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SMART TOUCH R7

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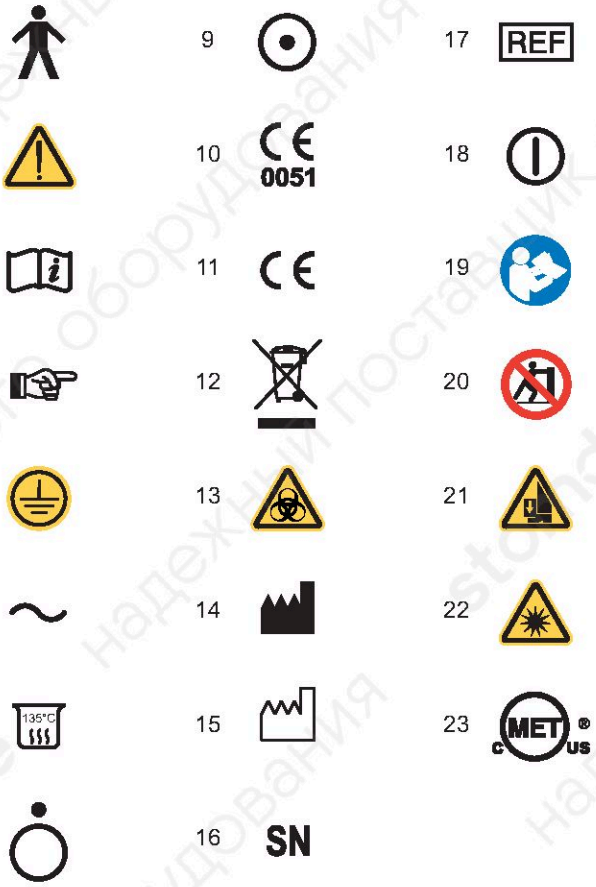
1. Safety guidelines

- **These instructions explain how to correctly use the following dental units:**
  R7 CONTINENTAL, R7 INTERNATIONAL, R7 CART , R7 SINGLE HYDROGROUP
  R7 M CONTINENTAL, R7 M INTERNATIONAL, R7 M CART, R7 P
  Carefully read and become familiar with the content of this manual before using the equipment.
- These instructions describe all the versions of the operating units with the maximum possible accessories, therefore not all the paragraphs are applicable to the unit you have purchased.
- No part of this manual is to be reproduced, stored in a retrieval system or transmitted in any form or by any means, i.e. electronic, mechanical, photocopying, translation or otherwise, without the prior written permission of CEFLA s.c..
- The information, specifications and illustrations contained in this publication are not binding.
  CEFLA s.c. reserves the right to make technical improvements and changes without modifying the instructions contained herein.
- The manufacturer has a company policy of continual development. Although every effort is made to keep technical documentation up-to-date at all times the manual may not correspond exactly to current specifications. The manufacturer reserves the right to make changes without prior notice.
- The original version of this manual is written in Italian.
- This equipment is equipped with a device that prevents liquid back up

1.1. Symbol definition

List of symbols used in this document to denote certain conditions:

1) Type of protection against direct and indirect contact: **Class I.**
   Type of protection against direct and indirect contact: **Type B.**
2) WARNING!
   Failure to observe may result in equipment damage or injury to the user and/or patient.
3) OPERATING INSTRUCTIONS:
   This symbol indicates that the user should read and become familiar with the content of the User's manual before attempting to use the relative part of the equipment.
4) NOTE:
   Identifies information that is especially important for the user and/or assistant.
5) Earth ground. Functional earth connection.
6) Alternating current
7) Part sterilised in a steam autoclave up to 135° C.
8) On (a part of the apparatus)
9) Off (a part of the apparatus)
10) Equipment in accordance with essential requirements of directive EEC 93/42 and subsequent changes (Class II equipment).
11) Equipment in accordance with essential requirements of directive EEC 93/42 and subsequent changes .
12) Waste disposal symbol in accordance of Directive 2012/19/UE.
13) "Warning biological hazard".
    It provides information about possible risks of contamination deriving from contact with fluids, storage of infected biological waste.
14) Manufacturer
15) Month and year of constructions
16) Apparatus serial number
17) Product/equipment identification code.
18) ON / OFF button.
19) "Refer to the instruction manual"
    Means that for reasons of safety you need to consult the instruction manual before using the device.
20) Do not push.
21) Foot crushing hazard.
22) Device equivalent to Class 2 light source.
23) Quality marking c(MET)us (USA and CANADA).



1.2. Intended use

- The R7 series of operatories are medical devices intended for dental treatment.
- The instrument board may hold up to 6 instruments.
- The assistant's board can hold 2 suction tubes and 3 instruments.
- This equipment must be used only by adequately trained personnel (doctors and paramedics).
- The device is intended for **non-continuous operation** (see the operating times of the individual parts in the dedicated sections).
- The device is classified as pollution degree 2.
- Overvoltage class: II.

WARNING! (only for the American and Canadian markets)
The R7 series dental units and the relative accessories are intended for dental treatment, providing the dentist with a user interface to control functioning of the dental chair and all the connected instruments. The dental unit supplies air and water, and a suction and electrical energy system allows the dentist to intuitively control all the patient treatment procedures normally performed in a dentist's surgery.
Federal law restricts the sale of this device exclusively to dentists.

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1.2.1. Classification and reference standards

- MEDICAL DEVICES classification
  Classification of the dental unit in accordance with the indications given in annex IX of directive 93/42/EEC and subsequent changes: **Class IIa**.
- ELECTRICAL MEDICAL EQUIPMENT classification
  Classification of the dental unit in accordance with standard IEC 60601-1 for safety of medical equipment: **Class I - Type B**.
- Reference standards: R7 series operatory units are designed and constructed in compliance with IEC 60601-1 3.a Ed. - 2007, IEC 60601-1-6 3.a Ed. - 2010, IEC 62366 1.a Ed. - 2007, IEC 80601-2-60 1.a Ed. - 2012, IEC 60601-1-2 3.a Ed., ISO 6875 3.a Ed. - 2011, ISO 7494-1 2.a Ed. - 2011 and EN 1717 (type AA and AB) standards as far as the water mains safety devices are concerned.
- Classification of RADIO DEVICES AND COMMUNICATION TERMINALS (only when the WIRELESS foot control is present)
  Equipment classification according to Directive 99/05/EC Art.12: **Class I.**

1.2.2. Environmental conditions

The equipment is to be installed in rooms that satisfy the following requirements:
- temperature between 10 and 40°C.
- relative humidity between 30 and 75%.
- atmospheric pressure ranging from 700 to 1060 hPa.
- altitude ≤ 3000 m;
- air pressure entering equipment ranging from 6 to 8 bar.
- water hardness entering equipment not over 60 mg/l.
- water hardness at the equipment inlet must not be above 25 °f (French degrees) or 14 °d (German degrees) for untreated drinking water. For water with a higher hardness degree, it is recommended to soften water until it reaches a hardness degree between 15 and 25 °f (French degrees) or between 8.4 and 14 °d (German degreees);
- water pressure entering equipment ranging from 3 to 5 bar.
- water temperature entering equipment not higher than 25°C.

