



# Duo & Compact Filtration Systems Manual



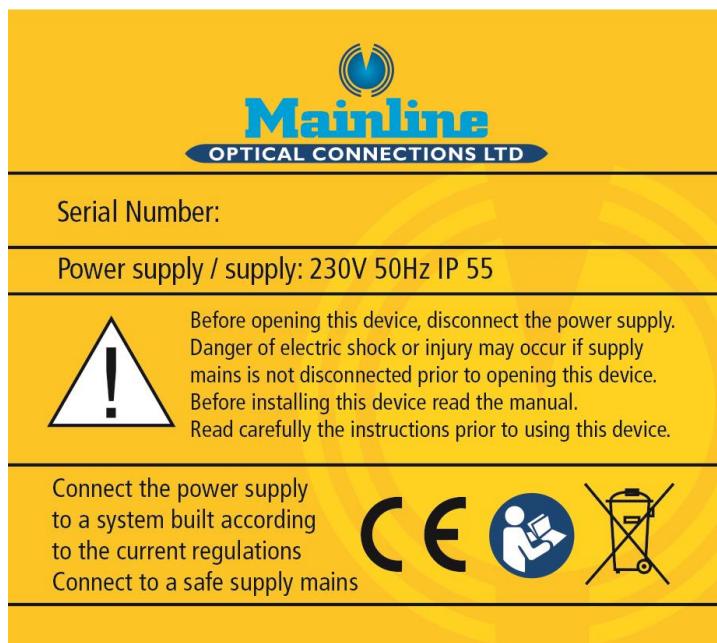
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## **TECHNICAL SPECIFICATIONS**

### Identification of machine



- Power supply: 230-240 volts
- Frequency 50Hz
- Fuse: 3amp

**COSHH sheet for the water conditioner is provided on page 20 of this manual.**

COSHH sheet is based on the ingredients in neat form and when is provided to you in the bottles is diluted to 1 part to 20. This is then further diluted when added to the water in the tank to 1 part to 1400.

## **SAFETY AND ACCIDENTAL INFORMATION**

The use of the system is limited to the filtration of water deriving from processing ophthalmic lenses.

Before starting the production cycle, the OPERATOR must be perfectly aware of the position and operation of all controls, safety devices and characteristics, and have fully read the manual.

Follow the daily filtration checklist provided with this manual. Complete all daily checks and replace socks and central chamber bag when necessary as shown on the checklist and as explained in this manual.

**Safety Notice –** Wear safety glasses when removing the socks from the unit. When using the wrench make sure you wear the gloves provided. Replacements or extra pairs are available from Mainline Optical Connections.

Maintenance is to be completed by trained personnel only and the system must be unplugged from the electrical system.

Dimensions/weight:

Compact 60x40xh62	12kg empty
Duo 80x62xh62	16kg empty

## **Kit Contents**

Filter top  
Central filter  
Blue collars  
Inner rings  
Filter socks (4 for Duo/ 2 for Compact)  
Main filter pump  
Wrench  
Gloves (2 pairs)  
Conditioner ( 1ltr bottle)  
Cleaning kit (not pictured)





The effluent from the edger will be delivered to the central filter. The central filter contains a heavy-duty pump operated by a ballcock float which will force the effluent through the filter socks attached via the blue collars.

### **Daily Use**

**Safety Notice – Wear safety glasses when removing the socks from the unit. When using the wrench make sure you wear the gloves provided. Replacements or extra pairs are available from Mainline Optical Connections.**

Please check that the unit operates correctly before proceeding with any jobs and unit should be observed periodically throughout the day to ensure the unit is performing correctly

1. Check that the unit is plugged in/switched on at the wall
2. Check water condition and that the water level is above the minimum line, top up if necessary (water level may drop below the minimum line during operation. This is normal and only needs topping up if it is below the minimum line before the first use of the day)
3. Pump is operating when water level rises in central filter
4. Empty solids from filter socks daily
5. No leaks between blue collar and main unit (tighten with provided wrench if necessary following correct safety advice)
6. Ensure no overflow from central filter
7. Fill in daily filtration checklist provided with this manual(see back of manual)

## User Tasks

**Before undertaking any of the following task, please make sure that the filtration unit is switched off and you are wearing the appropriate safety equipment – Safety glasses and gloves**

