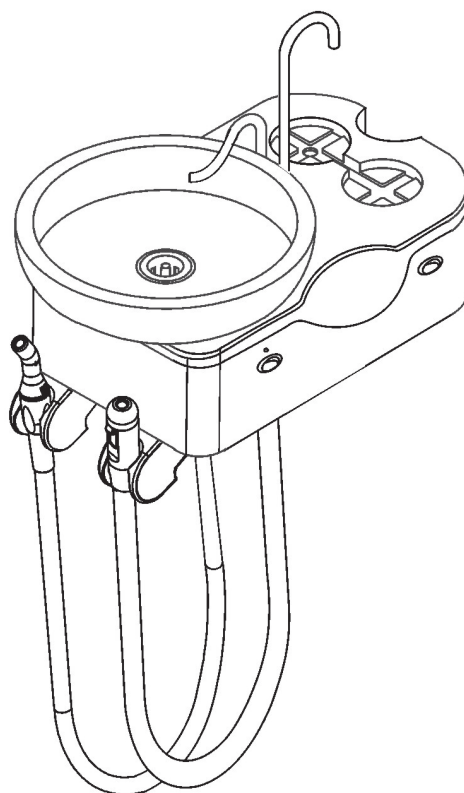


Owner's Manual

CE
0499



Syncrus L - POP Water Unit

Code. 300051411 Rev. 05

GNATUS

PRESENTATION OF MANUAL

INSTRUCTIONS FOR USE

Technical Name: Odontological cuspidor

Brand: Gnatus

Trade Name: Syncrus L-POP Water Unit

Manufacturer/ Distributor:

GNATUS - EQUIPAMENTOS MÉDICO-ODONTOLÓGICOS LTDA.
Rod. Abrão Assed , Km 53+450m - Cx. Postal 782 CEP 14097-500
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www.gnatus.com.br - gnatus@gnatus.com.br

Technical Duties: Gilberto Henrique Canesin Nomelini
CREA-SP: 0600891412

Registro ANVISA nº: 10229030031

ATTENTION

For greater safety:

Read and understand all the instructions contained in these Instructions for Use before installing or operating this Equipment.

Note: These Instructions for Use must be read by all the operators of this Equipment.

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DESCRIPTION OF THE EQUIPMENT

Dear Customer

Congratulations. You have made a good choice when you decided to buy a GNATUS QUALITY product comparable to the best products available in the World. This manual is a general presentation of your product and it will give you important details to help you to solve possible problems.

Please, read it and keep this with you.

Identification

Technical Name: Odontological cuspidor

Brand: Gnatus

Trade Name: Syncrus L - POP Water Unit

DESCRIPTION OF THE EQUIPMENT

Principles and bases applied to the functioning of the product

Unit for auxiliary work as water supply for waste collection and activation of spitting bowls and aspirator, It has ejectors, with suction activated by a venturi system or vacuum pump with compressed air.

Description of Equipment

Water unit for dental use, for auxiliary work such as supply water for collecting waste and activating the rinsing bowl and saliva ejectors; ambidextrous (serves both right-handers and left-handers), couple to the dental chair.

Activation stopcock and adjustment of the water in the bowl. Electrical controls for the outflow of the water in the cup filler (available in the Water Unit model Syncrus L E TV, LE 2T and L E 2 TV).

Removable round rinsing bowl, with a diameter of 220mm, provides perfect disinfection.

Body of the unit made of steel and coated with high impact polystyrene.

Structure of the unit made of steel, with glossy smooth paint with a base of epoxy, polymerized in an oven at 250°C, with a phosphatized treatment resistant to corrosion and cleaning materials, a structure coated with high impact polystyrene with rounded edges.

Flexible, light rounded hoses and quick coupling which connect and disconnect easily without requiring tools.

Water conduits which wash the non-autoclavable bowl and cup filler. Strainer to retain solids.

Saliva ejector with automatic activation easy to use, which provides an excellent operational performance, allowing the professional to see operational field better with a reduced risk of contamination from aerosol and greater comfort for the patient.

High power ejectors with electrical activation of a low individual voltage, providing lightness and accuracy upon activation (available in the Syncrus L 2T and L E 2T Water Units).

ISO 9001/2000 and ISO 13485/2003 Quality System, assuring the products are manufactured under standart procedures. Products manufactured in agreement with RDC-59 - ANVISA (Sanitary Surveillance National Agency) with guarantees accomplishment to the sanitary legislation according to BPF (Good Manufacturing Procedures). In order to comply with directive 93/42/EEC for CE Mark purpose, it is defined that the life span of this product is estimated in 05 years provided that the enduser follows the requirements and instructions of this manual.

IMPORTANT:

- This equipment is for dental use use only. It must be operated and utilized by specialized professional (certified professional, according to the legislation of the country) and following the instructions of the manual. The operation of the equipment required, for the professional, the utilization of correct instruments and it should to be in perfect conditions of the use, and to protect the professional, the patients and others, in the eventual danger situation.

- This equipment can't be used in the presence of inflammable anesthetics or products that may cause explosion.

- After finish life-cycle of the equipment, this equipment is throw way, so it should to be destroyed in appropriate area (according to the legislation of the country).

- To guarantee the safe functioning of your equipment, use only the assemble configurations (Dental Chair, Dental and Water Units and Dental Light) supplied by Gnatus authorized Dealers / Technical Assistance.

DESCRIPTION OF THE EQUIPMENT

The Water Units are composed according to list below:

Water Units Syncrus L TV

- 1 Ejector type Venturi

Water Unit Syncrus L E TV

- 1 Ejector type Venturi

Water Units Syncrus L 2 T

- 1 Ejector type Venturi
- 1 Ejector for Vacuum Pump

Water Unit Syncrus L E 2 T

- 1 Ejector type Venturi
- 1 Ejector for Vacuum Pump

Water Units Syncrus L 2 TV

- 2 Ejectors for Vacuum Pump

Water Unit Syncrus L E 2 TV

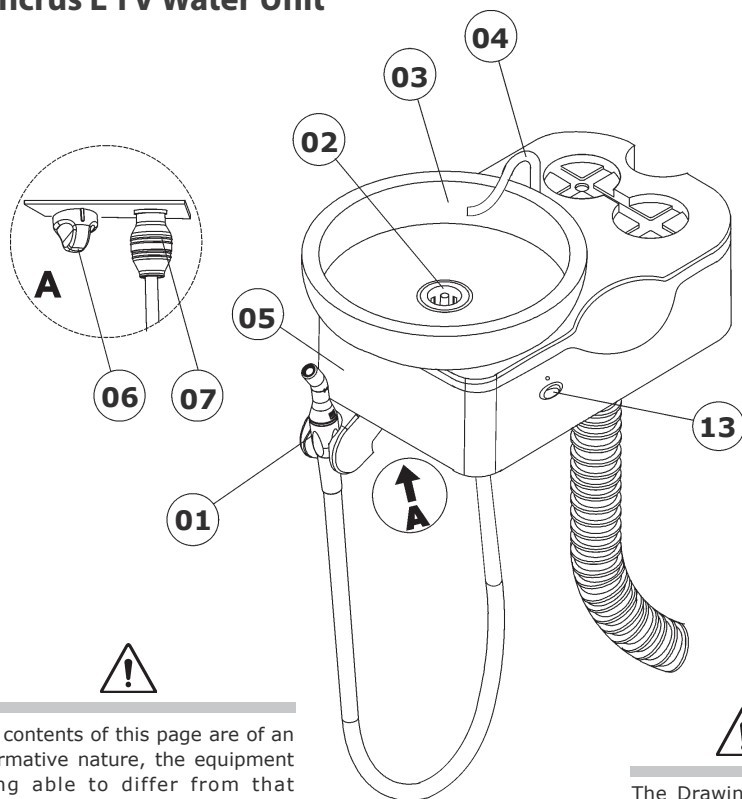
- 2 Ejectors for Vacuum Pump

Indication of Equipment

This equipment is for dental use only. It must be operated and utilized by specialized professional (certified professional, according to the legislation of the country) and following the instructions of the manual. The operation of the equipment required, for the professional, the utilization of correct instruments and it should to be in perfect conditions of the use, and to protect the professional, the patients and others, in the eventual danger situation.

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L TV Water Unit



The contents of this page are of an informative nature, the equipment being able to differ from that illustrated. So, upon acquiring the product check the technical compatibility between equipment, coupling and accessories.

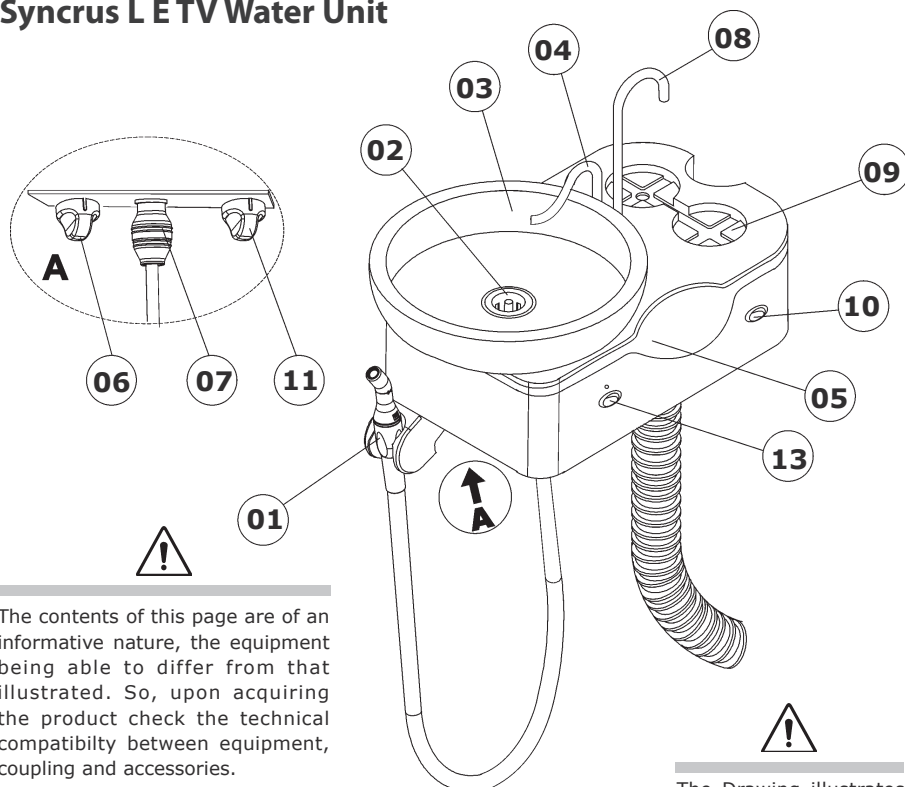


The Drawing illustrates the equipment with all the optional items. Your delivery unit will only be composed of the items chosen during your purchase option.

- 01- Ejector type Venturi
- 02 - Drain plug
- 03 - Bowl
- 04 - Bowl flush spout
- 05 - Water unit body
- 06 - Bowl flush adjustment
- 07 - Sucker filter
- 13 - Driving to the water in the basin (optional)

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L E TV Water Unit



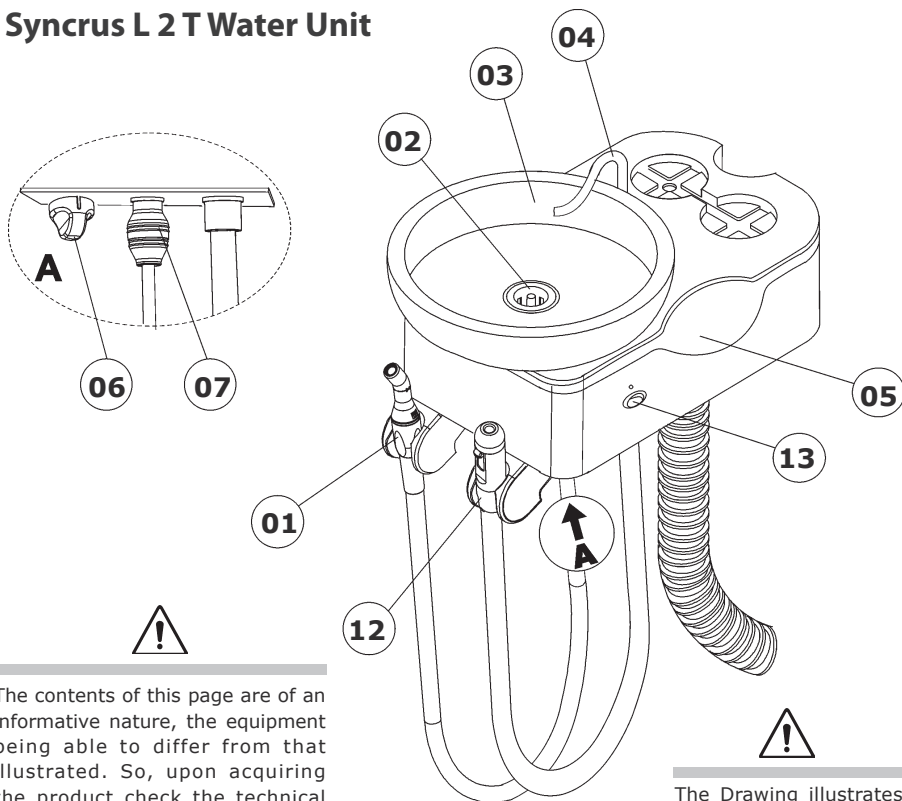
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- 01- Ejector type Venturi
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- 03 - Bowl
- 04 - Bowl flush spout
- 05 - Water unit body
- 06 - Bowl flush adjustment
- 07 - Sucker filter
- 08 - Water cupfiller conductor
- 09 - Cupfiller
- 10 - Water cupfiller activation
- 11 - Cupfiller flush adjustment
- 13 - Driving to the water in the basin (optional)

The Drawing illustrates the equipment with all the optional items. Your delivery unit will only be composed of the items chosen during your purchase option.

