

English

# Owner's Manual

CE



**Syncrus G4 Dental Chair**  
Cód. 300054891 Rev.02

**GNATUS** 

## PRESENTATION OF MANUAL

### INSTRUCTIONS FOR USE

**Technical Name:** Dental Chair

**Brand:** Gnatus

**Trade Name:** Syncrus G4 Dental Chair

**Manufacturer/ Distributor:**

GNATUS - EQUIPAMENTOS MÉDICO-ODONTOLÓGICOS LTDA.  
Rod. Abrão Assed , Km 53+450m - Cx. Postal 782 CEP 14097-500  
Ribeirão Preto - S.P. - Brasil

Fone +55 (16) 2102-5000 - Fax +55 (16) 2102-5001  
C.N.P.J. 48.015.119/0001-64 - Insc. Est. 582.329.957.115  
www.gnatus.com.br - gnatus@gnatus.com.br

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

**Registration ANVISA nº:** 10229030041

### 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.

# INDEX

<b>PRESENTATION OF MANUAL</b>	02
<b>IDENTIFICATION OF EQUIPMENT</b>	04
- Indication of Equipment	04
- Principles and bases applied to the functioning of the product	05
- Equipment purpose	05
- Description of Equipment	05
<b>MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION</b>	06
<b>TECHNICAL SPECIFICATIONS</b>	08
- Technical Specifications	08
- Standards applied	09
- List of pieces and circuit scheme	09
- Electromagnetic emissions	10
- Contents of the accessible and inaccessible markings	13
- Dimensions	14
- Symbolologies of packaging	15
- Symbolologies of product	15
<b>INSTALLATION OF EQUIPMENT</b>	16
<b>OPERATION OF EQUIPMENT</b>	18
- Initiating	18
- Headrest	18
- Backrest	18
- Bump preventing device	19
- Activation of Integrated Pedal "Chip-Blower"	19
- Activation of Foot control with 11 functions	22
- Activation of Foot control with 7 functions	23
<b>PRECAUTIONS, RESTRICTIONS AND WARNINGS</b>	24
- Conditions of transport, storage and operation	24
- Sensitiveness to environmental conditions foreseeable in normal situations of use	24
- Precautions and warnings "during the installation" of equipment	24
- Recommendations for preserving the equipment	25
- Precautions and warnings "during the use" of equipment	25
- Precautions and warnings "after" the use of equipment	25
- Precautions and warnings during the "cleaning and disinfection" of equipment	26
- Precautions in case of alteration in the functioning of equipment	26
- Precautions to be adopted against foreseeable or uncommon risks, related to the deactivation and abandoning of equipment	26
<b>CORRECTIVE AND PREVENTIVE MAINTENANCE AND PRESERVATION</b>	27
- Additional procedures for reuse	27
- Cleaning	27
- Disinfection	27
- Preventive maintenance	28
- Corrective maintenance	28
<b>UNFORESEEN EVENTS – SOLUTION OF PROBLEMS</b>	28
<b>WARRANTY OF EQUIPMENT</b>	29
<b>FINAL CONSIDERATIONS</b>	29

## IDENTIFICATION OF 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.

### 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.

### Identification

**Technical Name** Dental Chair

**Trade Name:** Syncrus G4 Dental Chair

**Brand:** GNATUS



## IDENTIFICATION OF EQUIPMENT

### Principles and fundamentals applied to the product functioning

Chair for patient accommodation during dental treatment, driven by control pedal, where commands are sent from the electronic board to two engines responsible for the mechanism movement of the seat and backrest of the chair.

### Equipment purpose

This equipment has the function to accommodate the patient in a comfortable way, for performance of odontological practices.

### Equipment description

Chair for patient accommodation during dental treatment, with automatic movements, ambidextrous (for right- and left-handed), triggered by direct current gearmotor. Bold design with rounded lines, providing modern and harmonious look.

Steel structure with surface treatment using nanotechnology. High brightness flat paint epoxy-based, polymerized in heater at 250 °C, resistant to corrosion and cleaning materials.

Base with ergonomic design, steel-built, protected by non-skid edging.

It has 2 holes which allow fixing the chair to the floor.

Ample upholstery, with lumbar support, mounted on a rigid frame covered with high resistance injected polyurethane, lined with laminate, seamless, non-toxic and flame-retardant material.

Involving curved backrest that, besides providing comfort to the patient, allows a closest approach to the operative field. Proactivity in the removal of the backrest from the thorax, facilitating cleaning and disinfection, through the Easy-Fix\* system.

Anatomical, removable, bi-articulated headrest\* and height adjustment, with anterior, posterior and longitudinal movements.

Cervical support\* provides greater comfort to the patient.

Fixed armrest with rounded finish, dispensing movement and facilitating cleaning and disinfection.

Second arm\* (retractable) with lateral opening facilitating patient access.

Integrated pedal\* unifies all foot controls, allowing chair, equipo, water unit and reflector triggering. Distinctive chip-blower system, which allows releasing the air stream with the turbine stopped (air jet function).

