

ELGA

PURELAB flex 1 & 2 - US

Operator Manual

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1. INTRODUCTION

1.1 Health & Safety

Please ensure you have read the Health & Safety notes in Section 7 before commencing.

1.2 Product Range

This Operators Manual has been prepared for the following PURELAB flex product models:

- PURELAB flex (Optional Purification Pack)
- PURELAB flex (Purification Pack + UV + TOC)

1.3 Use of this Manual

This manual guides you through the basic operation of the PURELAB flex allowing you to obtain a guaranteed supply of purified water to meet your requirements.

1.4 Installation

The PURELAB flex is supplied with a Quick Start Guide and Quick Reference Guide.

The Quick Start Guide shows you how to install and commission the PURELAB flex.

The Quick Reference Guide shows you how to perform day to day functions in order to get the most from your PURELAB flex without having to refer to the Operators Manual.

1.5 Environment

The PURELAB flex unit should be installed on a flat, level surface, in a clean, dry environment. The unit can also be wall mounted against a vertical wall capable of supporting the weight for this we recommend the use of the wall mounting kit.

1.6 Commissioning

The PURELAB flex is supplied in a preset commissioning mode which has to be completed before purified water can be dispensed.

1.7 Customer Support

If you need help with your PURELAB flex, please call your local ELGA representative. For the address of the nearest ELGA LabWater Sales and Service office visit the country list on our website.

www.elgalabwater.com

Or contact ELGA LabWater at;

E-mail: techsupport@elgalabwater.com

E-mail: info@elgalabwater.com

2. YOUR GUIDE TO THE PURELAB FLEX



3. CONSUMABLES

Consumables			
Part No.	Description	Typical Service Life*	Max. Shelf Life
LC208	Purification Pack	12 months	5 years
LC210	UV Lamp	12-18 months	2 years
LC145	0.2µm Microfilter - Point-of-Use	90 Days	2 years
LC197	Biofilter – Point-of-Use	90 Days	2 years
LC209-M2	Sanitization cartridge	Single use	2 years

*Service Life is an estimate only, and will depend on the application and feed water quality. Please take care to ensure you order the correct consumable items.

4. CUSTOMIZED OPERATION

It's possible to customize your PURELAB flex by downloading additional features and changing your current settings.

To find out more, please visit www.purelabflex.com

5. MAINTENANCE

An approved supplier or distributor should carry out any maintenance work not included in this manual.

Note: Disposal of all end-of-life consumable items should be in accordance with local statutory regulations.

5.1 Replacing Ultraviolet lamp (LC210)

The Ultraviolet (UV) lamp should be replaced when;

- UV lamp failure occurs.
- UV lamp efficiency decreases affecting water purity.

If either occurs you'll be prompted to change the UV Lamp.



WARNING!

UV-C RADIATION IS HARMFUL TO THE EYES AND SKIN. UV LAMP SHOULD ONLY BE OPERATED IN THE CHAMBER.

IT IS STRONGLY RECOMMENDED THAT DURING THE HANDLING OF THE UV LAMP CUT-RESISTANT GLOVES ARE WORN.



WARNING!

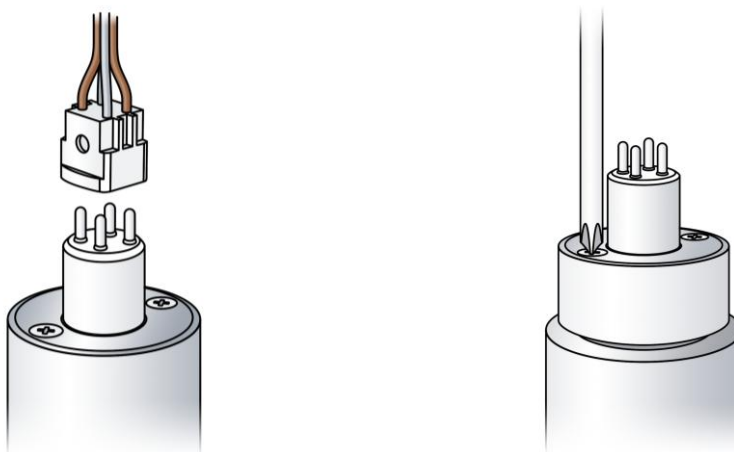
MERCURY HAZARD, DO NOT BREAK. THE UV LAMP CONTAINS A SMALL AMOUNT OF MERCURY. MAY CAUSE REDNESS OR IRRITATION AS A RESULT OF CONTACT WITH SKIN AND/OR EYES.

