

# User manual



Reseller / installer stamp

Congratulations, you are the owner of an ECOSTREAM bactericidal from ALFAA UV France  
a top performer sterilizer of the market's.

This device is suitable to treat drinking water against bacteriological contamination of water  
sources, wells and boreholes, as well as the treatment of the waters of rivers and rain.

To guarantee a perfect result, you must follow the installation and maintenance directions  
given to you in this manual.

If in doubt, even minor, feel free to get in touch with your dealer.

## SUMMARY

Packing list .....	3
Warning .....	3
Safety instructions .....	4
Potential hazard.....	5
Equipment specification .....	6
Appliance identification.....	7
Exploded view of the reactor.....	8
Spare part identification .....	9
Installation .....	10
Hydraulic assembly .....	11
Overall dimension .....	12
Schematic diagram of an installation .....	14
French Regulation .....	14
General Electrical Connections .....	15
Wallmountin .....	16
Installation & replacement of the lamp.....	18
Remove the quartz sheath.....	19
Electronic box Ecostream UV 1 .....	20
Electronic box Ecostream UV 2 / 4 / 6 .....	21
Electronic box Ecostream UV Plus 2 / 4 / 6.....	22
Electronic box Ecostream UV 13.....	23
Livree en option : Cellule UVc metre 700 .....	25
Service.....	29
Service sheet.....	30
Malfunction .....	31
Warranty.....	34
Certificate of compliance.....	36
Internal calibration certificate uvc probe* .....	38
Notes.....	39

Document reviewed February 2017

## PACKING LIST

### Version Ecostream UV

- 1 stainless-steel room (bioreactor)
  - 1 quartz sheath, 1 tube gland, 1 O-ring EPDM, 1 nut, all mounted on the bioreactor
  - 1 electronic box with a power cord,
  - 1 germicidal lamp
  - 1 wall bracket (for Ecostream UV 1 and 2 only)
  - 2 clamps for wall mounting (for other models)
  - 1 spring and 3 screws,
- These Assembly and maintenance instructions.

### Version Ecostream UV PLUS et/ou Skid Ecostream UV PLUS

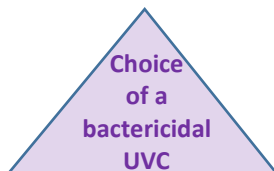
The same material as Ecostream UV or UV Ecostream Skid with:

- the standard electronic package is replaced by a specific box Ecostream UV Plus
- 1 UVc probe meter and its internal calibration certificate included in this leaflet.

## WARNING

### **READ CAREFULLY BEFORE INSTALLATION OR MAINTENANCE OF A UNIT**

This bactericidal suits to treat contaminated water against bacteria and virus from water source, wells, boreholes, rain, rivers for collective, industrial and residential applications. **To ensure that the selected appliance meets your expectations, it is essential to realize beforehand a technical study:** Is to determine the right type of process which must be used to treat the water.



Optical density

Flow

It is important to regularly achieve a bacteriological analysis regularly in order to control the evolution of bacteriological and viral of water pollution.

**In this manual symbols announce a warning and/or a potential danger, take in consideration.**

The safety instructions detailed in this manual are not exhaustive. They remind the most common risks encountered during the use & maintenance of the hydraulic and electrical equipment.

In order to avoid risk of injury or accidents, install the equipment out of reach of children.

Do not modify or repair the product. Any changes may be dangerous and / or damage the equipment and voids the warranty.

Place the product on a stable and steady support, mass increases when the unit is being charged with water.

The lamp and the quartz sheath are sensitive pieces those must be handled with care. Risk of cuts. Unsecured parts.

**NON COMPLIANCE WITH THESE INSTRUCTIONS MAY CAUSE DAMAGE TO THE UNIT OR ON PEOPLE SERIOUS INJURY.**

**ONLY A QUALIFIED TECHNICIAN <sup>(1)</sup> CAN INTERVNE ON THE INSTALLATION**

(1) a qualified technician is a person who has been trained by a staff from the society ALFAA . Being a craftsman does not qualify for this type of installation.

## SAFETY INSTRUCTIONS

To prevent against injury, basic safety precautions should be taken, including the following:

1. Read and follow all safety instructions.

2 Danger - To avoid electric shock, special care should be taken since water is present near electrical equipment. Unless a situation meets that is explicitly addressed by the maintenance and troubleshooting sections provided, do not try to repair it yourself. Instead, please contact the technical support service.

3 Carefully examine the water sterilizer after installation. It should not be plugged in if there is water on parts not intended to be wet.

4. Do not operate the water sterilizer if there is a cord or a plug damaged, if it does not work properly or if it is faulty or damaged in any way.
5. Always stop the water supply and disconnect electrically the UV system before performing cleaning or maintenance activities.
6. Do not use this UV system for any purpose other than disinfection of water. The use of accessories not approved, recommended or sold by the manufacturer / distributor may create a dangerous situation.
7. Designed for use indoors only. Do not install this UV system where it will be exposed to the weather or to temperatures below freezing point. Do not store the system where it will be exposed to the weather. Do not store the system where it will be exposed to temperatures below freezing point, unless all the water has been drained and the water supply has been disconnected.
8. If an extension cord is necessary, a cord with an appropriate power rating shall be used. The use of a power cord with a lower power rating than the UV system may damage the appliance and create overheating. Care must be taken to arrange the cord so it will not be stumbled or teared.
- 9 **Caution and common sense must accompany any installation, use and maintenance of this device.**

## POTENTIAL HAZARD

Risk of  
electromagnetic  
waves



Risk of cutting



Electrical shock



High temperature



Harmful



High pressure



Hazardous waste



Unplug electrical  
appliance



Warningt



## EQUIPMENT SPECIFICATION

Model	ECS 1	ECS 2	ECS 4	ECS 6	ECS 13
Reactor					
Max flow at 95 % *: 25mj/cm² 40mj/cm²	2.7m³/h 1m³/h	4m³/h 2m³/h	6m³/h 4m³/h	9m³/h 6m³/h	18.5m³/h 13.5m³/h
Max allowable pressure Pressure test	6 bars / 12 bars				
Male threaded fitting Inlet/Outlet	¾” BSP	1” BSP	1” BSP	1”1/2 BSP	2” BSP
Material	Stainless steel 304S	Stainless steel 316L			
Overall dimension (mm)	713x75	600x89	834x89	1033x89	1150x102
Volume (L)	2.26	2.75	4.16	5.38	8.33
Electronic case					
Supply voltage	220V / 50Hz	220V 240V / 50Hz 60Hz			
Power switch	Oui (permutation)	Oui (pressure)			
Enclosure dimension of electrical box (mm)	165x62x210	250x75x60	250x75x60	250x75x60	250x100x100
Fuse	2A verre Protection intégrée				
UV Lamp					
Lamp type	Lightsource	Ligtsource	Lightsource	Lightsource	Lightsource
Lamp power	1x35W	1x48W	1x70W	1x95W	1x207W
Consumed pwer	40W	55W	74W	110W	235W
UV lamp light	oui				
Operating lamp temperature	40°C	50°C	70°C	80°C	80°C
Average life**	9000h				
Other					
Mouting possibility	Vertical / horizontal	Vertical / horizontal	Vertical / horizontal	Vertical / horizontal	Only horizontal
UVc cell option	no	Either as a separate supplementary option Or integrated into the Ecostream UV Plus box only			

\* For different flow rates, consult us.