\*It has three pedal options to be adapted to the chair.

Equipped with lower limbs anti-crushing safety device.

\*Separate Junction Box Kit, built in high-impact polyethylene and rounded corners (optional).

To ensure safe operation of your equipment, use only the assembling configurations (Chair, Equipo, Water Unit and Reflector) provided by Reseller/Gnatus Authorized Service.

**Quality system EN ISO 9001/2000 and EN ISO 13485/2003**, ensuring that products are produced in standardized procedures.

Products manufactured in accordance with Resolution RDC 59/00 - National Health Surveillance Agency - ANVISA.

**\* optional item**

## MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION



The content on this page is informative; the equipment can be different from those illustrated.

Therefore, when purchasing the product check the technical compatibility between equipment, coupling and accessories.



\* optional item



**WARNING:** For integrated junction box chair it is recommended to fix the base of the chair to the floor, according to the guidelines in "Installation" section of this manual.

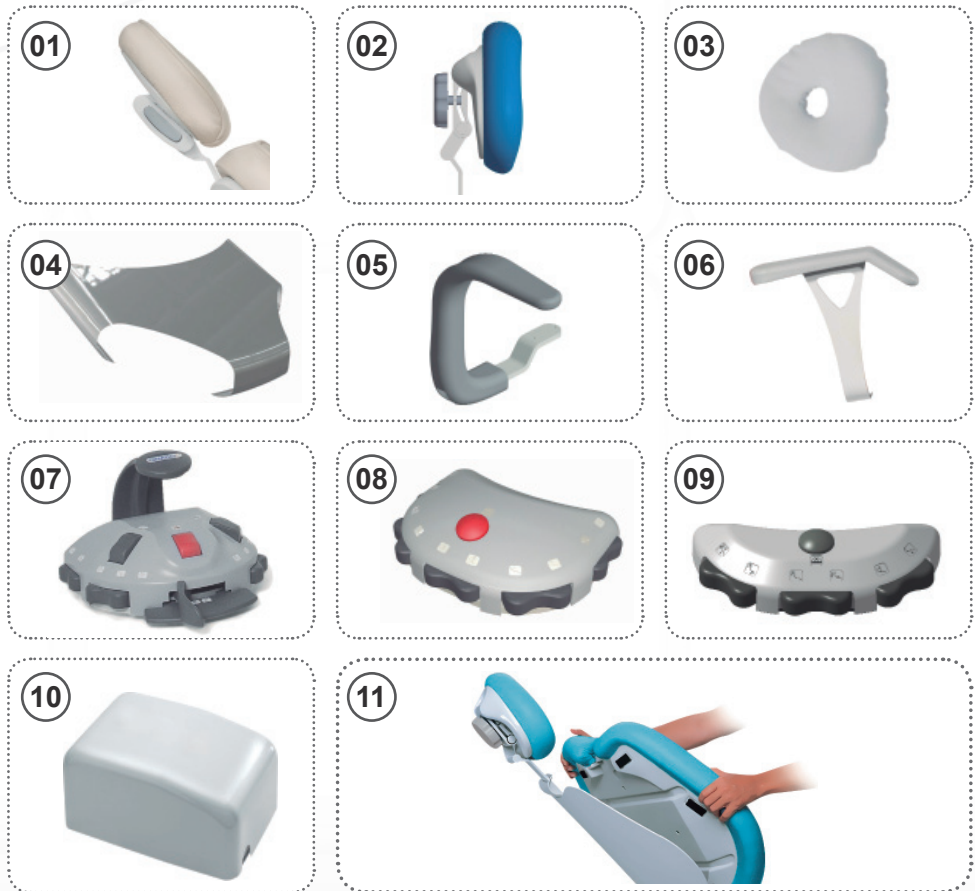
- \* 01 - Headrest
- \* 02 - Thorax Backrest
- \* 03 - Headrest Handlebar
- \* 04 - Retractable arm
- \* 05 - Fixed Arm

- \* 06 - Chip-blower Foot control
- \* 07 - Seat
- \* 08 - Engine cover finishing
- \* 09 - Base
- \* 10 - Main switch- On/off button



**NOTE:** Laminated PVC or leather upholstery, available in several colors \*

## MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION



- 01 - Headrest fixed or articuable (system "click").
- 02 - Headrest fixed or articuable (activated by maniple).
- 03 - Cervical support.
- 04 - Feet protector.
- 05 - Fixed or retractable arm "with side opening."
- 06 - Fixed arm.
- 07 - Chip-blower Foot control.
- 08 - Foot control with 11 functions (optional loose or fixed to the chair base).
- 09 - Foot control with 7 functions (optional loose or fixed to the chair base).
- 10 - Separate Junction Box Kit.
- 11 - Thorax Backrest (system Easy-Fix) or fixed using the screw.

# MODULES, ACCESSORIES, OPTIONS AND MATERIALS OF CONSUMPTION



The drawing illustrates all the optional items (**pag.07**), therefore, your equipment will consist only of the chosen items selected during your purchase option.