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L 2 T Water Unit



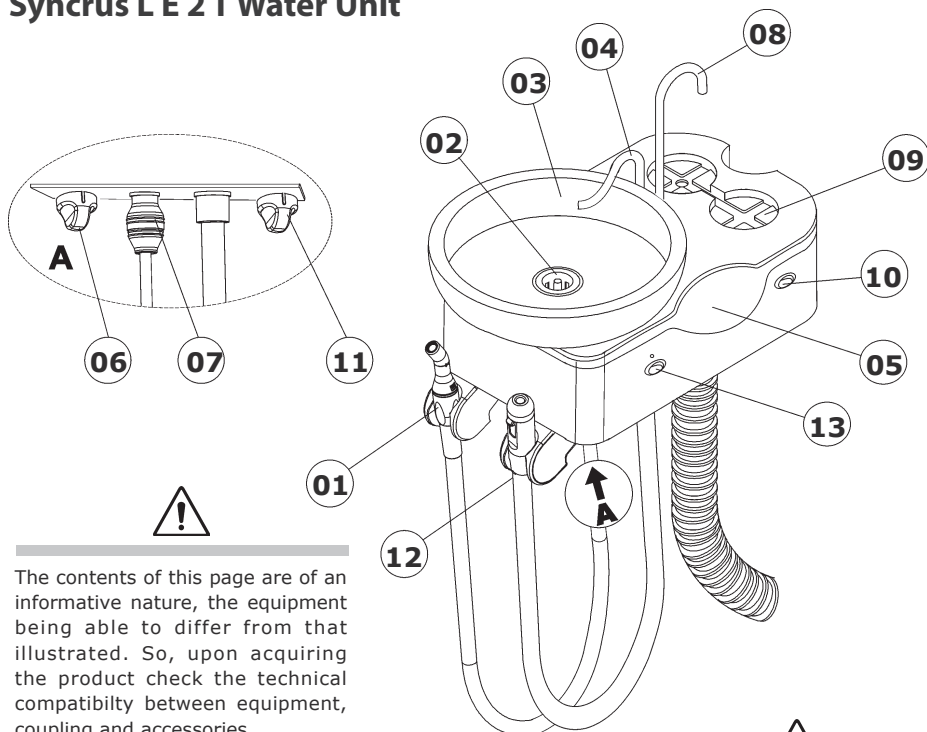
The contents of this page are of an informative nature, the equipment being able to differ from that illustrated. So, upon acquiring the product check the technical compatibility between equipment, coupling and accessories.

The Drawing illustrates the equipment with all the optional items. Your delivery unit will only be composed of the items chosen during your purchase option.

- 01 - Ejector type Venturi
- 02 - Drain plug
- 03 - Bowl
- 04 - Bowl flush spout
- 05 - Water unit body
- 06 - Bowl flush adjustment
- 07 - Sucker filter
- 12 - Ejector for vacuum pump
- 13 - Driving to the water in the basin (optional)

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L E 2 T Water Unit



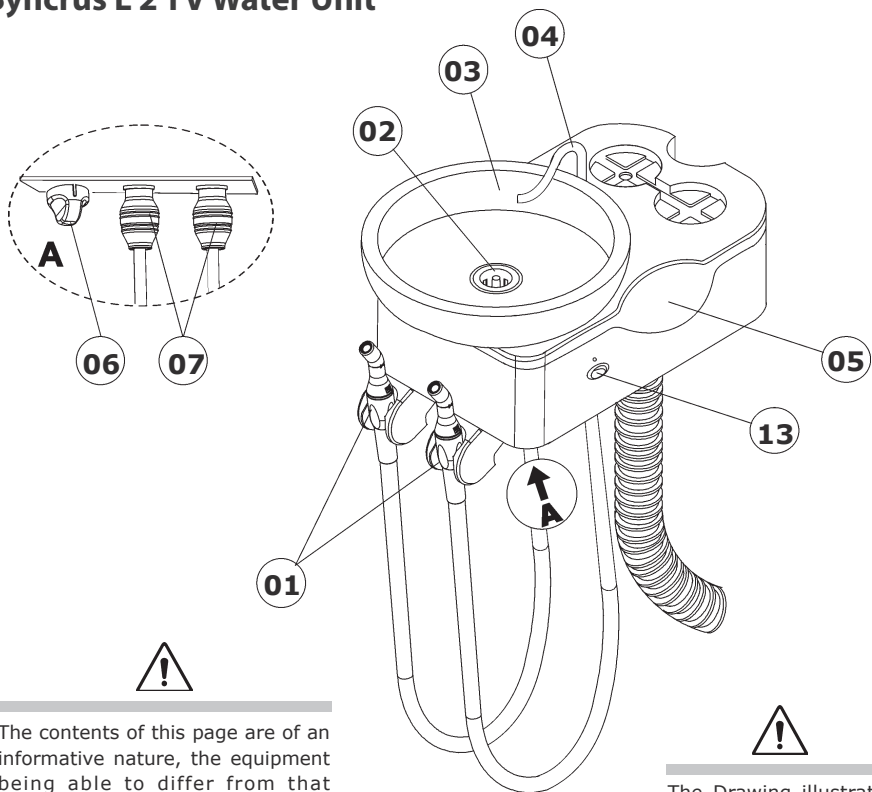
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- 03 - Bowl
- 04 - Bowl flush spout
- 05 - Water unit body
- 06 - Bowl flush adjustment
- 07 - Sucker filter
- 08 - Water cupfiller conductor
- 09 - Cupfiller
- 10 - Water cupfiller activation
- 11 - Cupfiller flush adjustment
- 12 - Ejector for vacuum pump
- 13 - Driving to the water in the basin (optional)

The Drawing illustrates the equipment with all the optional items. Your delivery unit will only be composed of the items chosen during your purchase option.

