QUICK INSTALATION GUIDE

UVSCENIC

sugar.valley

1 DESCRIPTION

With the HYDROLYSIS system we produce active agents like OXYGEN, PEROXIDE, HYDROXYLS, OZONE… on the bases of Water (H2O - with a minimum conductivity of 1000mS). While the Water passes through the hydrolysis cell these oxidative agents are produced. This disinfect sand eliminates the organic material present in the water. The generated disinfectants turn back into H2O while returning to the pool. The salinity provided at start-up (1.5-2.5 g/l) keeps the water in perfect condition with a free chlorine residual that is imperceptible to the eyes and skin.
UV Scenic supports this process by adding UV light disinfection. the additional exposure of microorganisms and germs to hard UV light achieves exceptional clean free of chemicals.

Electronic unit

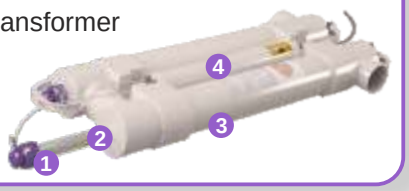
2. Hydrolysis cell
3. RCA flow detector
4. pH probe
5. Redox probe
6. Mains connection 220v.
7. 3.15A fuse
8. 250 mA fuse
9. ON-OFF switch
10. Air vent
11. Acid pump connection
14. 1.6A fuse
15. Connection U.V.

Cell

1. Hydrolysis cell
2. RCA flow detector
3. Cell connection
4. Flow/gas detector
5. Cell housing

Ultraviolet

1. U.V. lamp 55W
2. Quartz crystal
3. White ABS Support
4. Power transformer



Optional extras

ph probe

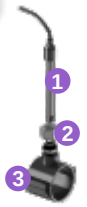
1. Probe
2. Probe casing
3. Connection housing

Redox probe

1. Probe
2. Probe casing
3. Connection housing

Conductivity probe

1. Probe
2. Probe casing
3. Connection housing



2 INSTALATION

Electrical consumption

	Maximum consumption	Recommended protection
UV 16	180W	10A
UV 33	228W	10A
UV 50	600W	16A
UV 85	1020W	16A
UV 125	1440W	25A
UV 175	1620W	25A