The use of any part, accessory or material not specified or provided in these use instructions is of entire responsibility of the user.

## TECHNICAL SPECIFICATIONS

### General

<b>Classification of Equipment:</b>
According to norm NBR IEC 60601-1
<b>Supply voltage</b>
127/220 V~ Seleccionable
<b>Frequency</b>
50/60 Hz
<b>Electric shock protection type</b>
Class one equipment
<b>Degree of protection against electric shock</b>
B type
<b>Mode of Operation</b>
Continuous with intermittent load: T-on 1min. - T-off 4min.
<b>Water leak protection</b>
IPX0 – All the chair, excepting foot control
IPX1 – foot control
<b>power</b>
200VA
<b>Protection fuses</b>
F1 and F2 (127/220V~ Seleccionable) = 5A - Time-lag
<b>Rising capacity</b>
200 Kg
<b>Net Weight</b>
107 Kg
<b>Gross Weight</b>
129 Kg



## TECHNICAL SPECIFICATIONS

### Chair for left and right-handed dentists use

Chair was designed for easy installation for left and right handed users, without losing its features.

When the Gnatus authorized technician installs the equipment, tell him whether position you want, and he will make the necessary adjustments. Among the advantages of this design, Foot control functions stand out, which easily adapts to the chosen position.

### Emergency stop

An “emergency stop” key is provided. When pressed, all functions and movements are automatically interrupted. When pressed again, unit returns to operation, keeping the programming and positions previously preset.

### Current surge protection

The equipment is endowed with high current, safety device that uses 2 fuses and internal overpower protection for the equipment that is attached to the chair.

### Bump preventing device

Always having in mind the dentist's security, we developed the leg bump preventing device. When the chair were descending, any obstruction below the chair would trigger this device, interrupting all functions and preventing further complications.

### Standards applied:

NBR IEC 60601-1:1997 - Equipamento Eletromédico- Parte 1: Prescrições gerais para segurança;  
NBR ISO 6875:1998 - Equipamento odontológico – Cadeira odontológica de paciente;  
NBR ISO 14971:2009- 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.

### 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.



**The materials used to produce the equipment are Biocompatible.**

## TECHNICAL SPECIFICATIONS

### Electromagnetic emissions


Recommended distances between portable and mobile RF communication equipments and the Syncrus G4			
The Syncrus G4 is made to be used in an electromagnetic environment in which RF disturbances are controlled. The client or the user of the Syncrus G4 may help preventing electromagnetic interference by keeping a minimal distance between mobile and portable RF communication equipment (transmitters) and the Syncrus G4, 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
<p>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.</p> <p><b>NOTE 1</b> At 80 MHz and 800 MHz, is applied the separation distance for the higher frequency range.</p> <p><b>NOTE 2</b> These guidelines may not apply to all situations. The absorption and reflection from structures, objects and people affect the electromagnetic propagation.</p>			



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 G4 is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus G4 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	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:  Recommended separation distance:  $d = 1,2 \cdot \sqrt{P}$  $d = 1,2 \cdot \sqrt{P}$ 80 MHz thru 800MHz $d = 2,3 \cdot \sqrt{P}$ 800 MHz thru 2,5MHz
RF radiated IEC 61000-4-3	3 V/m 88 MHz up to 2,5 GHz	3 V/m	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).  It is advisable that the field intensity from the RF, transmitter as determined by means of electric inspection on-site, <sup>a</sup> is less than the level of compliance in each frequency range <sup>b</sup> .  There may be interference near the equipment marked with the following symbol:  
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><sup>a</sup> 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><sup>b</sup> 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 G4 is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus G4 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 equipment far from the supply frequency or to install 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