\*\* For different lamps, consult us

APPLIANCE IDENTIFICATION



- ECOSTREAM UV

☐ ECS 1

☐ ECS 2

☐ ECS 4

☐ ECS 6

☐ ECS 13
- ECOSTREAM UV PLUS

☐ ECS + 2

☐ ECS + 4

☐ ECS + 6

☐ ECS + 13
- SKID ECOSTREAM UV

☐ SKECS 1

☐ SKECS 2

☐ SKECS 4

☐ SKECS 6
- SKID ECOSTREAM UV PLUS

☐ SKECS + 2

☐ SKECS + 4

☐ SKECS + 6

Appliance number

UV room serial number

Electronic case serial number

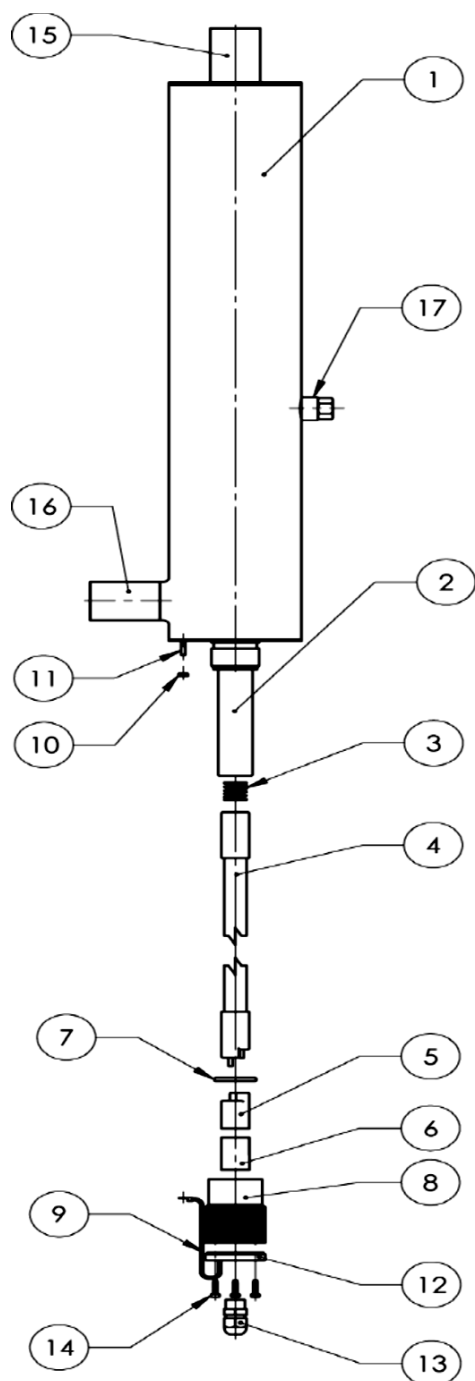
In the case of a UV Plus or SKID Ecostream Ecostream UV Plus

Num ber series radiometer:

Deliver to:

Date:

## EXPLODED VIEW OF THE REACTOR



Piece N°	Description	Qty
1	Bioreactor stainless steel	1
2	Quartz sheath	1
3	Centering spring	1
4	UV light	1
5	Socket	1
6	O-ring	1
7	Clamping nut	1
8	Sleeve	1
9	Cable to grounding	1
10	Grounding nut	1
11	Grounding stud	1
12	Lamp holder	1
13	Power cord	1
14	Locking Screw	3
15	Reactor inlet	1
16	Reactor output	1
17	Drain plug	1



## SPARE PART IDENTIFICATION

References	ECOSTREAM & SKID ECS 1	ECOSTREAM & SKID ECS 2	ECOSTREAM & SKID ECS 4	ECOSTREAM & SKID ECS 6	ECOSTREAM 13
Quartz Sheath	GQECS 1	GQECS 2	GQECS 4	GQECS 6	GQECS 13
O-ring	JTECS1246	JTECS1246	JTECS1246	JTECS1246	JTECS13
Tube gland	PEECS1246	PEECS1246	PEECS1246	PEECS1246	PEECS13
UV Lamp	LECS 1	LECS 2	LECS 4	LECS 6	LECS 13
Identification N° on UV lamp	2701340 20	2701340 47	2701340 48	2701340 49	2701340 51
Socket, ccable-TV systems, plug and screw	SLECS1	SLECS24613	SLECS24613	SLECS24613	SLECS24613
Drain plug	BPECS	BPECS	BPECS	BPECS	BPECS
Spring	RQECS	RQECS	RQECS	RQECS	RQECS
Electronic ballast	BUAL	BUAL	BUAL	BUAL	BUAL

For other parts, please contact your local dealer / installer or manufacturer.

## INSTALLATION

Filtration is essential upstream of a UVc bactericide. In some cases, further processing is required, such as treatment of limestone or iron.

French regulations prohibits the installation of a bypass circuit on UVc bactericides. Inquire your local dealer about local regulation. Inlet and outlet valves are essential for the maintenance of the equipment.

Pressurization is necessary before installing the UVc lamp, in order to limit water hammer and the risk of leaks due to incorrect tightening of the tube gland.

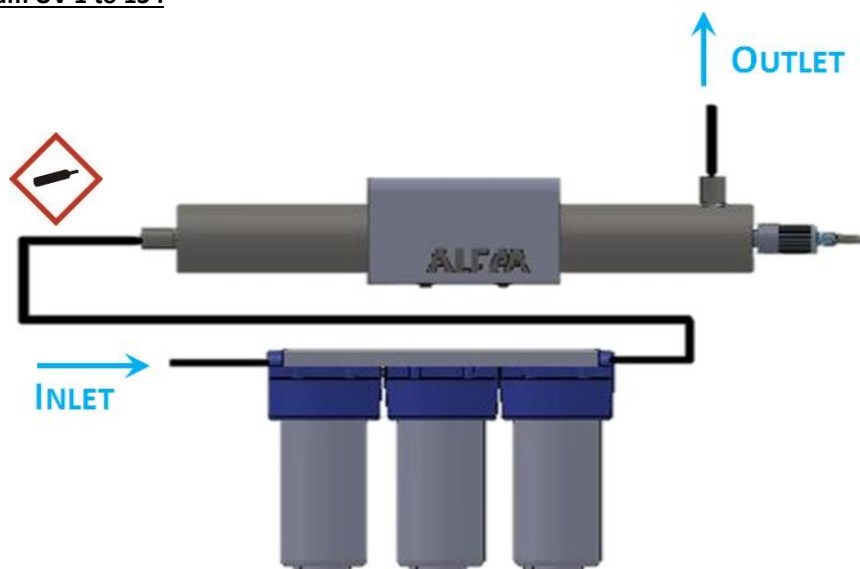
Sanitation (disinfection) of the piping is essential before to put it into service. French regulations require a contact time of at least 1 hour of chlorine in pipelines for the destruction of the biofilm (even in the case of new pipelines). The UVc bactericide must be the last link in the processing chain. The injection of chemical is made downstream of the bactericide.

Never cover (paint) the treatment chamber with a material that is not resistant to high temperatures: risk of melting or fire. Never touch the stainless steel treatment chamber: risk of burns. Water must circulate continuously throughout the unit, allowing the lamp to cool. Otherwise there will be an irreversible deterioration of the lamp, a rise in water temperature can be dangerous to the material and cause severe burns during use. If you treat hot water, please contact our services to establish mitigation plan.

