



COMPANY WITH QUALITY MANAGEMENT  
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**ULTRAVIOLET DISINFECTION**  
*EQUIPMENT FOR THE TREATMENT OF DRINKING WATER*

# **400 SERIES**

## **DS PLUS**



***MANUAL OF INSTALLATION, USE AND SERVICING***



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# 1. Introduction

This manual is for the following models of UV 400 Series.

This Pressure UV Systems is manufactured by **S.I.T.A. s.r.l.**

*Warning: This equipment requires regular maintenance to ensure the requirements of the drinking water treated and the maintenance of the improvements as stated by the manufacturer.*

These operating instructions contain important information for the operation and maintenance of the equipment.

Please ensure that these operating instructions are carefully read by all relevant persons before putting into operation, to ensure the safe use of the UV system. The operating instructions are an integral part of the equipment supply.

Before putting into operation, all the conditions necessary for safe operation of the equipment must be fulfilled.

The installation, commissioning and maintenance of the equipment should only be carried out by qualified personnel.

The equipment should only be operated by authorized personnel who have been trained accordingly.

No modifications should be made to the equipment without consulting S.I.T.A., as this could effect the safe operation of the unit. S.I.T.A. shall not be held responsible for damage resulting from unapproved modifications.



## **INSTRUCTION**

*The operating instructions are to be kept where they will be accessible for operating and maintenance personnel.*

## 2. General Principles

The *UV 400 SERIES* sterilizers have been planned specially for destroying harmful bacteria and viruses present in your water.

Their working is based on a physical principle which is a warrant of security: the output of ultra-violet irradiation.

The UV light given out by special mercury fumes lamps (UV-C rays  $\lambda = 254\text{nm}$ ) is highly germicidal because it interacts with DNA and RNA, at a molecular level.

The deep bio-structural disorder caused by such irradiation interferes with the development and the ability of reproduction of every kind of micro-organism, making it harmless.

Generally it is better to mount a pre-filter before the UV sterilizer, in this way the impurities of every nature and consistence are kept.

This system comes to be necessary if we want to have a high degree of sterilization, in fact the non-filtration and removal of suspended particles in the water has, as a consequence, a decrease of the sterilizer's efficiency.

If the water to be treated contains sulphydric acid or more than 0.3 p.p.m. of iron or filtrable solids, once passed through the sterilizer, it leaves a residual sediment on the quartz sleeve, which, therefore, must be periodically cleaned (the frequency depends on the quantity and quality of water treated).

The sterilization equipment is constituted by different electronical and electromechanical components assembled in such a way to realize effectively the sterilization process, giving a bacteriologically pure water.

### **GENERAL DIRECTIONS**

According to the European rules EN 60204-1 (safety of the set-up off the electrical equipment-general rules) the low tension electrical instruments (rule 2006/95/CE) must be connected to a current-tap provided with grounding.

### **SAFETY DIRECTIONS**

The light of ultra-violet lamps can cause serious burns to unprotected skin and eyes, therefore it is recommended not to connect it to the current tap without having before ensured the UV lamp in its housing and inserted the PVC cover.

### **INDICATIONS FOR THE DISPOSAL**

We remind that, according to what is fixed by D.L.25 July 2005, № 151 "Accomplishment of directives 2002/CE, 2002/96/CE and 2003/108/CE, concerning the reduction of the use of dangerous substances in electric and electronic equipments, and the disposal of waste" both mercury vapours lamps and electrical panels, when no more used, must be considered as special waste, and in the same way disposed of.

To do that, it is possible to address to specialized centres for the recovery of dangerous materials, or to contact directly our technical department.

### **ELECTRICITY**

The lightning flash and arrowhead symbol is to alert the user to the presence of un-insulated "DANGEROUS VOLTAGE" within the enclosure.

The equipment may only be opened if the mains supply is isolated. The mains supply must not be restored as long as the equipment is open. This applies to both the electrical control panel and the reactor vessel.

Attention:

Working on live equipment is forbidden.

### ***INSTALLATION GUIDANCE***

The reactor control panel utilises air cooling. The following guidelines must be adhered to when locating the unit.

The reactor and control panel must not be located in a position where the ambient air temperature exceeds 40°C.

The reactor and control panel must not be located adjacent to other equipment that directly emit heat

The reactor and control panel must not be located adjacent any chemical equipment that is likely to emit fumes.

The reactor should be located within the piping system in such a manner as to ensure that sufficient clearance is available in a horizontal direction to allow for lamp replacement and wiper maintenance. See the relevant data information included in this manual.

The reactor must be positioned with the side flanged pipe connections pointing in an upwards direction.

Never install the reactor in a position directly adjacent to chemical dosing points.

### 3. Instruction for installation and servicing

#### General premise

The installation of the **UV 400 SERIES** sterilizer units must be carried out by specialized staff, scrupulously following the instructions given hereby. It has been moreover considered necessary to give some general information about the electrical and water connections.

**Cautions:** check that the UV panel is not connected to the power supply and that the tap of the water to be treated is turned off.

- Connect the delivery of the water to be treated to the special water connection
- Turn on water and check for possible leaks in any part of the unit
- Connect the plug to the current tap
- Check that the disinfected water comes out and that the LEDS on the panel of the control board, signal the correct working

Let the disinfected water flow down to outlet for at least 10 minutes before using it, in order to make the possible impurities present in the unit drain out.

NOTE: it is recommended to install a water filter directly before the UV sterilizer in order to remove the suspended particles, eventually present in the water to be treated, which could limit the efficiency of sterilization.

#### **CHECKS**

The **UV 400 SERIES** is ready for producing disinfected water, once the connection to the water system and to the electrical grid is carried out. The unit works automatically, the electronical boards which control the signals reaching the control panel, allow the visualization (or the sonorization) of the correct working or of anomalies which may occur during the operating of the unit.

#### **MAINTENANCE**

The UV System of **UV 400 SERIES** have been projected and realized by S.I.T.A. Srl with simple and functional principles which make the checking procedures and the periodical servicing particularly easy.

The main points which characterize the ordinary servicing are the following: check quarterly the quartz sleeves, which contain the UV lamps, in order to ensure the maximum disinfection, for the cleaning.

Maintenance work may only be carried out by personnel who have been trained and authorized for this work by the owner and/or user. The owner and/or user must ensure that the maintenance personnel are familiar with the safety measures and regulations, and that they also comply with them, in addition to having read and understood the operating instructions.

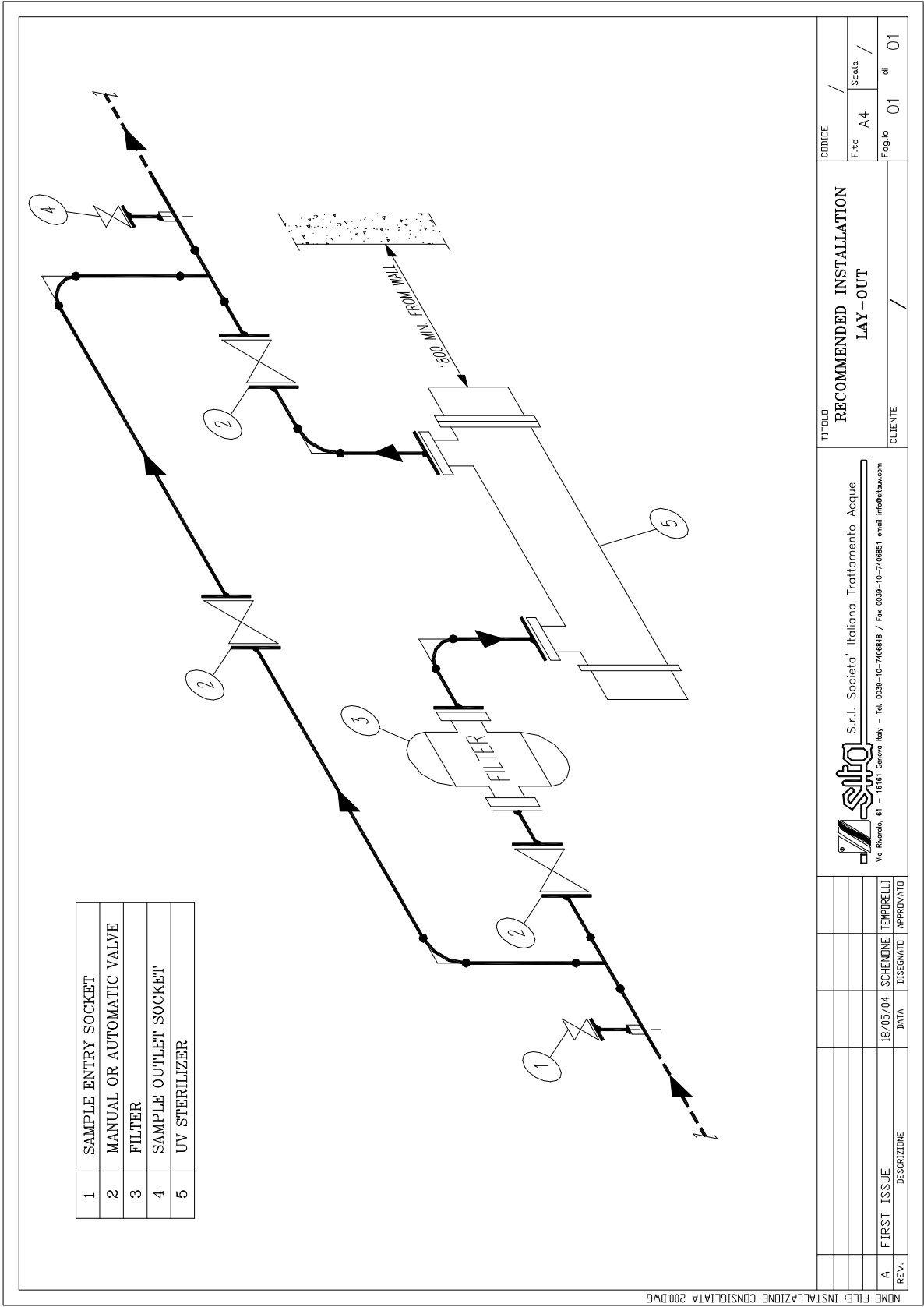
Only original replacement parts from the supplier must be used.