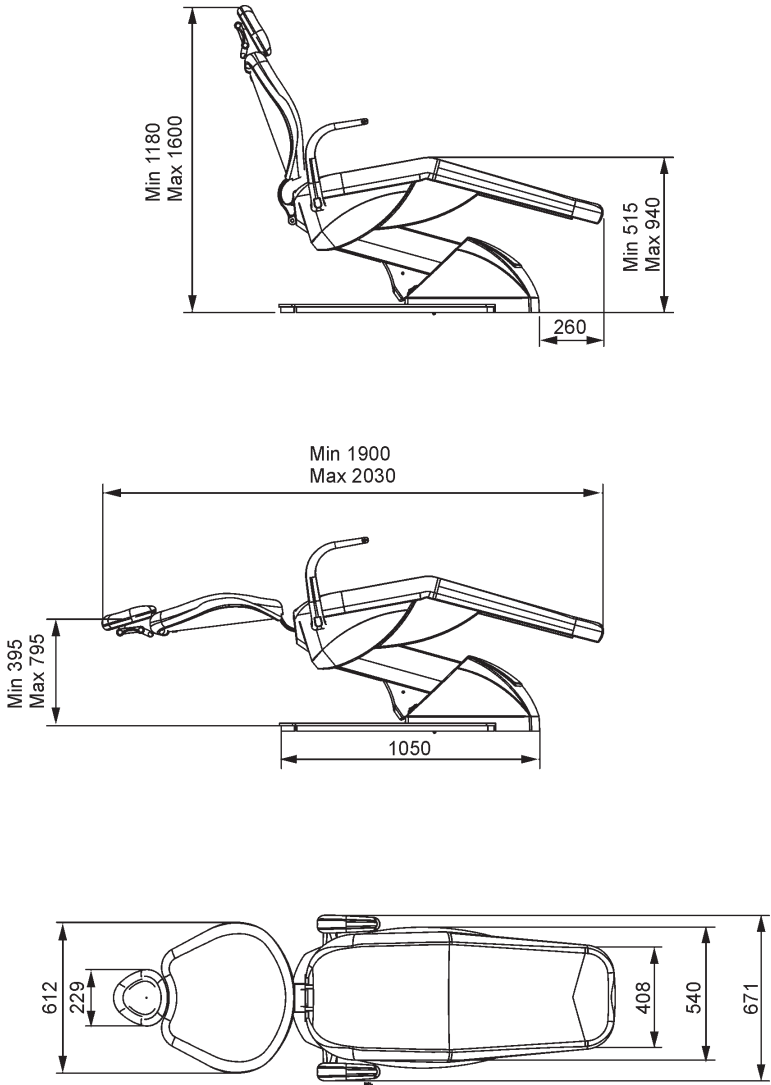
Eletromagnetic emissions		
The Syncrus G4 is made to be used in the electromagnetic environments specified below. The client or the user of the Syncrus G4 must be sure that it is used in such environment.		
Emission test	Compliance	Eletromagnetic environment - Guide
RF emissions ABNT NBR IEC CISPR 11	Group 1	<i>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.</i>
RF emissions ABNT NBR IEC CISPR 11	Class B	<i>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.</i>
Emissions of harmonics IEC 61000-3-2	Class A	
Fluctuation of Voltage / Emissions of flicker  IEC 61000-3-3	As per	

### 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 EQUIPAMENTOS MÉDICO-ODONTOLÓGICOS LTDA.										
Rod. Abrão Assed, Km 53+450m - Ribeirão Preto - SP - Brasil													
APARELHO	EQUIPMENT	APARATO	OPERAÇÃO	OPERATION	OPERACIÓN	FUSÍVEL	FUSE	FUSIBLE					
CADEIRA SYNCRUS G4 127/220 - 50/60 HZ			Contínuo, com carga intermitente			5A - AÇÃO RETARDADA							
			Continuous, with intermittent load			5A - TIME-LAG							
			Contínuo, com carga intermitente			5A - ACCIÓN RETARDADA							
			T. ON: 1 min. - T. OFF 4 min.			IPX0							
NUM. REG. ANVISA: 10229030041			EQUIPAMENTO DE CLASSE I			POT. - POWER							
			CLASS I EQUIPMENT			200 VA							
			EQUIPAMIENTO DE CLASSE I										
			Obelis S.A. Boulevard Général Wahnis 53 1030 Brussels, Belgium Tel. 32 2 732.59.54, Fax 32 2 732.60.03 E-mail: mail@obelis.net										
			    										

TECHNICAL SPECIFICATIONS

Dimensions (mm)



## 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.



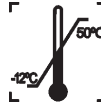
Packing to be transported and / or stored with the harrows up.



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.



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



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



Grounding (at several points of the equipment) indicates the condition of being grounded.



Turned on position.



Turned off position.



B type equipment



Lift seat.



Lower seat.



Lift backrest.



It determines the spitting position / last position.



Lower backrest.

## TECHNICAL SPECIFICATIONS

### Product symbols



It determines the work position "1 and 2".



It determines the work position "3 and 4".



It determines the initial position.



Activation of the dental light



Warning - Consult the manual



Electric low-speed-motor rotation inverter



Authorized representative in the European Community



Emergency stop

## 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.**



**For your safety, the Dental Chair leaves the factory positioned at 220V~, so ensure that your network is compatible before turning it on. If it is 127V~, request the presence of an authorized GNATUS technician.**

- The equipment should only be installed by Gnatus authorized technical assistance or technicians.
- The bad use, negligence or maintenance not made by technician authorized by the maker, will imply in the loss of the warranty.



## INSTALLATION OF EQUIPMENT

### IMPORTANT:



The Gnatus dental set is dimensioned so that the stability of the set composed of a Dental Chair, Delivery Unit, Dental Light and Water Unit remains stable in normal conditions of use. If, by option of the customer, it is necessary to install other accessories in the dental set, Gnatus informs you that the evaluation of the stability is the customer's responsibility, and suggests that in this case the base of the dental chair is fastened to the floor by means of the holes already furnished in its base. This means that the added weight does not jeopardize the stability of the set.