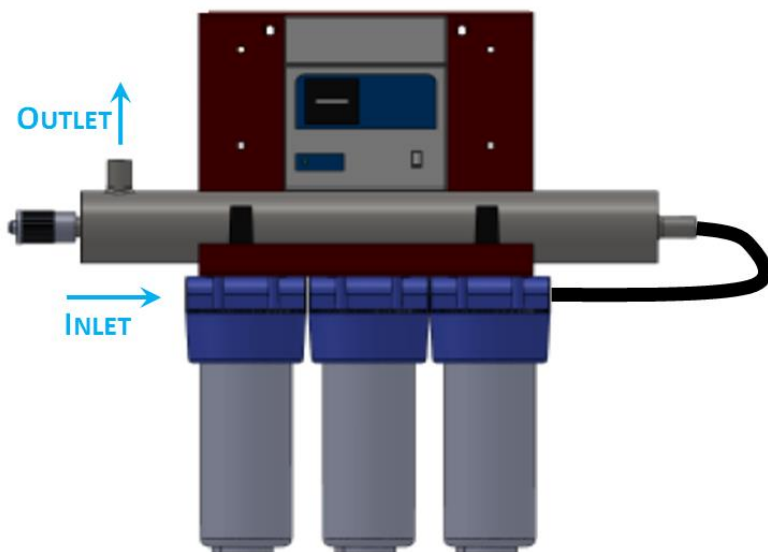
Select a location for the appliance and the control box, Ensure there is a free space of 1.2m at the connection point of the chamber to facilitate lamp replacement and maintenance. Also allow free space of 0.8m to perform filter replacement.

## HYDRAULIC ASSEMBLY

Ecostream UV 1 to 13 :

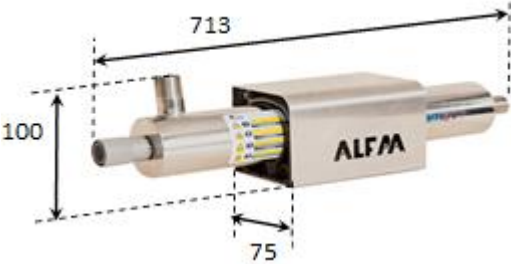


Skid Ecostream UV & Skid Ecostream UV PLUS from 1 to 6 :