1.2.2.1. Transport and packaging conditions

- Temperature: from -10 to 70°C;
- Relative humidity: from 10% to 90%;
- Atmospheric pressure: from 500 to 1060hPa.

1.2.3. Warranty

CEFLA s.c. stands behind its products warranting safety, reliability and performance.
The warranty is valid only under the following terms:
- The conditions given on the warranty certificate are observed.
- The equipment is used only as instructed in this manual.
- The electrical wiring in the room in which the equipment is installed must conform to IEC 60364-7-710 (standards for electrical wiring in medical and dental offices).
- A 3x1.5 mm^2 line protected by a bi-polar cut-out that conforms to applicable standards (10 A, 250 V, distance between contacts at least 3 mm) must be used to feed the equipment.

⚠ **WARNING!**
The color of the three wires (POWER, NEUTRAL and EARTH) should satisfy the requirements of current standards.
- Installation, repairs and, in general, any other operations requiring the casing to be opened are to be performed exclusively by personnel authorized by ANTHOS.

1.2.4. Disposing the equipment when no longer used

In compliance with Directives 2011/65/EU and 2012/19/EU regarding restriction of the use of certain hazardous substances in electrical and electronic equipment along with waste electrical and electronic equipment, it is forbidden to dispose of this equipment in the municipal waste stream as unsorted municipal waste. When new equipment of equivalent type is purchased the waste equipment should be returned to the distributor on a one-to-one basis for disposal. As far as reuse, recycling and other forms of waste recovery mentioned above are concerned, the manufacturer is responsible for the actions specified by individual local laws. Efficient collection of sorted waste separately to recycle and treat waste electrical and electronic equipment aids in preventing negative environmental impacts while protecting human health. In addition it facilitates recycling of the materials used to construct the equipment. Illegal waste disposal carries heavy fines defined by local laws.

⚠ **WARNING!**
The crossed out wheeled bin placed on the equipment indicates that the waste equipment must be collected separately from other waste.

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1.3. Safety rules

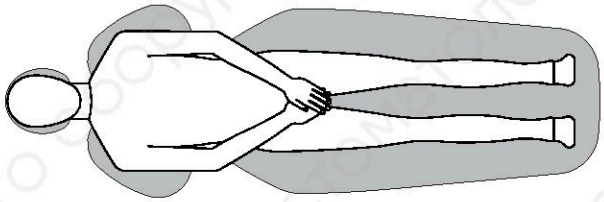
WARNING!

- **All equipment is permanently installed.**
  Depending on the type of chair the unit comes with, refer to the installation DATA given in paragraph "Specifications".
  CEFLA s.c. shall not be held liable for any personal injury or equipment damage resulting from failure to heed the precaution given above.
- **Floor condition**
  The floor conditions (continuous type) must meet design load standards set forth in DIN 1055 sheet 3.
  The weight of the dental unit including a patient weighing 160 Kg, is approximately 350 Kg.
  See the Installation manual for further details about installation.
  The positions of delivery and drainage line connections comply with standard UNI EN ISO 11144. In case of floor installation without load reduction plate, floor characteristics must ensure a breakage resistance of the anchor bolt not less than 1200 daN each (considering a RcK concrete resistance of 20 MPa). In case of floor installation without load reduction plate, floor characteristics must ensure a resistance of the anchor bolt not less than 260 daN.
- This device may not be modified in any way without the authorisation of the manufacturer.
  If the device is modified, appropriate examinations and tests need to be conducted in order to ensure continued safe use.
  CEFLA s.c. shall not be held liable for any personal injury or equipment damage resulting from failure to heed the precaution given above.
- **Dental chair**
  The maximum chair capacity is 160 Kg. This weight must never be exceeded.
- **Tray holders**
  The maximum weights that can be held must never be exceeded:
  - Instrument tray attached to the instrument board maximum allowable load 2 Kg, evenly distributed.
  - Auxiliary instrument tray, maximum allowable load on tray 3.5 Kg (no x-ray film viewer) or 2.5 Kg (with x-ray film viewer).
- **Connections to external instruments**
  The equipment can be hooked up only to other instruments that bear the CE mark.
- **Electromagnetic interferences.**
  Use of electrical equipment that does not comply to standard IEC 60601-1 3.a Ed. - 2007 in the office or nearby may cause electromagnetic or other types of interferences resulting in dental unit malfunctions.
  In these cases, shut off power to the dental unit before using this equipment.
- **Replacing the chucks**
  Operate the turbine release and contra angle only once the chuck has come to a complete stop. On the contrary, the locking system will wear down and the chucks can slip off causing injury. Use only high quality chucks with gauged diameter attachment. To check the state of the locking system, make certain the chuck is firmly secured to the instrument every day before starting work. Locking system defects caused by misuse are easily identified and not covered by the warranty.
- **Patients with pace makers and/or hearing aids.**
  When treating patients with pace makers and/or hearing aids, take into consideration the effects the instruments may have on pace makers and/or hearing aids. Carefully read technical-scientific information available on this subject.
- **Implants.**
  If the dental unit is used for implant operations using separate equipment designed for this purpose, shut off power to the dental chair to avoid unwanted movements resulting from faults and/or accidental start up of the controls.
- Do not forget to turn off the office's water supply and master switch on the equipment before leaving the surgery.
- The equipment is not protected against liquid penetration (IPX O).
- This equipment is not suitable for use in the presence of a mix of inflammable anaesthetic gas with oxygen or nitrous oxide.
- This equipment must be stored properly so that it is kept in top working order at all times. The manufacturer shall not be held responsible for misuse, carelessness or improper use of the equipment.
- This equipment is to be used exclusively by qualified personnel (doctors and paramedics) with the proper training.
- The user must be present at all times when the equipment is turned on or ready for start-up. In particular, never leave the equipment unattended in the presence of children/the mentally disabled or other unauthorised personnel in general.
  Any companions must keep out of the area in which treatment is performed and in any case under the responsibility of the operator. The area in which treatment is performed refers to the space around the dental unit plus 1.5 meters.
- **Quality of the water delivered by the dental unit.**
  The user is responsible for the quality of the water delivered by the dental unit and must adopt measures to maintain it.
  To ensure that you meet the water quality requirements, CEFLA s.c. advises you to equip the dental unit with an internal or external disinfection system.
  Once installed, the dental unit is exposed to contaminants originating from the water supply. For this reason, it is recommended to install and put it into operation only when you begin using it daily and to perform the decontamination procedures described in the relative chapters right from the first day of installation.
  If the dental unit is equipped with a device for separation from the open water supply system (EN 1717), make sure that it also continuously adds disinfectant as required and check that the relative tank contains an adequate quantity (see the relative paragraph).