### Emptying the Filter Socks

1. Switch off the filtration unit
2. Unscrew the blue filter collar from the main filtration unit (you may need the wrench provided to loosen)
3. Empty excess water into the central filter
4. The solids should be at the bottom of the sock and can be emptied into your solid waste bin.**DO NOT EMPTY SOLID WASTE OR SLUDGE INTO THE CENTRAL CHAMBER**
5. Check the fit of the sock and inner ring in the collar and adjust if necessary. (you occasionally may need to clean the inner ring of lens waste)
6. Reattach blue collar to the main filter using the wrench to ensure that the pod is tight
7. Check operation to ensure no leaks between the top and bottom halves of the blue collar and main unit

**Safety Notice – Wear safety glasses when removing the socks from the unit. When using the wrench make sure you wear the gloves provided. Replacements or extra pairs are available from Mainline Optical Connections.**



If this task is not done on a daily basis the socks will continue to fill and the emptying will become difficult, possibly leading to the socks being damaged and affecting the performance of the filtration unit.

## Changing the Socks

**Every 5000-6000 lenses for the Duo unit and 2000-3000 lenses for the compact unit (or as required due to differing water quality or lens materials) the filter socks require changing**

**Safety Notice – Wear safety glasses when removing the socks from the unit. When using the wrench make sure you wear the gloves provided. Replacements or extra pairs are available from Mainline Optical Connections.**

1. Remove the sock and blue collar from the main filtration unit as when emptying (refer to page 7)
2. Push the sock and retaining ring upwards to release them from the blue collar
3. Keep hold of the retaining ring from within the sock and dispose of the sock
4. Insert ring into new sock rotating so that it braces the opening **below the seams**
5. Fold the seams over and inwards to wrap over the retaining ring (see pics on page 9) make sure the seam ends up on the inside of the aperture
6. Insert bottom of sock into the blue collar and pull through
7. Make sure retaining ring sits snug inside the blue collar (this may require some firm tugs on the sock to ensure it sits flush)
8. Reattach blue collar to main filter unit and tighten(refer to page 7)
9. Add 1litre of conditioner to the water
10. Check operation of unit, plug in and run the water through so that the pump kicks in and ensure there are no leaks between the top half and bottom half of the blue collar
- 11. Half way through the life of the socks (approx 3000 lenses for the Duo) add the second 1 litre bottle of conditioner you received with the socks**



**Always change the full set of socks at the same time**

For additional support please follow the video on our support site at  
<https://www.eco.ml-oc.com>

Or call Mainline Optical Connections 01377 257752

## Changing the Central Filter

1. Empty the tank with the cleaning kit provided. See tank emptying procedure below.
2. After the water has been emptied via cleaning kit frame use this as new central filter.
3. Swap the central filter unit over by lifting the top part with the blue collars attached and the pump assembly out of the old filter.
4. Refill tank with fresh water up to the maximum line (making sure all pumps and parts are back in the tank)
5. Add 1 litre of conditioner
6. Remove old filter bag from original central filter and replace with new bag which can be supplied from Mainline Optical Connections. This then becomes your new cleaning kit chamber.

## Changing the Central Chamber Bag

Remove the old bag from the chamber – this may need to be cut off if you have an original chamber from Mainline Optical Connections (see photo below). If your central chamber has been replaced before then you will just need to pull the folded flap up and over at the top of the chamber, breaking the bond of adhesive. You can then slide the bag down the chamber and remove.

Cutting away the bag



Pulling folded flap up and over



Clean up the central chamber framework and lay the new bag, seam down on a flat surface.



Holding the chamber lengthways down and slide the bottom of the chamber into the new bag.



Put the top of the central chamber onto a flat surface and pull the bag down the length of the chamber.



Lift the chamber up and pull the rest of the bag onto the chamber as far as it will go.



With the chamber bottom side up, tuck the 2 triangular corners left of the bag up inside the bag.



Fold the top of the bag over inside the chamber.



Run a bead of adhesive (provided with new bag) round the 4 edges that are folded over to hold them in place



Your new bag is fitted and ready to go.