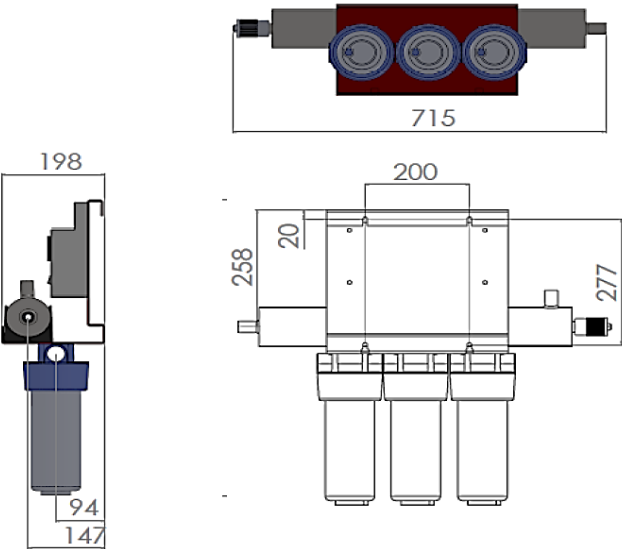


OVERALL DIMENSION

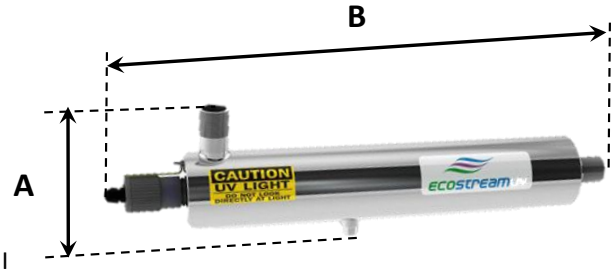
Ecostream UV 1



Skid Ecostream UV (Plus) 1

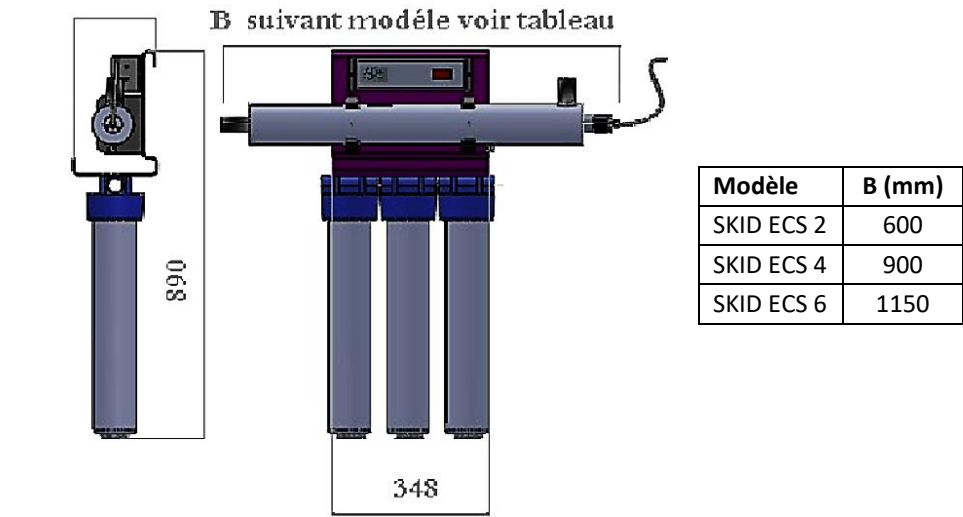


Ecostream UV (Plus) 2 / 4 / 6

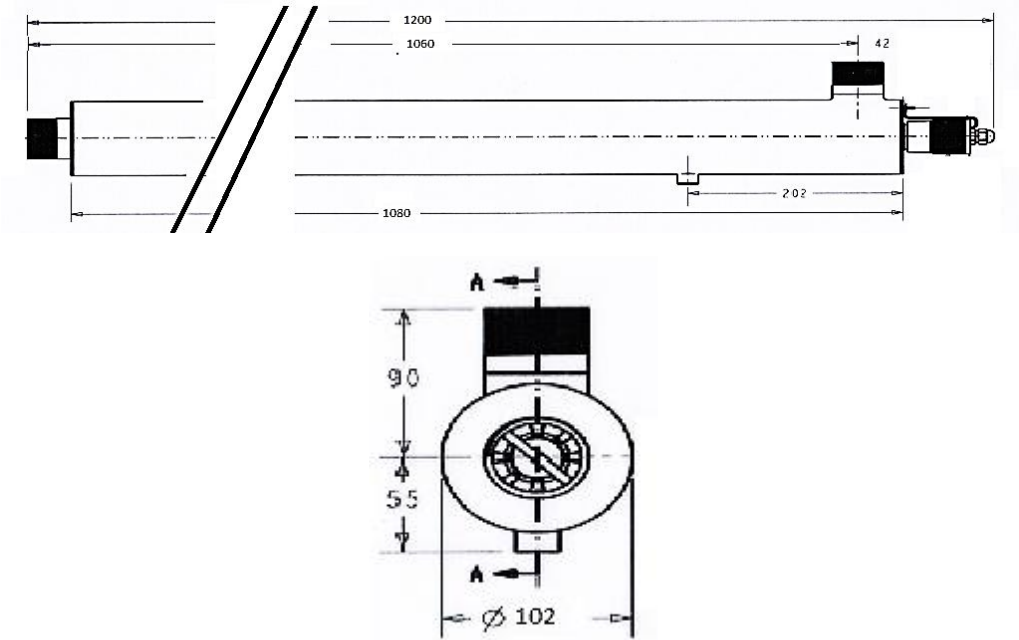


Model	A (mm)	B (mm)
ECS 2	145	600
ECS 4		900
ECS 6		1150

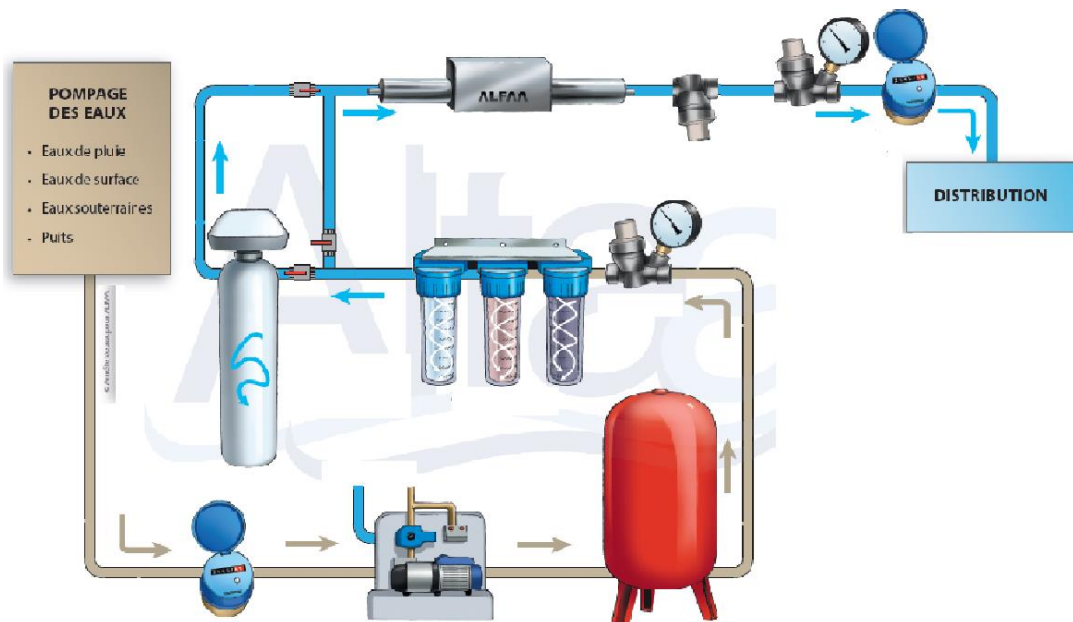
**Skid Ecostream UV (Plus) 2 / 4 / 6**



**Ecostream UV et Ecostream UV (Plus) 13 :**



## SCHEMATIC DIAGRAM OF AN INSTALLATION



## FRENCH REGULATION

### Contact your local dealer to know about local regulation

Article 20 extract from the decree of October 9, 2012

I - In order to avoid the formation of unwanted by-products, the water to be treated by the UV reactor must be free of oxidants.

II - In order to avoid the formation of deposits on the lamp ducts and on the radiometers, reducing the transmission of UV radiation and the reliability of the monitoring of the reactor, the water to be treated must reach the following target values:

- be slightly aggressive;
- have an iron concentration of 50 µg / l or less;
- have a manganese concentration less than or equal to 20 µg / l.

Otherwise, the person responsible for the placing on the market must define an increased protocol and frequency of cleaning.

III - In order to ensure optimum transmission of UV radiation, the water to be treated must:

- have a turbidity of less than or equal to 0.5 NFU;
- have a UV transmittance greater than or equal to 80% by 10 mm, measured at the wavelength of 253.7 nm

## GENERAL ELECTRICAL CONNECTIONS

**VERY important information for an optimal life of your device and avoid bacteriological and viral contamination.**

**Electrical box:** The box must be connected to an electrical outlet, independent and with a protective fuse of 2A. In case of other electrical devices (pumps, suppressors ...) a noise filter must be installed. Consult a professional.



Do not connect several different electrical appliances to the same power source; Voltage fluctuations (eg pump start) occur and expose the cabinet to significant fluctuations in current (currents) and also to parasitic currents which damage the germicidal lamp and the ballast.



**Power cable:** The power supply cable must be protected against accidental mechanical damage. A damaged cable must be replaced immediately and exclusively by an original cable. Never cut (except for direct connection to the electrical panel) or extend the cable.



**UVC lamp:** The UVC lamp is a bactericidal barrier. This lamp must be in continuous operation 24 hours a day, 7 days a week. Turn off the lamp only for maintenance. The lighting of the lamp **should not** be controlled by any control or pumping system.



**Action: Turn off power** before any technical work on the device. **Always turn off** the device by pressing **the switch** marked with "POWER" and unplug the appliance (avoid breaking currents extras). Do not pull on the cable but on the plug to disconnect from the mains.

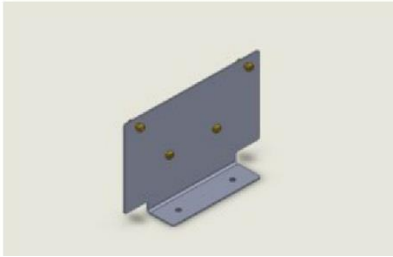


Once the unit is switched off and off, it is advisable to allow the lamp to cool for 10 minutes before turning it on again (otherwise the lifetime will be considerably reduced)

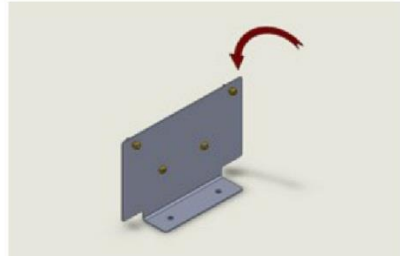
**Any installation or maintenance instructions that are not respected will lead automatically to a waiver of the warranty**

## WALLMOUNTIN

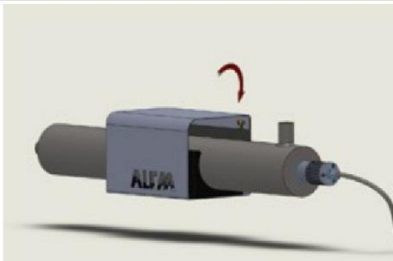
### Ecostream UV 1 / 2 and Ecostream UV Plus 1 / 2



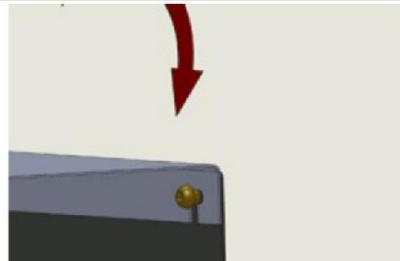
1 Fix to wall the back support



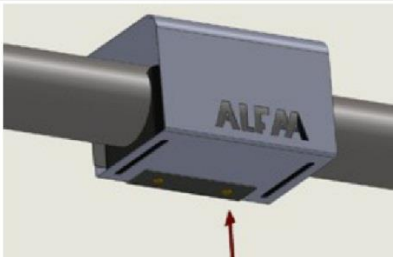
2 Leave gap on the top screws



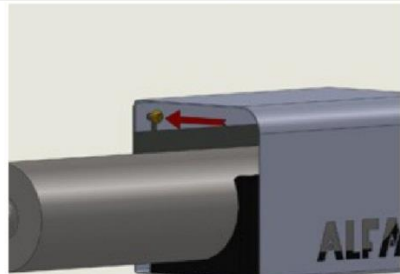
3 Position the device by inserting...



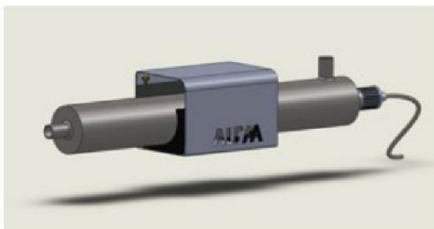
4 behind the top screw



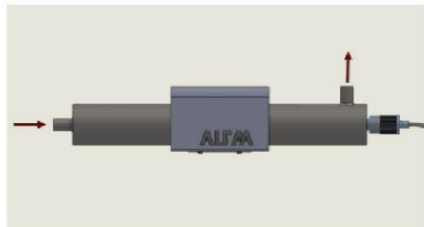
5 Fix the bottom screws



6 Tight the top screws



7 Device is installed



8 Respect flow direction



## WALL MOUNTING

### Ecostream UV 4 / 6 / 13 & Ecostream UV Plus 4 / 6 / 13

Two PVC clamps are supplied for mounting. The devices can be mounted either horizontally or vertically (except for ECS 13 and ECS + 13)

#### Horizontal mounting

The drain of the reactor must be directed downwards.