***NOTE:** Contact your local dealer or Dental association for more detailed information about national laws and requirements.*

- **Applied Parts.**
  The parts of the device that during normal use necessarily come into contact with the patient for the device to be able to perform its functions are: Dental chair upholstery, armrest, polymerising lamp fibre optics, terminal part of the syringe, single-use camera protection, scaler bits, drill handpieces, cannula suction terminals.
  Non applied parts that may come into contact with the patient are: dental chair armrest support, dental chair lower casing, patient-side hydro unit casing, cup water delivery spout, bowl, suction tubes, handpiece body.

- **WARNING! Moving the dental chair.**
  Make sure that the patient is ready to collaborate: ask him/her to keep his/her hands and feet close, avoiding incorrect postures.
  Check that the patient is sitting properly when moving the dental chair (see figure).



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1.4. Cleaning and disinfecting

Cleaning is the first step of any disinfecting process. Physically scrubbing with detergents and surface-active substances and rinsing with water removes a considerable amount of micro organisms. If a surface is not clean first, the disinfecting process cannot be successful. If a surface cannot be adequately cleaned, it should be protected with barriers.
The outer parts of the equipment must be cleaned and disinfected using a product for hospital use with indications for HIV, HBV and tubercolocide (medium-level disinfectant) specifically for small surfaces.
The various drugs and chemical products used in dentist's surgeries may damage the painted surfaces and the plastic parts.
Research and tests run show that the surfaces cannot be fully protected against the harsh action of all products available on the market. We therefore recommend protecting with barriers whenever possible. The harsh actions of chemical products also depend on the amount of time they are left on the surfaces. It is therefore important not to leave the product on the surfaces longer than the time specified by the manufacturer.

It is recommended to use the specific medium-level disinfectant, STER 1 PLUS (CEFLA s.c.), which is compatible with:
- **Coated surfaces and plastic parts.**
- **Upholstery.**

⚠ **WARNING!**
Any splashes or spots of mordant will stain the MEMORY FOAM upholstery. Immediately rinse with plenty of water if acid spatters on the upholstery.
- **Uncoated metal surfaces.**

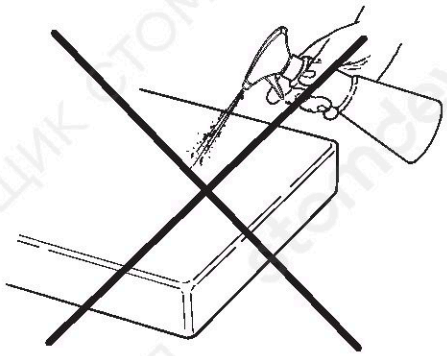
If you do not use STER 1 PLUS, it is recommended to use products that contain at maximum:
- **Ethanol.** Concentration: maximum 30 g per 100 g of disinfectant.
- **1-propanol (N-propanol, propyl alcohol, N-propyl alcohol).** Concentration: maximum 20 g per 100 g of disinfectant.
- **Combination of ethanole and propanole.** Concentration: the combination of the two should be maximum 40 g per 100 g of disinfectant.

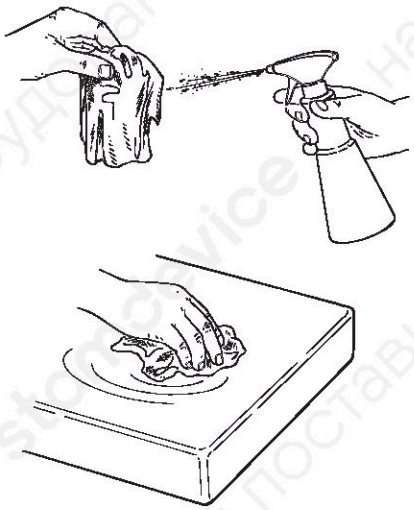
⚠ **WARNING!**
- **Do not use products containing isopropyl alcohol (2-propanol,iso-propanol).**
- **Do not use products that contain sodium hypochlorite (bleach).**
- **Do not use cleaners that contain phenol.**
- **Do not spray the selected products directly on the surfaces.**
- **All products must be used as directed by the manufacturer.**
- **Do not mix the STER 1 PLUS disinfectant with other products.**

⚠ **WARNING!**
The products suggested are compatible with the materials of the equipment, however damages may occur to surfaces and materials resulting from the use of different products, even if not included in the above list of excluded products.

Cleaning and disinfecting instructions.
Clean and disinfect with single-use non-abrasive paper (avoid using recycled paper) or sterile gauze.
Do not use sponges or in any case, any material that can be reused.

⚠ **WARNING!**
- **Shut off the dental unit prior to clean and disinfecting the external parts.**
- **All material used to clean and disinfect must be thrown away.**





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1.5. Sterilization

Each instrument is supplied NOT STERILE and must be sterilized in a steam autoclave (max 135°C) before use, avoiding any form of chemical sterilization.
Sterilization must be performed using suitable packaging materials checked during the sterilization process validation.
We recommend sterilizing in steam autoclave (moist heat) using a pre-vacuum (forced air removal) cycle.
Autoclaves must comply with the requirements of, be validated by and maintained in accordance with EN 13060 (or ANSI/AAMI ST55), EN ISO 17665-1 and ANSI/ AAMI ST79.