### How to fix the dental chair base to the floor

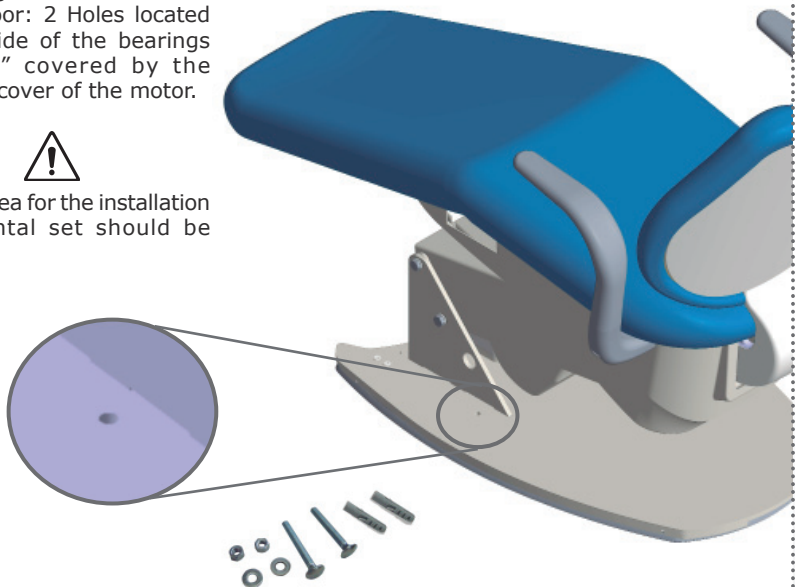
Mark the floor, stick with 12mm drill, insert two S12 screw plastic plugs in the holes, place the chair aligned to the holes and fix it using 3/8" x 90mm hex head steel screws and washers.



Base pierced for option of fastening the dental chair to the floor: 2 Holes located on the side of the bearings "outside" covered by the finishing cover of the motor.



Minina area for the installation of a dental set should be 10m<sup>2</sup>.



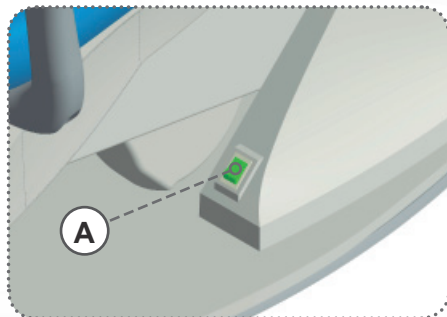
**Warning: Screws, washers and bushings with the product**

## OPERATION OF EQUIPMENT

### Initiating

After positioning the chair in the chosen place:

- Turn on the general key - on/off switch located on the engine cover trim side (A).
- Thru the command pedal, adjust the chair to the desired position.
- Adjust the headrest position.



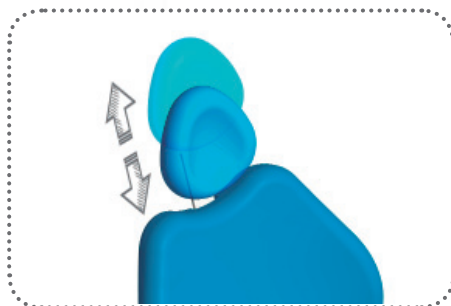
### Bi-articlable headrest (activated by maniple)

To move the headrest, loose knob (B), turn it anticlockwise until desired position is reached and fix it turning it clockwise.



### Headrest bracket

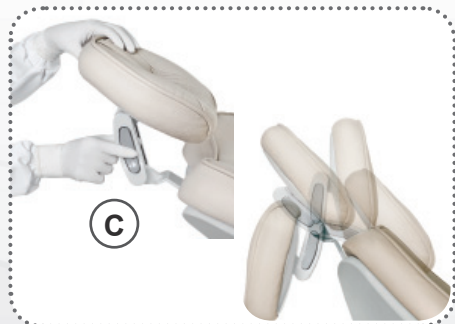
To adjust height just move it vertically.



### Bi-articlable headrest (system "Click") optional

To move the headrest pivot/articulation, press the Hold Key (C).

Find the desired position and release the key to lock.



### Backrest

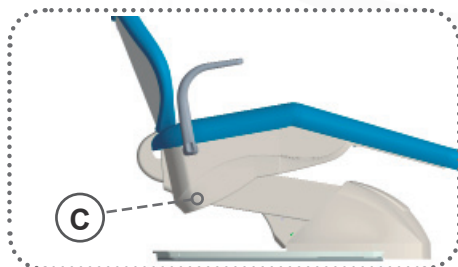
Backrest's upholstery is removable thanks to the Easy-fix system. To remove it, just pull. To place it again, find the correct position and push, fixing the upholstery to the backrest.