The following are the recommended service intervals for replacement parts:

UV lamp change - once per 14000 hours

UV lamp o-ring change - once per year

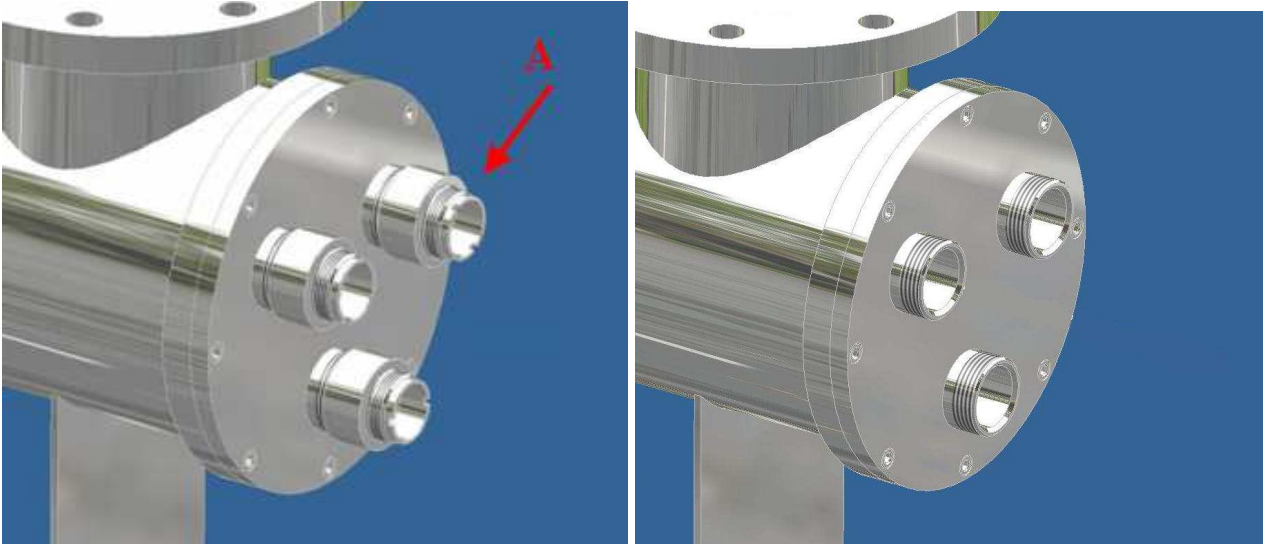
3.1 Installation scheme recommended



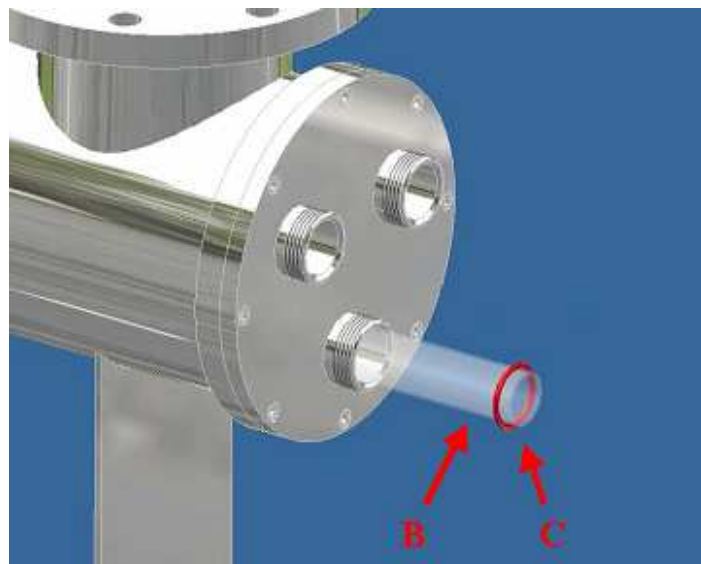
## 4. The UV Chamber Installation

### 4.1 Assembling of the UV chamber

- Unscrew the s/s sleeve bolts (A) from both sides by using the key supplied.

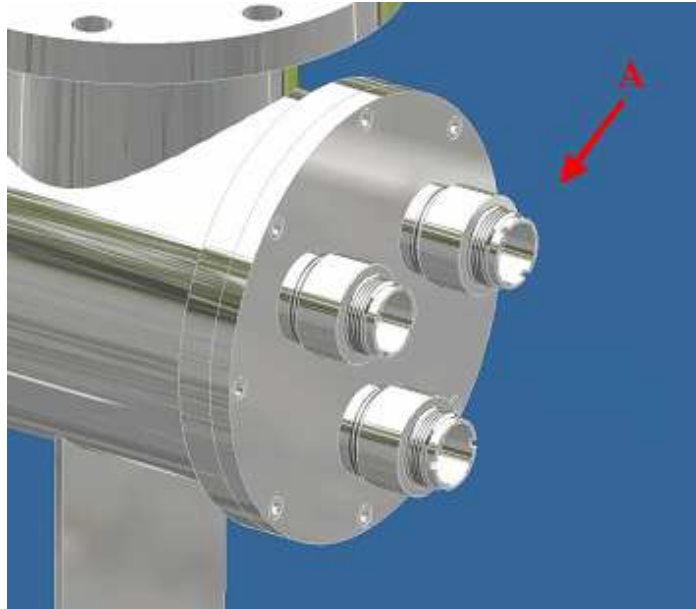


- Insert the quartz sleeves (B) by using the special bar supplied and the o-rings 38x4 (C) on both sides of the quartz sleeves.

