CleanBlastPRO™

Benchtop Fiber End Face Cleaning System
User Guide

22147176 Rev 109, Standard
July 2025

Copyright

Patents

Patented as described at www.viavisolutions.com/patents.

Terms and Conditions

Specifications, terms, and conditions are subject to change without notice. The provision of hardware, services, and/or software are subject to VIAVI standard terms and conditions, available at www.viavisolutions.com/terms.

Warranty

VIAVI warrants this equipment to be free of defects in material and workmanship for one (1) calendar year from the date of purchase. Any mishandling or unauthorized repairs will void this warranty. For additional warranty terms and conditions, see www.viavisolutions.com/terms.

Disclaimer

The foregoing warranties are in lieu of all other warranties and conditions, expressed or implied. VIAVI specifically disclaims all other warranties, either expressed or implied, on any hardware, documentation or services including but not limited to warranties relating to quality, performance, non-infringement, merchantability or fitness for a purpose, as well as those arising from any course of dealing, usage or trade practice. Under no circumstances will VIAVI be liable for any indirect or consequential damages related to breach of this warranty.

Regulatory compliance

California Proposition 65

California Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted in November 1986 with the aim of protecting individuals in the state of California and the state's drinking water and environment from excessive exposure to chemicals known to the state to cause cancer, birth defects or other reproductive harm. For the VIAVI position statement on the use of Proposition 65 chemicals in VIAVI products, see the Hazardous Substance Control section of the VIAVI Policies & Standards web page.

Federal Communications Commission (FCC) Notice

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

Product Environmental Compliance

VIAVI is committed to compliance with all applicable laws and regulations controlling the use of hazardous substances in its products, as well as the disposal of equipment (including batteries) and waste packaging. For details, see the VIAVI Policies & Standards web page or contact the VIAVI WEEE Program Management team at Global.WEEE@ViaviSolutions.com.

EU REACH

Article 33 of EU REACH regulation (EC) No 1907/2006 requires article suppliers to provide information if a listed Substances of Very High Concern (SVHC) is present in an article above a certain threshold. For information on the presence of REACH SVHCs in VIAVI products, see the Hazardous Substance Control section of the VIAVI Policies & Standards web page.

Marking Directives

This product conforms with all applicable marking directives as listed in the following table.

Marking	Description
CE	**EU CE Marking Directives (LV, EMC, RoHS, RE)** The EU Declaration of Conformity is available on request.
UKCA	**UK Declaration of Conformity** The UK Declaration of Conformity is available on request.
RCM	**Australia Declaration of Conformity** The Australia Declaration of Conformity for this equipment is available on request.

China RoHS materials declaration

6001 America Center Drive, 6th Floor
San Jose, CA 95002, USA

NOTE: This table supercedes the RoHS table found in the User Guide (22147176 Rev. 103)

“中国 RoHS”

《电子信息产品污染控制管理办法》（信息产业部，第 39 号）

附录 (Additional Information required for the Chinese Market only)

本附录按照“中国 RoHS”的要求说明了有关电子信息产品环保使用期限的情况，并列出了产品中含有的有毒、有害物质的种类和所在部件。本附录适用于产品主体和所有配件。

产品系列: CleanBlast Pro
(Product Family)

环保使用期限：

本标识标注于产品主体之上，表明该产品或其配件含有有毒、有害物质（详情见下表）。

其中的数字代表在正常操作条件下至少在产品生产日期之后数年内该产品或其配件内含有的有毒、有害物质不会变异或泄漏。该期限不适用于诸如电池等易耗品。

有关正常操作条件，请参见产品用户手册。

产品生产日期请参见产品的原始校准证书。

有毒、有害物质的类型和所在部件

	有毒、有害物质和元素					
元器件 (Component)	铅(Pb)	汞 (Hg)	镉(Cd)	六价铬 (CR^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
产品主体 (Main Product)						
印刷电路板组件 (PCB Assemblies)	X	O	X	O	O	O
内部配线 (Internal wiring)	X	O	O	O	O	O
显示器 (Display)	X	O	O	O	O	O
键盘 (Keyboard)	O	O	O	O	O	O
电池 (Batteries)	O	O	O	O	O	O
电源 (Power Supply)	X	O	O	O	O	O
电工零件 (Electro-mechanical parts)	X	O	O	O	O	O
硬盘 (Hard Drive)	O	O	O	O	O	O
光模块 / 辅助模块 (Optical modules) / (Auxiliary modules)	X	O	O	O	O	O
金属外壳零件和紧扣件 (Metal case parts and fixings)	X	O	O	O	O	O
塑料外壳零件 (Plastic case parts)	O	O	O	O	O	O
标签和胶带 (Labels and tapes)	O	O	O	O	O	O
配件 (Accessories)						
外接电缆和适配器 (External cables and adapters)	X	O	O	O	O	O
CD ROMS						
手册和其它印刷材料 (Handbooks and other printed material)	O	O	O	O	O	O
包装箱和缚带 (Carrying case and strap)	O	O	O	O	O	O
其它配件 (Other accessories)	O	O	O	O	O	O

本表是按照 S / T 11364 的规定编制的:

O：表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

X：表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

NOTE: This table supercedes the RoHS table found in the User Guide (22147176 Rev. 103)

Contents

About this guide

This guide provides information about the CleanBlastPRO™ Benchtop Fiber End Face Cleaning System. The following update appears in this revision:

- Updated the section “Replacing air filters”

Note: For a detailed revision history, see “Document revision history” on page E-1.

To access the latest version of this user guide, use the QR code on the front cover or go to:

http://cbpro.updatemyunit.net/archives/CBPRO/User_Guide_CleanBlastPRO.pdf

1 CleanBlastPRO™ Benchtop Fiber End Face Cleaning System

The CleanBlastPRO Benchtop Fiber End Face Cleaning System is an automated, easy-to-deploy fiber connector cleaning system that features an internal solvent tank, air filtration system, cleaning handset with 2-meter (6.5 foot) umbilical, and an LCD screen. The device provides users with an intuitive cleaning system, offering cleaning profiles optimized for Simplex and MPO fiber connectors.

Also, the CleanBlastPRO supports a comprehensive selection of precision cleaning tips for most fiber connector types, with both male (patch cord) and female (bulkhead) connectors, including SC, LC, FC, ST, E2000, MPO, MPX, MT, and SMA. With backwards compatibility to the large selection of FCLT series tips, users of CleanBlast™ cleaning systems can leverage their existing investment of cleaning tips.

Figure 1-1: CleanBlastPRO Benchtop Cleaning System with FCLT Series cleaning tip

This section covers the following information:

Key features

- Supports use of the following cleaning solutions:
  - 3M™ Novec™ 72DA, a superior, nonflammable, highly cost effective cleaning solvent for fiber end faces
  - CleanBlast Solvent from MicroCare® Corporation, which is identical to the Novec 72DA solvent
- Provides factory-defined cleaning profiles optimized for Simplex and MPO connectors, and supports up to five user-defined custom cleaning profiles for specific applications
- Onboard self-diagnostics ensure consistent operation in mission critical applications
- Active fluid vapor vacuum system with vacuum pull greater than fluid and air pressure keeps fumes away from operator
- Sealed fluid reservoir and fill system ensure that contaminants are not deposited by the cleaning system
- Automatic drain valves in air-filter canisters prevent water in the air/gas supply from contaminating the system

Ordering information

Table 1-1: CleanBlastPRO Benchtop Fiber End Face Cleaning System part numbers

Component	Part Number
CleanBlastPRO Benchtop Cleaning System Benchtop with Large Tank	FCL-PRO-L
Accessories	
CleanBlastPRO Manual Refill Kit for 225 ml Solvent Refill Bottle	FCLP-RCA-2
CleanBlastPRO Auto Refill Kit for 3.75 L Solvent Refill Bottle	FCLP-RCA-3
Replacement Air Filter for CleanBlastPRO Auto Refill Kit (FCLP-RCA-3), 1- Pack	FCLP-FA-F1
Solvent Refill (3M Novec 72DA[1]), 225 ml Bottle[2]	FCLP-SOL1
Solvent Refill (3M Novec 72DA) 6-pack, 225 ml Bottle[2]	FCLP-SOL1-6
Solvent Refill (3M Novec 72DA), 3.75 L Bottle[3]	FCLP-SOL1-XL
Exhaust Filter Kit for Bench-Top CleanBlast Systems	FCLP-FE-01
Replacement Large Coarse Air Filter for CleanBlastPRO, 2-Pack	FCLP-FA-F2
Replacement Large Fine Air Filter for CleanBlastPRO, 2-Pack	FCLP-FA-F3
Cleaning Tips	See “FCLT Series cleaning tips” on page 1-4.
CleanBlastPRO Accessory Kit (contains FCLP-CL-01, FCLP-FP-01, and FCLP-EC-01)	FCLP-ACC-KIT1
Adjustable Articulating Camera Clamp with Handset Holster	FCLP-CL-01
Foot Pedal SPDT-NO Black 3A 30VAC 8 Foot Cord for use with CleanBlastPRO	FCLP-FP-01
Extension Cable ¼" Plug for use with FCLP-FP-01 and CleanBlastPRO	FCLP-EC-01

1. CleanBlastPRO is rated for use with 3M Novec 72DA Engineered Fluid. Use only Novec 72DA solvent from 3M or CleanBlast solvent from MicroCare Corporation (identical formulation to Novec 72DA). Warranty will be void if a VIAVI repair center or representative determines that any other solvent has been used and is the cause of operational problems.
2. For use with FCLP-RCA-2 only.
3. For use with FCLP-RCA-3 only.

FCLT Series cleaning tips

The CleanBlastPRO supports a wide range of cleaning tips for patch cords, bulkheads, ferrules, and other fiber applications. For a full listing of available cleaning tips, see the Fiber Cleaning Tips and Adapters Selection Guide or contact your VIAVI representative.

Safety

CAUTION

Turn off the device and disconnect all cables connected to it before moving the device.

Technical Assistance Center and Knowledge Base

To find the Technical Assistance Center phone number and email in your region for the CleanBlastPRO product or to search the VIAVI Solutions Knowledge Base, visit the VIAVI Solutions Technical & Product Support site at support.viavisolutions.com.

2 Getting started

This section covers the following information:

CleanBlastPRO features

Figure 2-1: CleanBlastPRO - front

Figure 2-2: CleanBlastPRO - rear

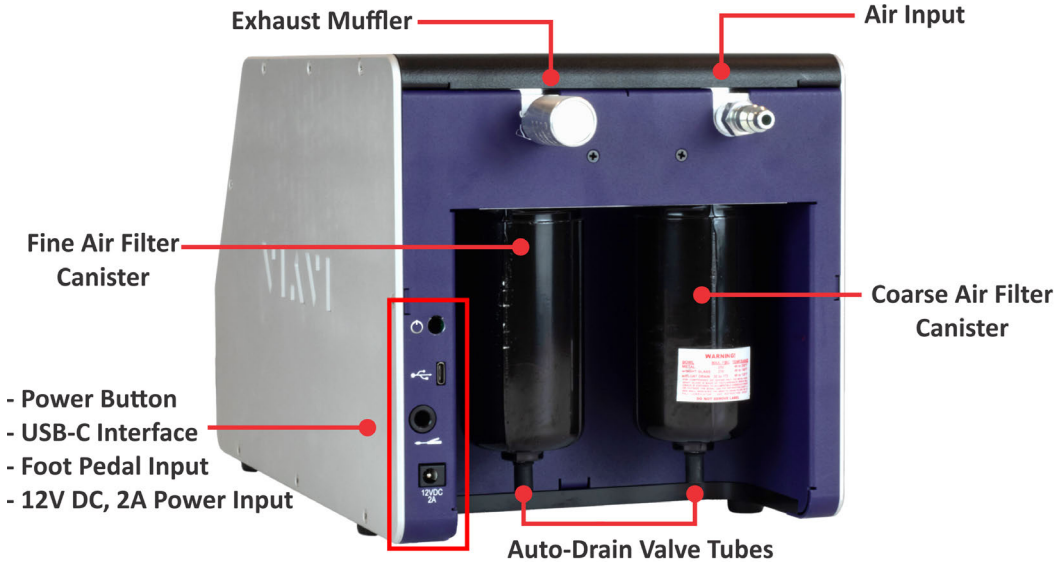
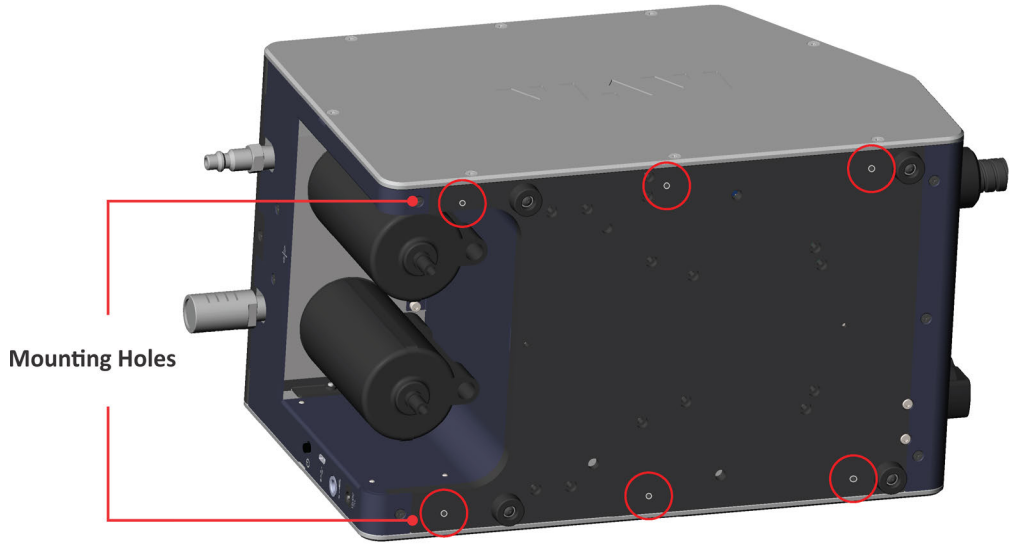