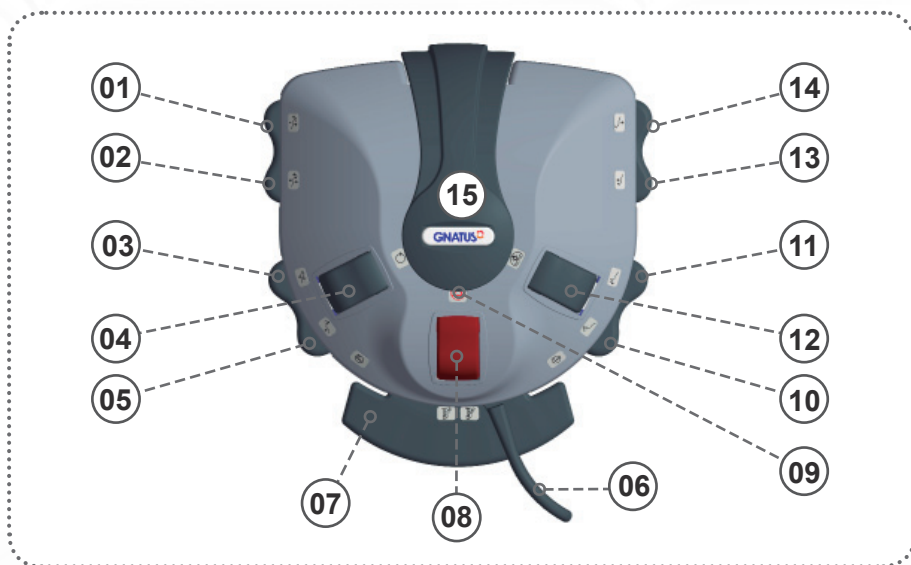
## OPERATION

### Bump preventing device

The Syncrus G4 chair features a leg bump preventing device (C). When the chair was descending, any obstruction below the chair would trigger this function, interrupting all movements and preventing further complications.



### Operation of Integrated Foot control "Chip-Blower"



#### Description:

- |   |  |
|---|--|
| 01 - Operating Position 1/2   | 07 - Chip-Blower System<br>(double function operation<br>key - "Spray" or "Air") |
| 02 - Operating Position 3/4   | 08 - Emergency Stop  |
| 03 - Return to the last position /<br>Spitting Position                                       | 09 - Emergency Led   |
| 04 - Activation of the dental light /<br>inverting the rotation of the electric<br>micromotor | 10 - Dental Chair back up  |
| 05 - Return to Zero   | 11 - Dental Chair back down  |
| 06 - Lever for electro-pneumatic<br>operation (increase reduction<br>of rotation)             | 12 - Activation of the dental light  |
|   | 13 - Dental Chair up   |
|   | 14 - Dental Chair down   |
|   | 15 - Carrying Handle (mobile Foot control)                                       |



Note.: For the Top Delivery Units, the key of the Foot control (04) will have the function of inverting the rotation of the electric micromotor.

# OPERATION

## Emergency Stop:

When pressing the “Emergency Stop” button (08), a LED will light and all chair movements will automatically stop, and will remain blocked until the “Emergency Stop” (08) is pressed again. This operation does not cancel the positions or the programming that has already been recorded. We recommended that this function should be used during long surgical procedures, as the chair will be blocked, therefore not allowing any unexpected movements.

## Working Positions:

- Has four working positions. In order to program them, just place the chair in the position and the dental light at the desired intensity and press and hold for 3 seconds the “posicoes de trabalho 1 e 2” button (01) or “posicoes de trabalho 3 e 4” button (02) at the pedal; the dental chair will sound a beep, and then two beeps in a row, entering cycle, then release the button after the number of beeps regarding the working position you want to program.
- To select the first working position, touch once the button (01) of the pedal, for the second, two consecutive touches.
- To select the third or fourth position, repeat the same procedure using the button (02).

Button (01):

- 1 beep = 1st working position
- 2 beep = 2nd working position

Button (02):

- 1 beep = 3rd working position
- 2 beep = 4th working position

## Activation of the dental light:

- This has a multifunctional key (12) for the operation of the light source.
- On / Off

### ATTENTION:

For the Delivery Units, (without Bien Air System) the key of the Foot control (04) will have the function of inverting the rotation of the electric micromotor and the key (12) the activation of the dental light.

*"For further information, refer to the manual of the purchased reflector model"*

Activation of the dental light for the  
Delivery Units Top  
(without Bien Air System)



Activation of the dental light for the  
Delivery Units Top  
(with Bien Air System)



## OPERATION

### "Go back to the last position" "Spitting Position":

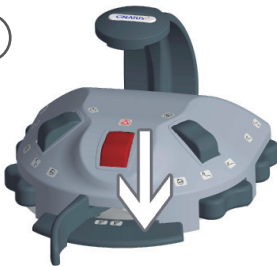
When pressing the button "Go back to the last position" "Spitting Position" (03), the light source will turn off (if it was on), water will then flow in the basin (for the duration of the programmed time or if this has not been programmed, for 4 minutes), the chair back will raise completely to the Spitting Position, when pressing it again, the back support will return to the previous position and the light source will turn on (if it was on). When pressing the button "Return to zero" (05), the light source will turn off (if it was on), water will then flow in the basin (for the duration of the programmed time or if this has not been programmed, for 4 minutes), the chair back will raise up completely and the chair will go down completely.

After activating the "Return to zero" operation (05), or the "Return to the last position, "Spitting Position" (03), or any other operation, this will operate "Stop", and the current position of the chair back will automatically be defined as the "Last position".