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L 2 TV Water Unit



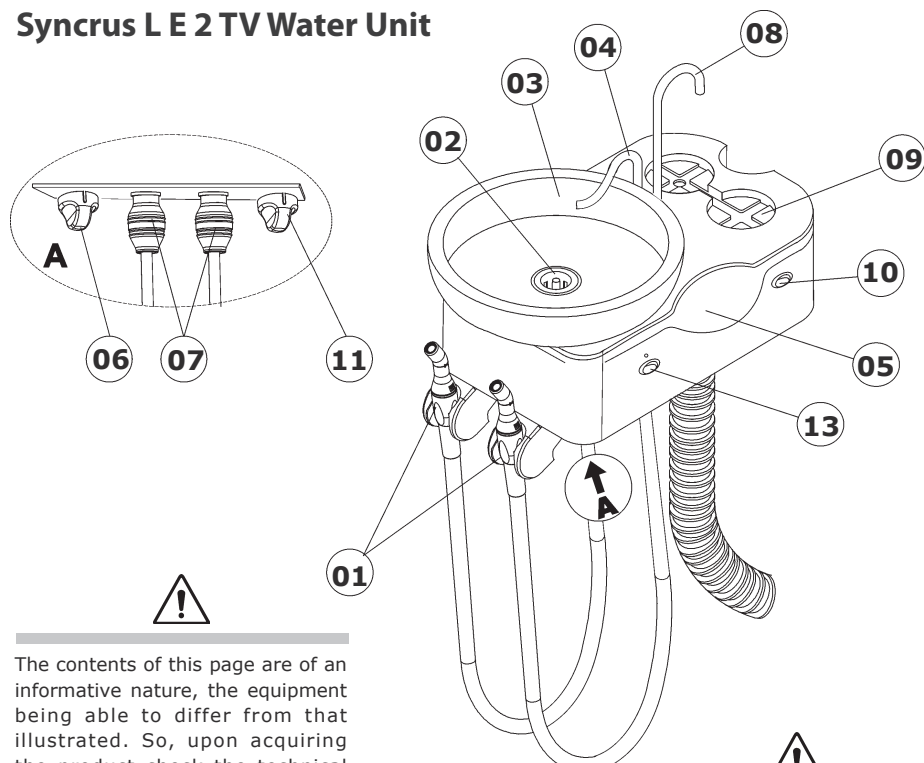
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- 07 - Suckers filter
- 13 - Driving to the water in the basin (optional)

MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION

Syncrus L E 2 TV Water Unit



The contents of this page are of an informative nature, the equipment being able to differ from that illustrated. So, upon acquiring the product check the technical compatibility between equipment, coupling and accessories.

- 01- Ejectors type Venturi
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The Drawing illustrates the equipment with all the optional items. Your delivery unit will only be composed of the items chosen during your purchase option.

TECHNICAL SPECIFICATIONS

General

Product classification			
In compliance with NBR IEC 60601-1			
Inlet air pressure			
80 PSI (5,52 BAR)			
Air			
Use dry and filtered air			
Power inlet			
12V~ and 24V~ (from Syncrus chair)			
Electric shock protection type			
Class one equipment			
Degree of protection against electric shock			
B type			
Operation mode			
Continuous with intermittent load			
Water leak protection			
IPX 0			
Application together with anesthetic products that could be inflammable in the presence of air, oxygen or nitrous oxide:			
Not recommended			
Net Weight			
Syncrus L TV Water units.....	3,0 kg	Syncrus L E TV Water units	3,2 kg
Syncrus L 2T Water units.....	3,0 kg	Syncrus L E 2T Water units	3,2 kg
Syncrus L 2 TV Water units	3,0 kg	Syncrus L E 2 TV Water units	3,2 kg
Gross Weight			
Syncrus L TV Water units.....	3,5 kg	Syncrus L E TV Water units	3,7 kg
Syncrus L 2T Water units.....	3,5 kg	Syncrus L E 2T Water units	3,7 kg
Syncrus L 2 TV Water units	3,5 kg	Syncrus L E 2 TV Water units	3,7 kg



The materials used to produce the equipment are Biocompatible.

TECHNICAL SPECIFICATIONS

Electromagnetic Emissions


Eletromagnetic emissions		
The Syncrus L-POP Water Unit is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus L-POP Water Unit must be sure that it is used in such environment.		
Emission test	Compliance	Eletromagnetic environment - Guide
RF emissions ABNT NBR IEC CISPR 11	Group 1	This equipment uses RF energy only for internal functions. However, its emissions are too low and it's unlikely to cause any interference in the equipments next to it.
RF emissions ABNT NBR IEC CISPR 11	Class B	This equipment is proper to be used in all establishments; including domestic settings and those directly connect to a public low voltage distribution which feeds domestic buildings.
Emissions of harmonics IEC 61000-3-2	Class A	
Fluctuation of Voltage / Emissions of flicker IEC 61000-3-3	As per	



Use of different cables, transducers and accessories from those specified may result in increased emissions or decreased immunity of the equipment.

TECHNICAL SPECIFICATIONS

Electromagnetic Emissions

Guidelines and manufacturer's declaration - electromagnetic immunity			
The Syncrus L-POP Water Unit is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus L-POP Water Unit must be sure that it is used in such environment.			
Immunity test	ABNT test level NBR IEC 60601	Level of compliance	Electromagnetic Environment Directives
RF conducted IEC 61000-4-6	3 vrms 150 kHz up to 80 MHz	3 Vrms	<p>It is advisable that portable and mobile RF communication equipment is not used near any part of the equipment, including cables, with a separation distance less than the one recommended, calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance:</p> $d = 1,2 \sqrt{P}$ <p>$d = 1,2 \sqrt{P}$ 80 MHz thru 800MHz $d = 2,3 \sqrt{P}$ 800 MHz thru 2,5MHz</p> <p>Where P is the nominal maximum power of output of the transmitter in watts (W), as per the manufacturer of the transmitter, and d is the recommended separation distance in meters (m).</p> <p>It is advisable that the fiel intensity from the RF, transmitter as determined by means of electric inspection on-site, ^a is less than the level of compliance in each frequency range ^b.</p> <p>There may be interference near the equipment marked with the following symbol:</p> 
RF radiated IEC 61000-4-3	3 V/m 88 MHz up to 2,5 GHz	3 V/m	
NOTE 1 At 80MHz and 800MHz, the highest frequency range applies.			
NOTE 2 These directives may not be applicable in every situation. The electromagnetic transmission is affected by the absorption and reflection of structures, objects and people.			
<p>a The field intensities set by the fixed transmitters, such as radio base stations, telephones (mobile phone, wireless) land mobile radio, amateur radio, AM and FM radio transmissions and TV transmissions can not be predicted with accuracy. Due to the RF fixed transmitters is recommended to install an electromagnetic inspection at the local in order to evaluate the electromagnetic environment. If at the place where the equipment is be using the field intensity level exceeds the conformity level for the RF above, is recommended to observe if the operations are normal. Whether abnormal operations are observed, additional procedures shall be necessary such as reorientation or replace the equipment.</p> <p>b Whether above the frequency range of 150kHz to 80 MHz is recommended a field intensity below than 3 V/m.</p>			