See below for recommended minimum sterilization parameters for re-usable medical devices that have been validated to provide a 10^-6 sterility assurance level (SAL):
• Cycle Type with pre-vacuum (Pre-vac).
• Method: "overkill" moist heat sterilization in compliance with ISO 17665-1.
• Minimum temperature: 134°C (273°F) for heat-resistant materials (instruments and metallic handpieces, etc); 121°C (250°F) for heat-labile materials (rubber products, etc.).
• Minimum exposure time [1]: 4 minutes (at 134°C), 20 minutes (at 120°C).
• Minimum drying time [2] : defined to ensure compliance with the requirements of EN 13060 (or ANSI/AAMI ST55).

[1] Exposure time: period of time during which the load and the entire chamber are maintained above sterilization temperature.
[2] DRYING TIME: period of time during which steam is removed from the chamber and the chamber's pressure is reduced to allow evaporation of condensate from the load either by prolonged evacuation or by the injection and extraction of hot air or other gases.
The drying time varies according to load configuration, type of packaging and materials.

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2. Description of the CLASSE R devices

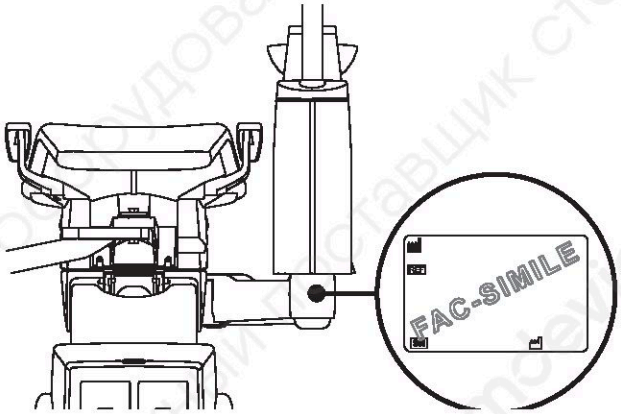
- R7 line dental units: they are equipped with a hydro group vertically integral with the dental chair; both the assistant's board and the dentist's instrument board are mounted on two articulated arms of which one is self-balanced, which allows adjusting them in height.
  The hydrogroup, instrument and assistant's boards can be turned to quickly change from the version for right-handed operators to the version for left-handed operators.

- R7 M line dental units: they are not equipped with a hydro group and the load-bearing structure of the assistant's board is positioned in the rear area of the dental chair.
  Both the assistant's board and the dentist's instrument board are mounted on two articulated arms of which one is self-balanced, which allows adjusting them in height
  Both the assistant's board and the dentist's instrument board can be turned to quickly convert them from a right-handed to a left-handed operator version.

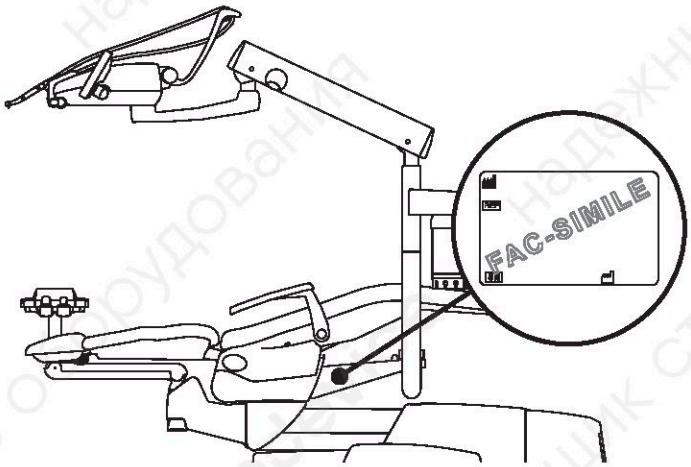
- R7 P line dental units: they are not equipped with a hydro group nor with a dentist's instrument board.
  The load-bearing structure of the assistant's board is positioned in the rear area of the dental chair and it is mounted on two articulated arms of which one is self-balanced, which allows adjusting it in height.
  The assistant's board can be turned to quickly convert it from a right-handed to a left-handed operator version.

2.1. Nameplate

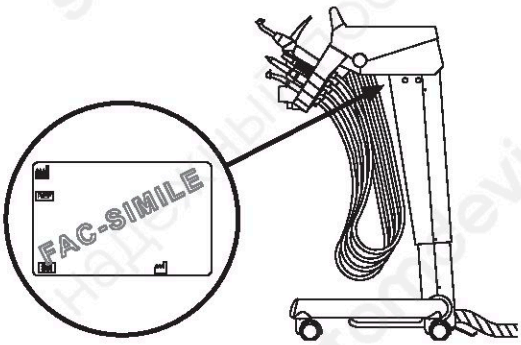
Models: R7 CONTINENTAL, R7 INTERNATIONAL and R7 SINGLE HYDRO GROUP.
The ID plate is located on the link between patient chair and unit body.
Data given on plate:
- Manufacturer's name
- Name of equipment
- Voltage
- Type of current
- Frequency
- Maximum power absorbed
- Serial number
- Year of manufacture



Models: R7 M CONTINENTAL and R7 M INTERNATIONAL.
The nameplate is found on the mount for the instrument board arms.
Data given on plate:
- Manufacturer's name
- Name of equipment
- Voltage
- Type of current
- Frequency
- Maximum power absorbed
- Serial number
- Year of manufacture



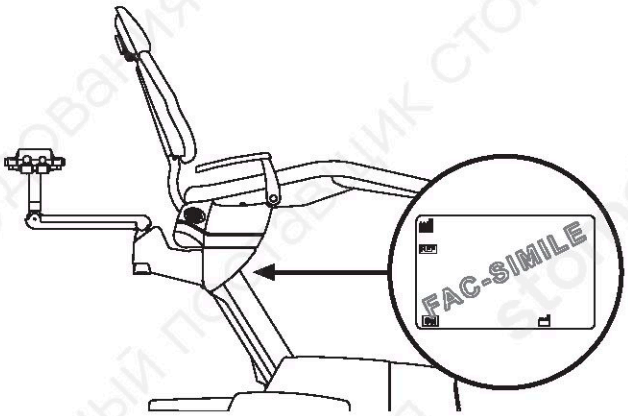
Models: R7 CART and R7 M CART.
The nameplate is found underneath the instrument board.
Data given on plate:
- Manufacturer's name
- Name of equipment
- Voltage
- Type of current
- Frequency
- Maximum power absorbed
- Serial number
- Year of manufacture