Figure 2-3: CleanBlastPRO - underside



Feature	See...
Dial and Indicators	“Indicators and menu navigation” on page 2-4
Refill Port Cover	“Filling the solvent tank” on page 2-10
Handset	• “Handset features and mounting” on page 2-5 • “Handset operation” on page 2-19
Air Input	“Connecting or disconnecting an air source” on page 2-9
Fine and Coarse Air Filters	“Replacing air filters” on page 4-3
Power Button, Power Input	“Powering the CleanBlastPRO” on page 2-7
USB-C Interface	• “Updating CleanBlastPRO firmware and configurable options” on page D-7 • “Exporting the log file” on page 4-12
Foot Pedal Input	“Foot pedal operation” on page 2-20
Auto-drain Valves	“Auto-drain valves” on page 4-6
Mounting Holes	“Mounting the CleanBlastPRO on a cart or dolly” on page 2-6

Indicators and menu navigation

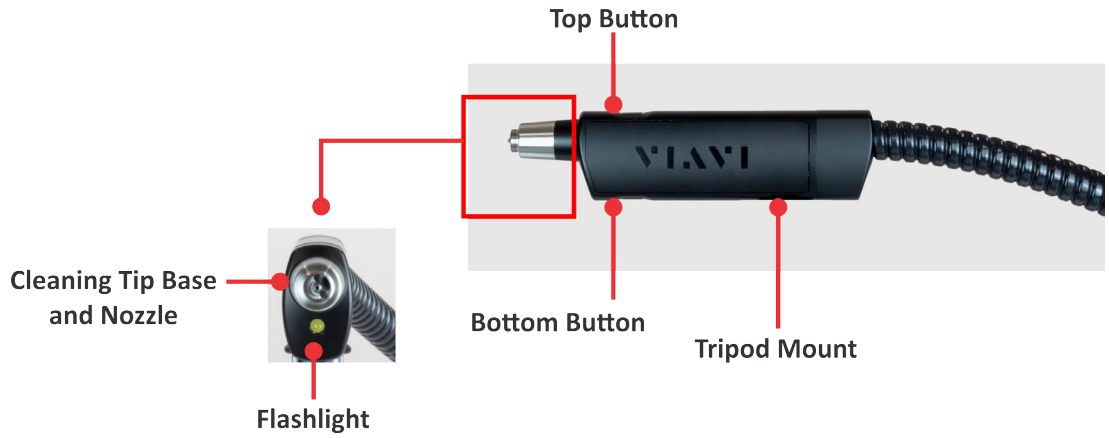
Figure 2-4: Indicators and CleanBlastPRO menu navigation

LCD Screen	Displays the CleanBlastPRO menu, operation and status information, and error messages related to maintenance issues. See "CleanBlastPRO menu summary" on page A-1.
Dial	• Rotate to scroll the CleanBlastPRO menu displayed on the LCD screen or to highlight a setting to be selected. • Click (press and release quickly) to select a menu option or setting. • Press and hold down for certain operations.
Ready LED	Lights (green) to indicate that the CleanBlastPRO is powered on and ready to operate.
Busy LED	Lights (yellow) to indicate that the CleanBlastPRO is performing an operation (e.g., cleaning cycle, depressurization, fluid fill, firmware update, etc.).
Maintenance LED	• Lights yellow to indicate the presence of a condition that does not impact normal operation. • Lights red to indicate the presence of a condition that prevents normal operation; handset buttons and foot pedal are disabled while condition is present.
Fluid Gauge	Number and color of lit LED components indicate the solvent level: • Five (5) blue LEDs: 81 to 100% full • Four (4) blue LEDs: 61 to 80% full • Three (3) blue LEDs: 41 to 60% full • Two (2) blue LEDs: 21 to 40% full • One (1) blue LED: 11 to 20% full • One (1) yellow LED: 1 to 10% full, fluid low - refill • One (1) red LED: Empty (handset is disabled)

Handset features and mounting

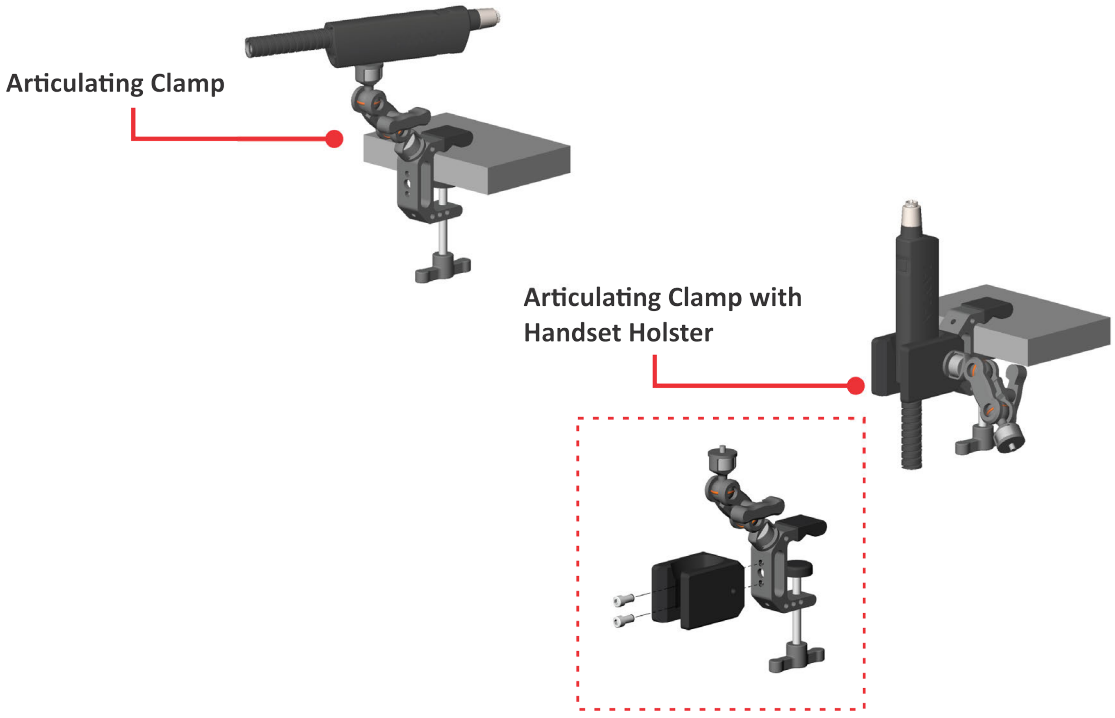
In addition to the cleaning tip base and configurable buttons for operation, the handset features an onboard flashlight and a standard 1/4-20 tripod mount. For information about configuring handset operation, including button operation, see “Handset operation” on page 2-19.

Figure 2-5: CleanBlastPRO handset features



To facilitate management of the handset umbilical during operation, use the adjustable articulating camera clamp (FCLP-CL-01) with or without the handset holster included with the clamp. As shown in Figure 2-6, the handset can be mounted directly onto either the articulating clamp or the handset holster if it is installed on the clamp.

Figure 2-6: Handset mounting options

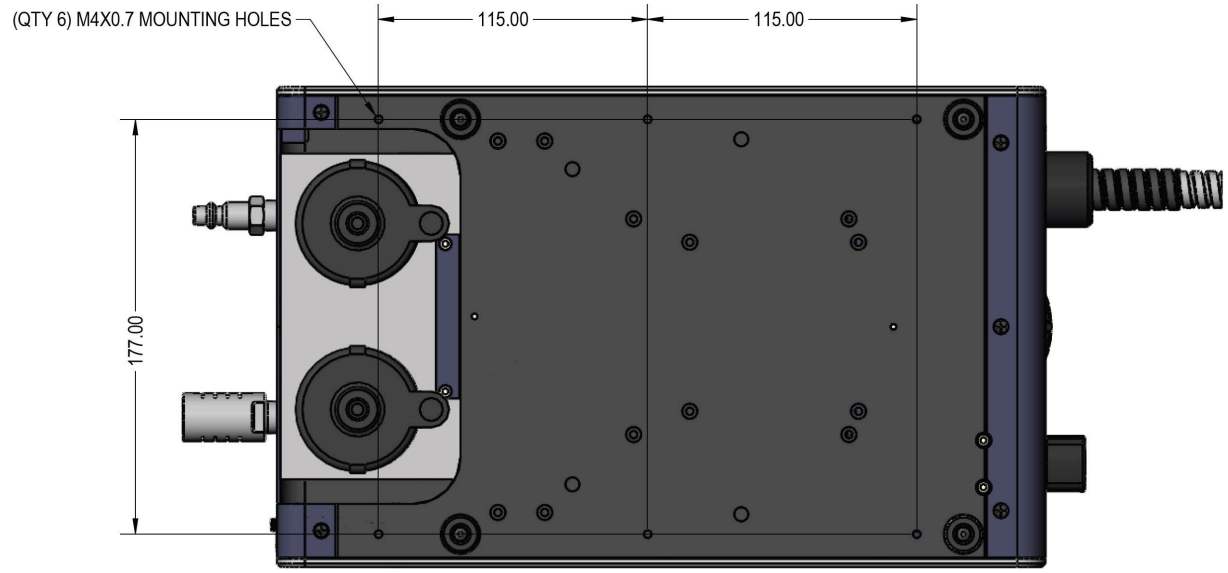


Note: Figure 2-6 also shows how to install the holster onto the clamp using the hex screws provided with the holster.

Mounting the CleanBlastPRO on a cart or dolly

The underside of the CleanBlastPRO features six threaded (M4X0.7-6H) mounting holes for securing the device to a cart or dolly if required. VIAVI recommends using a cart or dolly similar to the SafTcart™ MC-61H Running Gear/Boxcart.

Figure 2-7: CleanBlastPRO underside - threaded (M4X0.7-6H) mounting holes



Note: Maximum penetration of screws to mount the device is 13 mm (0.51 inches) measured from the underside of the device. The rubber feet can be removed from the CleanBlastPRO if required.

Powering the CleanBlastPRO

CAUTION

Use only the power adapter shipped with the CleanBlastPRO to power the device.

Work station requirements

Ensure that the CleanBlastPRO is stationed on a level, stable surface and that the following resources are within easy reach of the device:

- An appropriate power source
- An appropriate air source (see "Connecting or disconnecting an air source" on page 2-9)

Powering on

Step 1 Ensure that the refill port cover is closed (see Figure 2-1 on page 2-2).

Step 2 At the rear of the device (see Figure 2-2 on page 2-2), do the following:

a. Connect the power adapter provided with the CleanBlastPRO to the power input and then to the power source.

b. Press and hold the power button for two (2) seconds.

Step 3 Observe the following sequence on the front panel of the CleanBlastPRO:

- All LEDs light momentarily.
- Fluid gauge LEDs light to indicate solvent level in tank.
- Ready or Maintenance LED lights, depending on the status of the device (see "Current Warnings" on page A-5).
- The **VIAVI** menu appears on the LCD screen.

— End —

Powering off

Step 1 Press and hold the power button for two (2) seconds.

Step 2 Observe the following sequence at the front panel:

- Lit indicators turn off.
- LCD screen turns off.

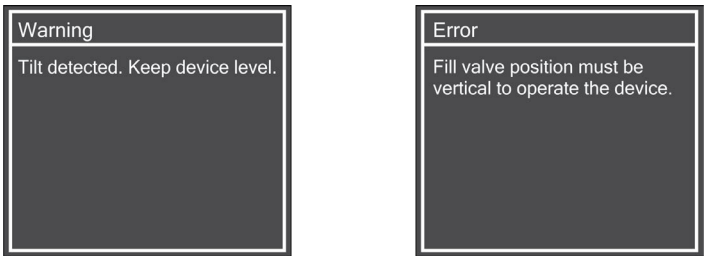
Important: Always use the power button to power off the CleanBlastPRO. Avoid disconnecting the power cord while the device is powered on.

— End —

Warning and error messages

Error or warning messages will appear on the LCD screen when CleanBlastPRO sensors or other mechanisms detect conditions that can impede operation, or result in sub-optimal performance or possible damage to the device.

Figure 2-8: Example warning and error messages



Although clicking the dial on the front panel of the device will close a message, the message will persist in the **Current Warnings** menu until the corresponding condition is resolved. To access the **Current Warnings** menu, click **Current Warnings** on the **Main Menu**. For more information, see “Current Warnings” on page A-5.

Connecting or disconnecting an air source

Use any of the following air sources with the CleanBlastPRO:

- Compressed *shop air* (ISO8573 Class 5 - Clean Dry Air. Oil less than 25mg/m**3)
- Oil-free portable air compressor. VIAVI recommends the Metabo HPT® Ultra Quiet EC28M Portable Air Compressor.
- Nitrogen (N_2) tank, regulated down to 100 psi

CAUTION

For any air source, ensure that the air/gas pressure is within 80 to 140 psi (100 psi nominal), which is the operational range of the CleanBlastPRO (see "Specifications" on page B-1).

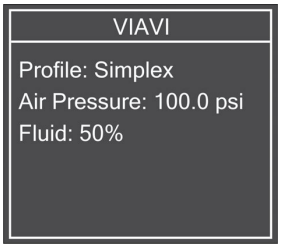
Important: See "Setting up the CleanBlastPRO with a check valve and pressure tank" on page 4-2 for information about ensuring consistent air pressure whenever the CleanBlastPRO must share an air source with other equipment.

Connecting an air source

Step 1 Ensure that the refill port cover is closed (see Figure 2-1 on page 2-2).

Step 2 Insert the connector straight into the air input of the CleanBlastPRO, and then secure it.

If the CleanBlastPRO is powered on and the air source is properly connected to the device, the Ready LED lights and the **VIAVI** menu appears on the LCD screen, as shown in the following example.



Note: If the Maintenance LED lights, navigate to the **Current Warnings** menu on the LCD screen for information (see "Current Warnings" on page A-5).

Disconnecting the air source

Step 1 Pull back on the spring-loaded locking mechanism of the air source connector.

Step 2 Pull the connector straight off the air input.

— End —

Filling the solvent tank

The CleanBlastPRO supports both manual and automatic refilling of its internal solvent tank, and provides a contaminant-free connection between the solvent bottle and the tank to prevent contamination of the solvent tank during refill.

Ensure that you have the correct refill kit and correct bottle size of 3M Novec 72DA or CleanBlast solvent for the type of refill operation you want to use. See "Ordering information" on page 1-3 for more information.