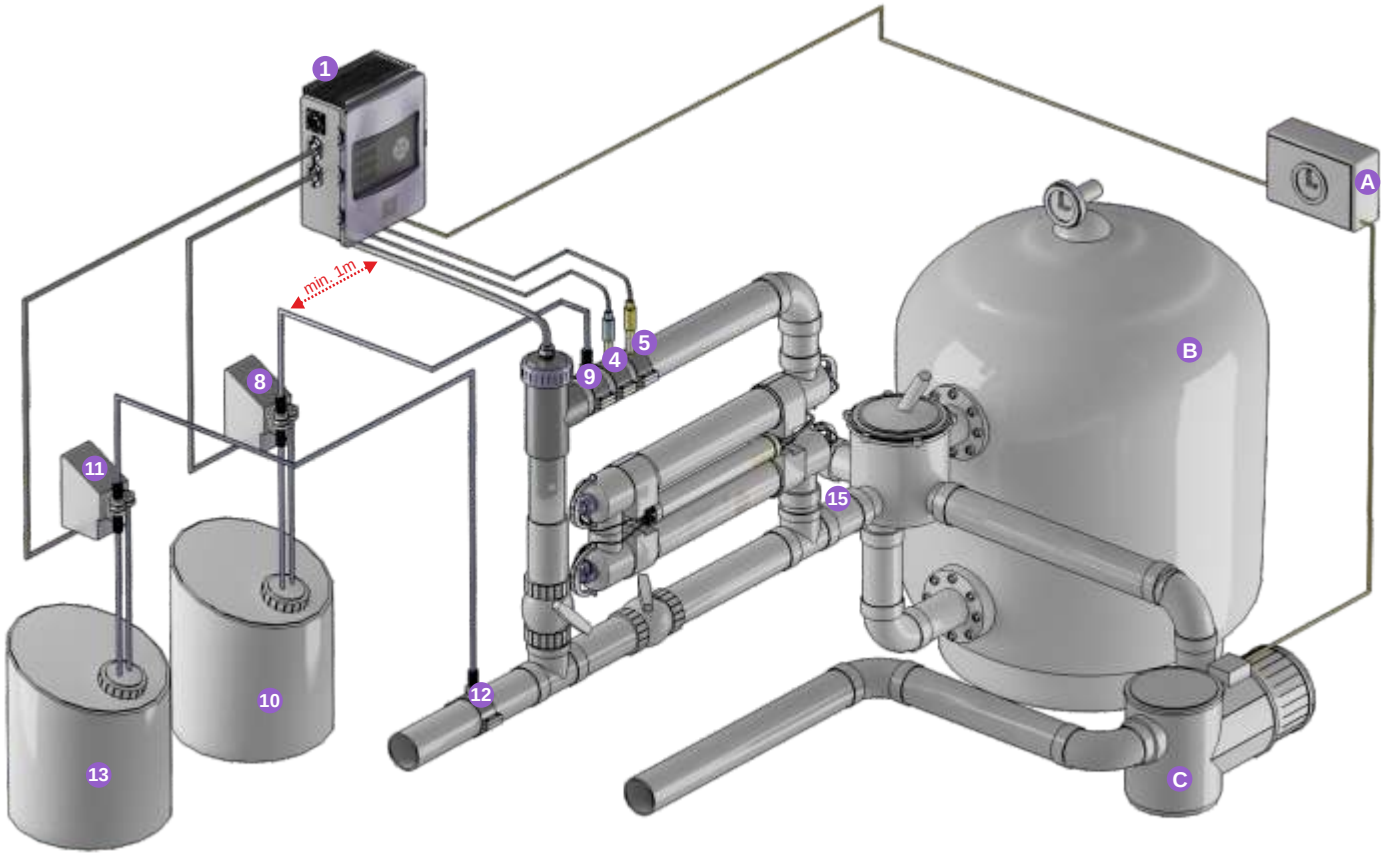
TITANIUM CELL connection overheating

Ensure all electrical connections are firmly fixed to avoid false contacts and subsequent overheating of system components (Especially concerning the Hydrolysis cell with usage above 33A).

UVSCENIC synchronized with FILTRACIÓN

Ensure the hydrolysis unit is synchronized with the pool filtration and stops functioning when water circulation has stopped.

System installation diagram



- A Filtration pump timer
- B Sand filter
- C Recirculation pump

- 1 Electrical housing
- 3 Hydrolysis cell (always in vertical position)
- 4 pH probe (Optional, for models with PH control)
- 5 Redox probe (Optional, for models with redox control)
- 6 Conductivity probe (Optional, for models with conductivity control)
- 8 Acid pump (Optional, for models with PH control)
- 9 Acid injector (Optional, for models with PH control)
- 10 Hydrochloric acid container (optional, for models with PH control, not supplied with unit)
- 11 Chlorine pump (Optional, for models with redox or free chlorine control + auxiliary chlorine dosage)
- 12 Chlorine injector (Optional, for models with redox or free chlorine control)
- 13 Chlorine container (Optional, for models with redox or free chlorine control, not supplied with unit)
- 15 Other pool equipment (pool heating, heat exchanger, etc,)

3 INITIAL ADJUSTMENTS

Water adjustments

1.Adjust the alkalinity between 90 and 110 ppm.
2.Adjust the PH between 7,2 and 7,4
3.Adjust the chlorine between 1 and 1,5 ppm.

SHOULD the water be supplied from a well: shock chlorinate with Tricloroisocyanuric acid (2Kg./50m3 of water)

Conductivity adjustments

In poorly conductive waters add 2Kg, of sodium chloride (Salt=NaCl) for every m3 of pool water.

IN POOLS WHICH RECEIVE LARGE AMOUNTS OF STRONG SUNLIGHT 30gr/m3 OF STABILYSER (Isocyanuric acid) MUST BE ADDED

This will not be necessary for covered pools.