TECHNICAL SPECIFICATIONS

Electromagnetic Emissions

Guidelines and manufacturer's declaration - electromagnetic immunity			
The Syncrus L-POP Water Unit is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus L-POP Water Unit must be sure that it is used in such environment.			
Immunity test	ABNT Test level NBR IEC 60601	Level of compliance	Electromagnetic environment Directives
Electrostatic discharge(ESD) IEC 6100-4-2	± 6 kV Contact ± 8 kV Air	± 6 kV Contact ± 8 kV Air	Floors should be wooden, concrete or ceramic. If the floor is covered with synthetic material, the relative humidity should be at least 30%
Quick electric transitory phases / train of pulses ("Burst") IEC 61000-4-4	± 2 kV in power supply lines ± 1 kV in input / output lines	± 2 kV in power supply lines ± 1 kV in input / output lines	It is advisable that the quality of the power supply should be that of hospital or typical commercial environment
Surges IEC 61000-4-5	± 1 kV lines (s) to lines (s) ± 2kV lines (s) to ground	± 1 kV lines (s) to lines (s) ± 2kV lines (s) to ground	It is advisable that the quality of the power supply should be that of hospital or typical commercial environment
Reduction, interruption and variance of voltage in power supply input lines IEC 61000-4-11	< 5% U_t (>95% drop in U_t) for 0,5 cycle 40% U_t (60% drop in U_t) for 5 cycles 70% U_t (30% drop in U_t) for 25 cycles < 5% U_t (>95% drop in U_t) for 5s	< 5% U_t (>95% drop in U_t) for 0,5 cycles 40% U_t (60% drop in U_t) for 5 cycles 70% U_t (30% drop in U_t) for 25 cycles < 5% U_t (>95% drop in U_t) for 5s	The recommended power supply quality is the same as used for commercial or hospital environment. If is required a continuous use during energy supply outages, it is recommended that the equipment be feed by an uninterruptible power supply or a battery.
Magnetic field in frequency of power supply (50/60Hz) IEC 61000-4-8	3 A/m	0,3 A/m	If an image distortion occurs, may be necessary place the equioment far from the supply frequency or to installa magnetic armour. The frequency magnetic field shall be measured at the installment place to assure that it is low enough.
NOTE U_t is the a.c. power supply voltage before the application of the test level			

TECHNICAL SPECIFICATIONS

Electromagnetic Emissions

Recommended distances between portable and mobile RF communication equipments and the Syncrus L-POP Water Unit			
The Syncrus L-POP Water Unit is made to be used in an electromagnetic environment in which RF disturbances are controlled. The client or the user of the Syncrus L-POP Water Unit may help preventing electromagnetic interference by keeping a minimal distance between mobile and portable RF communication equipment (transmitters) and the Syncrus L-POP Water Unit, as recommended below, in accordance with the maximal voltage output of the communication equipment.			
Transmitter Maximum Output (W)	Separation distance according to transmitter frequency (M)		
	150 kHz to 80 Mhz $d = 1,2\sqrt{p}$	80 kHz to 800° Mhz $d = 1,2\sqrt{p}$	800 kHz to 2,5° GHz $d = 2,3\sqrt{p}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23
For transmitters with a maximum nominal output power not listed above, the recommended d separation distance in meters (M) can be determined using an equation applicable to the frequency of the transmitter, where P is the transmitter maximum nominal output in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, is applied the separation distance for the higher frequency range.			
NOTE 2 These guidelines may not apply to all situations. The absorption and reflection from structures, objects and people affect the electromagnetic propagation.			

List of pieces and circuit scheme

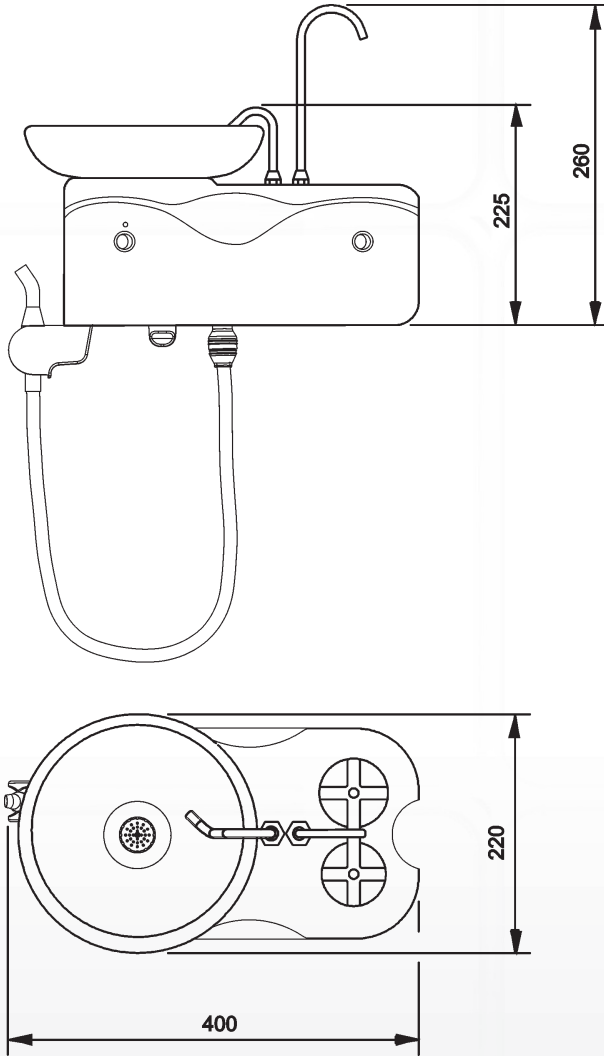
Gnatus Company declares that the supply of the circuit scheme, list of pieces or any other information that propitiate technical attendance for the user, can be request if there is an agreement between the user and Gnatus Company.

Standards applied:

NBR 60601-1:1997 - Equipamento Eletromédico- Parte 1: Prescrições gerais para segurança;
 NBR ISO 14971:2004- Medical devices - application of risk management medical devices;
 NBR ISO 9687: 2005 - Dental equipment - graphical symbols;
 EN ISO 13485-2003 - Quality systems - medical devices;
 IEC 60601-1-2:2007 - Compatibilidade Eletromagnética.

