

10. Declaration of Conformity EC

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

SINGLE-MULTILAMP SERIES

AL-LCD-LCD 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.L.gs. 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.



COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DIN
= ISO 9001:2008 =

**ULTRAVIOLET DISINFECTION
EQUIPMENT FOR THE TREATMENT OF DRINKING WATER**

**SINGLE LAMP AL SERIES
405C AL**



MANUAL OF INSTALLATION, USE AND SERVICING



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9. Warranty Conditions

WARRANTY CONDITIONS

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 delivery date or 30 days 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 of 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.

8. Technical data sheet

UV 405C AL Technical Data sheet

GENERAL INFORMATION	
Max flow rate	30 l/m
UVC transmittance	99%- 1 cm
UVC dose	300 J/m ²
Water Temperature range	5-50° C
Total consumption	33 W
Mounting	Vertical or horizontal
UV REACTOR	
Material	Stainless Steel 304 (optional 316L)
Connections	Thread 1/2" M
Total Volume	1,6 l
Total weight	1,8 kg
Max working pressure	10 bars g
Protection class	IP 54
Shape	U
Flow direction	From bottom to top
UV LAMP	
Number	1
Lifespan	9000 hr
Lamp power	30 W
Type	Low pressure type 026102
CONTROL PANEL	
Material	AL
Dimensions	Thermoplastic 218 x 113 x 60 mm
Protection class	IP 54
Ambient temperature range	5 – 45 °C
Power supply	230 V - 50/60 Hz
Lamp cable length	1 m
Power supply cable	1 m
Feed plug	Electrical British plug or passing wires

Rev. 04-2014

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= ISO 9001:2008 =

1. Introduction

This manual is for the following models of SINGLE LAMP AL SERIES:

UV 405C AL

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

Information about UV irradiation

The UV sterilizers of the SINGLE LAMP series 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 warranty 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 sulphuric 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).

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 direction

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 ensured the UV lamp in its housing and inserted the PVC cover.

Indications for the disposal

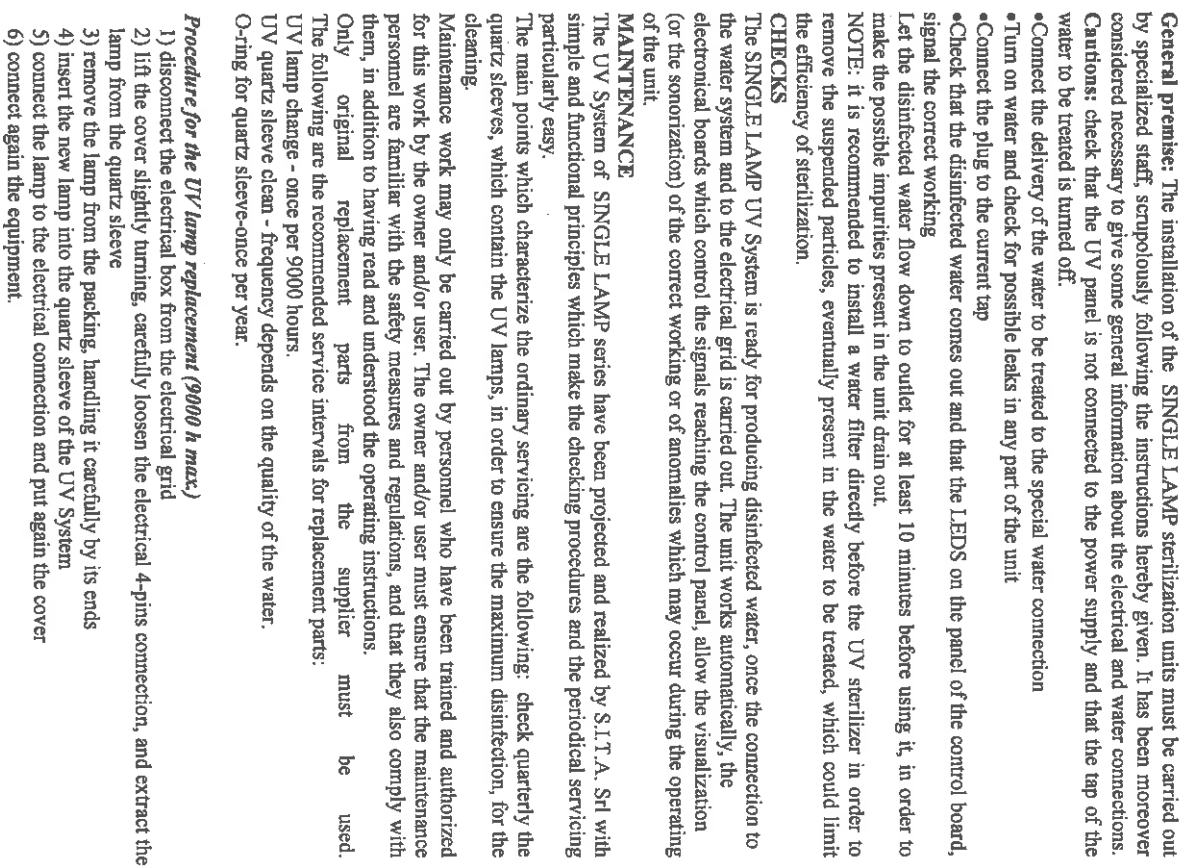
We remind that, according to what is fixed by D.L.25 July 2005, № 151 "Accomplishment of directives 2002/CE, 2002/96/CE and 2003/108/CE, concerning the reduction of the use of dangerous substances in electric and electronic equipments, and the disposal of waste" both mercury vapours lamps and electrical 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.