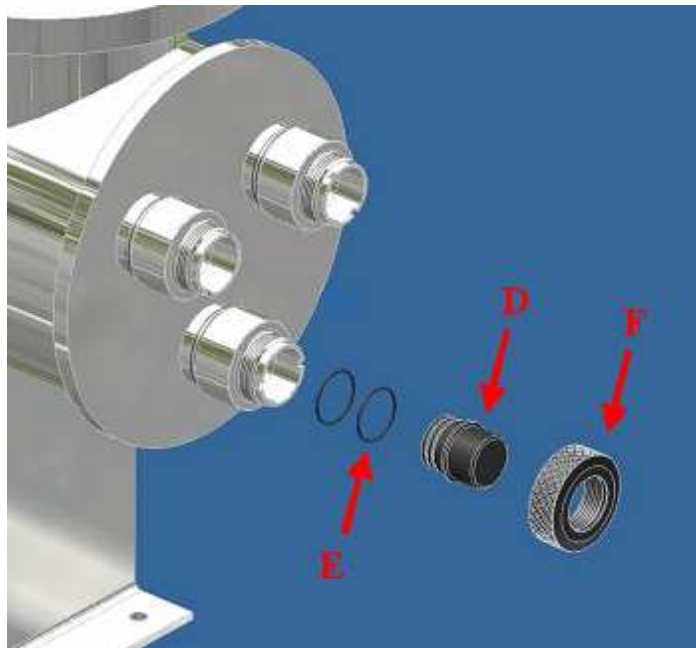


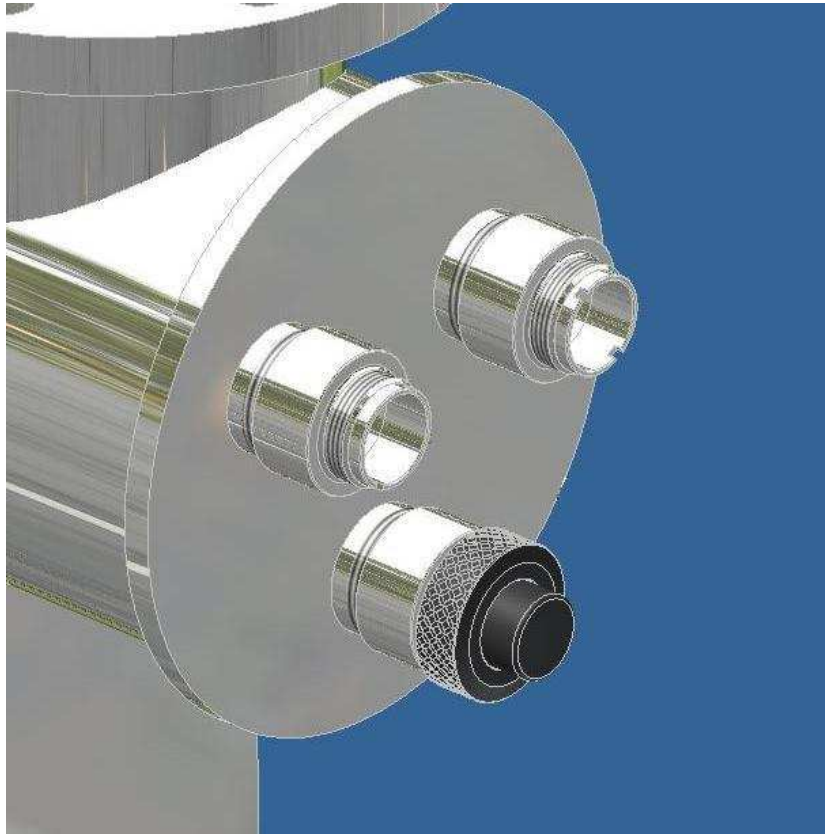


- Screw again the s/s sleeve bolts (A) on both sides of the UV chamber, and carry out the hydraulic test, verifying that the o-rings are watertight and that no water leaks outside the sleeve bolts or inside the quartz sleeves.

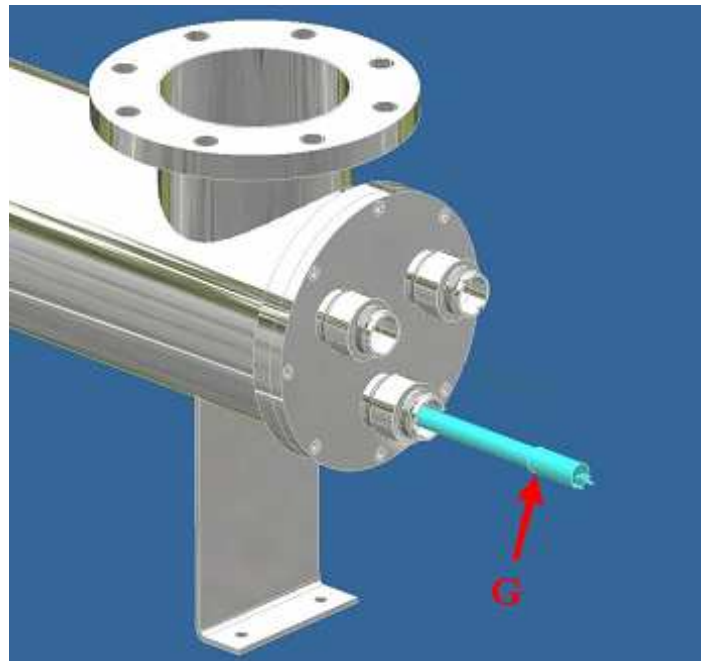


- On the closed side of the UV chamber, mount the blind cap in black polyethylene (D), with the o-ring 2112 type (E) inserted and block by screwing the Ø 1 ¼" ring nuts (F) on the sleeve bolts.

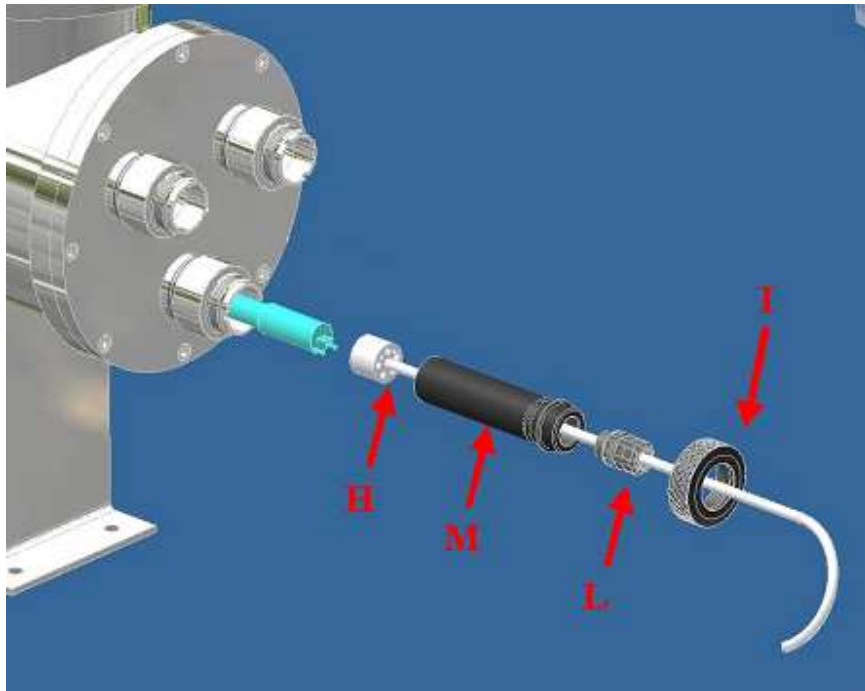




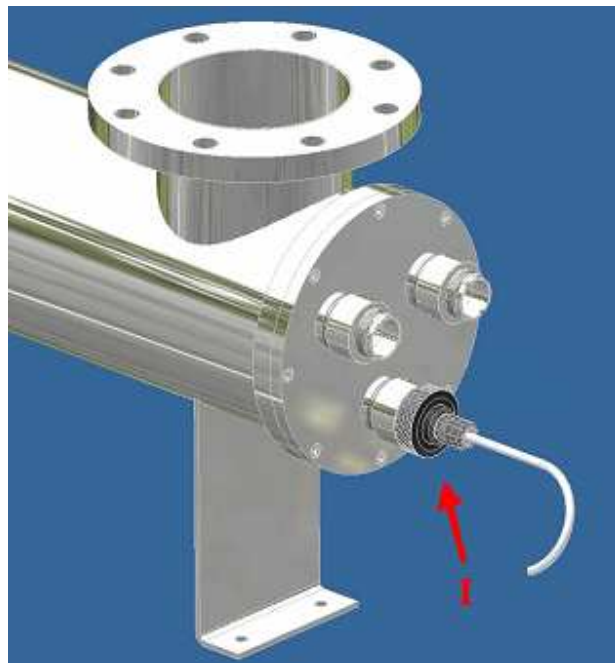
- On the openable side of the UV chamber, insert the UV-C lamps (G) into the quartz sleeve previously mounted.