4 START UP

Electronic housing display

Start up

Conductivity/Cell life
Low conductivity (See section 3)
Titanium cell incrusted (See cleaning process in section 5)
Cell surface corroded (See section 7)

Insufficient FLOW or cell disconnected
Production halted due to lack of flow, or gas in the titanium cell detector.

ONLY SYSTEMS WITH REDOX OR FREE CHLORINE
The system has automatically stopped as Redox levels are above the chosen values (See section 5)

ONLY SYSTEMS WITH FREE CHLORINE CONTROL (ppm's)
INSUFFICIENT FLOW in the CHLORINE detector.
The rotary sensor detects insufficient flow. CHECK the rotameter pendel – and solve the system's hydraulic problem (If there is a preceding filter this must be cleaned).

Time delay
Period of non-production while system changes polarity (0-120 sec.)

ALARM
Excessive increase or decrease in parameters (+/- 15% from the selected parameters).
CHECK LEVELS IN ACID/BASE CONTAINERS
CHECK PROBE CALIBRATION

UV LAMP
Lamps have reached 8,000 hours of operation. We recommend lamp replacement.

5 SYSTEMS WITH REDOX CONTROL

The Redox level advises us of the potential oxidization or reduction level and is used to determine the level of water sterilization. The parameters or Set Points are the minimum/maximum accepted REDOX levels before the titanium cell is connected/disconnected.

Adjusting the ideal REDOX level (set point) is the last step in the UVScenic start up sequence. To find the optimum REDOX level for your pool follow these steps:

1. Connect the pool filtration system (The salt in the pool must be adequately dissolved).
2. Add chlorine to the pool till a level of 1 ppm. is achieved (Approx. 1 gr/m3 of water). PH levels should be between 7,2 and 7,5.
3. After 30 min. test the free chlorine levels in the pool (DPD1 manual test kit) If the free chlorine level is between 0,8-1,0 ppm: Look at the REDOX screen and memorize this level as the set point to CONNECT/DISCONNECT the hydrolysis cell (To memorize the set point see section 8)
4. The next day check free chlorine levels (manual DPD1 test kit) and REDOX. Raise/lower set point if necessary.

6 MAINTENANCE

Initial maintenance

During the first 10-15 days your pool system will require more attention and the following care:

1. CHECK THE PH REMAINS BETWEEN THE IDEAL LEVELS (7,2-7,4). If the PH is unusually unstable AND USES A LOT OF ACID check the alkalinity (Recommended levels between 80 and 125ppm.).

2. The pool must be vacuumed and the skimmers cleaned whenever necessary to ensure perfect water conditions.

REMEMBER that the Sugar Valley system requires a certain amount of time to adapt to your swimming pool and will require additional chemicals during the first 3-5 days.

Titanium cell maintenance

CLEANING THE TITANIUM CELL: Maintenance of the disinfection system (hydrolysis) consists of cleaning the cell or electrode every 2-3 months should it appear necessary (carry out a visual inspection) To clean the electrode:

-Remove the cell from its support (after turning off the filtration system and closing off the necessary valves).

-Place the electrode for no more than 10 min. in 15% HYDROCHLORIC ACID.

-Once the incrustations have softened remove them with a hose.

USE NO METALIC OR SHARP OBJECTS TO REMOVE INCRUSTATIONS. Scratching the edges or surface of the cell will make it vulnerable to chemicals, deteriorate the cell and annul the guarantee.

Fortnightly checks

FREE chlorine	**:** 1.0 PPM
pH	**:** 7,1 – 7,5

Monthly checks

TOTAL (TAC) alkalinity	**:** 80-120 ppm
Salt concentration	**:** 1.500 – 2.500 ppm
Cyanuric acid	**:** 30-50 ppm
Titanium cell	**:**Visual inspection to determine scale.

General maintenance

1-The pool must be vacuumed as usual and the skimmers emptied whenever necessary.

2-Filter backwashing: with Sugar Valley systems the filter requires only occasional backwashing; once every 20 days should be sufficient (providing the filter pressure does not exceed 1 bar, in which case a backwash may be necessary).