Important:

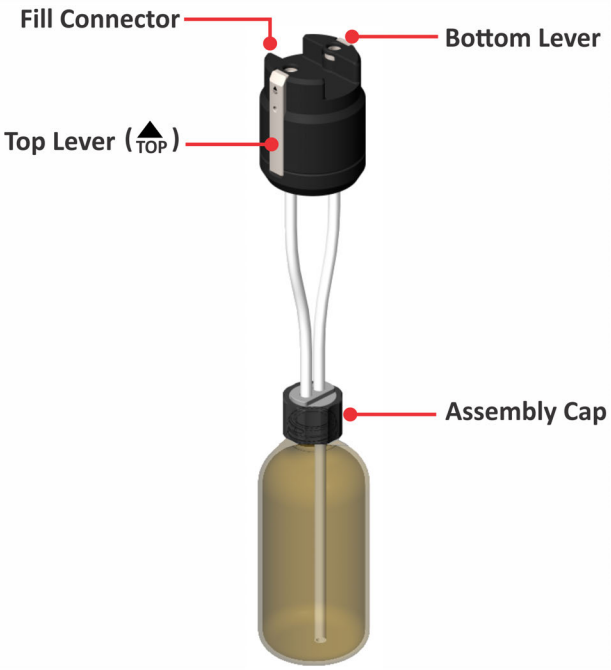
- CleanBlastPRO is rated for use with 3M Novec 72DA Engineered Fluid. Use only Novec 72DA solvent from 3M or CleanBlast solvent from MicroCare Corporation (identical formulation to Novec 72DA). Warranty will be void if a VIAVI repair center or representative determines that any other solvent has been used and is the cause of operational problems.
- Store each refill kit in a contaminant-free zipper locking bag between uses. Ensure that the solvent bottle is well sealed to prevent moisture from entering the bottle and contaminating the solvent.

Performing a manual refill

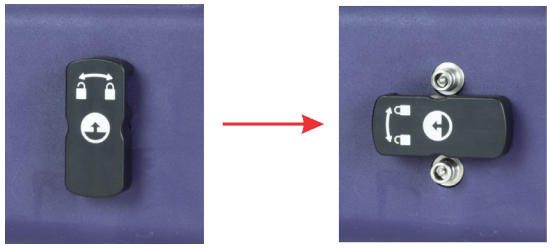
	**WARNING** Read this procedure in full before you begin. Do not attempt to connect the refill kit to the CleanBlastPRO until the device has completely depressurized.

Step 1 Ensure that the CleanBlastPRO is powered on.

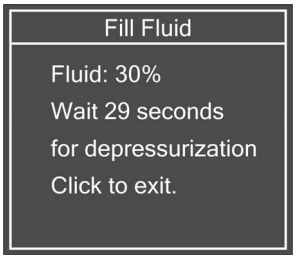
Step 2 Install the CleanBlastPRO Manual Refill Kit (FCLP-RCA-2) assembly onto a 225-ml bottle of solvent.



Step 3 At the front of the CleanBlastPRO, rotate the refill port cover counterclockwise.

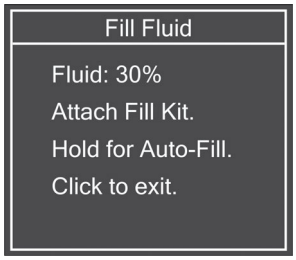


Depressurization of the CleanBlastPRO begins immediately. Observe the message and count-down timer that appear on the LCD screen and wait for depressurization to complete.

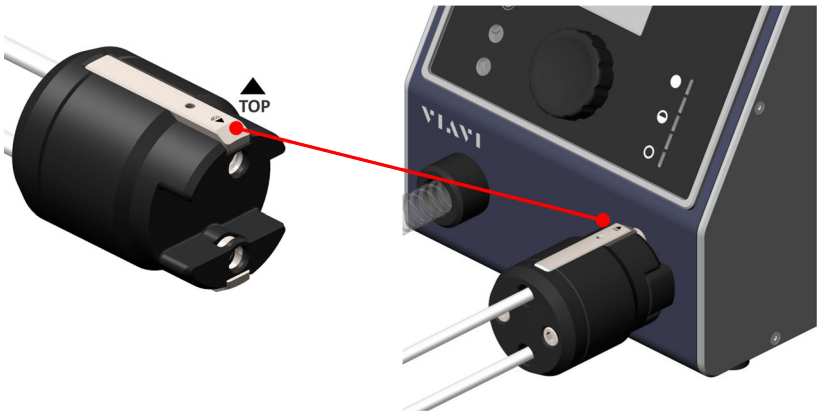


Step 4 Ensure that depressurization is completed.

The following message appears on the LCD screen.



Step 5 Orient the fill connector on the refill assembly so that the marking TOP on the top lever is facing up, press the top and bottom levers on the fill connector, and then connect the fill connector to the refill port on the CleanBlastPRO.



Step 6 Invert the bottle of solvent upside down and hold it above the refill port so that the solvent drains into the tank.

Note: Do not press or click the dial on the CleanBlastPRO during the manual refill operation.

Important: Ensure that the fill connector remains steady while in use. Bumping or jostling the connector during refill can cause solvent to leak from the fittings.

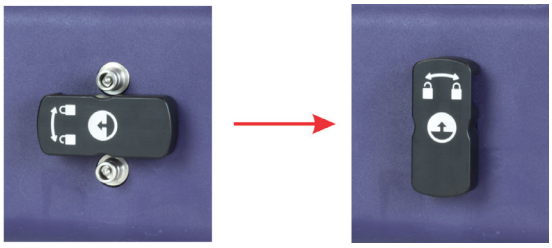
Step 7 Observe the LCD screen, the fluid gauge, and the contents of the bottle.

The solvent will automatically stop draining from the bottle when the solvent tank is full and the fluid gauge indicates 100%.

Step 8 When the solvent is at the required level, set the bottle down right side up.

Step 9 Press the top and bottom levers on the fill connector, and then carefully pull back the fill connector to disconnect it from the CleanBlastPRO.

Step 10 Rotate the refill port cover clockwise to close it.



Step 11 Remove the refill kit assembly from the bottle of solvent, and store it in a contaminant-free zipper locking bag.

Important: If you choose to leave the refill kit assembly installed on the bottle of solvent, ensure that the fill connector is wrapped and that the assembly and bottle are stored in a contaminate-free manner.

— End —

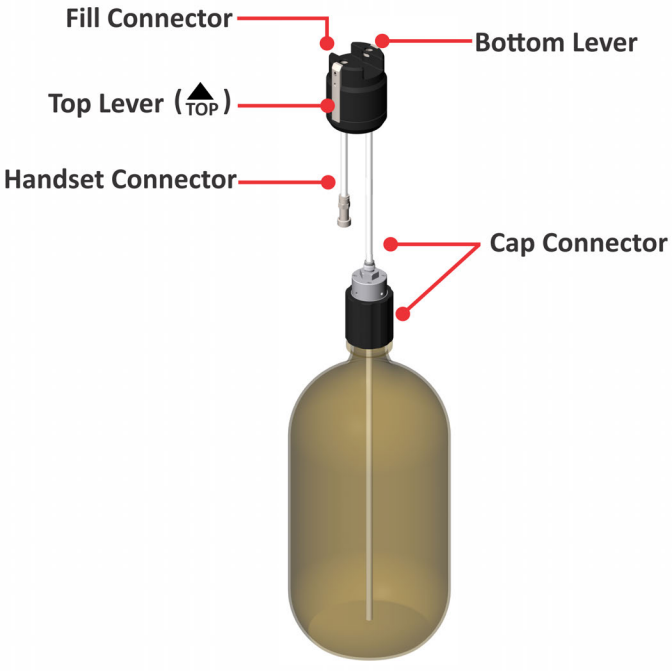
Performing an auto refill

	WARNING Read this procedure in full before you begin. Do not attempt to connect the refill kit to the CleanBlastPRO until the device has completely depressurized.

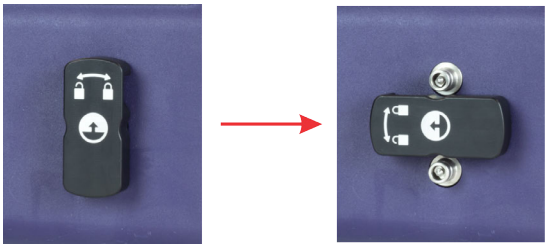
Step 1 Ensure that the CleanBlastPRO is powered on.

Step 2 Install the refill kit assembly onto the bottle of solvent by tightly securing the cap connector to the bottle.

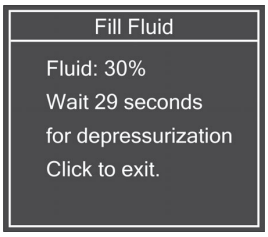
Note: The cap connector contains a replaceable 0.1 micron air filter to ensure that air flowing into the bottle is clean and free of contaminants. For more information, see "Replacing the air filter on the CleanBlastPRO Auto Refill Kit" on page 4-5.



Step 3 At the front of the CleanBlastPRO, rotate the refill power cover counterclockwise.

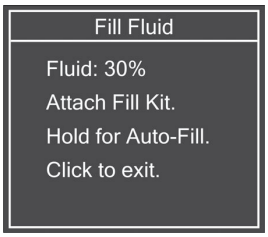


Depressurization of the CleanBlastPRO begins immediately. Observe the message and count-down timer that appear on the LCD screen and wait for depressurization to complete.



Step 4 Ensure that depressurization is completed.

The following message appears on the LCD screen.

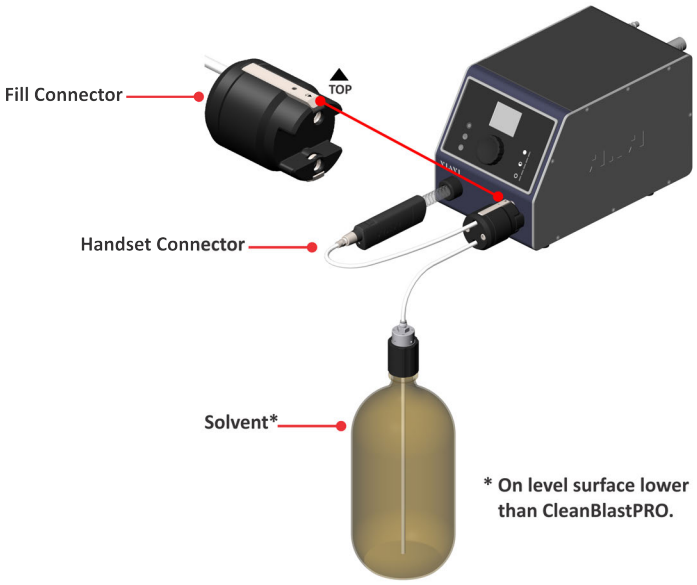


Step 5 Connect the handset connector to the nozzle of the handset.

Step 6 Do the following:

a. Orient the fill connector on the refill assembly so that the marking TOP is facing up.

b. Press the top and bottom levers on the fill connector and connect it to the refill port on the CleanBlastPRO.



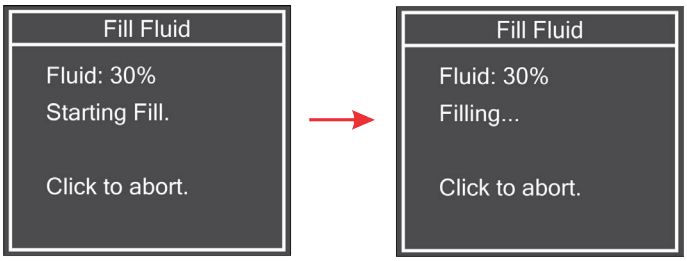
Important: Ensure that the fill connector remains steady while in use. Bumping or jostling the connector during refill can cause solvent to leak from the fittings.

Note: Keeping the bottle of solvent on a level surface lower than the CleanBlastPRO helps ensure that any excess fluid drains back into the bottle when the tank is full.

Step 7 Press and hold the dial until the message **One moment** appears on the LCD screen, and then release the dial.

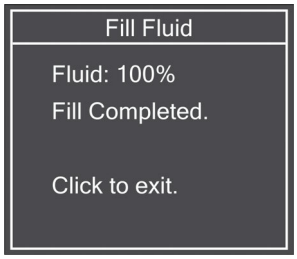
Note: If you release the dial too soon, the previous menu appears on the LCD screen and auto fill will not start.

Step 8 Observe the fluid gauge and the messages that appear on the LCD screen.

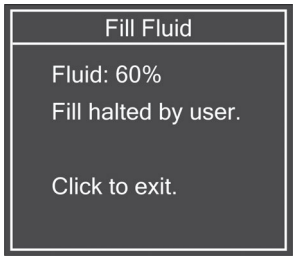


Step 9 Do either of the following:

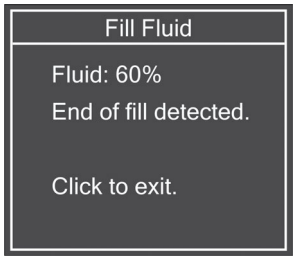
- Allow the auto fill to continue until the tank is full and auto fill automatically stops. Observe the message that appears on the LCD screen.



- Click the dial to manually stop the auto fill. Observe the message that appears on the LCD screen.



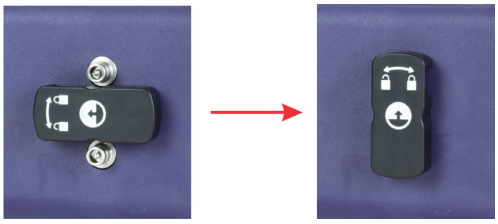
Note: If the solvent runs out before the tank is full, auto fill will automatically stop. Observe the message that appears on the LCD screen.



Step 10 Click the dial to return to the previous menu, and then disconnect the fill connector from the handset nozzle.

Step 11 Disconnect the fill connector from the CleanBlastPRO by pressing the top and bottom levers on the connector, and then gently pulling it back.

Step 12 Rotate the refill port cover clockwise to close it.



Step 13 Remove the refill kit assembly from the bottle of solvent, and store it in a contaminant-free zipper locking bag.