7. Possible Anomalies

ANOMALIA	POSSIBILI CAUSE	RIMEDI
NO SIGN OF LIFE	☐ NO FEED ☐ BURNED FUSES ☐ ALIMENTATION CONNECTOR ☐ WRONGLY INSERTED	☐ CHECK ☐ REPLACE ☐ CHECK
RED LED ON	☐ EXHAUSTED LAMP ☐ DEFECTIVE LAMP LIGHTER	☐ REPLACE ☐ REPLACE

3. Instruction for installation and setting at work

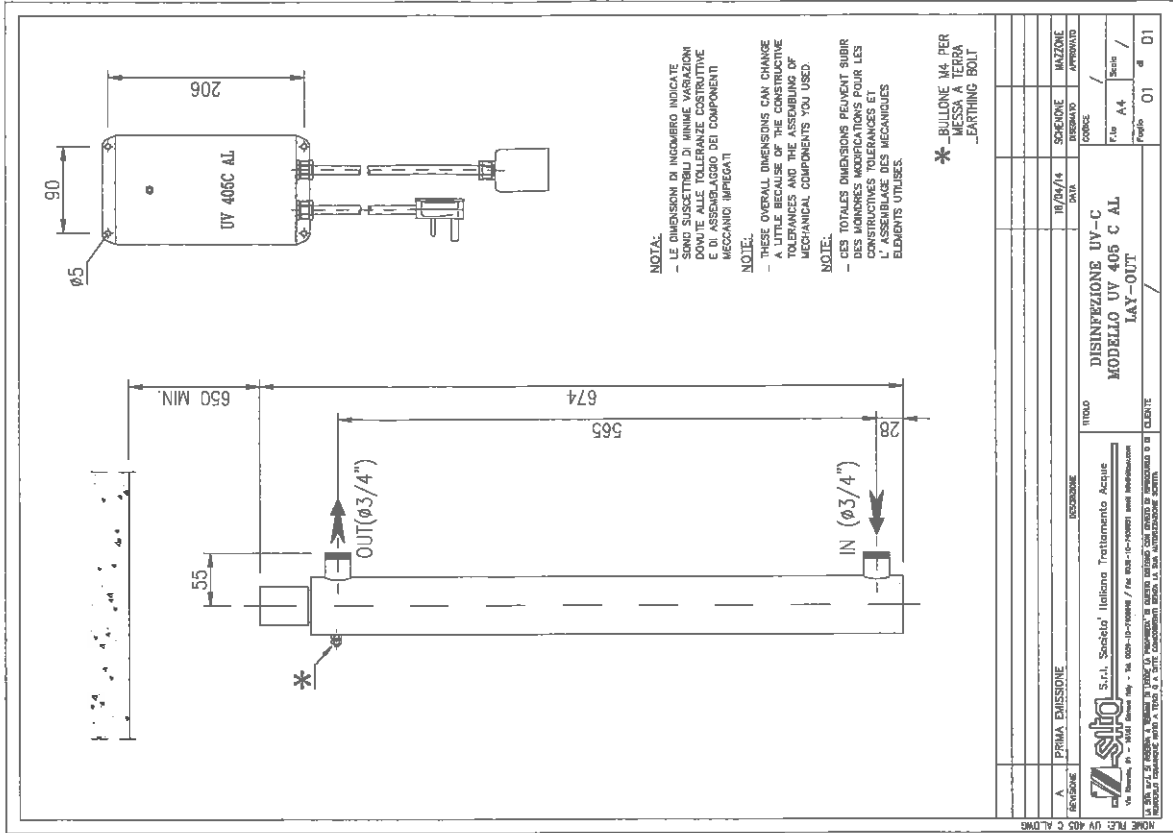


N.B. for the replacement of the lamp it is not necessary to turn water off

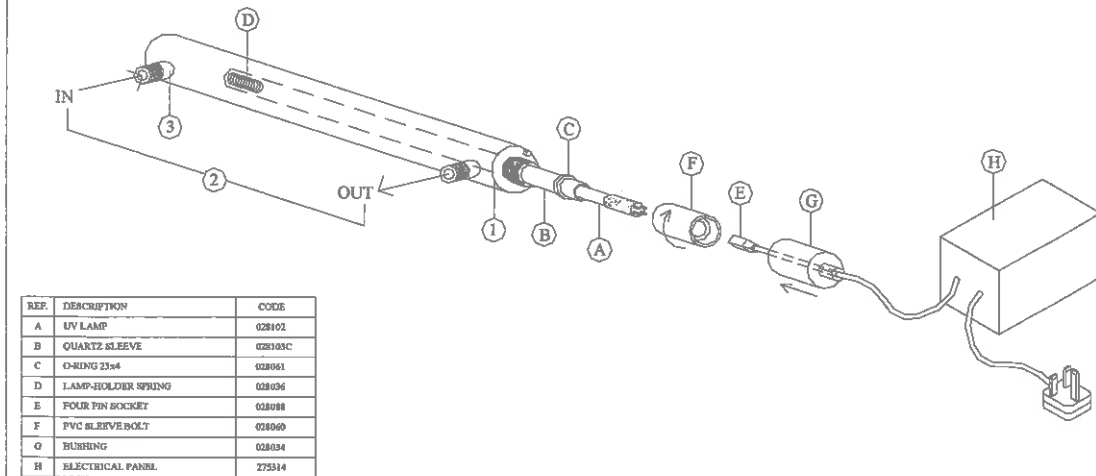
Procedure for the quartz sleeve cleaning

- 1) disconnect the electrical box from the electrical grid and turn off water
- 2) remove the lamp, as for the replacement
- 3) unscrew the sleeve-bolt and extract the quartz sleeve with care such as vinegar or lemon
- 4) clean the quartz sleeve by wiping it with a cloth soaked with an acid solution