Step 1 – Switch Unit Off

- ISOLATE the electrical supply where the PURELAB flex power cable is connected to the mains electrical supply.
- TURN OFF the water supply.
- OPEN the left hand access door.

Step 2 – Remove UV Lamp from PURELAB flex.

- DISCONNECT the lamp connector fitted to the top of the UV lamp.
- LOOSEN the 2 securing screws at the top of the UV housing.



- LIFT and Remove the UV lamp from the UV housing.
- DISCARD the used UV lamp in accordance with local regulations.

**CAUTION!**

Hold on to the UV lamp carefully to ensure it doesn't break.

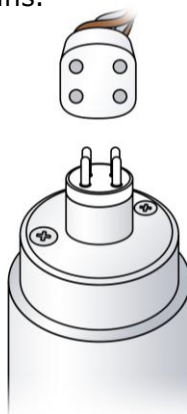
Step 3 - Replace the UV lamp

- UNPACK new UV lamp.

**CAUTION!**

Take care not to touch the surface of the glass. Ideally wear gloves, handle with soft cloth and wipe the surface with alcohol before fitting into the housing.

- SLIDE the new UV lamp into the UV housing.
- CONNECT the lamp connector to the end of the UV making sure the connector is correctly aligned with the pins.



- TIGHTEN the 2 securing screws at the top of the UV housing.
- CLOSE the left hand access door.

Step 4 – Turn Unit On

- TURN ON the water supply.
- SWITCH ON the mains electrical supply.

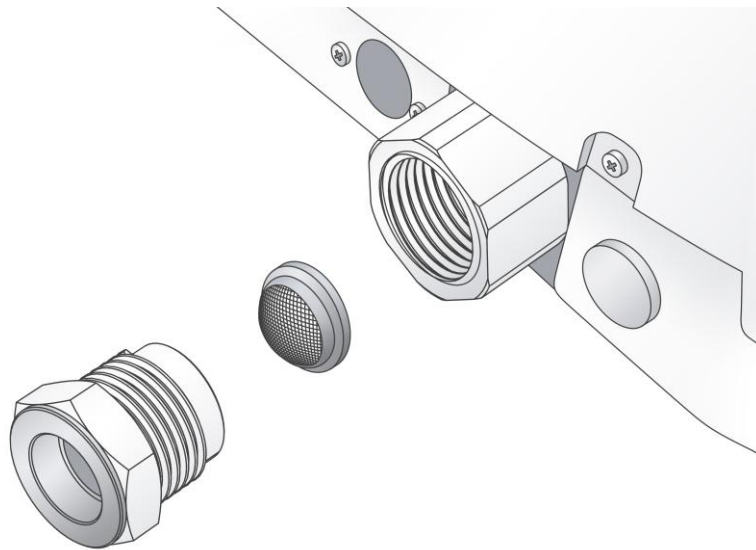
5.2 Cleaning the Inlet Filter Assembly

The PURELAB flex is fitted with an inlet filter to protect it from particles in the feed water supply which could affect performance.

It's recommended that you periodically clean the inlet filter to ensure that it doesn't become blocked.

Step 1 – Isolate the Electrical Supply

- ISOLATE the electrical supply where the PURELAB flex power cable is connected to the mains electrical supply.
- TURN OFF the water supply.
- LOCATE the inlet filter assembly at the rear of the PURELAB flex.



Step 2 – Dismantle the Inlet Filter.

- UNSCREW the inlet filter.
- REMOVE the mesh filter
- CHECK mesh filter for signs of damage; replace or clean as necessary.

Step 3 – Reassemble the Inlet Filter

- INSERT the mesh filter into its original position ensuring that it is facing the correct direction (see diagram).
- RE-ASSEMBLE the Inlet Filter Assembly.

Step 4 – Turn Unit On

- TURN ON the water supply
- SWITCH ON the electrical supply.

5.3 Replacing Point-of-Use Filters

Details of how to install point-of-use filters are supplied with each filter.

6. SELF HELP GUIDELINES

This section covers some of the issues that could occur with your PURELAB flex, and provides the troubleshooting steps to help you to resolve an issue yourself.

When troubleshooting doesn't resolve your issue, please call your local ELGA LabWater representative (*See Section 8 - Useful Contact Details*).