Important: If you choose to leave the refill kit assembly installed on the bottle of solvent, ensure that the fill and handset connectors are wrapped and that the assembly and bottle are stored in a contaminate-free manner.

— End —

Configuring cleaning profiles on the CleanBlastPRO

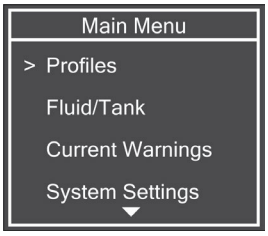
CleanBlastPRO provides factory-configured cleaning profiles optimized for Simplex and MPO fibers. The Simplex and MPO profiles cannot be modified; however, you can configure up to five custom profiles to meet particular cleaning requirements, and then modify them as required. For more information, see "Select Profile and Edit Profile" on page A-4 and "Custom profile examples" on page C-1.

Notes:

- This procedure applies to custom profiles already available on the CleanBlastPRO. For information about using the CleanBlastPRO™ USB Flash Drive Creator tool to configure and manage custom profiles that can be applied to the device during a firmware update, see "Updating firmware and features" on page D-1.
- If required, contact VIAVI Customer Support for detailed information about configuring custom profiles for the CleanBlastPRO.

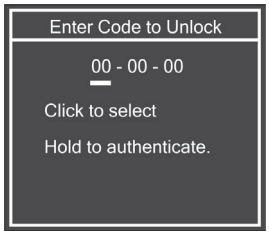
Important: A six-digit Master User Code might be required to access the **Edit Profile** menu for a custom profile. If this feature is enabled on the device, ensure that you have the correct code for the device before beginning this procedure. Entering the code one time provides unlimited access to the **Edit Profile** menu, as well as the option to reset the Clean Prime Count, until the CleanBlastPRO is restarted. See "Master User Code" on page D-4 for more information.

Step 1 On the LCD screen, click **Profiles** on the **Main Menu**, and then click **Profiles**.

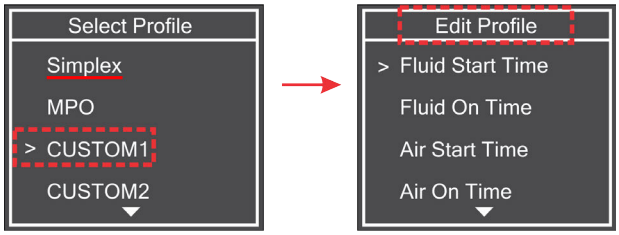


Step 2 On the **Select Profile** menu, scroll to a custom profile option (**CUSTOM1** to **CUSTOM5**), and then press and hold the dial.

Step 3 If prompted, follow the directions to enter the Master User Code that appear on the LCD screen.



Step 4 On the **Edit Profile** menu for the profile.



Notes:

- The options CUSTOM1 to CUSTOM5 refer to the default names of custom profiles available on the CleanBlastPRO. The name of any of these profiles might be different if configured with the CleanBlastPRO USB Flash Drive Creator tool and then imported to the device via a firmware update. See "Managing custom profiles in the firmware file" on page D-5 for information.
- An underline denotes the active profile that CleanBlastPRO is using for cleaning sessions.

Step 5 Do the following:

a. On the **Edit Profile** menu, scroll to and click a parameter.

b. On the **Edit** menu for the parameter, rotate the dial to specify a setting, and then click to confirm the setting.

The LCD screen returns to the **Edit Profile** menu for the custom profile.

Note: To exit the **Edit** menu for the parameter without changing the setting, press and hold the dial or scroll to and click the **Back** icon (see "Menu icons" on page A-2).

Step 6 Repeat Step 5 for each required cleaning parameter.

Step 7 After all required parameters are configured, scroll to and click **Save** on the **Edit Profile** menu.

Important: Exiting the **Edit Profile** menu without saving causes the newly specified settings to be discarded.

— End —

Handset operation

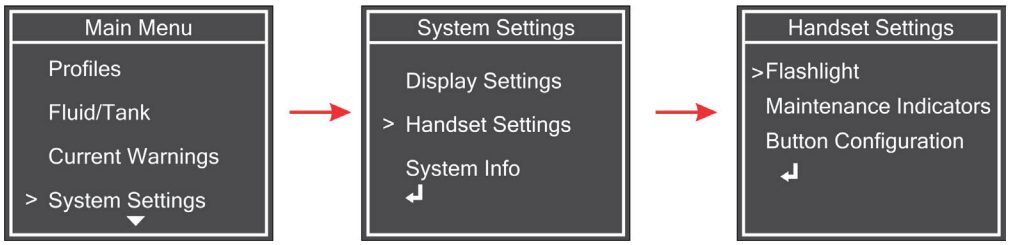
Before you begin cleaning fiber end faces, review the handset configuration settings and, if required, modify any setting. Table 2-1 lists configurable options for operating the handset.

Table 2-1: Handset configuration options

Option	Description	Available settings
Flashlight	Enable flashlight operation	• Enable (default) • Disable
Maintenance Indicators	Enable or disable handset alerts of maintenance conditions indicated by LEDs	• Buzzer: Enable (default)/Disable • Light: Enable (default)/Disable
Button Configuration	Configure handset button operation	• Dual Button (default): Press one button (top or bottom) and then the other button to initiate a cleaning cycle. Press only the top button or only the bottom button to control the flashlight. • Bottom Button: Press only the bottom button to initiate a cleaning cycle. Press only the top button to control the flashlight. • Top Button: Press only the top button to initiate a cleaning cycle. Press only the bottom button to control the flashlight.

Modifying handset settings

Step 1 On the LCD screen, click **System Settings** on the **Main Menu**, and then click **Handset Settings** to access the **Handset Settings** menu.



Step 2 Select a handset configuration option (Table 2-1) to access the menu for that option.

Step 3 Specify the setting.

Step 4 Click to return to the previous menu.

— End —

Foot pedal operation

CleanBlastPRO provides an input for operation via an optional foot pedal.

Note: Foot pedal type must be ¼" (6.35 mm) Normally Open (NO); for example, Foot Pedal FCLP-FP-01 (see "Ordering information" on page 1-3) or a Casio® keyboard foot pedal. An error message appears when a Normally Closed (NC) foot pedal is detected ("Current Warnings" on page A-5).

Step 1 Ensure that the foot-pedal connector is within easy reach of the CleanBlastPRO.

Step 2 Connect the foot pedal to the foot-pedal input at the rear of the device (see Figure 2-2 on page 2-2).

Step 3 Tap the foot pedal to ensure that the handset fires.

— End —

Connecting an FCLT Series cleaning tip to the handset

Important: Always store unused cleaning tips in a dust-proof container. For information about supported cleaning tips, see "FCLT Series cleaning tips" on page 1-4.

Step 1 Place the cleaning tip straight onto the threads of handset nozzle.

Step 2 Thread the collar of the cleaning tip and rotate to secure it to the nozzle.

Important: Ensure that the collar is properly threaded and secured to the nozzle. A poorly secured cleaning tip can produce less than optimal cleaning results.

Step 3 Prime the handset. See "Priming the handset" on page 3-2.

— End —

3 Fiber cleaning

Before you begin cleaning

Ensure the following...	See...
CleanBlastPRO is located on a level, stable surface and powered on.	"Powering the CleanBlastPRO" on page 2-7
CleanBlastPRO is connected to an air source.	"Connecting or disconnecting an air source" on page 2-9
Ready LED is lit.	"Indicators and menu navigation" on page 2-4
Refill port cover is in the closed position (vertical).	• "Performing a manual refill" on page 2-10 • "Performing an auto refill" on page 2-13
Tank contains an adequate amount of solvent.	"Filling the solvent tank" on page 2-10
Cleaning tip suitable for each connector type to be cleaned is available.	• "FCLT Series cleaning tips" on page 1-4 • "Connecting an FCLT Series cleaning tip to the handset" on page 2-20
Handset operation is configured as required, or, optionally, a foot pedal is connected to the CleanBlastPRO.	• "Handset operation" on page 2-19 • "Foot pedal operation" on page 2-20
Handset is primed.	"Priming the handset" on page 3-2

Priming the handset

Prime the CleanBlastPRO handset to ensure that there is no air in the fluid line and to remove contaminants from the nozzle and cleaning tip. Priming applies a regular cleaning cycle followed by an extended discharge of solvent and then a longer drying and vacuuming cycle.

Important: Priming is important for consistent operation. VIAVI recommends priming before each cleaning session and after changing the cleaning tip.

Step 1 Prepare an empty glass container for the solvent that will be discharged from the handset. The container must be able to accommodate at least 10 ml of solvent.

Step 2 Connect the cleaning tip required for the cleaning session to the handset.

Step 3 If required, review the **Button Configuration** settings (see "Handset operation" on page 2-19).

Step 4 Position the handset over the container, hold down the handset button/buttons required for operation for at least 10 seconds, or tap and hold the foot pedal if in use.

The priming cycle begins immediately and is completed when the fluid and air streams have stopped. The CleanBlastPRO is then ready to clean fiber end faces.

CAUTION

Never reuse solvent drained from the CleanBlastPRO. Reusing drained solvent can introduce dust and other contaminants from the air into the CleanBlastPRO. Ensure that drained solvent is immediately discarded in accordance with regional regulations for the safe disposal of such fluids.

— End —

Performing a cleaning cycle

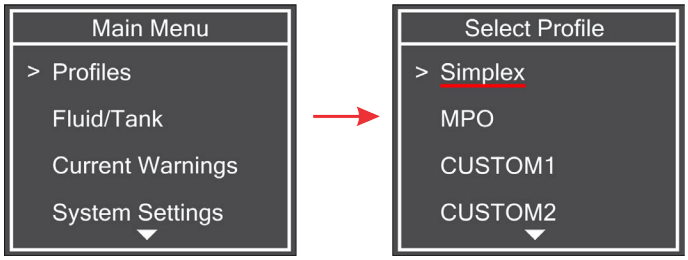
The CleanBlastPRO can perform either regular or extended cleaning of fiber end faces. In a regular cleaning cycle, the settings defined in the active cleaning profile (e.g., Simplex, MPO, or CUSTOM) ensure that an optimal series of precision air, solvent, and vacuum steps is applied. Therefore, this cycle should provide suitable results for most typical cleaning requirements.

Note: By default, only the factory-set cleaning profiles (Simplex and MPO) have defined settings. Custom cleaning profiles must be configured (see "Configuring cleaning profiles on the CleanBlastPRO" on page 2-17).

Performing a regular cleaning cycle

Step 1 Review "Before you begin cleaning" on page 3-2.

Step 2 On the LCD screen, click **Profiles** on the **Main Menu,** and then scroll to and click a profile on the **Select Profile** menu. An underline indicates the active cleaning profile.



Step 3 Press the handset button/buttons, or tap the foot pedal if in use.

The cleaning cycle begins immediately and is completed when the solvent and air streams have stopped.

— End —

Performing an extended cleaning cycle

An extended cleaning cycle can be used to clean heavily contaminated fiber end faces. This cycle is comprised of a regular cleaning cycle followed by a priming cycle, which applies an extended spray of solvent and then additional vacuuming and drying.

Step 1 Review "Before you begin cleaning" on page 3-2.

Step 2 Hold down the handset button/buttons or the foot pedal (if installed) for at least 10 seconds.

The cleaning cycle begins immediately and is completed when the solvent and air streams have stopped.

Note: It is not uncommon for a small amount of solvent to leak from the fiber connector during an extended cleaning cycle.

— End —

This page intentionally left blank.

4 Maintenance

Setting up the CleanBlastPRO with a check valve and pressure tank

For consistent cleaning operation, ensure that the CleanBlastPRO is not starved of air flow when other equipment that shares the air source (for example, a nearby air gun nozzle, other CleanBlastPRO systems) is in use, or when very long, small diameter air supply runs are used.

To isolate the air source in such situations, VIAVI recommends setting up the CleanBlastPRO with an inexpensive local pressure tank (half-gallon or larger) and a check valve exactly as shown in Figure 4-1 and Figure 4-2. See "Connecting or disconnecting an air source" on page 2-9 for more information.

Important: Ensure that the check valve is oriented so that air can enter the pressure tank, but will not exit the tank after the air pressure is removed.

Figure 4-1: CleanBlastPRO, check valve, and pressure tank - front view of setup

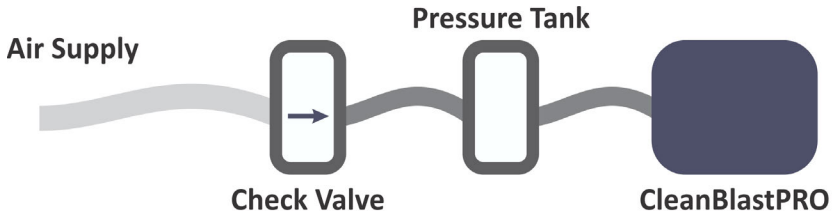
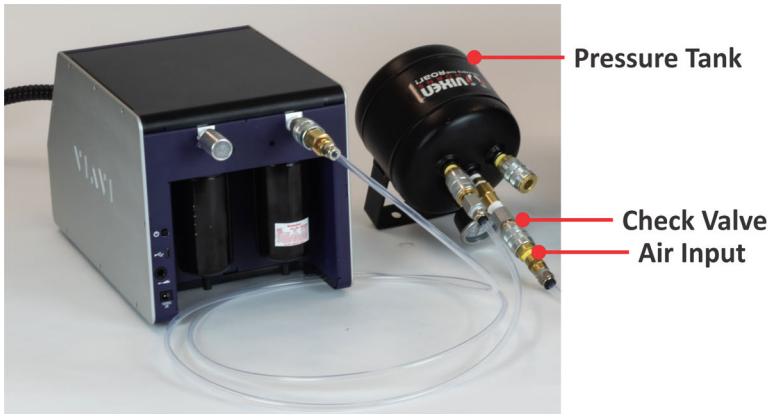
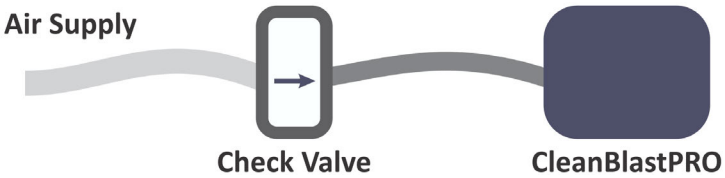


Figure 4-2: CleanBlastPRO, check valve, and pressure tank - rear view of setup



Note: The air filter canisters of the CleanBlastPRO can act as a small volume air tank. Using a check valve before the air input to the CleanBlastPRO exactly as shown in Figure 4-3 can be helpful if the air supply might be briefly (less than one second) impacted or if the supply runs are poor.