### Chip-blower system

The chip-blower system allows for the release of the airflow when the turbine is stopped (function of the air). It has a double function key that allows for the operation of the hand set with or without water, as shown below:

**A**

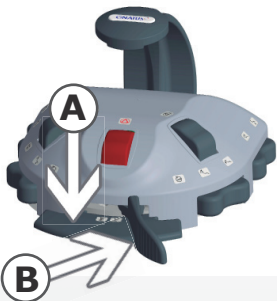


Press key (A) down, will supply air to the tips.

**B**



Press the key (B) to the right, to supply air to the high RPM micro motor hand sets (only air/ electric).



Press the (A) key down, and the lever to the right (B), together, will turn on the high RPM air and water spray turbine.



Put one foot under the transport handle, to move it, lift it sufficiently and place in the desired position.

## OPERATION

### Foot control with (11 functions) optional

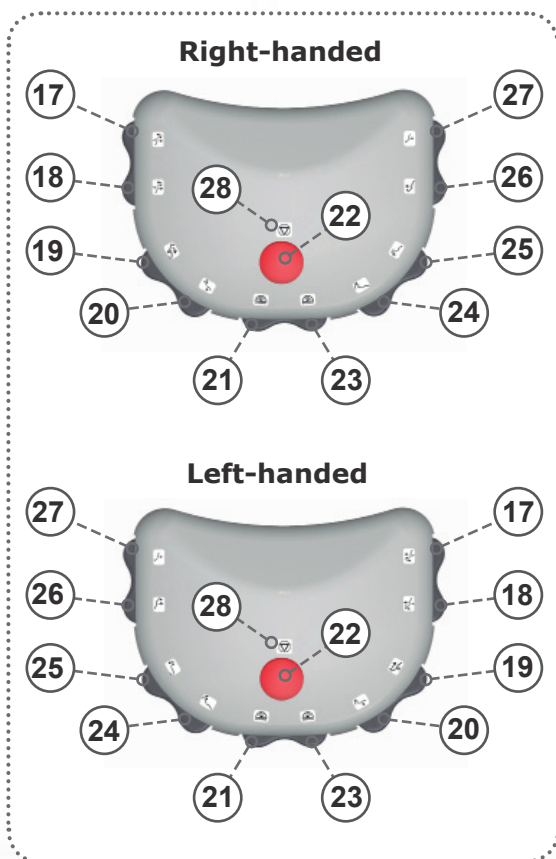
- 17 - Work position 1
- 18 - Work position 2
- 19 - Last position / Spitting position
- 20 - Initial position
- 21 - Activation of the dental light
- 22 - Emergency stop
- 23 - Activation of the dental light
- 24 - Lift backrest
- 25 - Lower backrest
- 26 - Lift seat
- 27 - Lower seat
- 28 - Emergency Led

### Spitting position

When the key "Last position/ Spitting position" (19) is pressed, the dental light will go off (if it was on), the bowl will drain (for the preset time, and if it was not programmed yet, for four minutes) and the backrest will go up to the spitting position. When pressed again, the backrest will return to the last position and the dental light will go on (if it was on).

### Initial position

When the key "Initial position" (20) is pressed, the dental light will go off (if it was on), and the backrest will go up and the set will go down.



### How to turn on the dental light

Press the buttons (21) or (23). *Refer to Owner's Manual of Dental light (available for viewing and downloading via [www.gnatus.com.br/manuais](http://www.gnatus.com.br/manuais))*

### Working position

Foot control with 11 functions features two programmable working positions. Just move the chair to the desired position and press the button (17) or (18) for 3 seconds (you'll hear a long beep).

## OPERATION

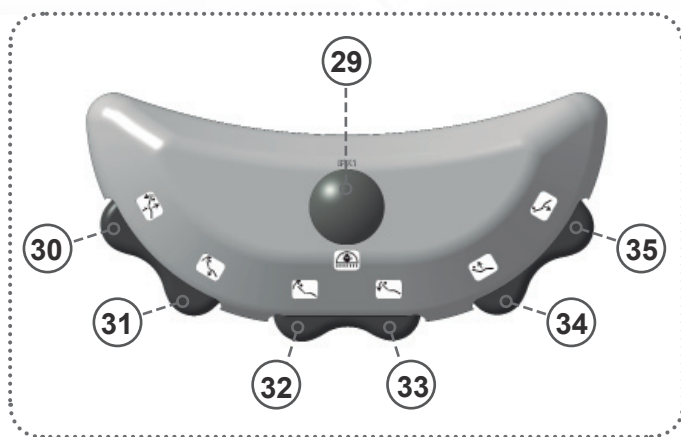
### ATTENTION

- When the "Emergency stop" (22) key is pressed, the LED (28) will be on and all chair movements are interrupted until pressed again. This operation does not erase previously recorded positions and programming. **We recommend its use during long surgical procedures, because all chair movements are blocked, thus preventing unexpected movements.**

- After pressing the "Initial position" (20) key or the "Last position/Spitting position" (19) key, any other operation will trigger the "Stop", and automatically the backrest current position will be defined as "Last position".