- 5) reassemble the sleeve being sure to center the guide-spring fixed on the bottom, put the o-ring on the quartz sleeve, then tighten the sleeve-bolt; place the o-ring in the seat of the sleeve-bolt, insert the sleeve inside it, till it leans, then screw on the S/S chamber.
- 6) turn on water checking for eventual leaks
- 7) remount the lamp, its electrical connection and cover
- 8) turn on the sterilizer.

5. Drawing of UV 405C AL model



UV STERILIZER 405 C AL MODELS



REF.	DESCRIPTION	CODE
A	UV LAMP	028102
B	QUARTZ SLEEVE	028103C
C	O-RING 23x4	028061
D	LAMP-HOLDER SPRING	028036
E	FOUR PIN SOCKET	028088
F	PVC SLEEVE BOLT	028060
G	BUSHING	028034
H	ELECTRICAL PANEL	275514

TECHNICAL SPECIFICATIONS		
MATERIAL: STAINLESS STEEL AISI 304 (ON REQUEST)		
REF.	DESCRIPTION	MEASURES
	UV-C CHAMBER LENGTH	674
1	UV-C CHAMBER DIAMETER	60
2	(IN-OUT) DISTANCE	365
3	(IN-OUT) PIPE CONNECTIONS	3/4"



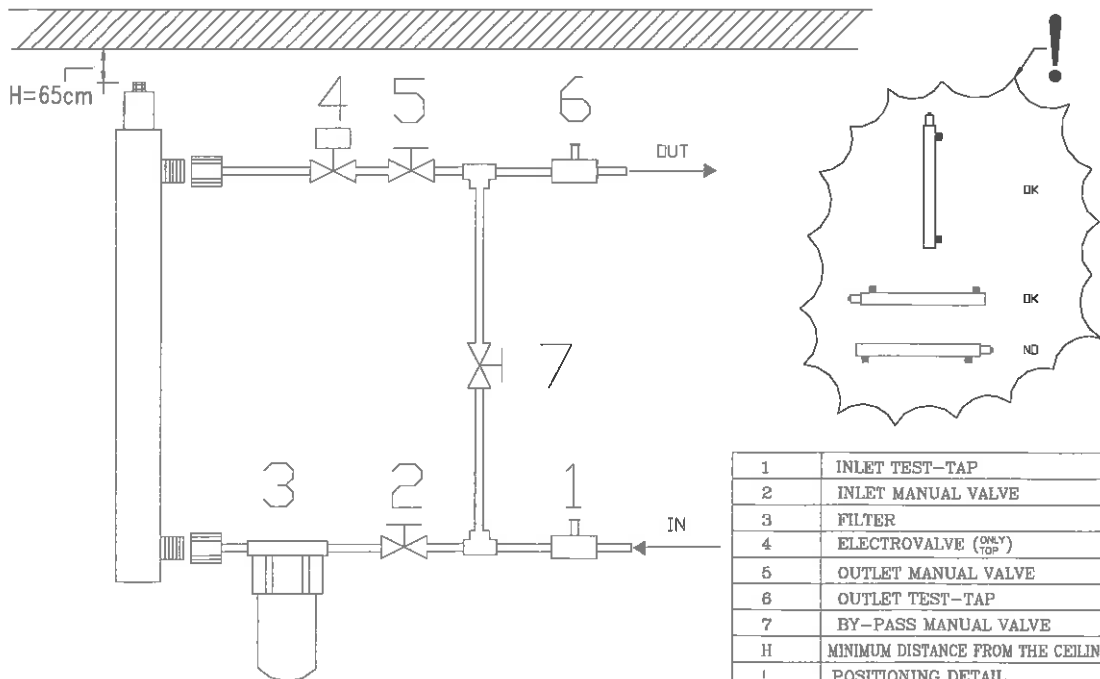
S.r.l. Società Italiana Trattamento Acque