#### Vertical mounting

The water inlet of the reactor must be directed downwards



## INSTALLATION & REPLACEMENT OF THE LAMP

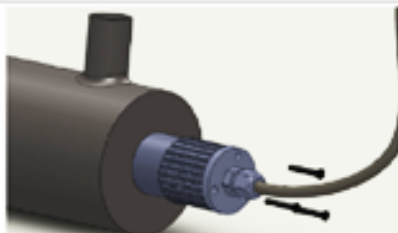
ALFAA lamps have a lifetime of 9000h (24H / 24H, 375 days in continuous operation, ie 1 year and 10 days). It is therefore imperative to replace them after this period of operation. Always replace your lamp with an ALFAA lamp. Contact your dealer / installer to find your lamp see chapter "Spare par Identification"



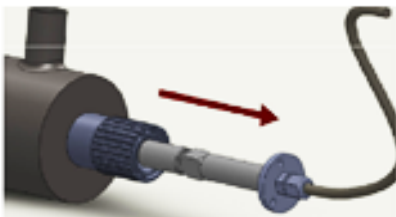
### Dismantling



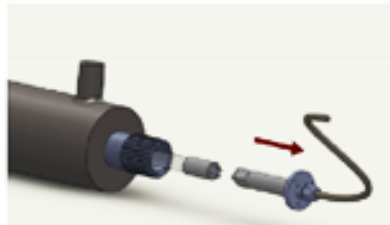
1 Use the switch to switch-off the lamp



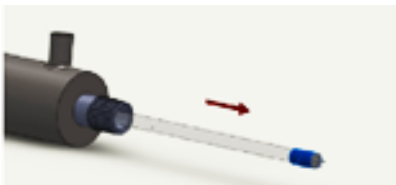
2 Remove the 3 off screws



3 Pull of the connector. Warning burning hazard



4 Unplug the lamp



5 Remove the lamp in a strait movement to avoid breaking the lamp & the quartz sheath. Caution, for vertical mounting there is a spring between the lamp and the quartz sheath

### Reassembly

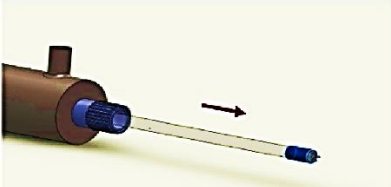
Follow the steps in reverse order.  
Switch-on the lamp when all items are in place and secured

## REMOVE THE QUARTZ SHEATH

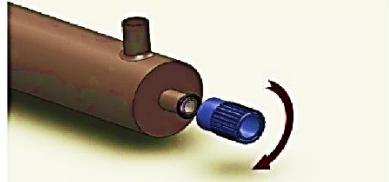


### **Dismantling**

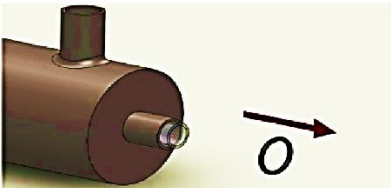
Dismantle the lamp as described in chapter "Installation and replacement of the lamp"



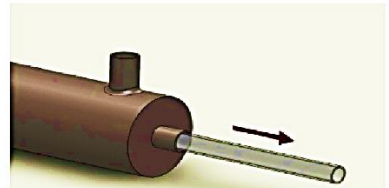
5 Remove the lamp



6 Unscrew the tube gland



7 Remove the o-ring



8 Remove the quartz sheath

Clean the quartz sheath with clean water and dry with a soft cloth

### **Reassembly:**

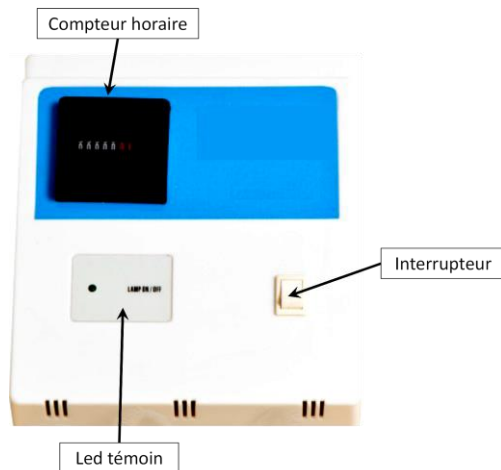
Follow the steps in reverse order.

# ELECTRONIC BOX ECOSTREAM UV 1

## Presentation

The electronic box consists of:

- 1x mechanical timecounter without possible reset.
- 1x switch on / off
- 1x led (lamp operation indicator).
- 1x power cable 220V (without plug)
- 1x UVC lamp supply cable.
- 1x 2A fuse protected inside.
- 1x starter S10 inside.



## Commissioning:



- Connect the power cord
- Switch to "ON" position.
- The indicator lamp lights up.
- The timecounter runs
- The unit is in operation

## Warning



**Never turn off the device unless it is for service**

# ELECTRONIC BOX ECOSTREAM UV 2 / 4 / 6

## Presentation

The electronic box consists of:

- 1x 5 digit digital LED display (to inform about UV status)
- 1x on / off button (POWER)
- 1x setting knob (FUNCTION)

Afficheur  
digital



Bouton Power

Bouton Function

## Operation



When the system is on, the lamp will turn on automatically. However, if necessary, the lamp can be deactivated (and reactivated continued) holding the On / Off button of ECOSTREAM down for 2 seconds. In this case, the screen shows "**P-Off**" indicating that the lamp is off.

## Viewing Posts

When the system is in operation, the display shows, by default, the remaining lamp life in hours.

## Remaining life

To know the remaining lifetime of the lamp since the commissioning, press once on the Function button. The display shows the total number of days of since it has been commissioned. Wait 10 seconds for the display to return to the main screen by default.

## End-of-life lamp

When the lamp is at the end of its life, the screen displays "**LO**" and the alarm beeps intermittently. To temporarily disable the alarm, press the Function button for 5 seconds.

## Replacing the UV Lamp

When the lamp has been replaced, you must reset the remaining lifetime of the lamp timer simultaneously holding down the Power and Function buttons for 10 seconds. The remaining lamp lifetime will reset to 9000 hours and the warning message disappears.

## UV Lamp Failure

In the event of lamp failure, the screen shows "**LF**". The alarm sounds continuously. In this case, turn off the UV system immediately and check the condition of the lamp. Replace the lamp if necessary by following the instructions in the chapter "Replacing the lamp".

## Repeated electrical cuts



In case of repeated power failures, the controller turns on **P-OFF** to protect the lamp. This is to warn you that the bactericidal barrier has been broken. So water is potentially CONTAMINATED, it is appropriate to conduct a disinfection of pipes during its restart. Verify proper operation in the event of thunderstorms.

# ELECTRONIC BOX ECOSTREAM UV PLUS 2 / 4 / 6

## Presentation

The electronic box consists of:

- 1x 5 digit digital LED display (to inform about UV status)
- 1x on / off button (POWER)
- 1x setting knob (FUNCTION)

## Placing the probe on the UV chamber



The probe is installed at the location of the purge plug



Mise en place sur la chambre de traitement :

- couper l'alimentation électrique
- fermer les vannes
- purger l'appareil
- déposer le bouchon
- visser la sonde

## Connection of the probe to the electronics box

Connectique  
de la sonde



## Adjustment of the probe:

The start-up value will be around 100%. After about 100 hours of operation, the probe should be recalibrated.