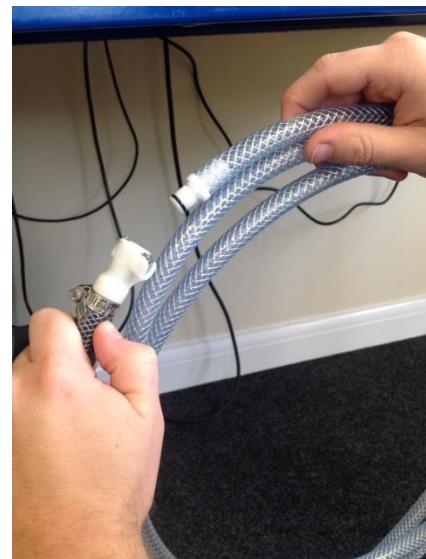


## **Duo/Compact Tank Emptying Procedure**

1. Connect cleaning kit pipe to one of the pumps within the tank. To do this, disconnect the pump from the edger at the white connector and insert the connector from the cleaning kit pipe.



Disconnect pump from edger pipe



Connect cleaning pipe to pump

2. Place the cleaning kit chamber inside the small grey tank provided and place this over your sink (making sure that the hole drilled into the grey tank is over the sink)



3. Place the other end of the cleaning kit pipe into the chamber over the sink and switch on pump. During this process you may need to reduce the flow of water by adjusting the tap on the pipework to regulate the water flow – this will drain the majority of the water out of the tank – you may need to remove the tank from under the bench to drain the remaining water.



Tap may look different to the one pictured

4. Clean out any residue left in tank, adding water to help if necessary.
5. Remove the filter head from the old central chamber and place onto the cleaning kit chamber. This now becomes your central filtration chamber.
6. Place your new chamber into your Duo/Compact tank and refill with water to max level and add in the conditioner.
7. Remove bag from old central chamber and replace with new bag ordered from Mainline Optical Connections – this chamber then becomes your cleaning kit chamber ready for your next tank empty.

## **Spare Parts and Consumables**

It is obligatory for the customer to buy original spare parts, the disassembly and assembly operations must be carried out according to the manufacturer's instructions by authorised personnel.

### **Part Name and Numbers for Replacement Parts**

<u>Part Name</u>	<u>Part Number</u>
1. Duo/Compact Filter Bag (socks)	GFFR
2. Mainline Duo/Compact central filter	GDF01
3. Duo/Compact Outer Collar (blue)	GDCOL
4. Duo/Compact inner ring for filter collar	GDIR
5. Wrench for Duo/Compact	GDWR
6. Tank emptying kit	DUO/CK
7. Gloves – please specify size	CRG
8. 1 litre water conditioner	DUO/CTR



## Trouble Shooting

Fault	Possible Cause	Solution
Water overflowing from central filter	Main pump not running  Ballcock float stuck in down position  Filtration socks full	Check unit is plugged in and switched on  Inside where edger waste pipe feeds into the Duo, you will find a ballcock float attached to the main pump. If comfortable switch off unit and free the ballcock float from possible obstructions and check can move freely  If main pump is constantly running filtration sock may be full. Empty or change socks as per page 7 & 8 of the instruction manual
Main pump running constantly	Ballcock float stuck in up position  Check water is flowing through socks	Check ballcock float is free from obstruction and can move freely  Empty or change socks as per page 7 & 8 of the instruction manual
Water leaking between blue collars and socks	Blue sock collar not tight enough  Socks not fitted correctly to collar	Tighten blue collar with wrench provided  Remove and refit socks to collar as per page 8 of the instruction manual
The main pump is running for longer when emptying central chamber	Exhausted filter socks  Worn impeller	Change filter socks  Phone Mainline Optical Connections

Store name:

Store No.:

Day  Month   
Week Commencing  /

Sock change due:

Central bag change due:

## Daily Checks

Empty excess waste water into central filter unit and the solid debris into appropriate waste bin, checking socks throughout the day that they are water tight. Please wear Safety glasses and the gloves provided when using the wrench.