WARNING!

ALWAYS ENSURE THAT THE ELECTRICAL POWER SUPPLY IS ISOLATED BEFORE WORKING INSIDE THE PURELAB flex.

PROBLEM	RECOMMENDED ACTION
The display is not working	Confirm the dispense button is illuminated Press any button to wake the unit from sleep mode. Check mains supply and lead. Check that the mains power is switched on. Check the fuse in the power supply and replace if blown.
Unable to enter the configuration menu	Press Auto Volume Dispense button to exit Auto Volume dispensing.
Purification Pack change reminder	Reset Purification Pack change reminder. Replace Purification Pack – See Quick Reference Guide.
Sanitization reminder	Reset Sanitization reminder. Contact local distributor or technical support for further information.
High Temperature Water Alarm	Check the correct alarm point is set. Check feed water temperature has not risen suddenly. Dispense some water to allow cold water to be drawn into the system.
Reduced Dispense Water flow rate	Check inlet water strainer is not blocked. Replace POU filter if fitted. Call Customer Services.
Feed Water Purity Alarm	Check the correct alarm point is set. Check feed water purity is within acceptable limits.
Dispense Water Purity Alarm	Check the correct alarm point is set. Change Purification Pack.

7. HEALTH AND SAFETY NOTES



WARNING!

WARNINGS ARE GIVEN WHERE FAILING TO OBSERVE THE INSTRUCTIONS COULD RESULT IN INJURY OR FATALITY.



CAUTION!

Cautions are given where failure to observe the instructions could result in damage to the equipment, associated equipment and processes.

7.1 Environment

**Clean dry indoor. Temp 5-40°C.
Humidity max 80% non-condensing.**



CAUTION!

Failure to follow the environmental specification could result in damage to the system.

The PURELAB flex is not designed for use in fume cupboards where chemicals could damage the system.

7.2 Display Handset



CAUTION!

The display handset is not designed to be submersed in water.

7.3 Electricity

The appliance coupler (mains lead) or power supply connected to the rear of the unit can be removed to isolate the power supply. If access to this is restricted then it is recommended that access to the supply socket is easily available to disconnect the electrical supply.



WARNING!

**ONLY USE THE APPLIANCE COUPLER (MAINS LEAD) AND POWER SUPPLY PROVIDED.
THE USE OF THESE WILL ENSURE ADEQUATE EARTH PROTECTION IS PROVIDED.**

IF THE EQUIPMENT IS USED IN A MANNER NOT SPECIFIED BY ELGA, THE PROTECTION PROVIDED BY THE EQUIPMENT MAY BE IMPAIRED

POSITION THE POWER SUPPLY SO THAT IT CANNOT COME INTO CONTACT WITH WATER.

7.4 Ultraviolet Light



WARNING!

UNDER NO CIRCUMSTANCES SHOULD THE LAMP BE CONNECTED AND ACTIVATED WHEN OUTSIDE THE HOUSING. EXPOSURE COULD CAUSE SERIOUS INJURY TO EYES AND SKIN.

ENSURE THE UV LAMP IS DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.

7.5 Residual Biostat



WARNING!

**DURING THE COMMISSIONING CYCLE TRACE
RESIDUAL BIOSTAT IS FLUSHED FROM THE
SYSTEM. A MATERIAL SAFETY DATA SHEET IS
AVAILABLE UPON REQUEST.**

7.6 Control of Substances Hazardous to Health (COSHH)

Material safety data sheets covering the various replaceable Purification Packs are available upon request.

8. TECHNICAL SPECIFICATIONS

FEEDWATER			
Model	PURELAB flex	PURELAB flex (with Purification Pack)	PURELAB flex (with UV, Purification Pack and TOC)
SOURCE	Originally from potable supply, then pre treated. Preferably reverse osmosis (RO) or filtered service deionization (SDI) or distilled. Note:- Mixed bed or twin bed deionized supplies should be cation limited at exhaustion.		
Conductivity ¹	< 1µS/cm		
Contaminant			
Free Chlorine	< 0.05 ppm		
Carbon Dioxide	<0.1 ppm		
Silica	< 2 ppm		
Fouling Index	1		
Particulates	A 0.2 micron membrane pre filter is recommended for all non-RO feeds to extend point-of-use filter life.		
Iron/Manganese	< 0.1 ppm Fe/Mn		
Organics (TOC)	N/A	N/A	<20 ppb
TEMPERATURE	4 - 40°C (Recommended 15 - 25°C)		
FLOWRATE (maximum requirement at 15°C)	>2 l/min		
Drain Requirements (gravity fall with air gap)	None required		

¹If feed water is in the range of 1µS/cm- 30µS/cm you will need a pre-conditioning cartridge.