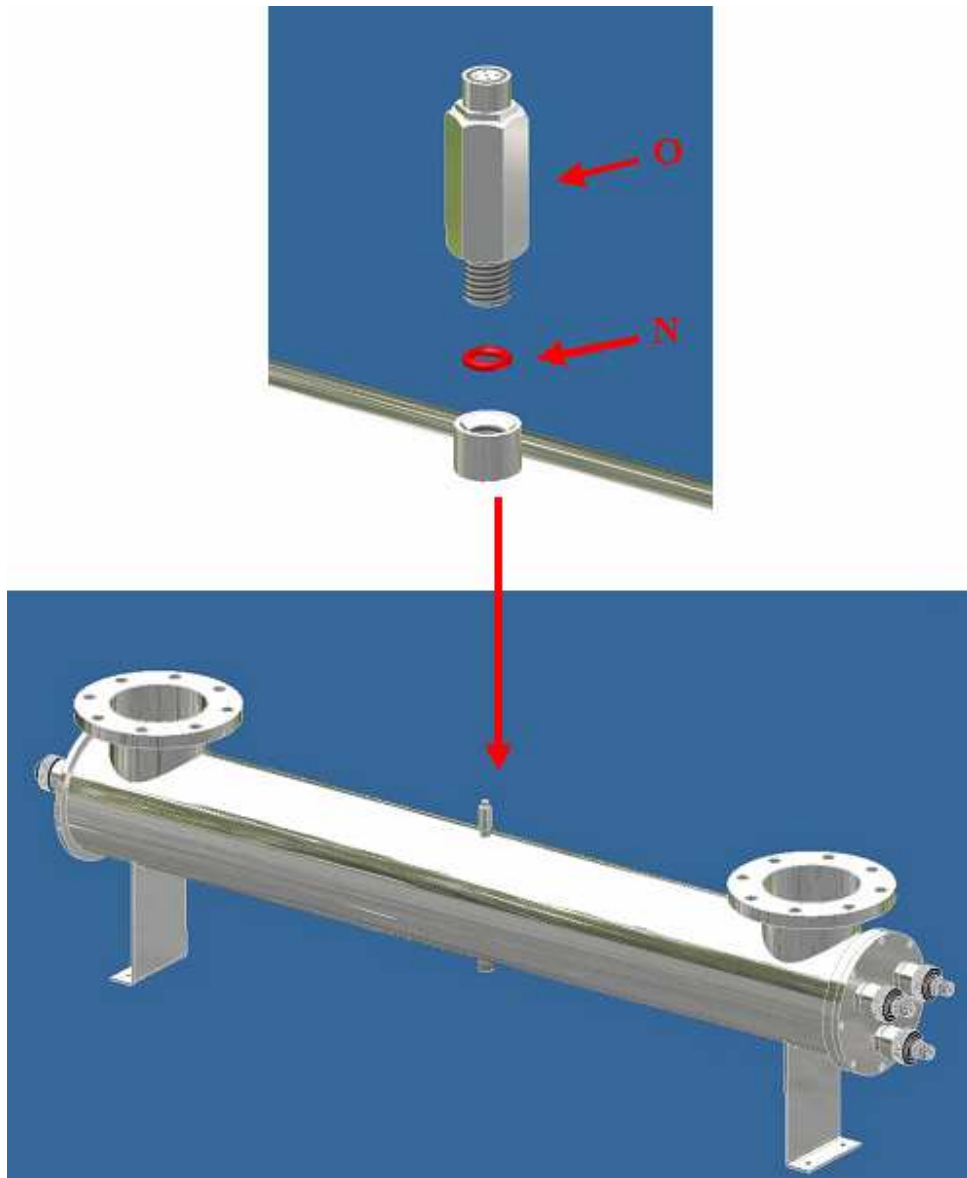
- Connect to the UV-C lamps the 4-pins connectors (H) mounted as on the figure together with the Ø 1 ¼” ring nuts (I), the PG9 nipples (L), and the 4-pins holders in black polyethylene (M) with the pertinent o-rings 2112 type.



- Screw the Ø 1 ¼” ring nuts (I) on the s/s sleeve bolts.



- Mount the o-ring (N) (3043 type) on the probe holder (O) and screw this one on the  $\varnothing \frac{1}{4}$ " bush welded in the middle part of the UV chamber. Finally, connect the pertinente electrical cable.



## 5. UV Controller

The UV Controller has a 2 line x 16 character backlight LCD display, one general alarm LED and 4 Function Keys:



### Function Keys



#### **START/STOP/OK**

- ) When it's pushed for more than 5 sec. it turns ON/OFF the UV System
- ) In the menu of the display it ENTER the menu and confirm the parameters or the operation



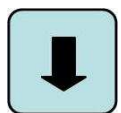
#### **ESC**

- ) Back one level in the menu



#### **UP**

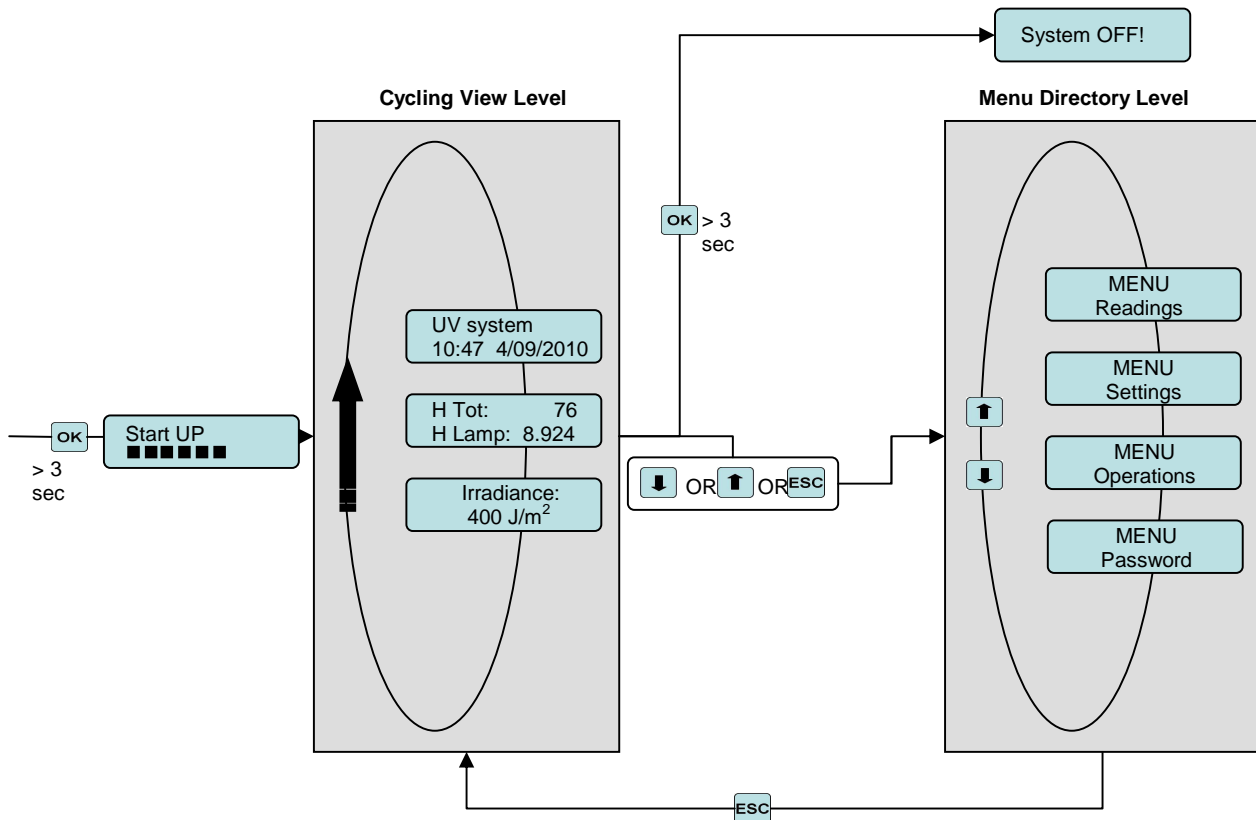
- ) Increase the parameters
- ) Move UP through the menu



#### **DOWN**

- ) Decrease the parameters
- ) Move down through the menu

## 5.1 Operation Flow Chart:



### Cycling View Level

It's the standard working level. It shows cyclically the Date and time, the 2 hour meters and the UV Irradiance (Dose). H Tot is the total UV System lifespan. H Lamp is a "count down" from the last lamps replacement.

### Menu Directory Level

It's the Main Menu level. Four different menus are available:

**Readings:** It's the Menu in which the user can read all the parameters that the system is reading or has memorized.

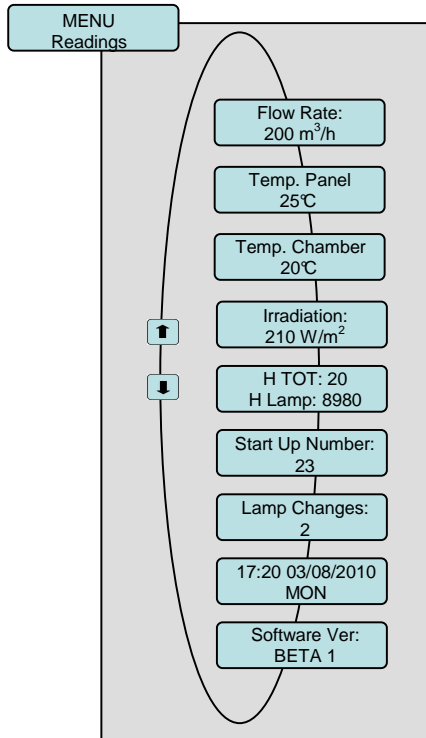
**Settings:** It's the Menu in which the user can set all the parameters useful for the measurements and the system working.