TECHNICAL SPECIFICATIONS

Dimensions (mm)



Note: Drawing above represents a Syncrus L E TV Water Unit. All other models have identical dimensions.

TECHNICAL SPECIFICATIONS

Packing symbols



It determines the maximum quantity of boxes which can be stacked during transportation and storage "as per packaging".



Packing to be transported and / or stored avoiding humidity, rains and wet floor.



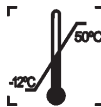
Packing to be transported and / or stored with the harrows up.



The packing must be stored and transported away from direct sun light exposure.



Packing to be transported and / or stored with care (should not suffer drop and neither receive impact).



Temperature limit for the packing to be stored or transported.

Product symbols



Careful : It indicates an important instruction for the operation of the product. Not following it can cause dangerous malfunctioning.



Ejector type Venturi



Note: It indicates useful information for operation of the product.



B type equipment



Important: It indicates an instruction of safety for operation of the product. Not following it, can lead to serious danger to the patient.



Authorized representative in the European Community



Landing (in many parts of the equipment) indicates the condition of being landed.



Warning - Consult the manual



BV ejector






Cup filling



Bowl's water flow

TECHNICAL SPECIFICATIONS

Content of accessible and non-accessible demarcations

FABRICANTE E RESPONSÁVEL PELA GARANTIA			MANUFACTURER AND RESPONSIBLE FOR THE WARRANTY			FABRICANTE Y RESPONSABLE POR LA GARANTÍA		
GNATUS GNATUS EQUIPAMENTOS MÉDICO-ODONTOLÓGICOS LTDA. Rod. Abrão Assed, Km 53+450m - Ribeirão Preto - SP - Brasil								
APARELHO	EQUIPMENT	APARATO	OPERAÇÃO			OPERATION		
UNIDADE DE ÁGUA SYNCRUS L TV - POP			CONTÍNUO, COM CARGA INTERMITENTE CONTINUOUS, WITH INTERMITTENT LOAD CONTINUO, CON CARGA INTERMITENTE					
NÚMERO DE REGISTRO ANVISA			EQUIPAMENTO DE CLASSE I CLASS I EQUIPMENT EQUIPAMIENTO DE CLASSE I					
10229030031								
			Obelis S.A., Boulevard Général Wabis 53 1030 Brussels, Belgium Tel: 32 2.732.59.54, Fax 32 2.732.60.03 E-mail: mail@obelis.net			 		

INSTALLATION OF EQUIPMENT



The installation of this equipment requires specialized technical assistance (Gnatus).



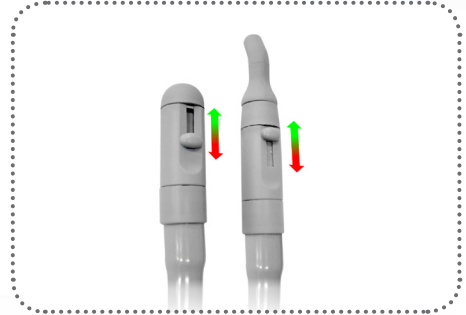
OBS: These information also make part of the Manual of Installation and Maintenance of the equipment that can be found with the authorized Gnatus technician.

- This equipment shall only be able to be unpacked and installed by a Gnatus authorized technician, under penalty of losing the warranty, as only (s)he has the information, suitable tools and training required to execute this task.
- Gnatus bears no responsibility for damages or accidents caused by poor installation executed by a technician not authorized by Gnatus.
- Only after the equipment has been installed and duly tested by the authorized technician representing Gnatus, will it be ready to start work operations.

OPERATION OF EQUIPMENT

Ejectors operation

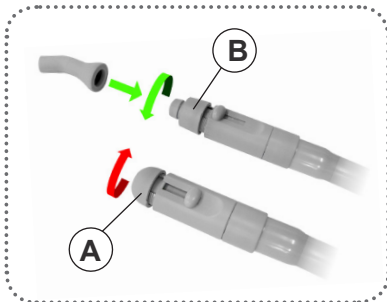
The ejectors (both BV and Venturi) start working automatically when retired from the tips support. The BV ejectors feature suction flow adjustment, and its regulated moving the lever located at the ejector up or down.



Replacement of the standard of cannula coupling

If there is the necessity of using the 6.5mm cannula in the BV suctor, make the replacement of the cannula coupling, as the procedure below:

- Remove the coupling of 11 mm (A) by unscrewing it from.
- Screw the coupling of 6.5 mm (B) in the aspirator BV set and attach the coupling tube.



Coupling of tube of 6.5 mm

The curve of the coupling of the cannula was designed for better handling, but can also be cut at the location indicated with the aid of a knife.

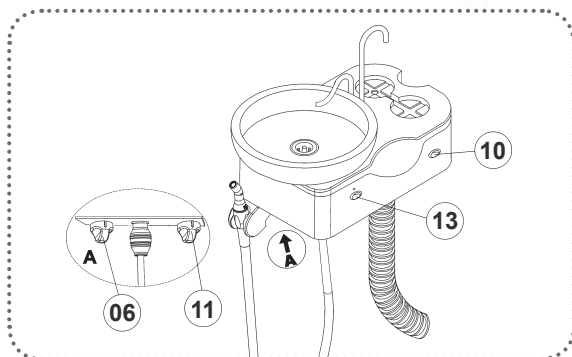


OPERATION OF EQUIPMENT

Driving and regulation of water basin

Basin water is available on all models.

To regulate the flow of water in the basin use the register (06) and to drive the flow, press the button (13) and press it again to disable.



Driving and regulation of water in the cup holder

Water in Cup Holder (available in the L E TV, L E 2 T e L E 2 TV Syncrus Water Unit).

To drive flow of water in the cup holder, hold the button (10) until the desired amount, to regulate the flow of water, use the register (11).

PRECAUTIONS, RESTRICTIONS AND WARNINGS

Transportation, storage and operation

This equipment must be transported and stored observing the following directions:

- Avoid falls and impacts;
- Keep it dry, do not expose it to rain, water drops or wet floor;
- Keep it away from water and direct sunlight, and in its original wrapping;
- Don't move it over irregular surfaces, protect it from rain and observe the maximum stack quantity specified in the packaging;
- Transportation and storage temperature range: -12°C to 50°C.
- Ambient temperature range recommended by Gnatus +10 ° C to +35 ° C.



The Equipment maintains its condition of safety and efficacy, provided that it is maintained (stored) as mentioned in this instruction of use. Thus, the equipment will not lose or alter its physical and dimensional features.

Sensitivity to environmental conditions in normal situations of use

The equipment has been planned not to be sensitive to interference such as magnetic fields, external electrical factors, electrostatic discharge, pressure or variance of pressure, provided that the equipment is installed, maintained, clean, preserved, transported and operated as per this instruction for use.