VERY IMPORTANT; Ensure that the Sugar Valley system is turned off during filter backwashing.

3-ADDING NEW WATER: Always through the skimmers so that the new water passes through the UVScenic before entering the pool. Remember to add the necessary salt: 2gr. per added litre of water.

4-In winter CHANGING THE POOL WATER IS NOT RECOMMENDABLE. We recommend that the system runs 2-3 times per week (2-3hrs. per day).

DOSAGE PUMPS: Check regularly to ensure that the container contains liquid to prevent the dosage pump running dry. The dosage pump requires maintenance (INSTRUCTIONS ON BOX).

PH PROBES/REDOX/CONDUCTIVITY: Probes must be cleaned whenever necessary (check every 5-6 months). To clean probe, insert in distilled water (Clear liquid). After each cleaning the probes must be calibrated.

7 MENU ACCESS

Accessing user menu

HOLD FOR 3 SECONDS TO ACCESS
EXIT USER MENU

Displays

1. U.V.
2. Hydrolysis level
3. pH Control
4. Redox / Free chlorine control
5. Conductivity control

User menu

OXIDATION LEVEL DISPLAY 2

To modify level RECOMMENDED LEVEL: MAXIMUM POWER 100%

To confirm and change menu

pH SET POINTS DISPLAY 3

To LOWER pH - maximum water pH - CONTROLS THE ACID PUMP (optional equipment)

To modify parameters/maximum pH set point RECOMMENDED LEVEL: 7,2 - 7,5

To increase pH - minimum water pH - CONTROLS THE base PUMP (optional equipment)

To modify parameters/minimum pH set point RECOMMENDED LEVEL: 6,8

pH PROBE CALIBRATION

Insert probe in pH 7 sample, wait till reading has stabilized

Clean probe in NEUTRAL. Insert probe in pH 10 sample and wait till reading is stable.

Calibration correct

Repeat calibration or change probe

Redox SET POINT DISPLAY 4

To modify parameters / Redox set point

To confirm and change menu

REDOX PROBE CALIBRATION RECOMMENDED VALUE SEE CHAPTER 5

Insert probe into 465mv sample, wait till reading is stable.

Calibration correct

Repeat calibration or change probe.

CONDUCTIVITY SET POINT DISPLAY 5 RECOMMENDED LEVEL: 1.500 - 2.500

To modify parameters / conductivity setpoint

To confirm and change menu

CONDUCTIVITY PROBE CALIBRATION

Insert the probe in sample, wait until reading is stable.

Change conductivity reading to match sample.

Calibration correct

Repeat calibration or change probe.

To change menu and return to Ion menu.

8 OPERATING SYSTEM UV

IMPORTANT SAFETY INFORMATION
- Never look directly into a lamp while UV light is shut on.
- Do not operate dry. Do not cover the unit.
- Always disconnect the unit from the power supply and shut the water supply off before performing maintenance.
- The unit may not be immersed in water.
- If the quartz sleeve is cracked, replace it immediately.

The unit should be protected against frost or stored in indoor enclosures during the winter months.

OPERATION
The UV system will operate whenever the filter pump is operating. The upper left display (display 1) of the electronic box indicate the cumulative hours of operation of the lamps.

MOUNTING ON A WALL OR OTHER VERTICAL SURFACE
This unit can be mounted on a wall or other vertical surface. When the unit is full of water it might be too heavy for mounting on a wooden panel of a conventional fence and therefore should be mounted on a wall.

Caution: To prevent the unit from falling into the water, do not install over or adjacent to the pool. Do not electrically connect the unit until the plumbing has been completed and is securely fixed.

For optimal performance we recommend that the total volume of the pool water passes through the UV unit every four hours.

Routine Maintenance

Under normal conditions, the UV lamps placed inside the UV will last 1 year or 8,000 hours. The upper right UVscenic display (display 1) indicates the total hours of operation of the UV unit.
If you change de lamps, use new O-rings. When reassembling the unit, make sure the female threads of the compression fittings and male threads of the main structure are clean.Then replace and firmly hand tighten the compression fittings. Replace the lamp or fit a new one. Relocate the lampholders and blue lampholder shrouds ensuring that you match the correct numbered lampholders.

