

1. PRODUCT IDENTIFICATION

Varm Srl has realized and patented innovative devices for the complete disinfection of the whole bathroom (washbasin, bidet, WC and shower) from viruses and bacteria coming from the sewerage.

VARM SYPHONS: made in stainless steel AISI 304 L, thanks to the power of a UV-C germicidal lamp, allow to eliminates any microorganism of water, avoiding the coming up of viruses and bacteria from the sewer pipes up to bathroom sanitary drainage pipes.

VARM UV DISINFECTION SYSTEM: these devices have a stainless steel disinfection chamber equipped with UV-C germicidal lamps. These devices have been studied to have the same efficacy with both cold and hot water up to 40°C.

2. DESTINATION OF USE, UTILITY AND SAME SAFE PRECAUTIONS

2.1 GENERAL

The product you have bought is particularly suggested for its versatility and simplicity in use. It can be used for the following functions.

VARM SYPHONS: abatement of all microbial and viral count by standing into the sewer pipes and drainage pipes of all bathroom sanitary fittings (washbasin, bidet, wc and shower)

VARM UV DISINFECTION SYSTEM: abatement of all microbial and viral count into the water from the water supply net and bathroom faucets and shower.

WARNING: AVOID THE DIRECT EXPOSURE TO THE UV LAMP LIGHT AND MAKE SURE TO DISCONNECT THE SYSTEM FROM THE ELECTRICAL NET BEFORE ANY KIND OF INVENTION

3. INSTALLATION PROCEDURE.

3.1 – ELECTRICAL SET UP

Installation procedure for the application of ballast for UV-Lamp. Please make sure that the installation procedure is held by professional specialist. Before starting the ballast of the UV-C lamp please check the following points:

- Please ensure that the electricity power supply is not different than 220V,230V,240V according to each specific country.
- Ensure you that the electricity net is prevented against sudden change in voltage or thunderstorms with a circuit breaker and bipolar breaker
- Please ensure that there is a grounded cable and it is not damaged.
- Before the installation, ensure you that there is enough operating space to replace the UV-C lamp when necessary
- The installation should be done in order to avoid the water hammer on the device which can cause the damage to the quartz sleeve.
- Quartz sleeves and uv lamp should be handled with cotton gloves in order to do not modify the surface. Insert quartz sleeve into the disinfection chamber till the frame.
- Connect to the electricity net the power supply cable taking great attention to build a safe grounded connection. Locate the UV-C lamps in correspondence of installation location and adjust the section cables for the connection of the lamp.

3.2 – PLUMBING AND ELECTRICAL SET UP



UV disinfection system for washbasin and shower: it should be connected to the water supply through a dedicated tub (on request) to regulate the flow rate to 4 liters per minute(in case you have asked an additional filter, assemble the filter before assembling the dedicated tap). The Uv disinfection system should be fixed on the wall with a bracket and it should be located near to the faucet in order to guarante the hygest level of efficiency of the lamp. The same procedure should be followed for the other UV devices as the shower that is offered ready to be installed and ready to use. The electrical setting up requires the connection of the current ballast trasformer to the electricity net, and the installation of circuit breaker to block the power supply during maintenace procedure. UV device for washbasin and bidet syphons has the same electrical installation procedure, by connecting the current ballast trasformer, already equipped with the circuit breaker to the electriciry power supply.The uv device for drain well is offered already equipped with UV-C germicidal lamp on the cap. It is powered by a current ballast trasformer that should be connected to the electricity power supply and that is equipped with a circuit breaker for maintenance purpose.

SETTING UP OF UV-C LAMP

Once that the hydraulic components are installed, it is possible to apply the UV-C lamp, inserted into the quartz sleeve, making sure at first that the electrical net is disconnected. Insert UV lamp into the quartz sleeve leaving out the part that should be matched with the connectors. Once lamps are matched to the connectors, please fix with screw the stainless steel cap to the chamber. Connect the system to the electrical net and power it through the circuit breaker. **PLUMBING SET UP.** Slowly open the valve of incoming water into the disinfection system and check that there is no drop, in case of a drop will occur check the integrity of gasket O-Ring.

4. MAINTENANCE

4.1 – FILTER CARTRIGE REPLACEMENT INSTRUCTIONS

- Shut off water and relive line pressure. Rotate the filter and replace the cartridge. The replacement is suggested when filter change in its original color becoming brown instead of white before the use.
- The average life of a filter **is about 10.000 liters.**

In any case the life of a filter depends on water quality.