### TO BE COMPLETED AND SIGNED BY TEAM MEMBER

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
1 FILTRATION SOCKS EMPTIED AND CONDITION OF SOCKS CHECKED							
2 FILTRATION SOCKS COLLAR TIGHTENED CORRECTLY AND TESTED FOR ANY LEAKS							
3 MAIN TANK WATER CHECKED AND FILLED TO CORRECT LEVEL							
4 CHECK WATER FLOW IN EDGING CHAMBER							
	Mon						
5 WATER TEMP MID PRODUCTION READING		6	ROOM TEMP MID PRODUCTION READING				Mon

## Filtration Sock replacement and Conditioner Replenishment

We recommend that the socks are changed at around 6000 lenses (this may differ due to water quality and lens material) and that conditioner is added at every sock change and also at the half way point of the socks life (3000 lenses). Please wear safety glasses and the gloves provided when using the wrench.

- 1 To replace the filtration socks and replenish conditioner supplied by Mainline Optical please follow the instructions given on the day of installation or revert to the user manual.
- 2 Check the condition of all the collars and 'o' rings to make sure there is no damage
- 3 Refer back to step 2 in daily checks
- 4 Add in 1 litre of conditioner to tank when replacing socks

## Central chamber bag replacement

We recommend that the central chamber bag is replaced every 6 months or when required.

We also recommend at this point that you empty and clean out your tank using the cleaning kit provided. See Manual.

- 1 Order a replacement bag from Mainline Optical
- 2 Add in 1 litre of conditioner when refilling tank with fresh water

REPLACEMENT CENTRAL CHAMBER BAG CODE: GDF01 • REPLACEMENT SOCK CODE: DUO/CH

## Weekly checks complete

Name:

Signature:

Unit 40, Kelleythorpe Industrial Estate, Driffield, East Yorkshire. YO25 9DJ  
Tel: 01377 257752 • Info@mainline-opticalconnections.co.uk • www.ml-oc.com

## **Section 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Product name:** DUO WATER CONDITIONER

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

### **1.3. Details of the supplier of the safety data sheet**

**Company name:** Mainline Optical Connections Ltd

The Industrial Estate

Kelleythorpe

Driffield

East Yorkshire

YO25 9DJ

**Tel:** 01377 257752

**Free Fax:** 0800 731 2024

**Fax:** 01377 256702

**Email:** sales@ml-oc.com

### **1.4. Emergency telephone number**

**Emergency tel:** 01377 257752

## **Section 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

**Classification under CLP:** This product has no classification under CLP.

### **2.2. Label elements**

**Label elements:**

**Precautionary statements:** P102: Keep out of reach of children.

P103: Read label before use.

### **2.3. Other hazards**

**PBT:** This product is not identified as a PBT/vPvB substance.

## **Section 3: Composition/information on ingredients**

### **3.2. Mixtures**

## **Section 4: First aid measures**

### **4.1. Description of first aid measures**

**Skin contact:** Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes.

[cont...]

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### DUO WATER CONDITIONER

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**Ingestion:** Wash out mouth with water.

**Inhalation:** Remove to fresh air

#### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** No symptoms.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

#### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Not applicable.

### Section 5: Fire-fighting measures

#### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

#### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

#### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### Section 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

#### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

#### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

#### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

### Section 7: Handling and storage

#### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance.

[cont...]

## SAFETY DATA SHEET

### DUO WATER CONDITIONER

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#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

#### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

### Section 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Workplace exposure limits:** No data available.

#### DNEL/PNEC Values

**DNEL / PNEC** No data available.

#### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection not required.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

### Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Colourless

**Odour:** Barely perceptible odour

**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Soluble

**Viscosity:** Non-viscous

**Flash point°C:** none

**Relative density:** 1.00

**pH:** 8

#### 9.2. Other information

**Other information:** No data available.

### Section 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

#### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

[cont...]

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### DUO WATER CONDITIONER

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#### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

#### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

#### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

#### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

### Section 11: Toxicological information

#### 11.1. Information on toxicological effects

**Toxicity values:** No data available.

#### 11.2. Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat.

**Inhalation:** No symptoms.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### Section 12: Ecological information

#### 12.1. Toxicity

**Ecotoxicity values:** No data available.

#### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

#### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

#### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

#### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

[cont...]

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**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**Transport class:** This product does not require a classification for transport.

**Section 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Specific regulations:** Not applicable.

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information**

**Other information**

**Other information:** The phrases below refer to the raw materials used in the formulation, not the finished product.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.



**Mainline**  
OPTICAL CONNECTIONS LTD

[final page]

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