Figure 4-3: CleanBlastPRO and check valve



Replacing air filters

The CleanBlastPRO features replaceable air filters to ensure that contaminants do not enter the system during either use of the device or refilling of the solvent tank.

Required tools and components

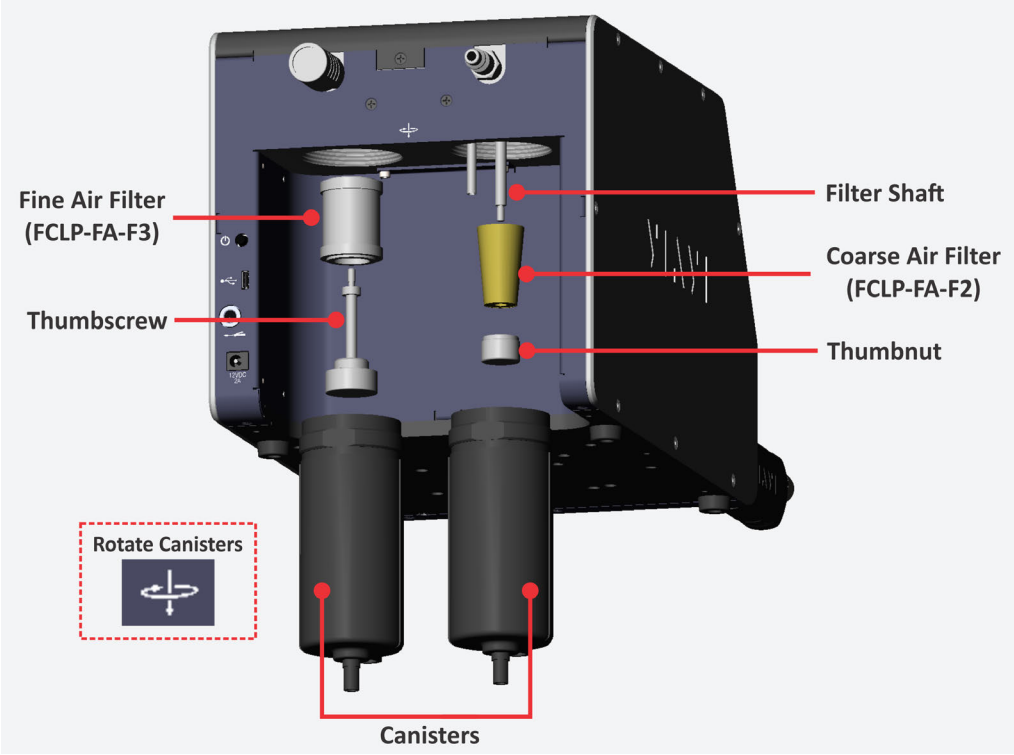
- Fine air filter (FCLP-FA-F3) and coarse air filter (FCLP-FA-F2). These filters are contained in canisters located at the rear of the device. VIAVI recommends replacing these air filters every 12 months or 100,000 cycles, whichever comes sooner.
- Air filter (FCLP-FA-F1). This filter is contained in the cap connector of the CleanBlastPRO Auto Refill Kit. VIAVI recommends replacing this air filter every 12 months or 100,000 cycles, whichever comes sooner.
- Strap wrench (optional)

Replacing the fine and coarse air filters

CAUTION

- Power off the CleanBlastPRO, and disconnect the air source and all cables connected to it before replacing the air filters. See "Powering off" on page 2-7 and "Disconnecting the air source" on page 2-9.
- The fine and coarse air filters are housed in separate canisters. Ensure that you install the correct replacement filter in each location shown in Figure 4-4, which also shows the housing components of the filters.

Figure 4-4: CleanBlastPRO fine air and coarse air filters



Step 1 Position the CleanBlastPRO so that the overhang at the rear of the device extends past the edge of the work surface and all four pads on the bottom of the device are fully on the work surface.

Step 2 Using the strap wrench, rotate the canister in the direction indicated in Figure 4-4 on page 4-3 until it is fully loosened, and then carefully pull it straight down to expose the air filter.

Important: Do not attempt to pull the canister away from the device before the air filter is fully exposed and the top of the canister can clear the bottom of the air filter.

Step 3 Remove the air filter:

- To remove the fine air filter, rotate the thumbscrew counterclockwise (i.e., when viewed from below) until it detaches from the device, and then remove the filter from the thumbscrew.
- To remove the coarse air filter, rotate the thumbnut counterclockwise (i.e., when viewed from below) until it detaches from the shaft it is connected to, and then remove the filter from the shaft.

Note: Do not misplace the o-ring that is housed within the top of the thumbnut.

Step 4 Discard the air filter.

Step 5 Ensure that you have the correct replacement for the filter you have removed, and then install it:

- To install the replacement fine air filter, slip the filter onto the thumbscrew, position the filter into its socket on the device, and then secure it with the thumbscrew. Do not overtighten the thumbscrew.
- To install the replacement coarse air filter, slip the filter onto the shaft, and then secure it with the thumbnut. Do not overtighten the thumbnut.

Important: Ensure that the replacement filter is centered and sits level within its socket, and that no part of the filter was torn or otherwise damaged during the installation.

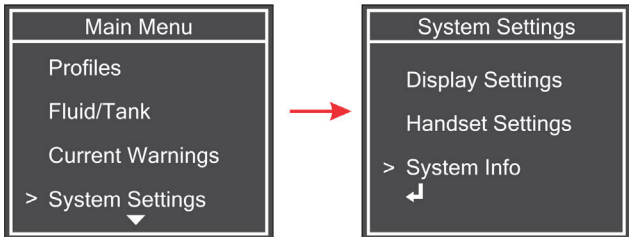
Step 6 Inspect the canister, removing all debris and cleaning the interior with isopropyl alcohol (99%).

Step 7 Reinstall the canister, rotating it clockwise (i.e., when viewed from below) to secure it. Do not overtighten the canister.

Step 8 Do the following to reset the filter age:

a. Power on the device (see “Powering the CleanBlastPRO” on page 2-7).

b. On the LCD screen, click **System Settings** on the **Main Menu**, and then click **System Info**.



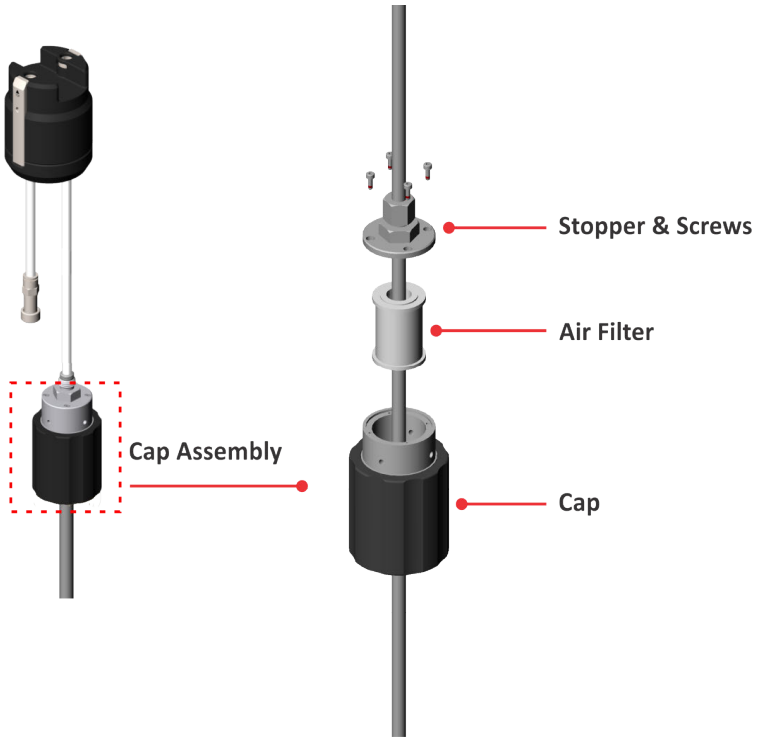
c. On the **System Info** menu, scroll to **Filter Age**, and then hold down the dial to reset the value to 0.

— End —

Replacing the air filter on the CleanBlastPRO Auto Refill Kit

Step 1 Ensure that you have the correct replacement air filter (FCLP-FA-F1) on hand.

Step 2 Using a 1.5-mm hex screwdriver, remove the four (4) screws that secure the stopper to the cap, and then slide the stopper off the tube. Place the stopper and screws in a dust-free container.



Step 3 Slide the used air filter off the tube, and insert the replacement filter.

Step 4 Insert the stopper, and then secure it with the screws. Do not overtighten the screws.

— End —

Auto-drain valves

Compressed air causes moisture in the air to precipitate out into water. It is very common in high humidity environments for a large amount of water to accumulate inside the air filter canisters. To prevent water from entering into the CleanBlastPRO, each filter canister is equipped with an auto-drain valve so that the water will automatically drain out.

VIAVI recommends connecting a flexible hose (inner diameter approximately 8 mm) to the tube on each auto-drain valve and running the hose to a waste bin into which the water can drain.

Figure 4-5: Auto-drain valves

Draining the solvent

⚠	**CAUTION** Never reuse solvent drained from the CleanBlastPRO. Reusing drained solvent can introduce dust and other contaminants from the air into the CleanBlastPRO. Ensure that drained solvent is immediately discarded in accordance with regional regulations for the safe disposal of such fluids.

Notes:

- Perform this procedure only under guidance from VIAVI.
- Draining the solvent can take up to two (2) hours, depending on the amount of solvent present in the tank.
- Ensure that the container into which the solvent will be drained can hold the full amount of solvent (up to 1 liter if tank is full) and that its opening can easily accommodate the flow from the CleanBlastPRO handset.

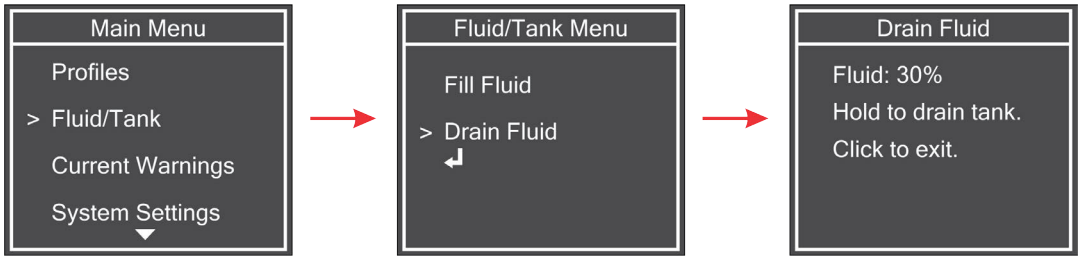
Step 1 If present, remove the cleaning tip from the handset nozzle and place it in a dust-free container.

Step 2 Install the handset onto a mount holder. See “Handset features and mounting” on page 2-5.

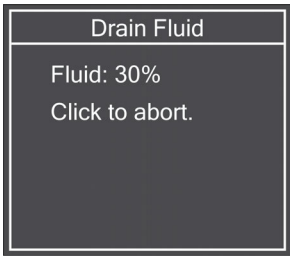
Step 3 Prepare an empty 2 L glass container into which the solvent can drain.

Step 4 Tilt the handset so that the nozzle is pointed into the container.

Step 5 On the LCD screen, click **Fluid/Tank** on the **Main Menu**, and then click **Drain Fluid** to access the **Drain Fluid** menu.



Step 6 Press and hold the dial until the fluid begins to drain from the handset into the container, and then release the dial. Observe the message that appears on the LCD screen.



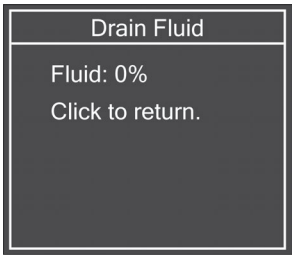
Note: If you release the dial too soon, the previous menu appears on the LCD screen and draining will not start.

Step 7 Observe the front panel as the tank empties:

The fluid percentage updates on the LCD screen and the LEDs of the fluid gauge light relative to the decreasing fluid level.

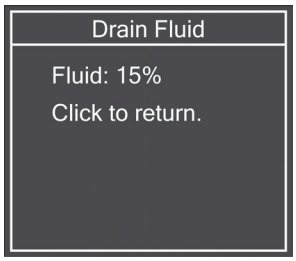
Step 8 Do either of the following:

- Allow draining to continue until the tank is empty. Observe the message that appears on the LCD screen.



Note: You can leave the CleanBlastPRO unattended as it drains.

- Click the dial to abort the draining process before the tank is emptied. Observe the message that appears on the LCD screen.



Step 9 Click the dial to return to the previous menu.

— End —

Preparing the CleanBlastPRO for transportation/shipping

Whenever possible, transport/ship the CleanBlastPRO in its original packaging. Always ensure that the device is securely wrapped and fitted inside the container to prevent damage to any part of the device.

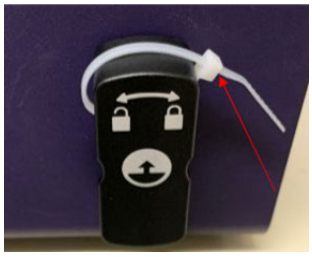
Before packing the CleanBlastPRO, do the following to prevent fluid from leaking from the device during transport:

Step 1 Power off the CleanBlastPRO, and disconnect it from the air source.

Step 2 Rotate the refill port cover counterclockwise, and allow the device to vent for at least one (1) minute.

Step 3 Return the refill port cover to the closed position.

Step 4 Secure the cover with a zip tie.