**Operations:** It's the Menu in which the user can operate on the UV system.

**Password:** It's a menu protected by the user. The user cannot enter this menu if not allowed by the producer.

## 5.2 Menu Readings:

It is the Menu in which the user can read all the parameters that the system is reading or had memorized.



**Flow Rate:** Visible if a flow meter is connected to the UV System. It shows the water flow in m<sup>3</sup>/h passing through the UV system.

**Temp. Panel:** It shows the electrical panel internal temperature.

**Temp. Chamber:** Visible in case of Rack Plus or SMP systems. It shows the water temperature inside the UV chamber.

**Irradiation:** Visible in case of Rack Plus or SMP systems. It monitors the UV-C output through an UV sensor which is installed into the UV chamber. The sensor signal can be shown in a relative display (%) or in an absolute display in W/m<sup>2</sup>. If the flow signal is available the system can calculate the UV Dose and so the Irradiance will be expressed in J/m<sup>2</sup>.

A drop in the sensor signal can be caused by:

- ~ Deposits on quartz sleeves lamp protection
- ~ Deposits on quartz of the UV sensor
- ~ Significant variation on UV transmittance of the water
- ~ Decrease of the UV-C output in lamp(s) due to the lamp ageing

**H Tot:** It's the total UV System lifespan.

**H Lamp:** It's a "count down" from the last lamps replacement (see section "Operations" regarding how to restart the "count down")

**Start UP Number:** It's the total number of start up of the system. Too much start/stop of the lamp can damage them and decrease their efficiency.

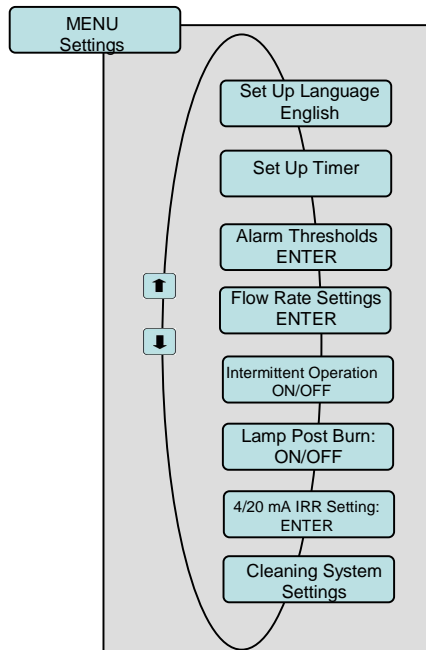
**Lamp Changes:** It's the total number of changes of the lamp. The system incorporate "count down" from the last lamps replacement. When this is zero an alarm informs that You have to change the lamps. On every lamps replacement the H Lamp count down must be reactivated and the N° of Lamp Changes increases of one.

**Date and Hours:** It visualizes the current date and hours.

**Software Version:** It visualizes the software version.

## 5.3 Menu Settings:

It's the Menu in which the user can set all the parameters useful for the measurements and the system working.



**Language:** Set the language of the display.

**Timer:** Set Date and Hour

**Alarm thresholds:** Set the alarm max and min values (see section “Set Alarm threshold”)

**Flow Rate Settings (optional):** Visible if a flow meter is connected to the UV System. Set the parameters useful for the flow rate alarms and/or readings (see section “Flow Rate Settings”).

**Intermittent operation:** Set the start and the stop hour of the UV system (see section “Intermittence operation”).

**Lamp Post Burn:** Set the post Burn time (see section “Post Burn”)

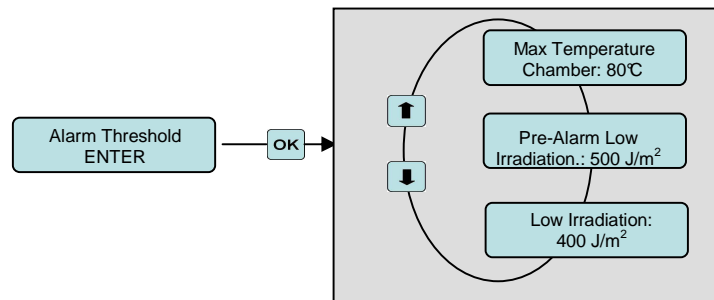
**4/20 mA IRR (optional):** Visible if the 4/20 mA optional is available. Set the 4/20 mA output for the Irradiance (See section “Irradiance 4/20 mA settings”).

**Cleaning System Settings (optional):** Set Day of the week, hours and N° of cycles of the cleaning system start.



### 5.3.1 Alarm Thresholds Settings

In this menu the user can set the alarm values:



**Max Temperature Chamber:** Visible in case of Rack Plus or SMP systems. This threshold level define the max allowed water temperature in the UV chamber.



In case of flow absence the UV lamp(s) can increase the water temperature. This can damage the lamps and the UV system. If the water temperature is higher then 40°C then the system will shut off automatically and a message “SYSTEM OFF, HIGH TEMPERATURE” is shown.

*Factory Settings: 40°C*

**Pre-alarm Low Irradiation:** Visible in case of Rack Plus or SMP systems. If UV output drops under this warning threshold then a warning is registered. To avoid signal falling below safety threshold, carry out immediate cleaning of lamp quartz sleeve or replace the lamp or improve water quality with suitable pre- treatment.

**Important!** *The sensor signal can be shown in a relative display (%) or in an absolute display in  $W/m^2$ . If the flow signal is available the system can calculate the UV Dose and so the Irradiance will be expressed in  $J/m^2$ . In all these case the threshold level has the same unit of measurements.*

**Important!** The warning threshold must be higher then the safety threshold.

**Alarm Low Irradiation:** Visible in case of Rack Plus or SMP systems. If UV output drops under this threshold level then an alarm is registered.

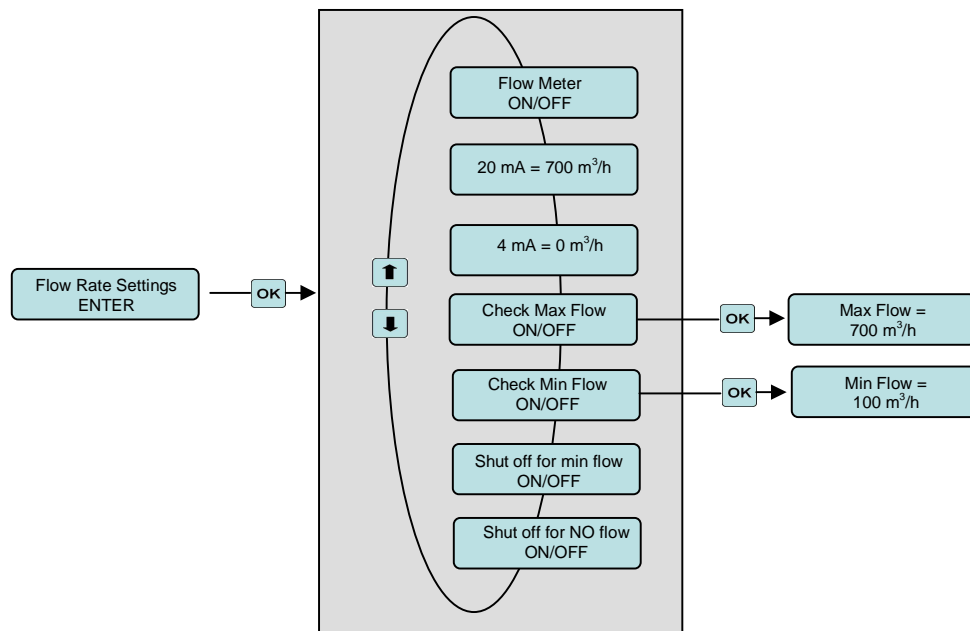


Water that passes through the UV system when the irradiation is under this level can be non-completely disinfected. Carry out immediate cleaning of lamp quartz sleeve or replace the lamp or improve water quality with suitable pre- treatment.