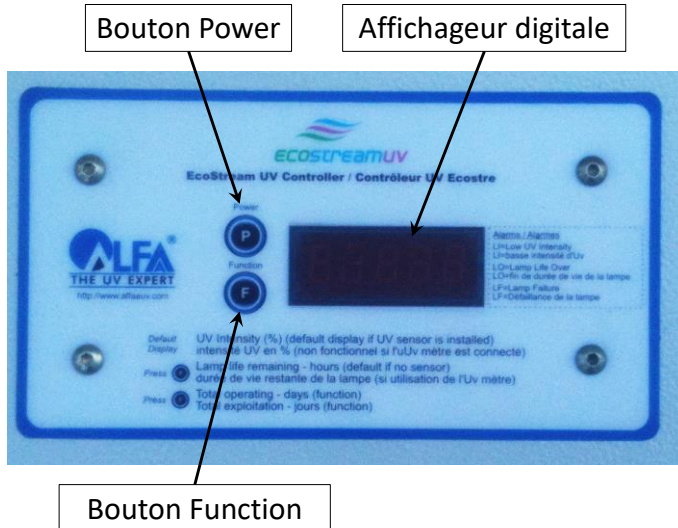
To do this, press FUNCTION for 10 seconds (a beep sounds and the value goes up to 100/120%)  
If the value decreases continuously, please contact our services.

# ELECTRONIC BOX ECOSTREAM UV 13

## Presentation

The electronic box consists of:

- 1x 5 digit digital LED display (to inform about UV status)
- 1x on / off button (POWER)
- 1x setting knob (FUNCTION)



## Operation



When the system is on, the lamp will turn on automatically. However, if necessary, the lamp can be deactivated (and reactivated continued) holding the On / Off button of ECOSTREAM down for 2 seconds. In this case, the screen shows "**P-Off**" indicating that the lamp is off

## Viewing Posts

When the system is in operation, the display shows, by default, the remaining lamp life in hours.

## Remaining life

To know the remaining lifetime of the lamp since the commissioning, press once on the Function button. The display shows the total number of days of since it has been commissioned. Wait 10 seconds for the display to return to the main screen by default.

## End-of-life lamp

When the lamp is at the end of its life, the screen displays "**LO**" and the alarm beeps intermittently. To temporarily disable the alarm, press the Function button for 5 seconds.

### **Replacing the UV Lamp**

When the lamp has been replaced, you must reset the remaining lifetime of the lamp timer simultaneously holding down the Power and Function buttons for 10 seconds. The remaining lamp lifetime will reset to 9000 hours and the warning message disappears.

### **UV Lamp Failure**

In the event of lamp failure, the screen shows "**LF**". The alarm sounds continuously. In this case, turn off the UV system immediately and check the condition of the lamp. Replace the lamp if necessary by following the instructions in the chapter "Replacing the lamp".

### **Repeated electrical cuts**



In case of repeated power failures, the controller turns on P-OFF to protect the lamp. This is to warn you that the bactericidal barrier has been broken. So water is potentially **CONTAMINATED**, it is appropriate to conduct a disinfection of pipes during its restart. Verify proper operation in the event of thunderstorms

-



## LIVREE EN OPTION : CELLULE UVC METRE 700

### Presentation

The UVC meter cell is composed of:

- 1x digital display (to inform about the state of the UV system)
- 1x button A
- 1x button ↓
- 1x button ↑
- 1x button P



The control cell must be in continuous operation.

Afficheur digital



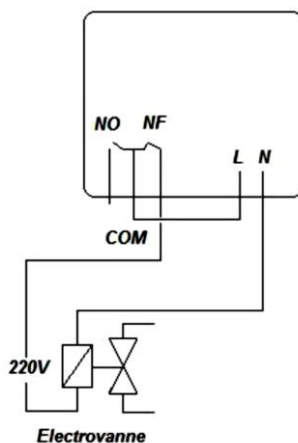
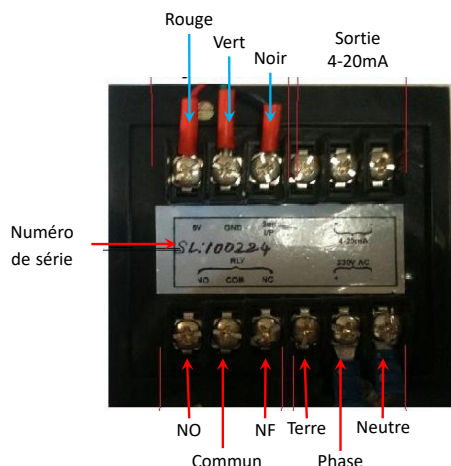
Boutons de réglage

### Description

The UVM 700 control cell is a UV meter: the probe perceives only the UVC waves. It therefore makes it possible to guarantee at all times the correct dose of UVC emitted in the treatment chamber (in  $W / m^2$ ). It comes as an option on UVC bactericides, but is essential on bacteriological drinking systems.

### Electrical connections

The cell is delivered without an electrical cord. It must therefore be connected to a special line coming from the main break box protected by a 2A differential circuit-breaker.



### Placing the probe on the UV chamber

The probe is installed at the location of the purge plug



Mise en place sur la chambre de traitement :

- couper l'alimentation électrique
- fermer les vannes
- purger l'appareil
- déposer le bouchon
- visser la sonde

### **Cell Menu**

- A) Display in normal operation
- B) Disp Tot hrs
- C) Disp Tot Pwrcyc
- D) Lampe Life Left
- E) Password
- F) Replace Lamp ?
- G) Max. Intensity ?
- H) UV Zéro Ajust ?
- I) Set Lamp Life ?
- J) Set Low Value ?
- K) Adjust Hours ?
- L) Alert FAQ « UV LOW »

#### **A) Display in normal operation**

During normal operation, the display shows the UV intensity perceived by the probe.

**To enter the menu, press the P key and scroll with the arrow ↑ (the order of appearance is that of the table of contents); When we are on the desired menu, press P to exit the menu and return to normal display, then press A.**

#### **B) Disp Tot hrs**

This is a time counter indicating the cumulative operating time of the cell in hours.

#### **C) Disp Tot Pwrcyc**

This function displays the cumulative number of times the cell has been powered up since its manufacture. At each power outage, the system detects and counts it.

During factory tests an average of 4 cycles is required, the counter must therefore display a cumulative number of 5 cycles during the initial start-up at the end user. It is not possible to reset the counter. Unless there is a power failure this figure should not change before the next annual maintenance

#### **D) Lampe Life Left**

This is a count of the life of the lamp. When the displayed number approaches zero, a "Replace Lamp" warning message indicates that the lamp is nearing its end of life and will have to be replaced

#### **E) Password**

Some items require a password to change settings. The password is a combination of the setting buttons. The factory password is the following: AP ↑ ↓ A.

#### **F) Replace Lamp ?**

This warning message indicates that the lamp is at the end of its life and must be replaced.

Validate the replacement of the lamp, press A

Exit the menu by pressing the P key

Once validated, the countdown of the remaining life starts again from the high value.

#### **G) Max. Intensity ?**

Parameter for calibration of the probe is expressed as a percentage, this adjustable value indicates the amount of UV c wave that the device must read.