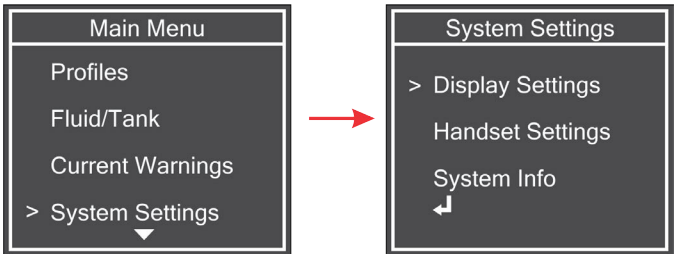


— End —

Accessing system settings and information

See “System Settings” on page A-7 for information about options available on the **System Settings** menu.

Step 1 On the LCD screen, click **System Settings** on the **Main Menu**.



Step 2 On the System Settings menu, click any of the following options:

- **Display Settings** to view or modify display settings for the LCD screen.
- **Handset Settings** to view or modify handset configuration settings.
- **System Info** to view CleanBlastPRO system information, such as serial number and firmware version, and access system-task menus, such as **Firmware Update**.

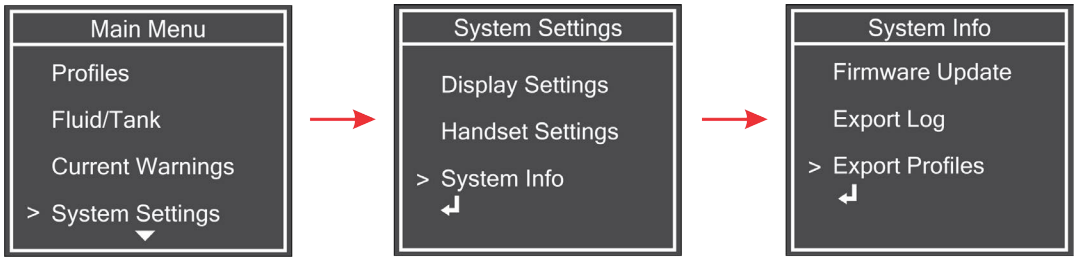
— End —

Exporting custom cleaning profiles

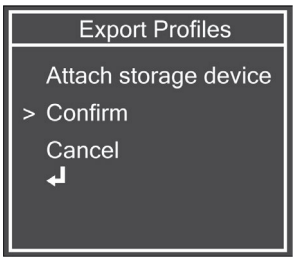
You can export cleaning profiles available on the CleanBlastPRO to a FAT-32 formatted USB-C flash drive connected to the device. This enables you to retain backup copies of the custom profiles that might be overwritten during a firmware update or make custom profiles available to other devices via the CleanBlastPRO USB Flash Drive Creator tool. For information, see "Updating firmware and features" on page D-1.

Step 1 Connect a FAT-32 formatted flash drive to the USB-C port at the rear of the CleanBlastPRO (see Figure 2-2 on page 2-2).

Step 2 On the LCD screen, click **System Settings** on the **Main Menu**, click **System Info**, and then click **Export Profiles**.



Step 3 On the **Export Profiles** menu, click **Confirm** to initiate the export operation.



While the export operation is in progress, a progress bar appears on the LCD screen and the Busy LED is on.

Important: Do not remove the USB flash drive from the port while the Busy LED is on. Remove it only after the operation is completed and the Ready LED is on.

When the operation is successfully completed, the **System Info** menu appears on the LCD screen, the BUSY LED turns off and the Ready LED turns on.

The exported profiles are saved to the file **`profiles.json`**, which is added to the **`Viavi`** folder on the USB-C flash drive and can be read by the CleanBlastPRO USB Flash Drive Creator tool. You can safely remove the USB-C flash drive while the Ready LED is on.

Note: If the export operation is not successful, repeat this procedure, and contact VIAVI Customer Support if the export operation fails again.

— End —

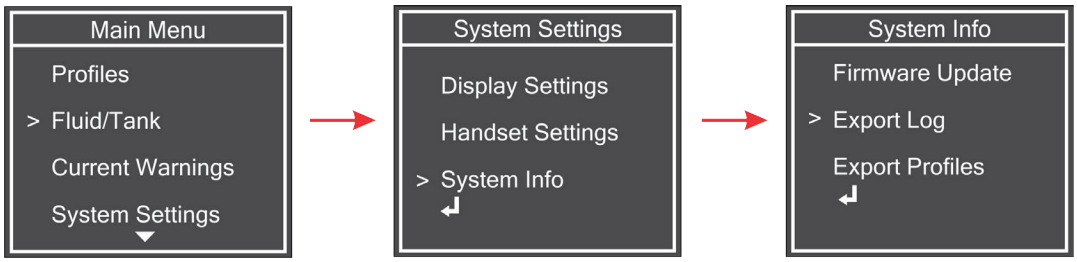
Exporting the log file

To assist with troubleshooting, VIAVI Customer Support might request that you export the CleanBlastPRO log file to a USB-C flash drive and then share the file with them.

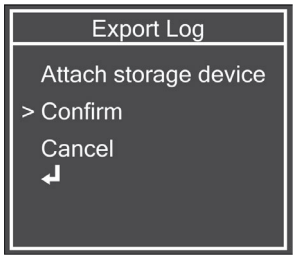
Important:
- Perform this procedure only when directed by VIAVI Customer Support.
- Use only a FAT-32 formatted USB-C flash drive.

Step 1 Connect a FAT-32 formatted USB-C flash drive to the USB-C port at the rear of the CleanBlastPRO (see Figure 2-2 on page 2-2).

Step 2 On the LCD screen, click **System Settings** on the **Main Menu**, click **System Info**, and then click **Export Log**.



Step 3 On the **Export Log** menu, click **Confirm** to start the export operation.



The export operation takes several minutes to complete. While the operation is in progress, a progress bar appears on the LCD screen, the Busy LED on the CleanBlastPRO is on and a progress bar appears on the LCD screen.

Important: Do not remove the USB flash drive from the port while the Busy LED is on.

When the export operation is successfully completed, the **System Info** menu appears on the LCD screen, the Busy LED turns off, and the Ready LED turns on. You can safely remove the USB-C flash drive while the Ready LED is on.

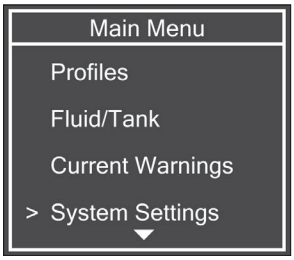
The exported log file **`DEBUG.BIN`** is added to the **`Viavi`** folder on the USB-C flash drive.

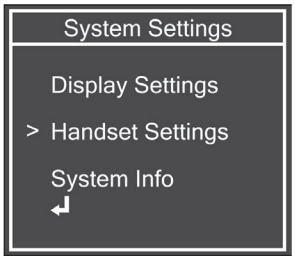
— End —

Appendix A CleanBlastPRO menu summary

This section covers the following information:

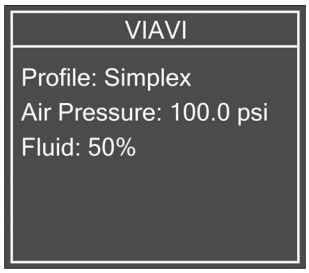
Menu icons





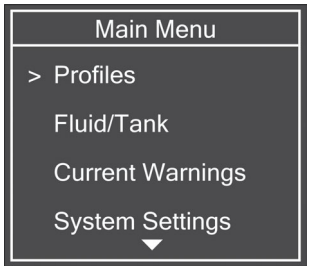
Icon	Action
>	Scroll/Select
▼	Continue
↵	Back

VIAVI Menu



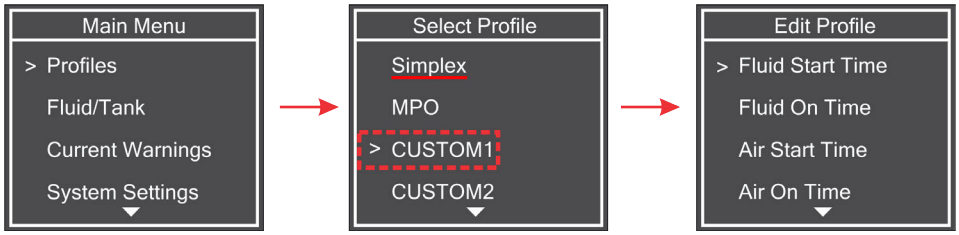
Option	Use
Profile	Active cleaning profile
Air Pressure	Available air pressure
Fluid	Level of solvent in tank

Main Menu



Option	Use
Profiles	See “Select Profile and Edit Profile” on page A-4.
Fluid/Tank	See “Fluid/Tank Menu” on page A-5.
Current Warnings	See “Current Warnings” on page A-5.
System Settings	See “System Settings” on page A-7.

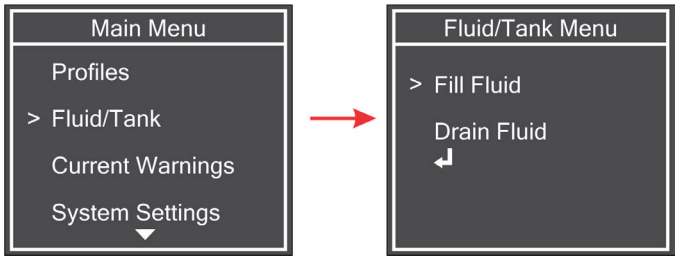
Select Profile and Edit Profile



Option	Use
Simplex	Apply cleaning parameters suitable for Simplex fiber end faces
MPO	Apply cleaning parameters suitable for MPO fiber end faces
CUSTOM1[1] CUSTOM2 CUSTOM3 CUSTOM4 CUSTOM5	User-defined settings for the following cleaning parameters: • Fluid Start Time • Fluid On Time[2,3] • Air Start Time • Air On Time[2,3] • Vacuum Start Time • Vacuum On Time[2] • Number of Cycles[4] • Pre-cycle settings[5] • Post-cycle settings[5] • Lockout Time[6] • Save See “Configuring cleaning profiles on the CleanBlastPRO” on page 2-17 and “Custom profile examples” on page C-1.

1. The options CUSTOM1 to CUSTOM5 refer to the default names of custom profiles available on the CleanBlastPRO. The displayed name of a custom profile might be different if configured with the CleanBlastPRO USB Flash Drive Creator tool and then imported to the device via a firmware update. See “Managing custom profiles in the firmware file” on page D-5 for information.
2. VIAVI recommends setting this cleaning parameter to 100 ms or higher.
3. To ensure that the fluid atomizes correctly, the air must be on when the fluid is on.
4. Specifies the number of times the cleaning parameters for a regular cleaning cycle are repeated.
5. Includes all cleaning parameters except Number of Cycles.
6. Specifies the amount of time in seconds that handset/foot pedal operation is disabled after a cleaning cycle is performed.

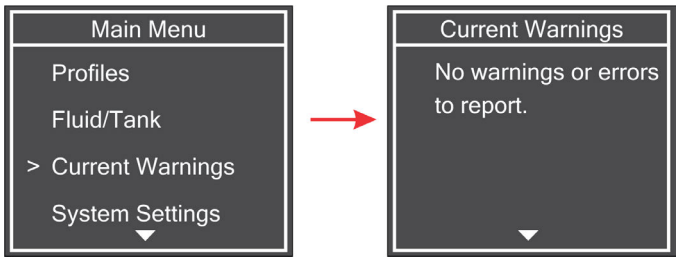
Fluid/Tank Menu



Option	Use
Fill	Perform Manual fill or Auto Fill operations. See “Filling the solvent tank” on page 2-10.
Drain Fluid	Perform Drain Fluid operation. See “Draining the solvent” on page 4-7.

Current Warnings

An error or warning message displays while the corresponding condition is present on the CleanBlastPRO.

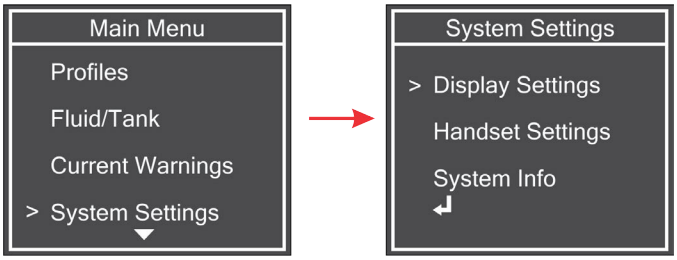


Message	See...
Current Warnings. No warnings or errors to report.	—
Error/Warning. Pressure sensor readings are out of normal range.	“Specifications” on page B-1.
Error/Warning. Tilt detected. Keep device level.	“Work station requirements” on page 2-7.
Error. Device solvent tank is empty.	“Filling the solvent tank” on page 2-10.
Error. Please prime the unit before firing.	“Priming the handset” on page 3-2.
Error: Foot pedal detected as Normally Closed type. Use Normally Open type only.	“Foot pedal operation” on page 2-20.
Warning. Fluid sensors indicate contamination. Use pure Novec-72DA only.	• “Filling the solvent tank” on page 2-10 • “Auto-drain valves” on page 4-6. Contact VIAVI Customer Support for more information.
Warning. Fluid sensors indicate overconsumption.	Contact VIAVI Customer Support for more information.
Warning. Fluid sensors indicate underconsumption.	Contact VIAVI Customer Support for more information.

Message	See...
Warning. Sensors indicate possible clog in air filters or lack of air flow from the source.	• "Setting up the CleanBlastPRO with a check valve and pressure tank" on page 4-2. • "Replacing air filters" on page 4-3. Contact VIAVI Customer Support for more information.
Warning. Sensors indicate a solenoid has failed open circuit.	Contact VIAVI Customer Support for more information.
Warning: Input pressure is lower than normal.	"Specifications" on page B-1.

Note: Error and warning messages in this table might not be exhaustive and/or reflect all conditions that could result in a message. If required, contact VIAVI Customer Support for more information.

System Settings



Option	Use
Display Settings	Configure settings for the following display parameters: • LCD Backlight • LCD Sleep Timer • LED Brightness
Handset Settings	Configure the following parameters for handset operation. See "Handset operation" on page 2-19. • Flashlight • Maintenance Indicators • Button Configuration
System Info	View the following device/system information or perform related operation: • SN [Serial number] • Firmware (Firmware version) • Filter Age. See "Replacing air filters" on page 4-3. • Clean Prime Count (Reset Clean Prime Count) • Firmware Update. See "Updating firmware and features" on page D-1. • Export Log. See "Exporting the log file" on page 4-12. • Export Profiles. See "Exporting custom cleaning profiles" on page 4-11. **Important:** A Master User Code might be required to reset the Clean Prime Count. Ensure that you have the correct code for the device on hand. Entering the code one time provides unlimited access to the Clean Prime Count option, as well as the Edit Profile menu ("Configuring cleaning profiles on the CleanBlastPRO" on page 2-17) until the CleanBlastPRO is restarted.