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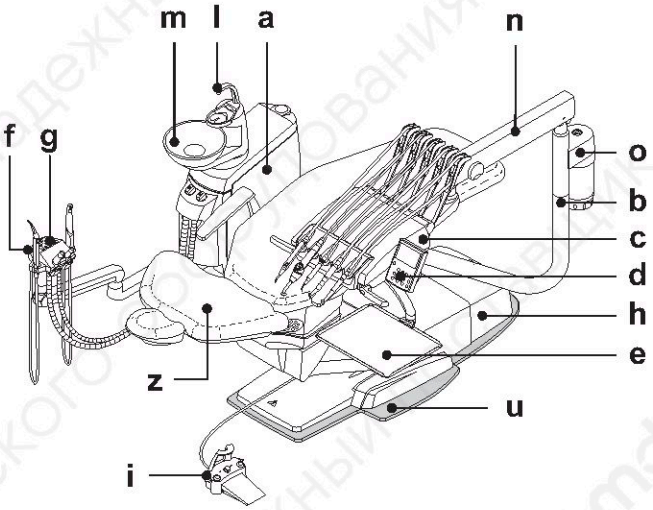
Model R7 P.
The nameplate is found under the seat.
Data given on plate:
- Manufacturer's name
- Name of equipment
- Voltage
- Type of current
- Frequency
- Maximum power absorbed
- Serial number
- Year of manufacture



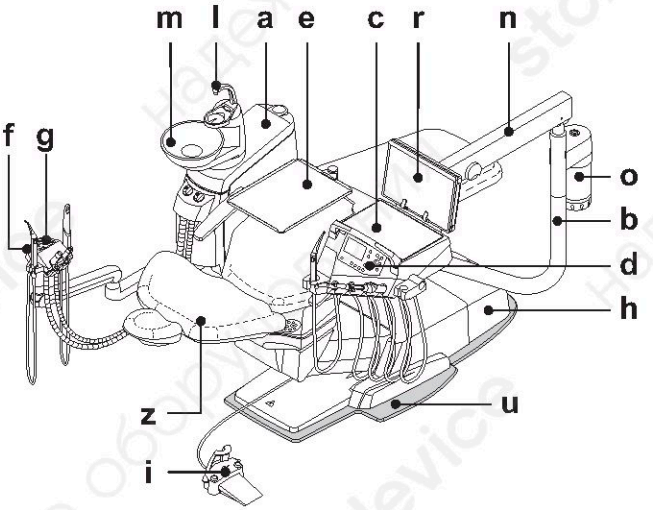
2.2. Dental units

Dental units R7 are available in the following versions:

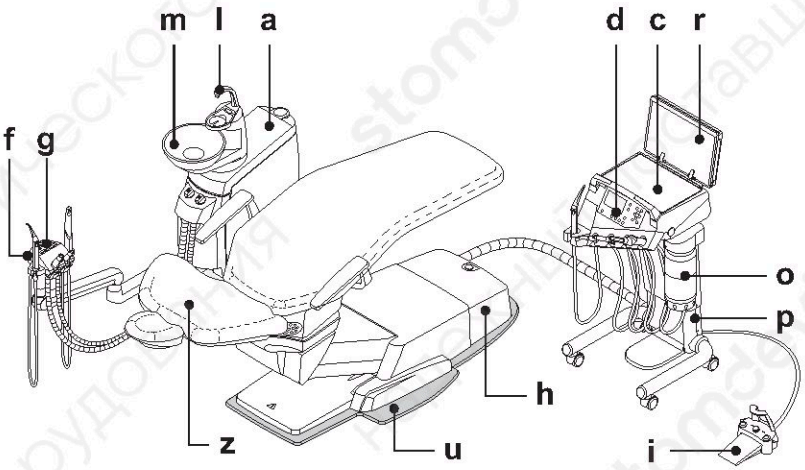
Model R7 CONTINENTAL
Description of equipment.
a Hydrogroup
b Adjustable arm
c CONTINENTAL version instrument board
d Doctor's console
e Tray holder
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
l Water to cup
m Turnable and removable bowl
n Autobalancing arm
o Canister for independent supply of instrument sprays and water to cup
u Load reduction plate.
z ANTHOS R1.0. dental chair



Model R7 INTERNATIONAL
Description of equipment.
a Hydrogroup
b Adjustable arm
c INTERNATIONAL version instrument board
d Doctor's console
e Tray holder (optional)
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
l Water to cup
m Turnable and removable bowl
n Autobalancing arm
o Canister for independent supply of instrument sprays and water to cup
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair



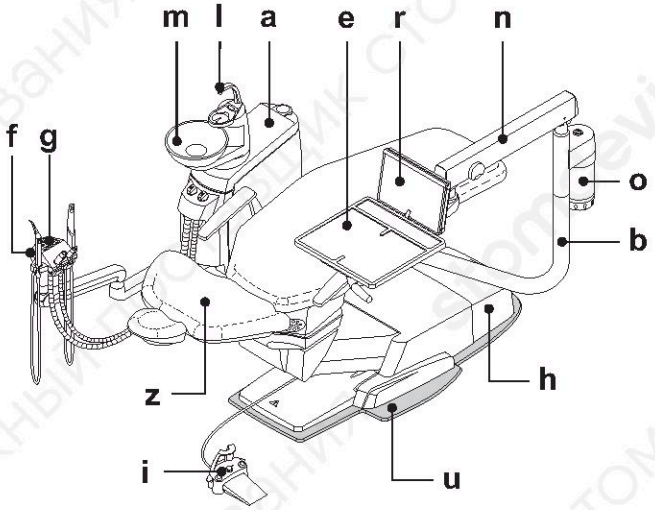
Model R7 CART
Description of equipment.
a Hydrogroup
c INTERNATIONAL version instrument board mounted on height-adjustable cart
d Doctor's console
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
l Water to cup
m Removable and turnable bowl
o Canister for independent instrument spray and water to cup supply
p Height-adjustable cart
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair



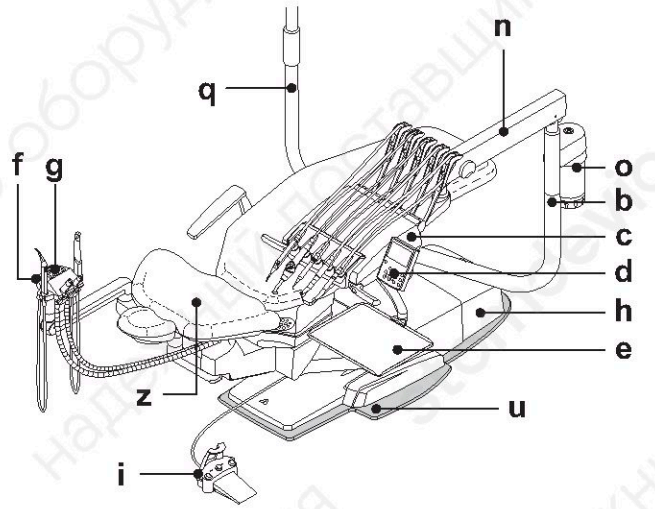
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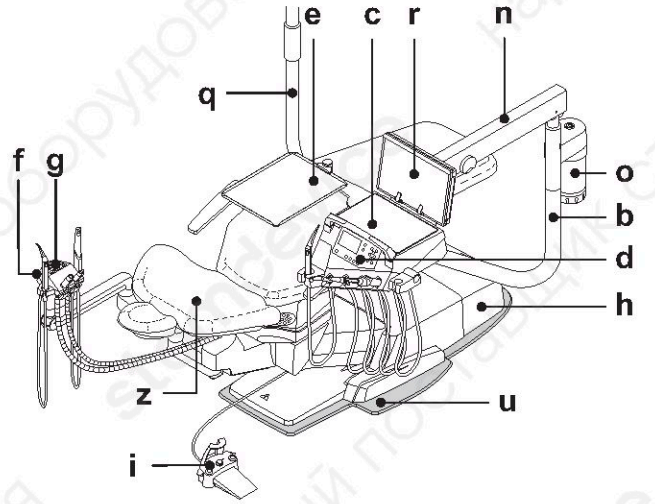
R7 SINGLE HYDRO GROUP
Version without instrument board.
Description of equipment.
a Hydrogroup
b Adjustable arm
e Auxiliary tray holder
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
l Water to cup
m Turnable and removable bowl
n Autobalancing arm
o Canister for independent supply of instrument sprays and water to cup
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair



Model R7 M CONTINENTAL
Description of equipment.
b Adjustable arm
c CONTINENTAL version instrument board
d Doctor's console
e Tray holder
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
n Self-balancing arm
o Canister for independent supply of instrument sprays and water to cup
q Operating lamp support adjustable arm.
u Load reduction plate.
z ANTHOS R1.0. dental chair



Model R7 M INTERNATIONAL
Description of equipment.
b Adjustable arm
c INTERNATIONAL version instrument board
d Doctor's console
e Tray holder
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
n Self-balancing arm
o Canister for independent supply of instrument sprays and water to cup
q Operating lamp support adjustable arm.
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair

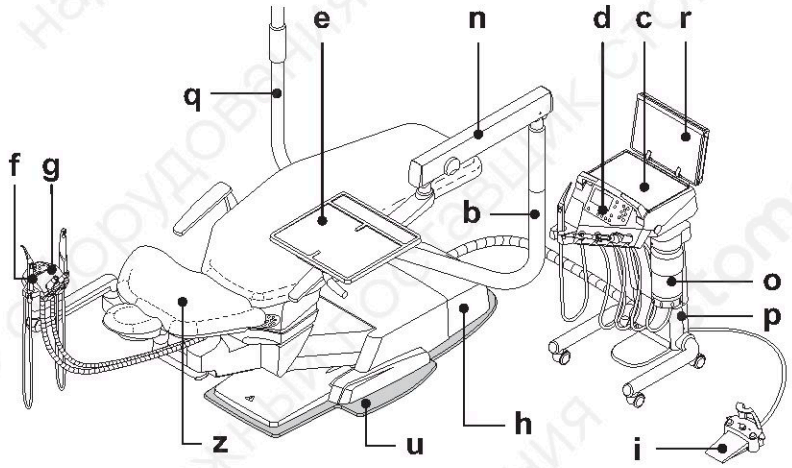


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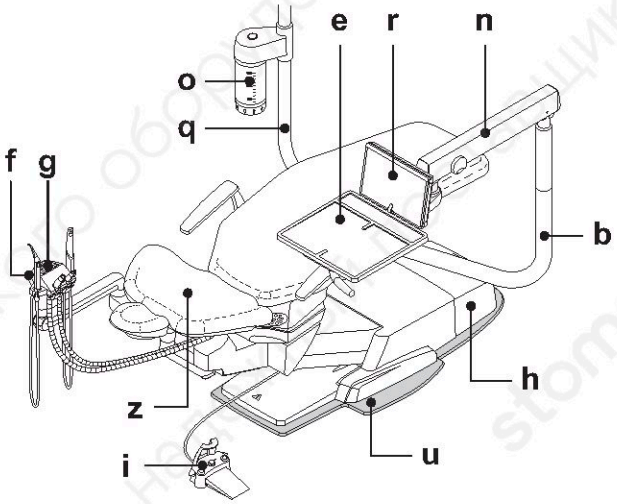
Model R7 M CART
Description of equipment.

b Adjustable arm.
c INTERNATIONAL version instrument board mounted on height-adjustable cart
d Doctor's console
e Tray holder table.
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
n Self-balancing arm.
o Canister for independent supply of instrument sprays and water to cup.
p Height-adjustable cart
q Operating lamp support adjustable arm.
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair



Model R7 P
Description of equipment.

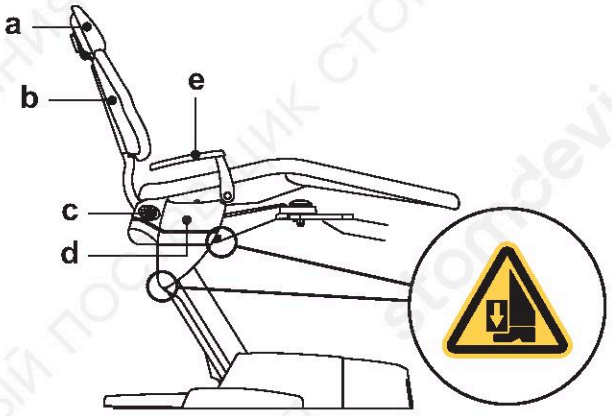
b Adjustable arm.
e Tray holder table.
f Assistant's board
g Assistant's control console
h Utility service center
i Multifunction foot control
n Self-balancing arm.
o Bottle for supplying syringe on assistant's board
q Operating lamp support adjustable arm.
r X-ray film viewer for panoramic x-rays (optional)
u Load reduction plate.
z ANTHOS R1.0. dental chair



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2.3. Dental chair

Description of the chair
a Headrest
b Back
c Push-button panel chair movements
d Movable seat (optional)
e Movable arm (optional)



Operating times
The operating and rest times are as follows:
work 25 sec. - rest 10 min.