Precautions and warnings “during the installation” of equipment

- The equipment should only be installed by Gnatus authorized technical assistance or technicians.
- Position the unit in a place where it will not get wet.
- Install the unit in a place where it will not be damaged by the pressure, temperature, humidity, direct sunlight, dust, salts, or sulfur compounds.
- The unit should not be submitted to inclination, excessive vibrations, or blows (including during transportation and handling).
- This equipment was not planned for use in an environment where vapors, anesthetic mixtures inflammable with air, or oxygen and nitrous oxide can be detected.
- Before the first use and/or after long interruptions from work such as vacations, clean and disinfect the equipment; eliminate air and water deposited in the internal hoses.



These information also make part of the Manual of Installation and Maintenance of the equipment that can be found with the authorized Gnatus technician.

PRECAUTIONS, RESTRICTIONS AND WARNINGS

Recommendations for the dental equipment maintenance.

Your Gnatus equipment has been designed and developed according to the standards of modern technology. Similarly to other kinds of equipment, it requires special care, which is many times neglected due to several reasons and circumstances.

Therefore, here are some important reminders for your daily routine. Try to follow these simple rules, which will save you a lot of time and will avoid unnecessary expenses once they start making part of your working procedure.

Precautions and warnings “during the use” of equipment

- The equipment should only be operated by duly enabled and trained technicians (Dental Surgeons, Capacitated Professionals)
- If any maintenance should be required, only use services of the Gnatus Authorized Technical Assistance.
- The equipment has been manufactured to handle both continuous and intermittent operation; so follow the cycles described in these Instructions for Use.
- Although this equipment has been planned in accordance with the standards of electromagnetic compatibility, it can, in very extreme conditions, cause interference with other equipment. Do not use this equipment together with other devices very sensitive to interference or with devices which create high electromagnetic disturbance.
- Do not expose the plastic parts to contact with chemical substances, use in the routines of dental treatment, such as: acids, mercury, acrylic liquids, amalgams, etc.

Gnatus shall not be responsible for:

- Use of the equipment differing from that for which it is intended.
- Damages caused to the equipment, the professional and/or the patient by the incorrect installation and erroneous procedures of maintenance, differing from those described in these Instructions for use which come with the equipment or by the incorrect operation of it.

Precautions and warnings “after” the use of equipment

- Turn off the main switch of the dental set when it is not in use for an extended period of time.
- Always maintain the equipment clean for the next operation.
- Do not modify any part of the equipment. Do not disconnect the cable or other connections without need.
- After using the equipment, clean and disinfect all the parts which may be in contact with the patient.
- Upon noticing irremovable stains, splits or cracks in the light conductor or in the eye protector, replace the damaged components.

PRECAUTIONS, RESTRICTIONS AND WARNINGS

Precautions and warnings during the “cleaning and disinfection” of equipment

Unidad:

- Before cleaning the equipment, turn off the main switch.
- Avoid spilling water, even accidentally, or other liquids inside the equipment, which could cause short circuits.
- Do not use microabrasive material or steel wool when cleaning, or employ organic solvents or detergents which contain solvents such as ether, stain remover, gasoline etc.

Precautions in case of alteration in the functioning of equipment

- If the equipment has any abnormality, check if the problem is related to any item listed in the topic of unforeseen events (failures, causes and solutions). If it is not possible to resolve the problem, turn off the equipment, remove the power supply cable from the socket and contact your representative (Gnatus).

Precautions to be adopted against foreseeable or uncommon risks, related to the deactivation and abandoning of equipment

In order to avoid environmental contamination or undue use of the Equipment after it has become useless, it should be discarded in the suitable place (as per the local legislation of the country).

- Pay attention to the local legislation of the country for the conditions of installation and disposal of residue.

CORRECTIVE AND PREVENTIVE MAINTENANCE AND PRESERVATION

Additional procedures for reuse

The equipment can be reused in undetermined, i.e. unlimited, quantities, only needing to be cleaned and disinfected.

Cleaning and Disinfection

Important: In order to execute cleaning or any type of maintenance, ensure that the equipment is disconnected from the electrical network.



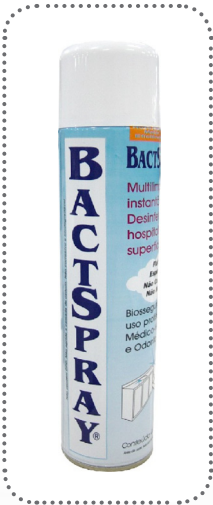
The cleaning procedure below should be executed at the start of the working day and after each patient. Always turn off the main switch before executing the procedures of daily maintenance.

To clean the equipment, we recommend the use of "BactSpray (Reg nº MS: 3.2079.0041.001-5) or any other similar product:

Active component: Benzalkonium chloride (tri-quaternary ammonium)
Solution 50%..... 0.329%

Chemical composition: Butyl Glycol, Decyl polyglucose, Sodium Benzoate, Sodium Nitrate, Essence, Deodorized Propane / Butane, demineralized Water.

For more information concerning cleaning procedures, see manufacturer's instructions.



WARNING:

- In order to prevent risks and damages to equipment, make sure that the liquid does not enter into the unit.
- The application of other solvent-based cleaning products or sodium hypochloride isn't recommended, because they may damage the equipment.

NOTE: The registration at the Ministry of Health of the "BactSpray" is executed separately from the product described in this manual, as the "BactSpray" is not manufactured by Gnatus.

Disinfection

Use clean and soft cloth dampened in alcohol 70% to disinfection of the equipment. Never use corrosive disinfectants or solvents.



Note: Use gloves and other systems of protection, during the disinfection.

CORRECTIVE AND PREVENTIVE MAINTENANCE AND PRESERVATION

Cleaning

Gnatus suggests performing a daily suction of the clearance and disinfectant solution, avoiding the risk of cross contamination and increasing equipment service life. To perform the disinfection of your equipment we recommend the use of the "Sugclean" (MS Reg. No.: 31.080.003-2) product.

- **Indication:** It is indicated for clearance of sucker and hose suction system. It is important to perform the suction solution in all suction terminals, which it is also important to be open. Then, remove suckers from hose for asepsis.

- **Preparing the Solution:** Add "Sugclean" 30mL in 1 liter of water. Aspirate the solution with maximum power of the suckers, and also put the liquid in the water unit bowl.

In the first use of "Sugclean" product, we suggest adding 60mL of concentrated product in 1 liter of water during the first 5 days in order to remove accumulated residues.