*Examples: We want to read 100% of UVC: value at 100. We want to read 60% of UVC: value at 60.*

**This value is 100 at the factory and should not be changed without the agreement of an ALFAA technician**

#### **H) UV Zéro Ajust ?**

**This value is 0 at the factory and should not be changed without the agreement of an ALFAA technician**

#### **I) Set Lamp Life ?**

The lifetime of the lamps used by ALFAA is 9000h for the ECOSTREAM UV and SKID

ECOSTREAM UV (standard and PLUS) 2/4 and 6. For the ECOSTREAM UV 13, the service life is 12000h.

It is therefore necessary to set the value according to the ALFAA data or the manufacturer of the lamp. Changing this parameter affects the D menu.

#### **J) Set Low Value ?**

The triggering of the malfunction alert activates below a certain safety threshold. This threshold depends on the power of the lamp and must correspond to 1/3 of this power. More precise values are given in the data sheets of the lamp manufacturers.

Table of values which shall be setup in the programs.

			Start value (at 100h)				Warning value (UV LOW)			
	Lamp power (W)	UVc Power (W)	DO: 95 %	DO : 90 %	DO : 85%	DO : 80%	DO : 95 %	DO : 90 %	DO : 85%	DO : 80%
ECS 2	48	21	20,27	19,20	18,13	17,07	15	14	14	13
ECS 4	70	31	29,56	28,00	26,44	24,89	22	21	20	19
ECS 6	95	42	40,11	38,00	35,89	33,78	30	29	27	25
ECS 13	207	92	87,40	82,80	78,20	73,60	66	62	59	55
DO : Optical density for 5 cm										

### K) Adjust Hours ?

This menu allows the adjustment of the timecounter between the cell and the bactericide UVc. The hourly value indicated is for the bactericide. Changing this setting will affect B menu.

### L) Alert FAQ « UV LOW »

This message means that the UV intensity received by the probe is too low.

It is necessary to:

1. Check if the UVC lamp is light on and if the electrical box is electrically connected
2. There is not enough flow in the chamber, the lamp heats and the temperature raises, the water becomes cloudy and trigger the cell alert: circulating cold water.
3. Check the UVc lamp is not close to its end of life
4. Check the sealing of the quartz sheath, check the lamp has not been flooded
5. Check the cleanness of the probe quartz
6. Check the cleanness of the quartz sheath
7. Under the guidance of an ALFAA technician, re-calibrate the probe.

The alarm can be silenced by pressing ↑ and A-Ask Alarm: it means that you are aware of the alarm.

Warning. Disturbing electrical currents (from pumps, magnetic anti-scaling, ...) can disrupt the cell. Then you have to install an anti-noise filter upstream on the power supply

The cell reads inconsistent value and the value is not zero when the UV lamp is off. Swap the cables 5V SEN and I / P them (CF paragraph C) to fix the problem.

## SERVICE

### **UV lamp**

Replace the lamp every 9000h or differently if using a special lamp, refer to lamp specification.  
Replace the starter S10 for each change of the lamp. (Ecostream UV 1)

### **Reactor**

Once a year, inspect the inside of the reactor chamber to ensure there is no deposit, clean as necessary with a food product and not aggressive for stainless steel.

### **Quartz sheath**

Once a year or as needed clean with clear water and wipe with a dry cloth.

Immediately replace the quartz sleeve if chipped.

Replace quartz sleeve every 5 years.

Replace O-ring from onset of wear (crack, crack, tear ...) or each replacement of the quartz sheath

### **Filters**

Change filters at least every 3 months to prevent microbial growth and loss.

### **Other**

Sanitation (disinfection) of every year at minimum network

### **UVC probe**

Once a year or as needed, inspect and clean with clear water and wipe with a dry cloth.

The regulation recommends annual calibration of the sensor with a standard probe. A return to factory calibration can then be implemented. Check with your dealer / installer.

## SERVICE SHEET

	Service 1	Service 2	Service 3	Service 4
<b>Date</b>				
<b>UV Timecounter reading</b>				
<b>Number of days in operation</b>				
<b>Watermeter reading</b>				
<b>Volume of water treated since previous service</b>				
<b>Filter replacement</b>				
<b>UV lamp replacement</b>				
<b>O-ring replacement</b>				
<b>Quartz sheath cleaning</b>				
<b>Piping sanitation</b>				
<b>Notes</b>				

## MALFUNCTION

### **The UVC lamp does not light:**

Check the device is supplied with electricity.

### **Water does not come out of the device**

Check the inlet and outlet valves are opened

Check the filters are not clogged or positioned upside.

### **The meter does not work but the LED light operates**

The counter is defective, replace

### **The LED light does not work and the meter is not running**

Check the unit is switched ON

Check the connector is plugged to the UV lamp and the cable is not damaged.

Check the power cord is not damaged and is connected to the electrical outlet.

Check the fuse is OK (located inside the electrical box, fuse glass 2A)

Check the starter is OK (located inside the electrical box, S10 starter)

- Lamp is defective replace it
- The ballast is faulty, replace it

## Electronic Alarm: Ecostream UV & Skid Ecostream UV

Display	Definition	Description
P-OFF	Lamp off	The POWER button turns the lamp or cut. The machine can shut down automatically when power outages or significant changes tensions.
LO	Lamp Over	Replace the lamp with a new lamp and press for POWER and FUNCTION at the same time to reset to 9000h (to validate the lamp replacement)
LF	Lamp Failure	<p>The lamp is not supplied with electricity or not switch on. Press switch off and put a new lamp. If the message does not disappear: Check weld of the ceramic lamp holder. if OK, check the ballast connections to wires (4 wires for the lamp + 1 for ballast return) If OK Check the ballast connector is properly fastened to the electronic card If OK ➤ The ballast is defective, replace ballast</p> <p><b>Causes of defects for the ballast:</b> Changes in the supply electrical current (set up a UPS)</p> <p>Sending eddy current network in the ballast (pumps ...) Recommended to use a dedicated power supply to the electronic box. Recommended to use anti parasitic system.</p> <p>Breaking courant (Pulling out the electrical outlet without disconnecting the power supply to the lamp) Press POWER to turn OFF the unit before to pull-off the cord.</p> <p>If the fuse burns when turning on the lamp is that the ballast is HS.</p>



**Electronic Alarm: Ecostream UV PLUS & Skid Ecostream UV PLUS :**

LI	LOW INTENSITY	<p>Between 65% to 120%: The device works normally. Variations in readings due to variations in flow rates and fluid temperatures.</p> <p>Between 50% to 64% UV radiation is even suitable for treatment, but it is worth checking deferential parameter to understand why the radiation decreases.</p> <p>Less than 49% The radiation is too low to ensure bacteriological treatment fluid. LI The alarm is triggered.</p> <p>Any parameters shall be considered (water system) to determine the cause of the low radiation.</p> <p>Clean the probe and the quartz sheath</p> <p>If OK</p> <p>Check the lamp is not approaching its end of life.</p> <p>If OK</p> <p>Check the temperature of the processing chamber. A small flow heat water and trigger the alarm.</p> <p>In the case where the temperature approaches 40 ° C (often in the morning, when there has been no flow for a long period for example) providing a timed solenoid to regularly remove the heated water.</p> <p>If OK</p> <p>Reinitialize the probe, press FUNCTION for 10 seconds when the device is on. The value setup to 100% 120%</p> <p>If the problem does not disappear:</p> <p>Check the state of the thread of the probe (presence of false contacts)</p> <p>If OK</p> <p>Establish a filtration process to stop the fine particles (colloids)</p> <p>If the problem does not disappear:</p> <p>Conduct an analysis of optical density and /or turbidity to check which type of water has to be treated.</p>
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FILTERS PROVIDED WITH SKID ECOSTREAM MOST ARE GENERIC FILTERS. THE INSTALLER MUST MAKE SURE THE FILTER WILL MATCH THE QUALITY OF THE RAW WATER.