This page intentionally left blank.

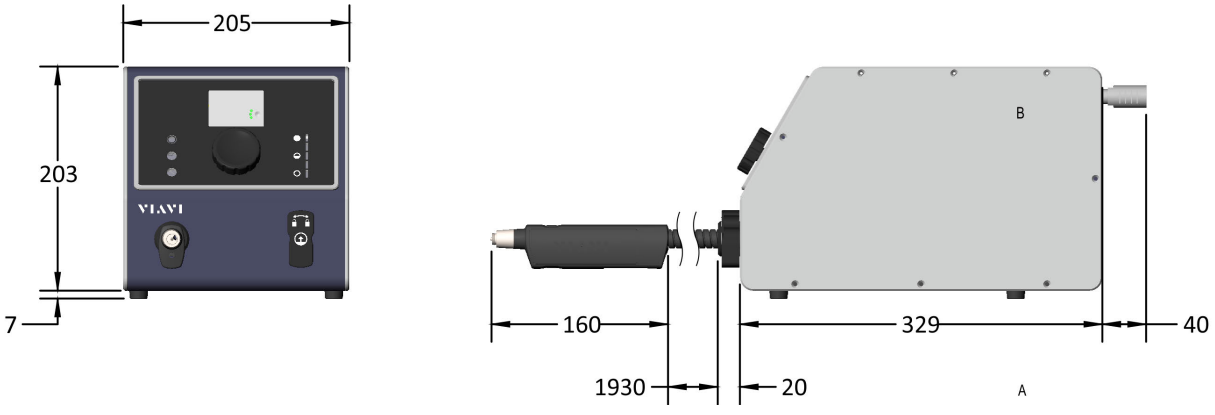
Appendix B Specifications

Table B-1: CleanBlastPRO Benchtop Fiber End Face Cleaning System specifications

Parameter	Specification
Air/Gas Source	Clean, dry air[1] or nitrogen (N_2)
Air/Gas Pressure	80 to 140 psi, 100 psi nominal[2,3]
Air/Gas Inlet	1/4” Industrial Quick-Disconnect Coupling[4]
Air/Gas Consumption	30 SLPM (Standard Liters Per Minute) when active[5]
Internal Solvent Tank Capacity	1 L
Input Power	12V DC, 2A power supply (included)[6]
Power Consumption (Average)	< 12 W
Operating temperature	15 to 30 ˚C (59 to 86 ˚F)
Storage temperature	0 to 40 ˚C (32 to 104 ˚F)
Dimensions	See Figure B-1.

1. As per ISO8573 Class 5 - Clean Dry Air. (Oil less than 25mg/m**3).
2. CleanBlastPRO will continue to operate when pressure is between 50 to 80 psi; however, cleaning might be impaired.
3. Pressure relief safety mechanism activates when pressure exceeds 150 psi and resets when air-source connection is removed.
4. Fitting can be replaced with any ¼” NPT Male fitting.
5. Air/Gas consumption per cleaning cycle can be determined based on the length of time cleaning cycle is active.
6. Use only the power adapter shipped with the CleanBlastPRO to power the device.

Figure B-1: CleanBlastPRO dimensions (shown in millimeters)



This page intentionally left blank.

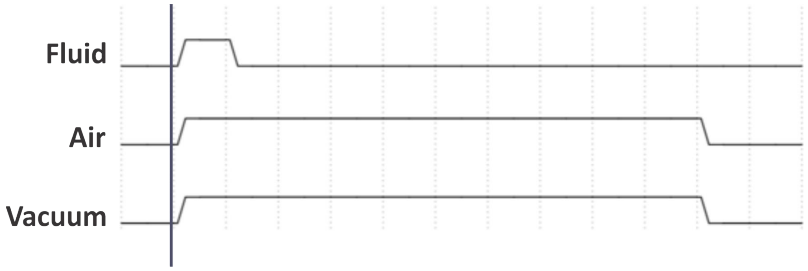
Appendix C Custom profile examples

This section covers the following information:

Example 1: Basic clean

Profile description

- Start fluid, air, and vacuum time = 0
- Fluid on for 200 msec (0.2 sec)
- Air and vacuum on for 2000 msec (2 sec)



Configuration

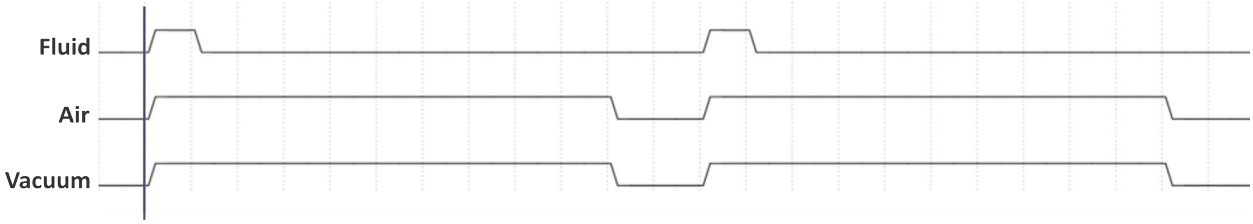
Parameter	User-defined Value
Fluid Start Time	0
Fluid On Time	200
Air Start Time	0
Air On Time	2000
Vacuum Start Time	0
Vacuum On Time	2000
Number of Cycles	1
Lockout Time	—

Example 2: Basic clean - two cycles

Profile description

- Apply two cycles of the Basic Clean profile with one button press

Note: A 50 msec (approximately) dwell time with all valves off is automatically added between cycles. This dwell time can be increased by increasing the start times for each value.



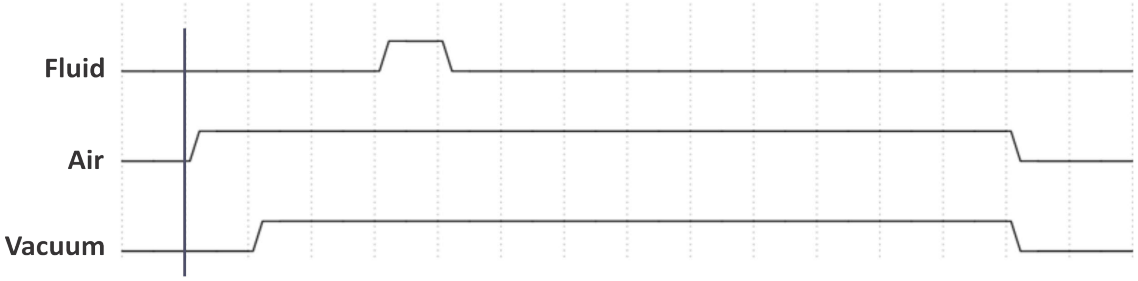
Configuration

Parameter	User-defined Value
Fluid Start Time	0
Fluid On Time	200
Air Start Time	0
Air On Time	2000
Vacuum Start Time	0
Vacuum On Time	2000
Number of Cycles	2
Lockout Time	—

Example 3: Blow/vac, then clean, then dry

Profile description

- First blow air, then vacuum, then clean, then dry.
- Blow air and pull vacuum (delay vacuum start 200 msec) for 600 msec, then basic clean cycle with 200 msec of fluid, air, and vacuum for 2 sec after fluid starts.



Configuration

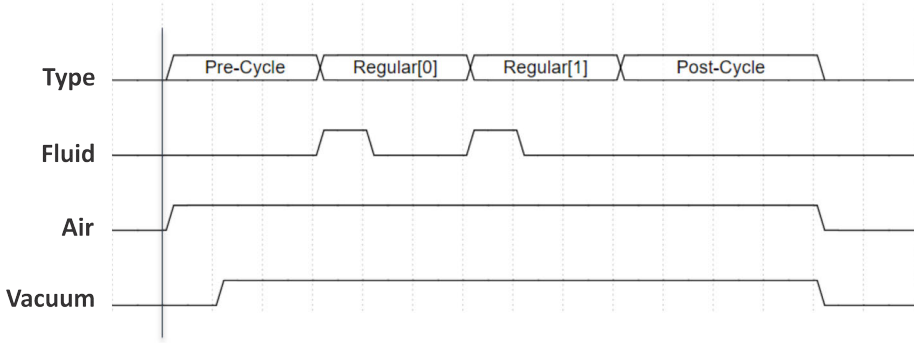
Parameter	User-defined Value
Fluid Start Time	600
Fluid On Time	200
Air Start Time	0
Air On Time	2600
Vacuum Start Time	200
Vacuum On Time	2400
Number of Cycles	1
Lockout Time	—

Example 4: Using Pre- and post-cycle for blow/vac, then clean (x2), then dry

Profile description

- First, blow air, then vacuum, then perform two clean cycles (Regular[0], Regular[1]), then dry.

Note: A 50 msec (approximately) dwell time with all valves off is automatically added between cycles. This dwell time can be increased by increasing the start times for each value.



Configuration

Parameter	Pre-cycle	Regular	Post-cycle
Fluid Start Time	0	0	0
Fluid On Time	0	200	0
Air Start Time	0	0	0
Air On Time	600	600	800
Vacuum Start Time	200	0	0
Vacuum On Time	400	600	800
Number of Cycles	N/A	2	N/A
Lockout Time	N/A	—	N/A

Notes:

- Typical use case: use Pre-cycle to blow and vacuum off loose particles; use Post-cycle to dry off the fluid.
- Regular cycle allows for repeats; therefore, use to perform two cleaning cycles.

This page intentionally left blank.

Appendix D Updating firmware and features

This section covers the following information:

Configuring and generating the firmware file

Use the CleanBlastPRO USB Flash Drive Creator tool to configure and generate the firmware file required to update the CleanBlastPRO firmware to a later version. The firmware file configuration specifies settings for the following options, which can be applied/imported to the device during the update:

- Master User Code for access to the **Edit Profile** menu and the Clean Prime Count option via the LCD screen on the CleanBlastPRO (see "Master User Code" on page D-4)
- Preferred language
- Default cleaning profile
- Custom profiles (see "Managing custom profiles in the firmware file" on page D-5)

The settings for any of these options can be changed at any time after a firmware update has been performed. See "Updating CleanBlastPRO firmware and configurable options" on page D-7 for information.

Step 1 Connect a FAT-32 formatted USB-C flash drive to your computer.

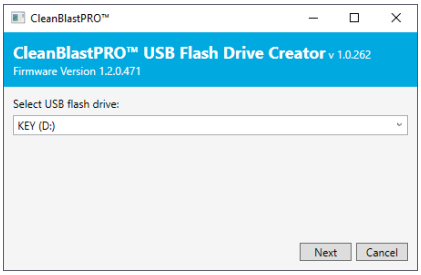
Important: Use only a FAT-32 formatted USB-C flash drive .

Step 2 Do one of the following:

- To generate a firmware file for updating the CleanBlastPRO firmware to a later version and, if required, specify settings for configurable options go to Step 3.
- To generate a new version of a firmware file with modified settings for configurable firmware options, go to Step 4.

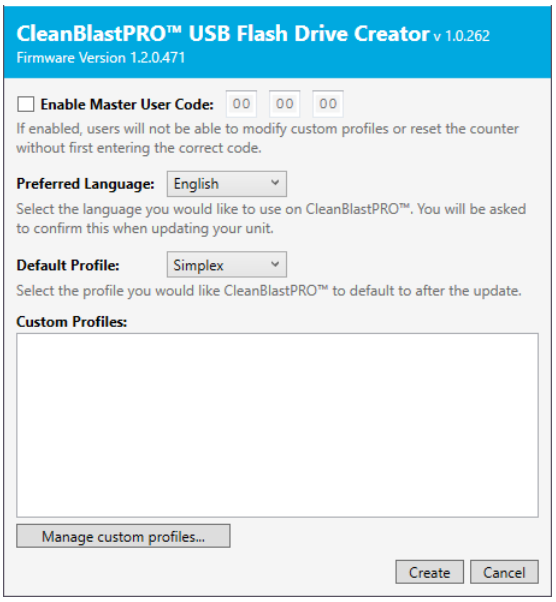
Step 3 In a web browser, go to http://cbpro.updatemyunit.net and download the executable file for the CleanBlastPRO USB Flash Drive Creator tool (CBProFirmware_*X.X.X.X*.exe).

Step 4 Navigate to the folder were the CleanBlastPRO USB Flash Drive Creator tool executable file is located, and then double-click the file to start the tool.



Note: If a USB flash drive is not already connected to the computer, you will be prompted to connect one.

Step 5 Select the flash drive you want to use from the **Select USB flash drive** drop-down list, and then click **Next** to access configurable options.



Step 6 Do one of the following:

- Proceed to Step 7 to modify any of the configurable firmware options.
- Proceed to Step 9 to use the default settings for each configurable option.

Step 7 Modify any of the following settings as required:

- Enable or disable the Master User Code feature by selecting or clearing the **Enable Master User Code** check box, respectively (see "Master User Code" on page D-4).

  If you select the **Enable Master User Code** check box, specify a six-digit code in the available fields.

Notes:
- If you select the **Enable Master User Code** check box, do not set `00 00 00` as the user code. Setting `00 00 00` as the code disables the feature even if the check box is selected.
- Clearing the **Enable Master User Code** check box clears specified code values.

- **Preferred Language:** Select the language for the CleanBlastPRO from the drop-down list.
- **Default Profile**: Select a profile from the drop-down list to set the default cleaning profile on the CleanBlastPRO.

Note: The Simplex and MPO profiles are available by default. If you want to select a custom profile that is not included in the **Default Profile** drop-down list, go to Step 8 to access the **Custom Profiles** dialog. Configure the profile if necessary, add it to the **On USB Flash Drive** list, and then return to this drop-down list to select it. See "Managing custom profiles in the firmware file" on page D-5 for more information.

Step 8 Optionally, select **Manage custom profiles** to access the **Custom Profiles** dialog.