*Relays switch when irradiation is under this safety threshold.*

### 5.3.2 Flow Rate Settings (Optional on Request)

Available only in case that the UV system is provided with a flow meter or connected to an external one. Set the parameter useful for the flow rate alarms and/or readings (see section “Flow Rate Settings”).



**Flow Meter ON/OFF:** Set if the flow meter is available.

**20 mA = :** The UV system can read a 4/20 mA signal from the flow meter. If the flow meter is external then the customer must set the correspondence between 20 mA and the flow rate measured.

**4 mA = :** The UV system can read a 4/20 mA signal from the flow meter. If the flow meter is external then the customer must set the correspondence between 4 mA and the flow rate measured (usually 4 mA is 0 m³/h).

*Never associate to 4 mA a flow rate higher than the correspondent to 20 mA.*

**Check Max Flow:** Set if the user need to check the max flow rate and so to have an alarm in case the flow rate is over this threshold level.

A too high flow rate can destroy the quartz sleeve or reduce the contact time with the UV so that the water is not enough disinfected.

**Check Min Flow:** Set if the user need to check the min flow rate and so to have an alarm in case the flow rate is lower then this threshold level.

**Shut off for min flow:** Turn off the lam(s) in case of water flow rate through the UV system lower then the threshold level set in the previous section.

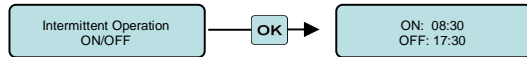
A too low flow rate can increase the water temperature and so ruin the UV system.

**Shut off for no flow:** Turn off the lamp(s) in case the water flow rate is 0 m³/h.

In case of flow absence the UV lamp(s) can increase the water temperature. This can damage the lamps and the UV system. If the water temperature is higher then 40°C than the system will shut off automatically and a message “SYSTEM OFF, HIGH TEMPERATURE” is shown. To prevent this the user can decide to turn off the lamp immediately when the flow rate is 0 m³/h.

### 5.3.3 Intermittent Operation

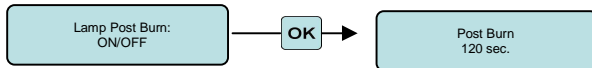
Menu visible only if the remote ON/OFF option is disconnected in the password menu.  
In this menu the user can set the automatic start up and shut off hour of the UV Lamp(s).



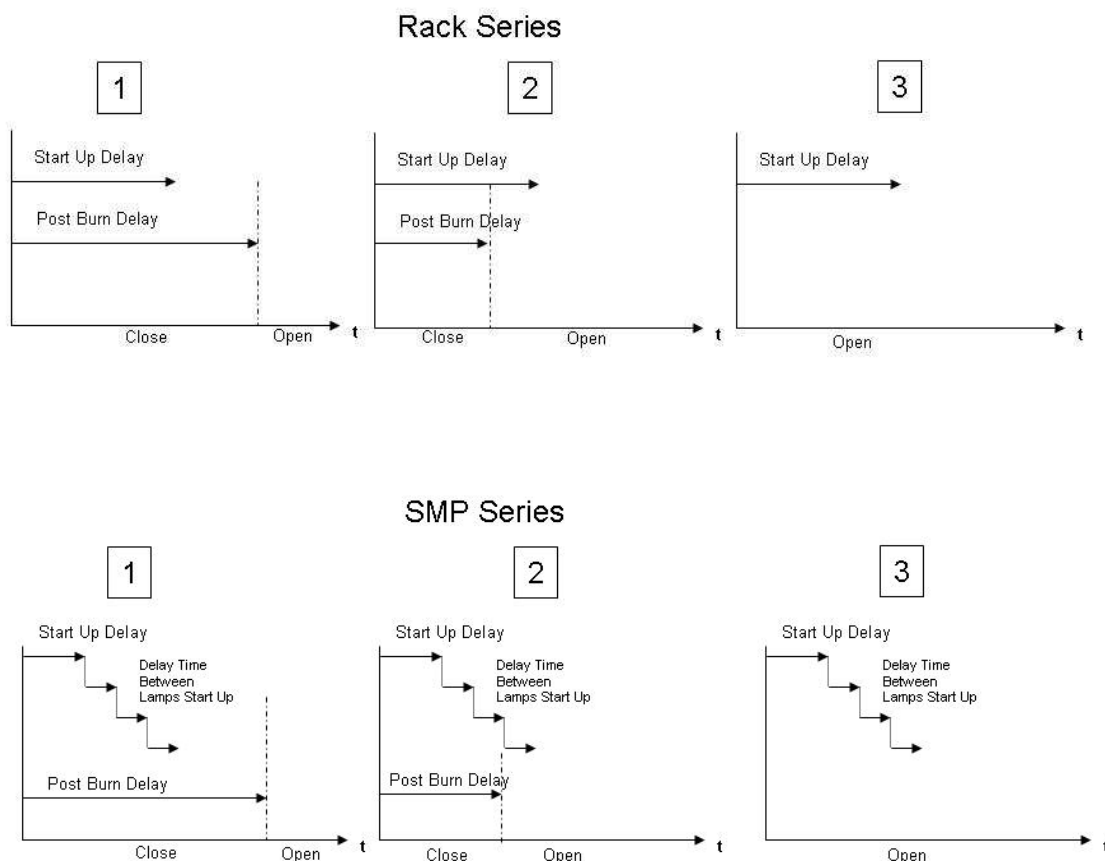
If the system is OFF the next start up hour will be visualized in the display.  
If the system is ON the next shut off hour will be visualized in the display.

### 5.3.4 Lamp Post Burn

The user should prevent that water insufficiently disinfected may reach the consumer. Lamp post burn delay time avoids that water insufficiently disinfected can pass during the start up.



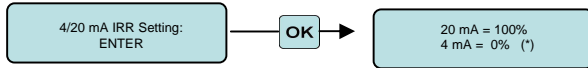
Usually during the start up the alarms are inhibited, if post burn delay time is ON then the alarms relays are switched for all the post burned time. If automatic valves are connected to the UV systems relays then this will remain close for all the post burn time. As results the water will not pass during the start up time. Below time flow chart with identification of the valve position:



### 5.3.5 Irradiance 4/20 mA Settings (Optional on Request)

The UV system can have an 4/20 mA output available as optional.

This signal is available for the chamber temperature and the UV irradiance. The temperature signal is 4 mA for 0 °C and 20 mA for 100°C. The Irradiance 4/20 mA signal can be set by the user:



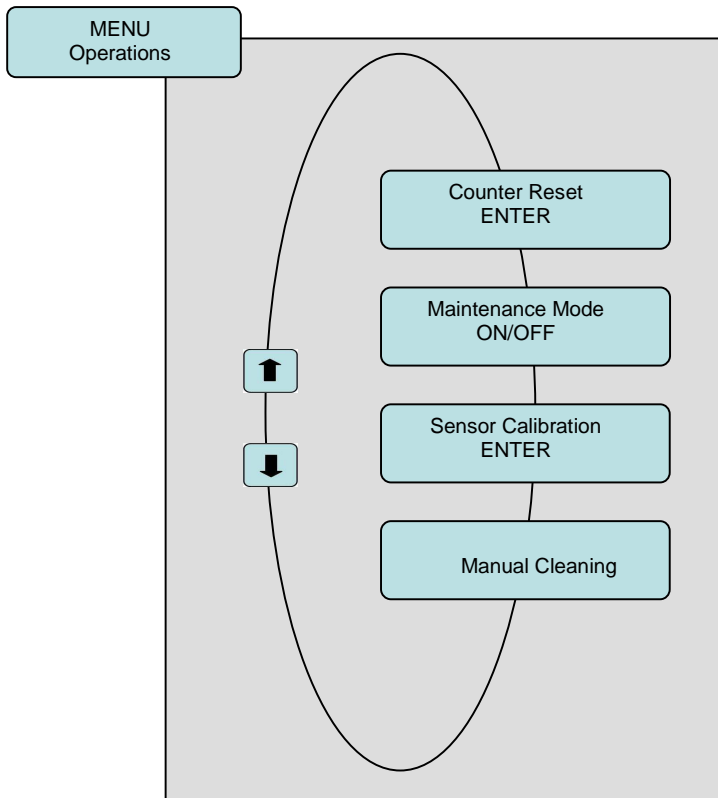
For example the user can associate 4 mA to 0% and 20 mA to 110% of irradiance. In case the irradiance is shown in absolute measurement units ( $\text{W/m}^2$  or  $\text{J/m}^2$ ) the association can also be done by the customer (ex: 4 mA to 0  $\text{W/m}^2$  and 20 mA to 230  $\text{W/m}^2$ ).