FEEDWATER PRESSURE	
Maximum pressure	22psi (1.5bar)
Minimum pressure	Flooded suction

DIMENSIONS and WEIGHTS			
Dimensions	Width 236mm, Depth 374mm, Height minimum 900mm, Height maximum 1020mm.		
Model	PURELAB flex	PURELAB flex (with Purification Pack)	PURELAB flex (with UV, Purification Pack and TOC)
Operational weight	10kg (22lb)	10.5 kg (23.1lb)	11kg (24.2lb)
Installation	Bench / Wall		

CONNECTIONS	
Inlet	8 mm (5/16) OD tube

ELECTRICAL REQUIREMENTS	
Mains input	100-240V ac, 50-60 Hz
System control voltage (not including pumps and UV)	24 V dc
Power consumption (peak demand)	120 VA

PRODUCT WATER SPECIFICATION			
Model	PURELAB flex	PURELAB flex (with Purification Pack)	PURELAB flex (with UV, Purification Pack and TOC)
Delivery flow rate - maximum	Up to 2l/min	Up to 2l/min	Up to 2l/min
Inorganics (Resistivity @25°C)	As per feedwater	18.2MΩ-cm	18.2MΩ-cm
Organics (TOC) – typically	Dependant on feedwater	Dependant on feedwater	<5ppb ²
Bacteria – Typical (when fitted with POU filter)	<1 CFU/ml	<1 CFU/ml	<1 CFU/ml
Bacteria – Typical (when fitted with Biofilter)	<1 CFU/10ml	<1 CFU/10ml	<1 CFU/10ml
Endotoxin (when fitted with Biofilter)	N/A	<0.001 EU/ml	<0.001 EU/ml
DNase (when fitted with Biofilter)	N/A	N/A	<20 pg/ml
RNase (when fitted with Biofilter)	N/A	N/A	0.002 ng/ml

The PURELAB flex can be upgraded to PURELAB flex with Purification pack, but cannot be upgraded to PURELAB flex with UV, Purification Pack and TOC.

The PURELAB flex with Purification Pack cannot be upgraded to PURELAB flex with UV, Purification Pack and TOC.

²Dependent on feedwater.

As part of our policy of continual improvement we reserve the right to alter the specifications given in this document.

9. USEFUL CONTACT DETAILS

ELGA LabWater

Lane End Industrial Park

High Wycombe

Bucks HP14 3BY

UK

Tel: +44 (0) 203 567 7300

Fax: +44 (0) 203 567 7205

E-mail: info@elgalabwater.com

For the address of the nearest ELGA LabWater Sales and Service office visit the country list on our website.

<http://www.elgalabwater.com>

Or contact ELGA LabWater at the number above.

10. WARRANTY / CONDITIONS OF SALE

ELGA LabWater is a trading name of VWS (UK) Ltd.

General Limited Warranty

VWS (UK) Ltd. warrants the products manufactured by it against defects in materials and workmanship when used in accordance with applicable instructions for a period of one year from the date of shipment for the products. VWS (UK) Ltd. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The warranty provided herein and the data, specifications and descriptions of the VWS (UK) Ltd. products appearing in VWS (UK) Ltd. published catalogues and product literature may not be altered except by express written agreement signed by an officer of VWS (UK) Ltd. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorized and, if given, should not be relied upon.

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VWS (UK) Ltd. Warranty

VWS (UK) Ltd. warrants the water systems manufactured by it, BUT EXCLUDING MEMBRANES AND PURIFICATION PACKS, against defects in materials and workmanship when used in accordance with the applicable instructions and within the operating conditions specified for the systems for a period of one year from the earlier of:

the date of installation, or

the 120th day following the date of shipment.

VWS (UK) LTD. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The warranty provided herein and the data, specifications and descriptions of the VWS (UK) Ltd. systems appearing in VWS (UK) Ltd. published catalogues and product literature may not be altered except by express written agreement signed by an officer VWS (UK) Ltd. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorised and, if given, should not be relied upon.

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