Maximum weight capacity.
The maximum chair capacity is 160 Kg.

WARNING!
Do not exceed this value.

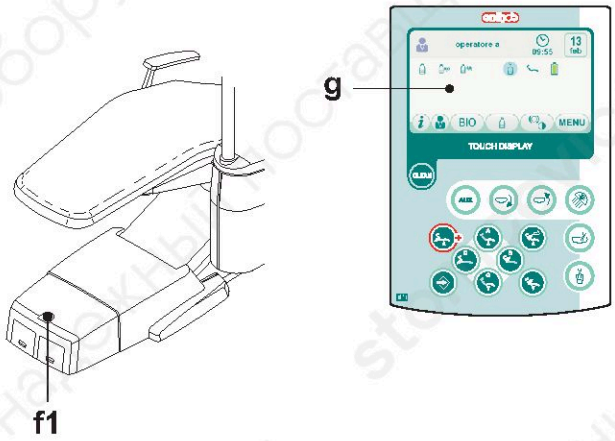
Warnings for use.

WARNING: FOOT CRUSHING HAZARD
Pay attention to the patient and the staff during dental chair descent (on both sides).

2.4. Turning on the dental operatory

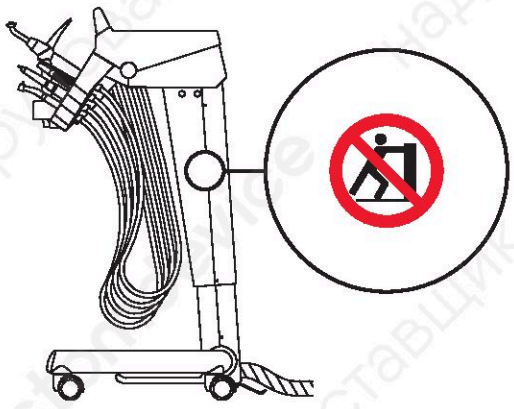
Press the main switch (**f1**) on the dental chair casing and check on the control console that:
- **"POWER" led (g) on**
  - equipment on
  - pneumatic system connected
  - water system connected.
- **"POWER" led (g) off**
  - equipment off
  - pneumatic system disconnected
  - water system disconnected

WARNING!
The main switch must be pressed by hand.



3. Warnings for models R7 CART and R7 M CART.

WARNING!
While moving the cart, pay attention to steps and/or horizontal obstacles as the cart may become unstable and/or overturn.



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3.1. R7 line operating unit conversion

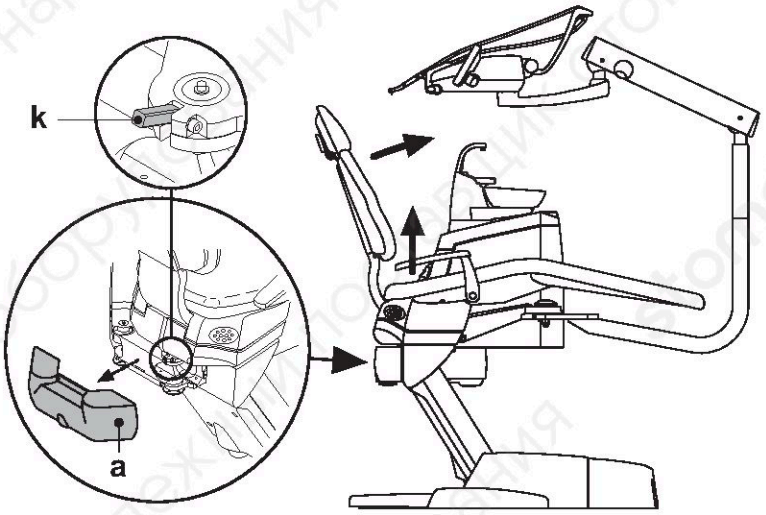
To convert the operating unit from the right-handed operator version to the left-handed operator version, proceed as follows:

- First of all, set up the operatory unit for conversion by moving the backrest completely up, raising the dental chair at least more than half of its vertical stroke and placing the instrument board's arm and body in the middle in relation to the dental chair seat so that it is out of the way.

WARNING!
At this point, shut off the operatory unit so that it cannot accidentally be turned on, creating hazardous situations.

- Take off the cover (**a**) that protects the hydrogroup's short support arm and blocks movement.
- Lift the element (**k**) locking the short arm in place.

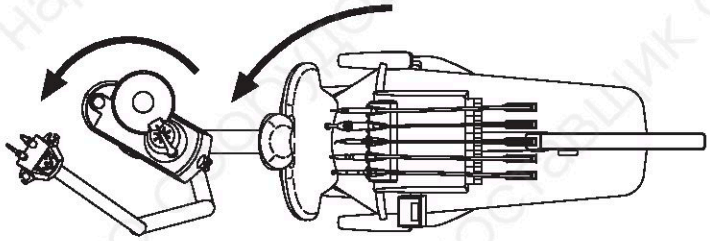
***NOTE**: slightly move arms on their pivot points so as to make element release easier.*



- Turn the assistant's board's arms until they are compact in relation to the hydrogroup.

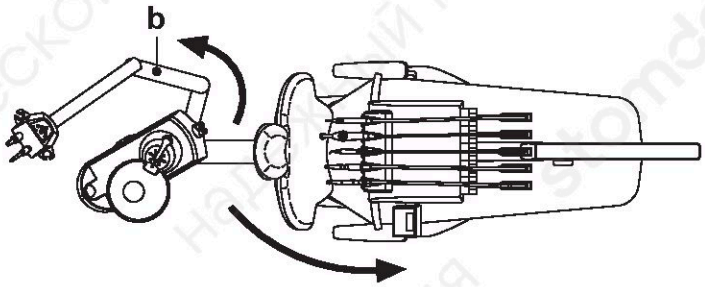
- Start turning the hydrogroup and relative arm.

WARNING!
During this operation, avoid extending the arms of the operating lamp, if any, to the outside so as to prevent any excessive imbalance of the equipment.