## WARRANTY

We brought all our care and our technical experience to achieve this unit. It has been through a quality control during its manufacturing. If, despite all the attention and the expertise brought to its manufacture, you had to stake the warranty, it would apply the free replacement of faulty parts of our equipment (excluding postage go / return). This warranty is in lieu of any implied conditions, warranties. It is limited to the repair or replacement of defective parts and does not cover loss or damage, direct and indirect, associated with the unavailability of the product.

**Length of Warranty :** This equipment is guaranteed one (1x) year manufacturer, from original invoice date. One (1x) month for the repair service and spare parts (invoice date authentic)

**Object of the warranty:** The warranty applies to all parts except wear parts that must be replaced regularly at your expense. The unit is warranted against manufacturing defects in the strict framework of a water treatment use. Any other use will void the warranty.

**Service:** All repairs are performed in the workshop. Transportation costs to and are the responsibility of the user. The immobilization of the loss of use of an appliance if repairs cannot give rise to compensation.

In all cases, the material is always shipped at the expense of the user. Upon delivery check the equipment is not damaged and if required notice it onto the delivery note of the carrier. Confirm with the carrier within 72 hours by registered letter.

**IMPORTANT:** A replacement warranty does not in any way extend the original warranty period

### **Disclaimer of Warranty:**

- Equipment and labor supplied by a third party when installing the equipment.
- Damage caused by incorrect installation
- The serial number should in no way be erased or altered.
- The problems caused by alteration, accident, misuse, negligence or professional or end user, unauthorized repairs in writing by ALFAA, fire, flood, lightning, freezing, armed conflict or any other force majeure. Warning: no damaged equipment resulting from non-compliance with safety instructions, installation, use and maintenance contained in this manual will not be covered under warranty.

**Warning:** No material damaged as a result of failure to follow the safety, installation, use and maintenance instructions set forth in this manual will be covered under the warranty.

**Implementation of the warranty:** For more information about this warranty, call your professional or our after-sales service. All applications must be accompanied by a copy of the purchase invoice.

No part replacement will be carried out without first returning the defective part. Any item not returned will be charged at the current rate.

No replacement part will be made without first returning the defective part. Any non-returned part will be charged at the current rate.

**Law and Litigation:** The guarantee is subject to French law and all European directives or international treaties in force at the time of the complaint, applicable in France.

In case of dispute on its interpretation or execution, is made to confer jurisdiction only to French authority Bourg en Bresse (FR - 01)

### **Environmental Protection**

Environmental protection is essential. Our company a strong commitment. Our products are designed and manufactured with recyclable materials. However, the component parts are not biodegradable. You must place it in a adapted waste collection system or hand it over to your dealer if you buy a device with similar features.



# CERTIFICATE OF COMPLIANCE

CARSO - LABORATOIRE SANTÉ ENVIRONNEMENT HYGIÈNE DE LYON

Laboratoire Agréé pour les analyses d'eaux par le Ministère de la Santé

## ATTESTATION DE CONFORMITE SANITAIRE

Conformément à l'arrêté du 29 mai 1997 modifié et à la circulaire du Ministère de la santé

DGS/SD7A 2002 n°571 du 25 novembre 2002

**Coordonnées du demandeur des essais :**

ALFAA France

**Rue de la Traille**

## ZI de la Tuilière

01700 MIRIBEL

**Nom de l'accessoire représentatif : ECOSTREAM 1**

N° de dossier attribué par le laboratoire habilité : **12 ACC LY 113**

Date de réalisation des essais d'inertie, le cas échéant : / LSEHL - CARSO LSEHL - CARSO LSEHL

Commentaires : Les appareils UV sont assemblés à l'aide de composants conformes à la réglementation.

Aucun essai de migration n'est nécessaire à l'obtention de cette ACS. ARSO LSEIL - CARSO LSEIL -

**Famille d'accessoires couverte par l'ACS : Appareils UV de références (6 références) :**

### Ecostream 1

## Ecostream 2

### Ecostream 4

### Ecostream 6

## Ecostream 12

**Commentaires :** L'ACS ne préjuge pas de l'efficacité de traitement des appareils UV. La lampe UV doit être autorisée par le Ministère de la Santé.

Attestation délivrée par :

Signature \_\_\_\_\_

LSEHL - CARSO LSEHL Responsable Laboratoire MCDE

[illegible]

LSEHL - CORSO LSEHL

A la date du : 02 Mars 2012 LSEHL - CA

$$LSH2 + CARSO \rightarrow LSH4 + CARSO \rightarrow LSH6 + CARSO \rightarrow LSH8 + CARSO \rightarrow LSH10 + CARSO$$

## MINUTE OF INSTALLATION & COMMISSIONING

### PROCES VERBAL D'INSTALLATION ET DE MISE EN SERVICE

DATE : \_\_ / \_\_ / 20\_\_

Lieu d'installation du matériel	INSTALLATEUR
<input type="checkbox"/> Société <input type="checkbox"/> Particulier <input type="checkbox"/> Administration Nom : Adresse :  CP : Ville :	Société : Nom du responsable : Adresse :  CP : Ville :

L'installateur déclare que l'installation de l'appareil et sa mise en route sont conformes aux exigences du fabricant et de la réglementation en vigueur précisées dans la notice d'installation et de montage, concernant notamment :

- ☐ Le rinçage global de l'installation
- ☐ La désinfection du réseau en aval du bactéricide
- ☐ La mise en place de vannes d'isolement pour l'entretien
- ☐ La non présence de bypass
- ☐ La sécurisation du branchement électrique du bactéricide UV

L'installateur déclare avoir expliqué le circuit hydraulique à l'utilisateur, les opérations de contrôles et de maintenances régulières, ainsi que les différents risques liés à un défaut d'entretien.

L'utilisateur déclare avoir compris ces risques, et est libre de s'engager ou non sur un contrat d'entretien annuel.

VISA	
L'utilisateur	L'installateur

Fait en 2 exemplaires originaux. Chaque partie conserve son exemplaire.

L'installateur s'engage à transmettre une copie de son exemplaire à [contact@alfaa.fr](mailto:contact@alfaa.fr)

ALFAA France SARL s'engage à ne pas exploiter ces données.

## INTERNAL CALIBRATION CERTIFICATE UVC PROBE\*



ALFAA France SARL  
Parc des Aqueducs  
Chemin du Favier  
69230 Saint Genis Laval  
[contact@alfaa.fr](mailto:contact@alfaa.fr)

### Modalité d'étalonnage :

Numéro du certificat :	
Date du certificat :	
Référence commande client :	
Date de cette commande :	
Destination de l'appareil (application) :	
Sondes numéro :	
Livré à :	

### Modalité d'étalonnage :

Cette sonde a été étalonnée à partir de la sonde talon n° \_\_\_\_\_, dont la révision est faite tous les 6 mois par le fabricant de celle-ci, et dans les mêmes conditions.

A savoir :

- Eau à 0.5 NTU.
- Température du fluide à 15°C.
- Etalonnage fait directement avec la puissance de la lampe concernée par l'installation, d'une puissance de \_\_\_\_\_ W, intégrant l'appareil \_\_\_\_\_.

Document établi par monsieur \_\_\_\_\_, en qualité de technicien formé au sein de la société ALFAA France SARL, qualifié et autorisé à étalonner les sondes UVC mètre (lecture uniquement de la longueur d'onde de 253.7nm).

Tampon + signature

\* Il est entendu que la « sonde UVC » est aussi appelé « radiomètre » par l'arrêté du 09 octobre 2012. Selon cette réglementation, les sondes doivent être étalonnée une fois par an au minimum.

## NOTES



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