Via Vasselli, 240 - 16159 Genova Italy - Tel. (010) 7408848 / Fax (010) 7408851 email sita@sit.it

EDITION 06/99 - REV. A

4.2 Detailed drawing of the UV-C chamber

RECOMMENDED INSTALLATION SCHEME



1	INLET TEST-TAP
2	INLET MANUAL VALVE
3	FILTER
4	ELECTROVALVE (ONLY 1/2")
5	OUTLET MANUAL VALVE
6	OUTLET TEST-TAP
7	BY-PASS MANUAL VALVE
H	MINIMUM DISTANCE FROM THE CEILING
!	POSITIONING DETAIL



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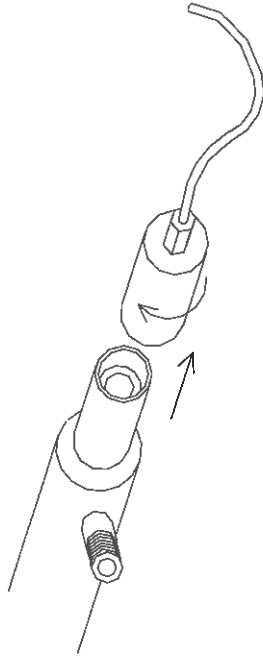
EDITION 04/14

3.1 Installation scheme recommended

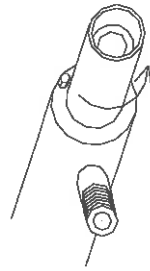
4. UV Chamber Installation

4.1 Assembling of the UV chamber

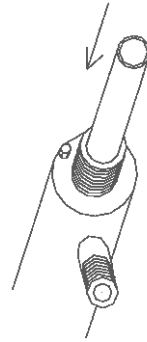
- Extract the PVC contact cover



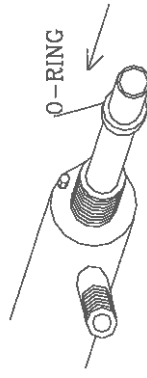
- Unscrew the nylon sleeve bolt



- Insert the quartz sleeve paying attention in centering the guide spring placed on the bottom of the chamber



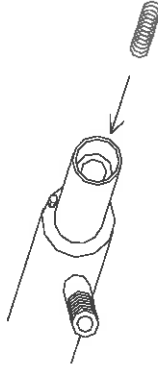
- Insert the O-RING on the sleeve



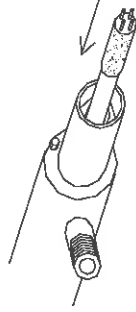
- Screw the nylon sleeve bolt



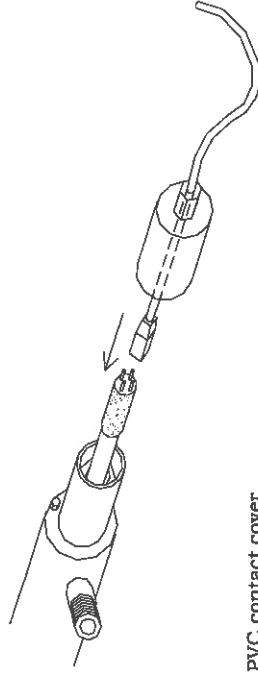
- Insert the lamp-holder spring into the quartz sleeve



- Insert the UV-C lamp into the quartz sleeve



- Connect the electrical four-pin socket



- Insert the PVC contact cover