## Foot control (with 7 functions) optional

- 29 - Activation of Dental Light
- 30 - Work positions
- 31 - Initial position
- 32 - Lift backrest
- 33 - Lower backrest
- 34 - Lift seat
- 35 - Lower seat



## How to turn on the dental light

Press the button (29). *Refer to Owner's Manual of Dental light (available for viewing and downloading via [www.gnatus.com.br/manuais](http://www.gnatus.com.br/manuais))*

## Working positions

The Syncrus chair has three programmable working positions. To schedule them just put the seat in position and the reflector in the desired intensity and keep the pedal button (30) pressed, the chair will beep then two consecutive beeps and then three consecutive beeps entering in a cycle, release the button after the number of consecutive beeps regarding the working position you want to program.

To select the first working position touch the pedal button (30), for the second position touch twice and for the third position touch three times.

- 1 beep = 1st working position
- 2 beeps = 2nd working position
- 3 beeps = 3rd working position

## Initial position

When the key "Initial position" (31) is pressed, the dental light will go off (if it was on), and the backrest will go up and the set will go down. After activated the "Initial position" operation (31), any other operation could perform the "Stop".



## 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.

**ATTENTION:** The equipment should only be used with power input cable supplied by Gnatus. Otherwise, it may cause an increase in the emissions of reduction in the immunity of the equipment.



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.
- Check that the socket in which the device will be connected has a ground connection. According to the ABNT standard, this is essential for the safe operation of the system;
- 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.
- 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.
- Check the voltage of the equipment at the moment of executing the electrical installation.
- The equipment must be grounded correctly.
- Before the first use and/or after long interruptions from work such as vacations, clean and disinfect the equipment.



**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.
- When moving the chair, never get it for the part of the support of the legs, lift it for the structure in the area of the seat.

#### **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.

# PRECAUTIONS, RESTRICTIONS AND WARNINGS

## Precautions and warnings during the "cleaning and disinfection" of equipment

- 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.

### **Care for the cleaning of (laminated PVC "courvin" or leather) Upholstery:**

- Never use any type of alcohol, microabrasive material, detergents containing solvents such as ether or stain remover for cleaning of upholstery, because it may cause stains.

### **Procedure for cleaning of laminated PVC (courvin) upholstery:**

- We recommend using the product BactSpray (manufactured by AEROPAC INDUSTRIAL LTDA and distributed by DCMA produtos médicos odontológicos LTDA) or a damp cloth with a mild soap.

### **Procedure for cleaning of leather upholstery:**

- For cleansing and moisturizing of the leather upholstery, we recommend the use of exclusive products for this purpose.
- Never soak or scrub forcefully the leather. If dirt falls on the leather staining it, clean it immediately with a damp cloth with a mild soap.

## 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

**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)

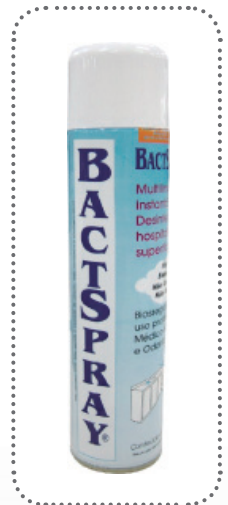
Solution 50%..... 0.329%

**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. **(EXCEPT FOR UPHOLSTERY)**
- Never use corrosive disinfectants or solvents.



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

# CORRECTIVE AND PREVENTIVE MAINTENANCE AND PRESERVATION


## 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.

# 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
-Chair is not working.	-Bump preventing device triggered. -"Emergency stop" key pressed.  -Plug disconnected from socket. -Power cut. -Main switch is off. -Burned fuse(s).	-Release bump preventing device. -Press the "emergency stop"key again.  -Connect plug to socket.  -Wait until power is back. -Switch the main switch on. -Turn off the chair from mains power and request a Technician presence.

## 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 Gnatus Authorized Technician.

- Queries and information: GNATUS Help Desk (+55) 16 2102-5000 / SAC: 0800-7015-054.

- 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 Gnatus spare parts.

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

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 / SAC: 0800-7015-054.







Obelis S.A, Boulevard Général Wahis 53, 1030 Brussels, Belgium,  
Tel: +(32) 2 732-59-54 Fax: +(32) 2 732-60-03 E-mail: mail@obelis.net

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Technical Duties:

Gilberto Henrique Canesin Nomelini – CREA-SP: 0600891412



**EQUIPAMENTOS MÉDICO-ODONTOLÓGICOS LTDA.**

Rod. Abrão Assed , Km 53+450m - Cx. Postal 782

CEP 14097-500 - Ribeirão Preto - S.P. - Brasil

Fone (16) 2102-5000 - Fax (16) 2102-5001

SAC: 0800-7015-054

C.N.P.J. 48.015.119/0001-64 - Insc. Est. 582.329.957.115

[www.gnatus.com.br](http://www.gnatus.com.br) - [gnatus@gnatus.com.br](mailto:gnatus@gnatus.com.br)

[SAC@gnatus.com.br](mailto:SAC@gnatus.com.br)