### 5.3.6 Cleaning System Settings (Optional on Request)

Set the day of the week and the hours and the n° of cleaning cycles. The cleaning system of the rack quartz sleeves will start automatically at the hours and date day of the week. In case of one cycle the cleaning system starts from one side arrives at the opposite side of the quartz and then comes back. In case of 2 cycles this operation is done twice.

## 5.4 Menu Operation:

In this menu the user can do some operations on the UV system. The operation that may be done are: restart the lamps hour meter, put the system in maintenance mode and calibrate the sensor (only in Rack Plus / SMP UV versions):



### 5.4.1 Restart Counter

The system incorporate a “count down” from the last lamps replacement. When it is zero an alarm inform that the user must change the lamps.

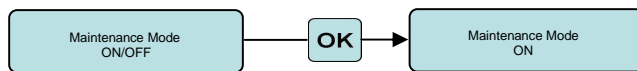
On every lamps replacement the partial hour timer must be reactivated.



This operation restarts the H Lamp to the standard value (that is the standard lifespan of that specific lamp).

After the Hour Meter is restarted the number of lamp changes increases of 1. the number of lamp changes can be also read in the READING menu. After this operation the sensor calibration must always done.

## 5.4.2 Maintenance Menu

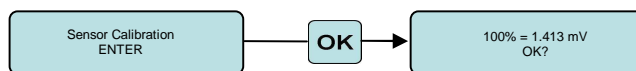


In this configuration the system can work and the lamp remains on but no alarm will switch. In this way the user can do maintenance (work on the sensor without alarms that may close the valves).

## 5.4.3 Sensor Calibration

### ✓ Irradiance in %

With this operation the user confirms that the signal read by the UV sensor matches the 100% of the irradiance of the lamps.



IMPORTANT:

The sensor must be calibrated on every lamp replacement.



IMPORTANT:

To calculate the IRR. FACTOR, it's important the sensor calibration in steady condition (the time depends on the quality of water, it is about 30 min).

### ✓ Irradiance in $W/m^2$ (or Dose in $J/m^2$ ):

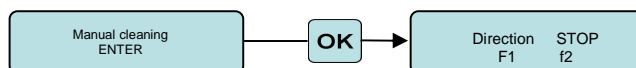
The same operation is possible if the system expresses the irradiance in  $W/m^2$  (or the Dose in  $J/m^2$ ).



In this case the calibration can only be done by authorized peoples and with a reference sensor.

The association of the sensor signal with the real Irradiance ( $W/m^2$ ) is done by the factory. Once time per year the user should send the sensor to the factory to be calibrated.

## 5.4.4 Manual cleaning



With this operation the user can move the cleaning system in both the directions. Push ok then move up and down to chose the direction. Direction 1 → 2 (means from end switch 1 to end switch 2). If the cleaning rack is arrived at one end switch than an “\*” will be visualized near F1 or near F2.

## 6. List of alarms and troubleshooting

Each alarm switches the main relays (free contact and 230 V contact) and a red led is lighted in the el. Panel..

The following alarms can be shown in the UV System Display:

### Lamp Failure

Each lamp of the UV system is identified with a number.  
This message is visualized when lamp number X is not working.

#### Possible Causes:

- ✓ Lamp Burned
- ✓ Ballast Burned

#### Solutions:

- ✓ Change the lamp
- ✓ Change the ballast

*In this case put the system in MAINTENANCE MODE if it is necessary to continue the disinfection with the other lamp without alarms. If it's not necessary then turn off the system and change the lamp or the ballast (see following troubleshooting).*

### Chamber High Temperature

It's visible in case of Rack Plus or SMP systems. It's visualized in case the water temperature inside the chamber is higher then the settable threshold level (*factory setting 40°C*).

#### Possible Causes:

- ✓ No Flow
- ✓ Non correct signal from the temperature sensor

#### Solutions:

- ✓ Check pumps, valves
- ✓ Check the temperature sensor



#### IMPORTANT:

In case of water high temperature the system shut down for safety reason.

### Panel High Temperature

It's visualized in case the panel temperature is higher then the settable threshold level (*factory setting 50°C*).

#### Possible Causes:

- ✓ Problem on the fan
- ✓ Non correct signal from the temperature sensor

#### Solutions:

- ✓ Check the fan
- ✓ Check the temperature sensor
- ✓ Clean/change the filter



#### IMPORTANT:

In case of water temperature high the system shut down for safety reason.

#### Low IRR

It's visible in case of DS Plus or SMP systems. It's visualized in case the UV Irradiance (or Dose) is under the threshold level.

#### **Possible Causes:**

- ✓ Deposits on quartz sleeves lamp protection
- ✓ Significant variation on UV transmittance of the water
- ✓ Decrease of the UV-C output in lamp(s) due to the lamp ageing
- ✓ Deposits on quartz of the UV sensor

#### **Solutions:**

- ✓ Clean the quartz sleeve
- ✓ Filter the water
- ✓ Change the lamps
- ✓ Clean the sensor

#### Warning low IRR

It's visible in case of DS Plus or SMP systems. It's visualized in case the UV Irradiance (or Dose) is under the threshold level.

#### **Possible Causes:**

- ✓ Deposits on quartz sleeves lamp protection
- ✓ Significant variation on UV transmittance of the water
- ✓ Decrease of the UV-C output in lamp(s) due to the lamp ageing
- ✓ Deposits on quartz of the UV sensor

#### **Solutions:**

- ✓ Clean the quartz sleeve
- ✓ Filter the water
- ✓ Change the lamps
- ✓ Clean the sensor



#### IMPORTANT:

This alarm doesn't switch the main relays.

#### Change the lamp(s)

It's visualized in case the hour meter count down has arrived to 0. This means that the lamp has finished the suggested working time.

#### **Possible Causes:**

- ✓ Lamp lifespan finished

#### **Solutions:**

- ✓ Change the lamp(s) and restart the lamp hour meter count down.

#### No Flow

It's visible in case the system is connected to a flow meter. It's visualized in case the flow meter signal is 0 m<sup>3</sup>/h.

#### **Possible Causes:**

- ✓ No water flow
- ✓ Error on the flow meter signal

#### **Solutions:**

- ✓ Check valves and pumps
- ✓ Check the flow meter and it's cable connection



#### IMPORTANT:

If set the lamps may shut down for no flow (see Section "Menu Settings").



#### Low Flow

It's visible in case the system is connected to a flow meter. It's visualized in case the flow meter signal is lower then the settable threshold level.

##### **Possible Causes:**

- ✓ Low water flow
- ✓ Error on the flow meter signal

##### **Solutions:**

- ✓ Check valves and pumps
- ✓ Check the flow meter and it's cable connection



##### **IMPORTANT:**

If set the lamps may shut down for low flow (see Section "Menu Settings").

#### High Flow

It's visible in case the system is connected to a flow meter. It's visualized in case the flow meter signal is higher then the settable threshold level.

##### **Possible Causes:**

- ✓ High water flow
- ✓ Error on the flow meter signal

##### **Solutions:**

- ✓ Check valves and pumps
- ✓ Check the flow meter and it's cable connection



##### **IMPORTANT:**

If set the lamps may shut down for high flow (see Section "Menu Settings").

#### No signal

It's visualized in case the display board doesn't receive any signal from the other boards. This message identifies the board that doesn't communicate with the monitor board.

##### **Possible Causes:**

- ✓ No connections between the boards
- ✓ Error on one panel board

##### **Solutions:**

- ✓ Ask the manufacturer



**IMPORTANT:** This alarm shut down the lamps for safety reason.

## 7. Replacement of motor shaft gasket for UV 400 RA series

Disconnecting electrical power interrupt the water flow and discharge the UV system.  
Open the metallic cover which protecting the motor shaft joint.



Unscrew the M6 nuts of electrical motor ties and unthread the motor.