4.2 – MALFUNCTIONING, INCONVENIENTS AND PROBLEMS MANAGEMENT

In case of malfunctioning of uv lamp, please proceed to the replacement of it as described above .
In case of malfunctioning of the current ballast transformer please contact Varm Assistance Service to:

VARM SRL VIA GALILEO GALILEI 2/4
01033 CIVITA CASTELLANA VT
TEL +39 0761 540095 FAX +39 0761540257
info@varmforhygiene.com www.varmforhygiene.com

4.3 – WASTE TREATMENT

Wasting of UV lamp is regulated by the concerning laws.

4.4 – CLEANING

In order to maintain the most efficacy of the UV-C disinfection, please proceed to a frequent cleaning of syphons and UV disinfection chambers. **To proceed with cleaning and maintenance the device must be disconnect to the electrical net and UV-C lamp must be out of work.** Any kind of UV disinfection chamber and syphon can be inspected, by removing the concerning cap insert and swipe the side of UV disinfection chamber and UV-C lamp quartz with a soft ramrod.

5. NOTE AND WARRANTY

The manufacturer declares to respect all the laws concerning the safety. The device should be operated only in conformity described by the present manual. In case of no respect of the above prescription, warranty covered by the manufacturer will be excluded. The user should notify the date of starting of activity of the present device which will be taken as reference date for the warranty coverage. In case you fail to register the date the warranty coverage will start from the device invoice receipt. In case of some inconvenient due to an incorrect installation will occur, the customer is responsible for the payment of the maintenance service offered by the concerning agency. Warranty covers all components of the device and it includes the reparation and/or if necessary, the replacement of each singular components of the device for free, which according to Varm Assistance Service Staff opinion they present some conformity defaults. Warranty does not cover defaults of esthetic of items subject to usury and damages that are not caused by the manufacturer as for example: transportation, incorrect installation, incorrect maintenance, alterations, sudden changes in voltage, thunderstorms, excess of humidity, accidental shock or due to extenuating circumstance. The validity of warranty depends on the fact that the installation procedure, the maintenance and use of the device will be done in accordance to prescriptions provided by Varm. Varm refuse any responsibilities for damages shall directly or indirectly occur to people, things and animals from the incorrect functioning of the device.

6. CERTIFICATIONS

CE (European Conformity) for disinfection system

Manufactured and assembled by: **Varm SRL**

The product is SUITABLE to be applied into private homes, hospitals, hotel, schools, gyms etc.

Type: syphon for shower, washbasin and floor drain wel and all those devices with the application of the uv lamp

ART: art. 049, 050, 051, 053, 057, 058, 065, 070, 071, 076, 077, 087,088, 089,091,092,ecc

Varm uv disinfection system for the complete bathroom complies with all concerning CE directives on uv disinfection systems and each of its components has the CE mark.

They comply with the following regulations:

- **Regulation 2004/108/EC (EX 89/336/EEC) Electromagnetic Compatibility**
- **DIN EN 55015-2008-04 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.**
- **EN 61547:1996-07+ A1:2000-12 (Emc prescription for immunity)**
- **EN 61000-3-2 (Limits for harmonic current emissions)**
- **IEC 61000-3-3:1994 (Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current 16 A)**
- **EN 62493-2010 (assessment of lighting equipment related to human exposure to electromagnetic fields)**
- **Regulation The Low Voltage Directive (LVD) 2006/95/EC**
- **DIN EN 60335-2-7-2010 (Household and similar electrical appliances - Safety - Part 2-7: Particular requirements for washing machines)**
- **DIN EN 61347-2-12-2011 (Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)**
- **BS EN 61347-1-2008+A2-2013 (Lamp controlgearGeneral and safety requirements**
- **DS/EN 60669-2-1/A1-2009 (Switches for household and similar fixed electrical installations)**
- **DIN EN 60669-1 Berichtigung 1-2010 Switches for household and similar fixed-electrical installations - Part 1: General requirements**
- **En 61199.1999 en 61199:2000 (Single-capped fluorescent lamps. Safety specifications)**
- **Regulation 2011/65/ EU RoHS Directive**
- **En 60529:1991/A1:2000 (EN 60529-1991 Degrees of Protection Provided by Enclosures (IP Code))**
- **UNI EN ISO 9001:2008 (Quality management system certificate)Dichiarazione di conformità**

REVIEW 1
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