NOTE: Pinch the blue coating of lamp holder, when reassembling the unit, to release trapped air. If not released any trapped air may provoce disconnection of lamp holder. Reconnect and turn the water supply on, to ensure there are no leaks before you reconnect the power supply.

9 TROUBLESHOOTING

Display blank

*Check On/Off switch is illuminated.
*Check external 250mA fuse has not fused.
*Check electric supply: 210-230V 50Hz
*If problem persists contact TECHNICAL SERVICE.

EXCESS OXIDATION in water

*Lower Hydrolysis level.
*If your system includes AUTOMATIC REDOX CONTROL check REDOX SETPOINT.
*Check REDOX probe and calibrate if necessary.

Hydrolysis does not reach maximum intensity

*Check sodium bromide or common salt concentration in water.
*Check cell status (may be incrusted or calcified).
*Clean electrode following instructions in section 6.
*Clean flow detector situated in the cell casing.
*Check titanium cell is not worn (remember that the cell is guaranteed for 5000-6000 hours (approx. 2-3 years of Summer usage)- see troubleshooting for more information).

Titanium cell incrusted in less than 1 month

*Very hard waters with a high pH and total alkalinity (Balance water adjusting pH and total alkalinity).
*Check to ensure the system automatically changes polarity (LED's alternate every 300min. approx.).
*CONSULT with our technical service to consider ACCELERATING THE polarity change (Auto-cleaning) WARNING: accelerating the polarity change decreases the cell life proportionally.

Free chlorine levels don't reach 0,2ppm. First thing in the morning

*INCREASE FILTRATION time.
*INCREASE hydrolysis level.
*Check levels of sodium bromide or common salt in the pool (1gr.NaCl/L).
*Check level of isocyanuric acid in pool (30-50ppm.) ONLY if using COMMON SALT.
*Check reactive agents in test kit are not TOO OLD.
*Has the temperature or amount of users risen (see 3.1/3.2 see chapter “Water maintenance”).
*pH is above 7,8 and must be adjusted.

Hydrolysis display shows LO

*Water lacks conductivity (see section 3 “water preparation”).
*Check for incrustations on cell.
*See troubleshooting “Hydrolysis does not reach maximum intensity”.

White flakes in pool

*This happens in excessively hard unbalanced waters.
*Balance the water and check the cell. clean it if necessary.

Hydrolysis display shows FL

*Check flow detector cable.
*Clean incrustations of flow detector at top of cell casing.
*Check system is free of air (Probe must be always submerged).

RUST on metallic components in pool

*Metallic elements lack standardized earth connection. Contact an electrician to solve.
*Rusted components are not stainless steel:
minimum 304- recommended 316.

Polarity 1 reaches max. intensity but polarity 2 (Auto clean) does not

*IF SALT LEVEL IS CORRECT (1kg./m3) cell is reaching end of life. As of this moment check intensity every 15-30 days
*When polarity 2 does not reach 50% we recommend substituting cell for a new one if during the summer or maximum usage period. If this should happen in winter change before the next season (summer).

WARNING
Keep chemical levels in pool as instructed in this manual

CLEANING FILTER
Ensure UVSCENIC is NOT RUNNING during backwash.

VERY IMPORTANT
REMEMBER that the system needs some time to adapt to your pool and you will have to increase chemical levels for the first 5 days.

EARTHING
All metallic components in the pool, such as lamps, ladders, heat exchangers, drains or similar elements within 3.00m. from pool (10feet) must be connected to an earth below 37Ohms.
WE RECOMMEND HEAT EXCHANGERS BE MADE OF TITANIUM.

SECURITY
To avoid accidents this product should not be handled by children unless supervised by an adult.
Children should be supervised at all times when in or near a spa, pool or Jacuzzi.

HANDLING AND DOSING DANGEROUS CHEMICALS
Chemicals should be handled with extreme precaution. When preparing ACID, ALWAYS ADD THE ACID TO WATER, never add water to acid!!! VERY dangerous gasses may be produced.