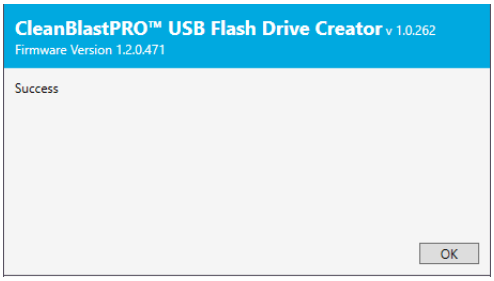
Configure custom profiles and/or specify the custom profiles to be added to or removed from the CleanBlastPRO during a firmware update (see "Managing custom profiles in the firmware file" on page D-5).

Click **OK** to close the **Custom Profiles** dialog.

Step 9 Click **Create**.

The CleanBlastPRO USB Flash Drive Creator tool generates the firmware file **`CBPRO.BIN`** and saves it to the folder **`Viavi`** on the USB flash drive.

Note: If a firmware file is already present in the folder, it is overwritten by the newly generated firmware file.



Step 10 Confirm that the firmware file is available in the **`Viavi`** folder on the flash drive.

— End —

Master User Code

The six-digit Master User Code enables you to control access to the **Edit Profile** menu for custom profiles, as well as the option to reset the Clean Prime Count on the CleanBlastPRO. For information, see "Configuring cleaning profiles on the CleanBlastPRO" on page 2-17 and "System Settings" on page A-7.

If the Master User Code is disabled, any operator can change custom-profile settings via the LCD screen or reset the Clean Prime Count on a device at any time.

If the Master User Code is enabled, the CleanBlastPRO will prompt for the code only one time—the first time an operator attempts to either edit a custom profile or reset the Clean Prime Count. After the correct code is entered, operators have unlimited access to these features while the CleanBlastPRO is powered on. After the device is restarted, an operator will have to re-enter the code when prompted.

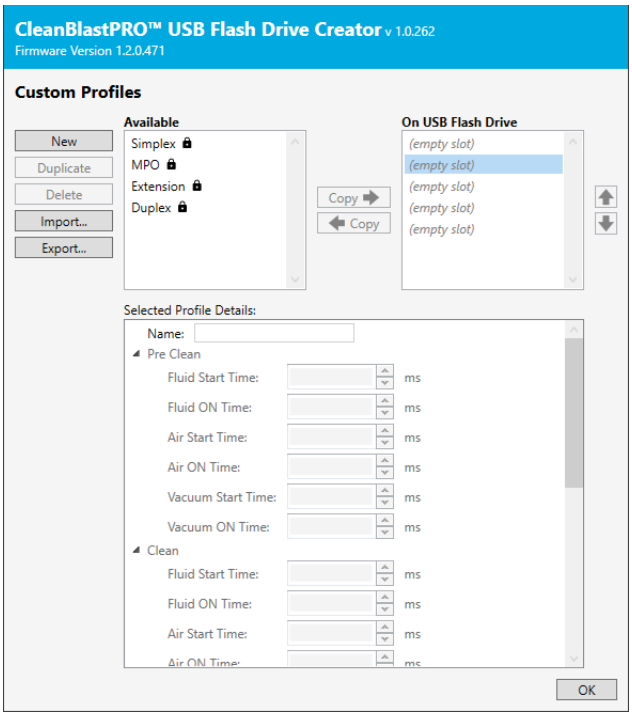
During a firmware update, you can choose to either import the Master User Code settings specified in the firmware file or ignore them. If you choose to import the Master User Code settings, those settings will overwrite current the current settings on the CleanBlastPRO. As a result, the code on the device might be changed or use of the Master User Code might be disabled, depending on the settings specified in the firmware file.

Note: VIAVI recommends generating a firmware file with new Master User Code settings and then performing a firmware update as a means of resetting a forgotten or lost Master User Code.

Managing custom profiles in the firmware file

When configuring the firmware file using the CleanBlastPRO USB Flash Drive Creator tool, use the **Custom Profiles** dialog to manage custom profiles if required (see Table D-1 on page D-6).

Figure D-1: Custom Profiles dialog



Available and On USB Flash Drive lists

The **Available** list in the **Custom Profiles** dialog lists custom profiles available in the CleanBlastPRO USB Flash Drive Creator tool, as well as preset profiles. When custom profiles are created using the **New** or **Duplicate** tool, or imported, they are automatically added to the **Available** list. Profiles copied from the **Available** list to the **On USB Flash Drive** list are included in the firmware file when it is generated.

The preset profiles (Simplex, MPO, Extension, and Duplex) are factory-set, read-only profiles that cannot be deleted from the **Available** list. Because the Simplex and MPO profiles are already available on the CleanBlastPRO, they cannot be added to the **On USB Flash Drive** list; however, you can use these profiles by duplicating them to create custom profiles that can be added to the list.

The **On USB Flash Drive** list has five *slots* available for custom profiles, which is the maximum number of custom profiles that CleanBlastPRO supports. These slots also correspond to the default presentation of custom profiles (CUSTOM1 to CUSTOM5) on the CleanBlastPRO (see “Select Profile and Edit Profile” on page A-4). When you add a profile to the **On USB Flash Drive** list, it is assigned to the first available slot in sequence. However, you can move any profile to any slot in the list.

When the custom profiles are applied to the CleanBlastPRO during a firmware update, each is applied in sequence according to its assigned slot in the **On USB Flash Drive** list. For example, if custom profiles are added to the **On USB Flash Drive** list at slot 1, slot 3, and slot 5, these profiles will overwrite CUSTOM1, CUSTOM3, and CUSTOM5 (or the custom profile in each corresponding position), respectively, on the CleanBlastPRO. The profiles CUSTOM2 and CUSTOM4 (or the custom profile in each corresponding position) are not affected.

Note: During a firmware update, operators are given the option to either apply the custom profiles included with the firmware file or ignore them.

Table D-1: Custom Profiles dialog - CleanBlastPRO USB Flash Drive Creator

To...	Description
Create a new profile	• Click **New**, and then specify the profile settings in the **Selected Profile Details** pane. • Enter a unique name for the profile or use the default provided by the tool.
Duplicate a profile	• Select a profile in the **Available** or **On USB Flash Drive** list, click **Duplicate**, and then modify settings as required in the **Selected Profile Details** pane. • Enter a unique name for the profile or use the default provided by the tool.
Import custom profiles	Click **Import**, and then navigate to and select the custom profile file. **Notes:** • Imported profiles are automatically added to the **Available** list. • When you select a profile file that contains multiple profiles, you will be given the option to choose which profiles to import.
Add a custom profile to the firmware file to be generated	Select a profile in the **Available** list, and then click the **Copy** tool pointing to the **On USB Flash Drive** list to add it to that list.
Remove a custom profile from the firmware file to be generated	Select a profile in the **On USB Flash Drive** list, and then click **Delete**. **Note:** You can delete a profile from any list. If you must retain a copy of the profile, copy the profile from one list to another before deleting it, or export it to a folder on the computer.
Export one or more profiles	• Ensure that each profile to be exported is included in the **Available** list, and then click **Export**. • In the **Select Profiles** dialog, select the check box for each profile to be exported, navigate to the folder where you want to save the exported profiles, and then click **Save**. **Note:** When multiple files are selected, they are saved to a single file.

Updating CleanBlastPRO firmware and configurable options

Use a firmware file generated with the CleanBlastPRO USB Flash Drive Creator tool and saved to a FAT-32 formatted USB-C flash drive to update the firmware and, if required, configurable options on a CleanBlastPRO. For information, see "Configuring and generating the firmware file" on page D-2.

Configurable options on a CleanBlastPRO can be changed at any time after a firmware update has been performed. Use the CleanBlastPRO USB Flash Drive Creator tool to generate a new version of the firmware file with modified option settings, and then reinstall the firmware and apply/import the options as required.

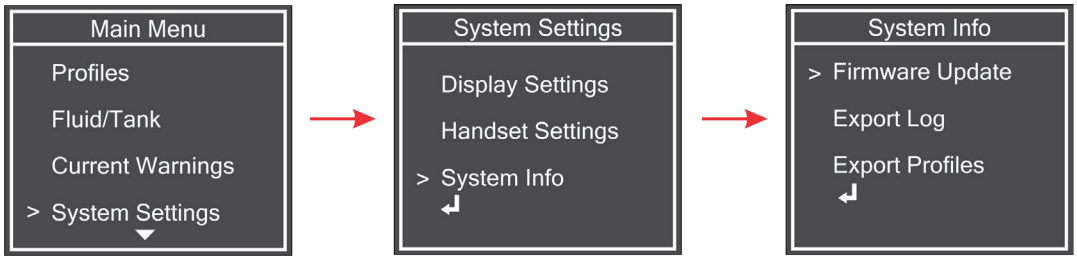
Note: Importing custom profiles during a firmware update will overwrite custom profiles available on the CleanBlastPRO (see "Managing custom profiles in the firmware file" on page D-5). VIAVI recommends exporting the custom profiles on the CleanBlastPRO to a flash drive before performing a firmware update (see "Exporting custom cleaning profiles" on page 4-11).

Step 1 Connect the FAT-32 formatted USB-C flash drive where the firmware file is saved to the USB-C port at the rear of the CleanBlastPRO (see Figure 2-2 on page 2-2).

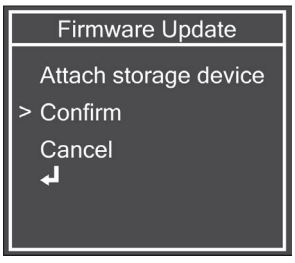
Step 2 Do one of the following:

- If the CleanBlastPRO is powered on, proceed to Step 3.
- Optionally, if the CleanBlastPRO is powered off, initiate the firmware update by powering on the device and immediately pressing and holding the dial on the front panel until the update initiates. Proceed to Step 5.

Step 3 On the LCD screen, click **System Settings** on the **Main Menu**, click **System Info**, and then click **Firmware Update**.



Step 4 On the **Firmware Update** menu, click **Confirm** to initiate the update.



The firmware update can take several seconds to initiate. While it initiates, the Busy LED on the CleanBlastPRO is on.

Step 5 Observe the LCD screen, and respond to the following prompts when they appear:

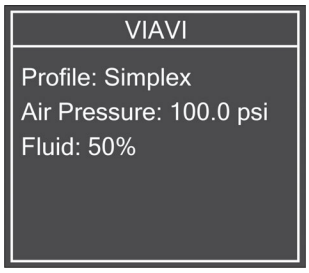
- **Select Language**
  Select the default language setting for the device, or scroll to and select the required language setting.
- **Import Profiles: Would you like to update custom profiles?**
  If custom profiles were added to when the firmware file was configured, select **Yes** to import the profiles and continue, or select **No** to ignore this option and continue.
- **Import Master User Code: Would you like to import the Master User Code?**
  If the Master User Code settings specified in the firmware are required, select **Yes** to import (overwrite) the settings and continue, or select **No** to ignore this option and continue.

The firmware update can take several minutes to complete. While the update is in progress, the Busy LED on the CleanBlastPRO is on and a progress bar appears on the LCD screen.

Important: Do not remove the USB stick from the port while the Busy LED is on.

When the update is successfully completed, the CleanBlastPRO automatically restarts (powers off and then powers on). Note the following:

- The BUSY LED turns off, and the Ready LED turns on.
- The firmware version number appears on the LCD screen, followed but the **VIAVI** menu. You can safely remove the USB stick from the device while the **VIAVI** menu is displayed.



Note: If the firmware update is not successful, the CleanBlastPRO will not automatically restart. Ensure that the flash drive is fully seated in the USB-C port on the device, and then perform Step 3 to Step 5 again. Contact VIAVI Customer Support if the update fails again.

— End —

Appendix E Document revision history

CleanBlastPRO User Guide, 22147176

Revision	Date	Details
109	July 2025	Updated the section “Replacing air filters”
108	May 2023	• Added China RoHS Certificate • Updated the section “FCLT Series cleaning tips”

107	November 2022	• Replaced “EU WEEE” with “Product Environmental Compliance”
		• Updated the following sections:
		  • “Ordering information”
		  • “Handset features and mounting”

106	March 2022	• Added the following sections:
		  • “Warning and error messages”
		  • “Exporting cleaning profiles”
		  • “Master User Code”
		  • “Managing custom profiles in the firmware file”
		  • “Example 4: Using Pre- and post-cycle for blow/vac, then clean (x2), then dry”
		• Updated the following sections:
		  • “Ordering information”
		  • “Performing an auto refill”
		  • “Configuring cleaning profiles on the CleanBlastPRO”
		  • “Connecting an FCLT Series cleaning tip to the handset”
		  • “Exporting the log file”
		  • “Replacing air filters”
		  • “Select Profile and Edit Profile”
		  • “Current Warnings”
		  • “System Settings”
		  • “Specifications”
		  • “Custom Profile Examples”
		  • “Configuring and generating the firmware file” (Moved to Appendix D)
		  • “Updating CleanBlastPRO firmware and configurable options” (Moved to Appendix D)

CleanBlastPRO User Guide, 22147176

Revision	Date	Details

105	November 2020	• Updated front matter content:
		  • Added patent information
		  • Replaced China RoHS materials declaration
		• Updated the following sections:
		  • “Ordering information”
		  • “Performing a manual refill”
		  • “Performing an auto refill”
		  • “Foot pedal operation”
		  • “Generating the firmware file”
		  • “Updating the firmware”
		  • “Exporting the log file”

104	October 2020	• Updated the following information:
		  • Admonitions regarding solvent use
		  • Specifications
		  • URLs to access this user guide and the CleanBlastPRO USB Flash Drive Creator
		• Added the section “Preparing the CleanBlastPRO for transportation/shipping”

103	August 2020	Assigned new document part number.
102	August 2020	Document formatting changes.
101	July 2020	Document formatting changes.
100	July 2020	This document is released.

CleanBlastPRO™ Benchtop Fiber End Face Cleaning System

User Guide

22147176 Rev 109, Standard
July 2025
English

VIAVI Solutions Inc.
7047 E Greenway Pkwy Suite 250
Scottsdale, AZ 85254
USA

North America: (Toll Free) 1-844-GO-VIAVI / 1-844-468-4284
All Other Regions: ww.viavisolutions.com/contacts