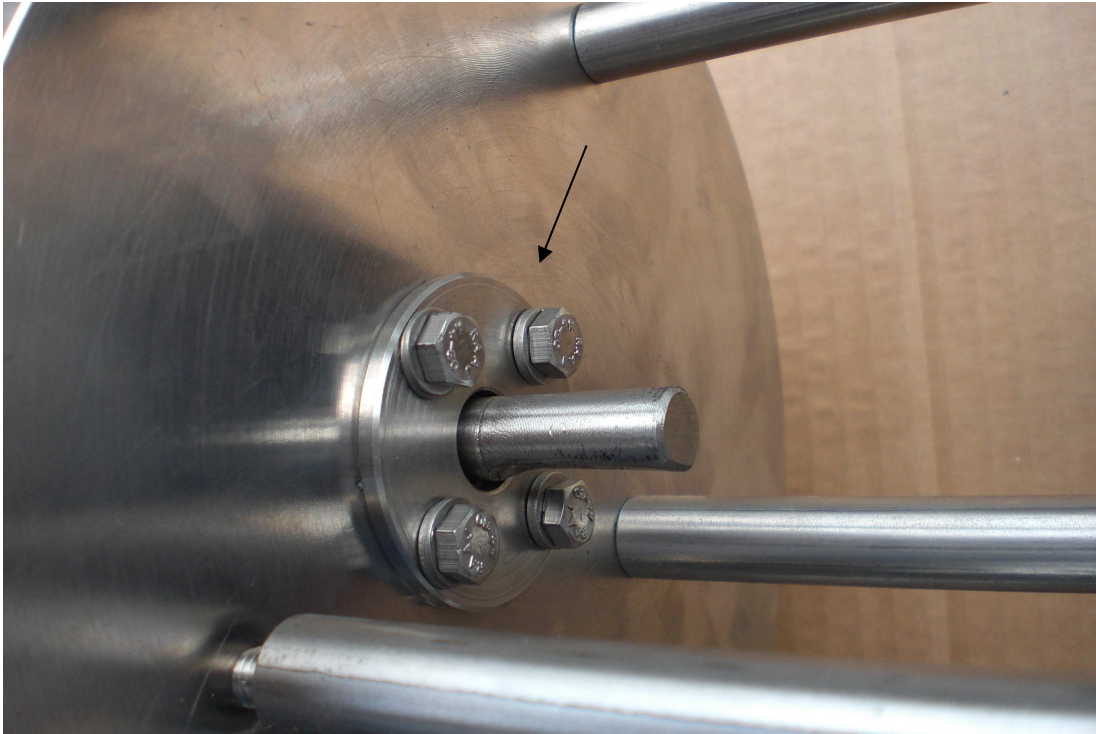


Unscrew the locking grains of joint mounted on the threaded rod and extract the joint.

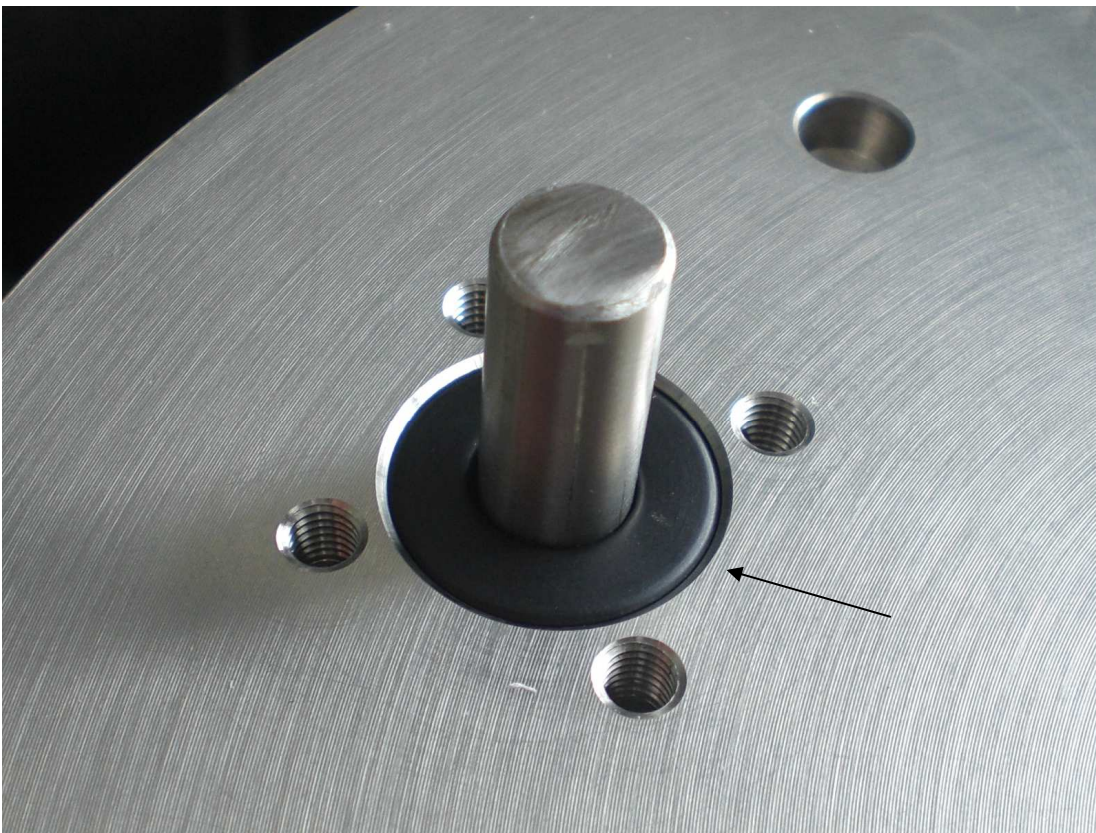




Remove the disc mounted on gasket housing unscrewing its M5 bolts.



Helping with screwdriver, remove the old gasket and insert the new.





Reassemble all and restart the UV system.

## 8. Spare parts

<i>Code</i>	<b>Article</b>
028118	Lamp for 400 series
028201	Quartz for 400 series
028203	Quartz for UV 400/1 RA
028207	O-ring for quartz single lamp 400 series
028034	Contact cover
MP1137/T	Quartz Cleaning Brush

## 9. Reactor Dimensions

(see the attachments to the manual)

## 10. Technical Data Sheet

(see the attachments to the manual)

## 11. Electrical Diagram

(see the attachments to the manual)

## 12. Warranty Condition

<b>WARRANTY CONDITIONS</b>
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SITA works in compliance with ISO 9001-2008 quality procedures and subjects all equipments to accurate checks and tests.

**The SITA supplies and progressing are anyway guaranteed only in the limits of technical specifications and request and/or of the certificates and/or of the specific checks as agreed, for 24 months from the purchase date, provided that eventual defects are stated as fixed by art. No. 1495 of the civil code.**

**The stainless steel chamber is covered by warranty of 5 years only if used for compatible liquids and correctly installed.**

In no case the integral replacement of the product is foreseen and any responsibility of sita is excluded for delays in the delivery of the goods to the customer, for claims of third parties towards the customer, for losses of goods, costs (installation, servicing and maintenance, transports, and so on) and damages of the customer due to the defect.

Moreover the product repaired or tampered by non-authorized third parties, and the product on which an intervention has been made for defect or for convenience tests, is excluded from the warranty.

Repairs are normally carried out in SITA warehouse or in authorized after-sales service centers signalled by SITA.

**The warranty does not cover:**

1. Accidental breakages due to the transport.
2. Breakages due to the use of equipments not in compliance with what is indicated on the use and maintenance manual or to carelessness.
3. Breakages to the connection to a power grid feeded with a tension different than the foreseen one ( $\pm 10\%$  of the nominal value as fixed by CEI rules)

**DO NOT TAMPER THE ADHESIVE LABELS OF IDENTIFICATION**

The adhesive label with the QC (Quality Control) number must be intact and readable; such number allows to enter the data bank of tests and to find the values obtained in the electrical test of the equipment.

The adhesive label with the S/N (Serial Number) number must be intact and readable; such number allows to enter the data bank of tests and to find the values obtained in the hydraulic test of the equipment.

In case of dispute the court of Genova will be competent.

### **13. Declaration Of Conformity**

Unit produced in the factory of:

**S.I.T.A.**  
**Italian Company for Water Treatment**

## **EC DECLARATION OF CONFORMITY**

The undersigned hereby declares, under full responsibility, that the unit:

**UV STERILIZER**

**400 SERIES**

**DS PLUS MODELS**

IS IN COMPLIANCE WITH

2006/95/CE (low voltage directive)

2004/108/CE (electro-magnetical compatibility)

2002/95/CE (RoHS)

2002/96/CE (WEEE)

IEC -EN 60204-1 norms (safety of machinery-electrical equipment of machinery)

IEC -EN 55022 norms (characteristics of radio interference)

D.Lgs. 31/2001 (Implementation of Directive 98/83/CE on the quality of water intended  
for human consumption)

97/23/CE (art.3 comm.3) (PED)

The validity of CE marking is subordinated to the equipment integrity. Any modification, if not authorized, will cancel the use of the CE marking. This will occur in case the relevant risks have not been previously analyzed by our company, and a new EC Declaration of Conformity has been issued.