleaning Tip and Guide for pins and sockets termini.
FCLT-U12	Universal 1.25mm Bulkhead Cleaning Tip; 2" in length.
FCLT-U12-MA	Universal 1.25mm Cleaning Tip- Mating Adapter for patch cord assemblies.
FCLT-U12X	Universal 1.25 mm Cleaning Tip, 1" in length; made with hardened stainless steel.
FCLT-U25	Universal 2.5mm Bulkhead Cleaning Tip; for SC, ST, FC connectors.
FCLT-U25-MA	Universal 2.5mm Cleaning Tip, Mating Adapter for patch cord assemblies.
FCLT-VME-MB-A6	MT-VME Motherboard Cleaning Tip, Angled 60°.

CLEANBLAST™ PARTS & ACCESSORIES

Cat. No.	Description
FCLP-CH12	Coil Hose Assembly, 12', rated @ 250 psi.
FCLP-CH25	Coil Hose Assembly, 25', rated @250 psi.
FCLP-CVA1	Check Valve, Field Replacement Assembly.
FCLP-FA-F1	Filter, Air, 0.01u, 1/8" NPTF.
FCLP-FE-01	Exhaust Filter Kit f/Benchtop Systems.
FCLP-FE-02	Filter, 5" cartridge, activated carbon.
FCLP-H1	FCL Handle for Bench-Top Systems.
FCLP-RCA-1	Bottle Cap Refill Assembly.
FCLP-SOL1	Solvent Refill Bottle for CleanBlast Systems, 8 oz.
FCLP-SOL1-6	Solvent, refill for CleanBlast Systems, 6 ea. - 8 oz. Bottles.
FCLP-SOL4	CleanBlast Solvent Refill, 8 oz., Mild Ionic.
FCLP-TRXA1	Ring Adapter - CleanBlast Tx. Cleaning systems - for old rev. Probes.
VM-LCD-64	LCD, Color, 6.4"
VM-LCD-64B	LCD, Color, 6.4" w/Mounting Bracket for Clean Blast Bench Top Models.



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