- **Composition:**

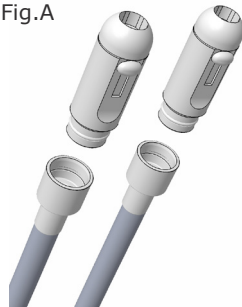
- Active Drug: Phosphoric Acid 13.6%
- Excipients: Isopropyl Alcohol, Acidulant, Dye and Thickener.

Warning: do not use foaming product.

NOTE: The registration at the Ministry of Health of the "Sugclean" is executed separately from the product described in this manual, as the "Sugclean" is not manufactured by Gnatus.



Fig.A



Preventive Maintenance

The equipment should be calibrated routinely, as per the legislation in force in the country. But never with a period exceeding 3 years.

In order to protect your equipment, seek Gnatus technical assistance for periodic revisions of preventive maintenance.

Corrective Maintenance

If the equipment has any abnormality, check if the problem is related to any of the items listed in the item Unforeseen Events (situation, cause and solution).

If it is not possible to solve the problem, turn off the equipment, and request Gnatus technical assistance.

CORRECTIVE AND PREVENTIVE MAINTENANCE AND PRESERVATION

Basin cleaning

In order to obtain better results in the clean the bowl in your water unit, we strong recommedn the use of the product **"Easy-Off Bang"** or similar, n° Reg. MS: 3.00227-0.

Chemical composition: Glycolic Acid, Maleic Anhydride, Citric Acid, Ethoxylated Fatty Alcohol, Essence and Water.

Apply the **"Easy-Off Bang"** in the water unit bowl along with a smooth cloth up to clean it.

If you want additional information regarding cleanliness, please look at the instructions from the product.



Cleaning of the sucker and filters

After the suction of the solution through the suctor, take the lid (12) and the filter (13 or 15) and wash them in running water.

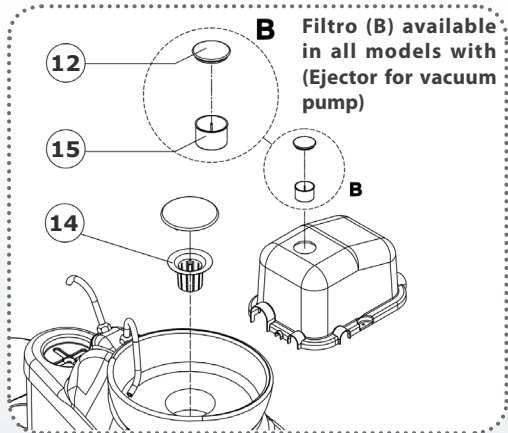
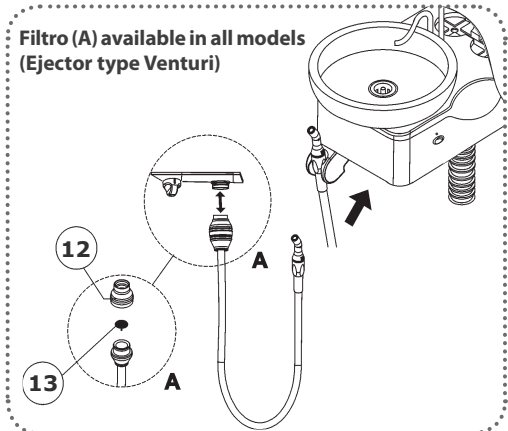
Cleaning of the drain

Pull the drain (14) with a tweezer, clean.


WARNING:

ALWAYS USE PROTECTION
GLOVES WHEN MANIPULATING
FILTERS AND DRAINAGES.

DISCARD WASTE AND
CONTAMINATED PRODUCTS IN
BIOLOGICAL WASTE CONTAINERS.



UNFORESEEN EVENTS – SOLUTION OF PROBLEMS

 Upon coming across any problem in operation, follow the instructions below to check and repair the problem, and/or get in touch with your representative.

Problem	Probable cause	Solution
- Ejector without suction	<ul style="list-style-type: none"> - Insufficient air pressure from compressor - Filter clogged with particles - Filter lid misplaced - Vacuum Pump Water Valve is closed. - Vacuum pump is turned off. 	<ul style="list-style-type: none"> - Adjust air flow - Remove and clean filter - Remove lid and place it correctly - Open the Vacuum Pump Water Valve. - Turn on the vacuum pump.
- Bowl's water flow not operating.	<ul style="list-style-type: none"> - Lack of water - Water valve is closed 	<ul style="list-style-type: none"> - Check the water supply - Open the water valve
- Bowl's water flow and cup filling are not operating	<ul style="list-style-type: none"> - Lack of water - Water valve is closed - Power cut - Chair's fuse is burned - Chair's main switch is turn off 	<ul style="list-style-type: none"> - Check the water supply - Open the water valve - Check the energy supply - Replace the chair's fuse - Turn on chair's switch

WARRANTY OF EQUIPMENT

This equipment is covered by the warranty terms counting from the date of installation, as specified below; provided that the defect has occurred in normal conditions of use and that the equipment has not remained stored for more than 06 months counting from the issue date of the sales document until the date of the actual installation.

- WARRANTY TERMS: Verify the guarantee certificate;

- LOSS OF THE WARRANTY:

- A) Attempt to repair using an inadequate tool or by unauthorized technicians;

- B) Installation of the equipment by an unauthorized technician;

- C) Damage arising from inappropriate storage or signs of infringement;

- D) Incorrect use of the equipment;

- E) Use of a cleaning product not indicated by the factory;

- F) Falls or blows which the equipment may undergo or lack of observation of an compliance with the guidelines of the Owner's Manual, which was delivered with the present document, together with the equipment. Repair or replacement of parts during the warranty period shall not extend the validity term of their warranty.

- This warranty does not exempt the customer from paying the service charge for the visit and the travel expenses of the technician, except when the customer sends the equipment to execute the maintenance inside the establishment of the technical assistance. "Consumer Defense Code - art. 50, unique paragraph".

- The Warranty Certificate comes with the product and must be filled in upon the date of installation by the Gnatius Authorized Technician.

- Queries and information: GNATUS Help Desk (+55) 16 2102-5000.

- Check the warranty term attached to this manual.

FINAL CONSIDERATIONS

The most important aspect related to equipment care is that concerning spare parts.

To guarantee the life span of your equipment, use only original Gnatius spare parts.

They are sure to follow the technical specifications and standards required by Gnatius.

We must also point out to you our chain of authorized dealers. Only dealers that make part of this chain will be able to keep your equipment constantly new for they count on technical assistants who have been trained and on specific tools for the correct maintenance of your equipment.

Doubts and information: GNATUS Call center (55-16) 2102-5000.



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Responsável Técnico:

Gilberto Henrique Canesin Nomelini – CREA-SP: 0600891412



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