- Once the hydrogroup is aligned with the dental chair, turn the assistant's board's arms (**b**) bringing them into the new work position.

WARNING!
Be extremely careful not to pinch the suction tubes and instrument cords while performing this operation.



- Finish turning the hydrogroup to the left bringing it to the normal work position for left-handed operators.

***NOTE**: make sure that element (**k**) is correctly locking short arm in the new position.*

- Turn the bowl to the new home position by hand.

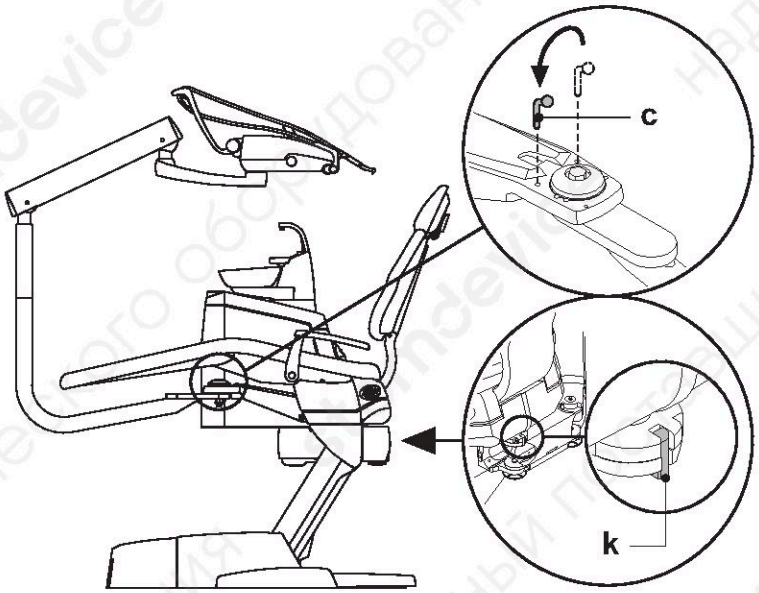
- Place the pin (**c**), that stops rotation of the instrument board's arm, in the opposite hole to correctly set the arm's work area.

WARNING!
If the stop pin is not used, the arm may bang against the hydrogroup damaging it during regular operation.

- Put the cover (**a**) back on making sure the cover's pins are properly placed in the seats in the short arm thereby blocking the hydrogroup.

- The operatory unit is now ready to be used by left-handed operators.

WARNING!
Before attempting to turn on the operatory unit, verify all the equipment is in the correct work condition.

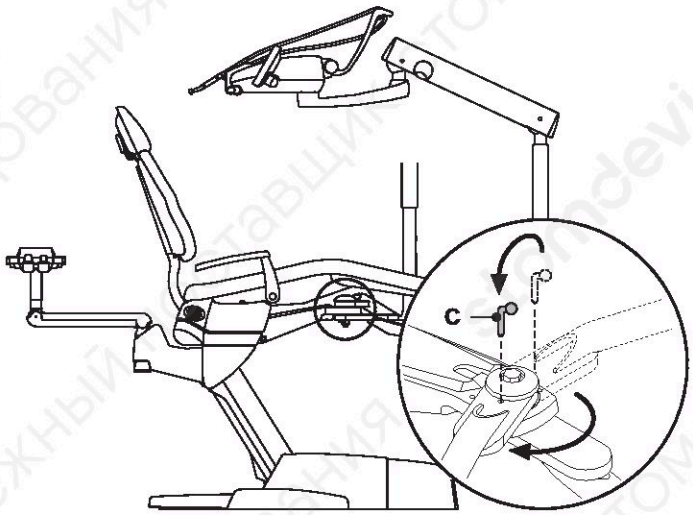


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3.2. R7 M line operating unit conversion

To convert an R7 M line operating unit from the right-handed operator version to the left-handed operator version, simply invert instrument's table arm position with operating lamp support arm after having removed the anti-rotation stopper pin (**c**). Once both arms have been turned, insert anti-rotation stopper pin (**c**) back in place to lock the operating lamp support arm in the new position.

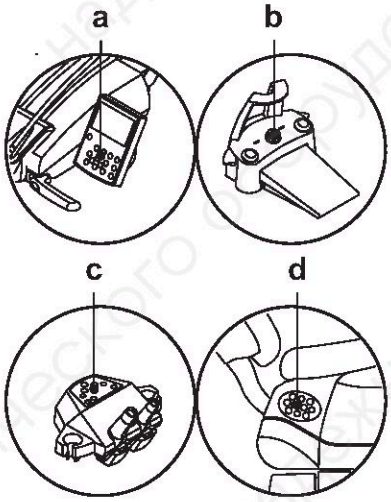


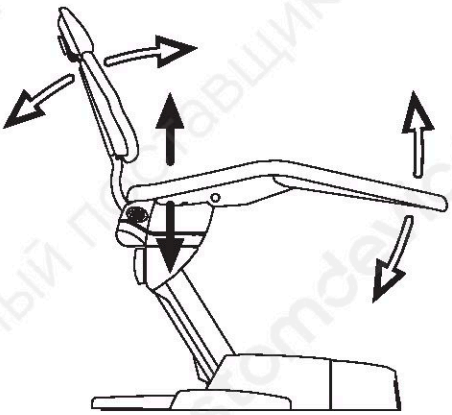
4. Dental chair operation

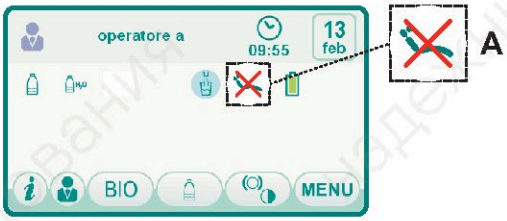
The dental chair can be moved as follows:
- Chair seat up/down,
- Back up/down with inclination of the chair seat (Trendelemburg compensated),
- 30° clockwise or counter-clockwise seat rotation (optional).

The dental chair can be operated from the following places:
- Instrument board (**a**) (see par. 5).
- Multifunction foot control (**b**) (see par. 5.2).
- Assistant's board (**c**) (see par. 6).
- Dental chair side control panel (see par. 4.4)

Dental chair movement shutdown
With the instruments in rest position, you can disable the dental chair movements (see paragraph 5.1.1.2.5.).
The movement disabling is shown on the control panel display by the relevant icon (**A**).

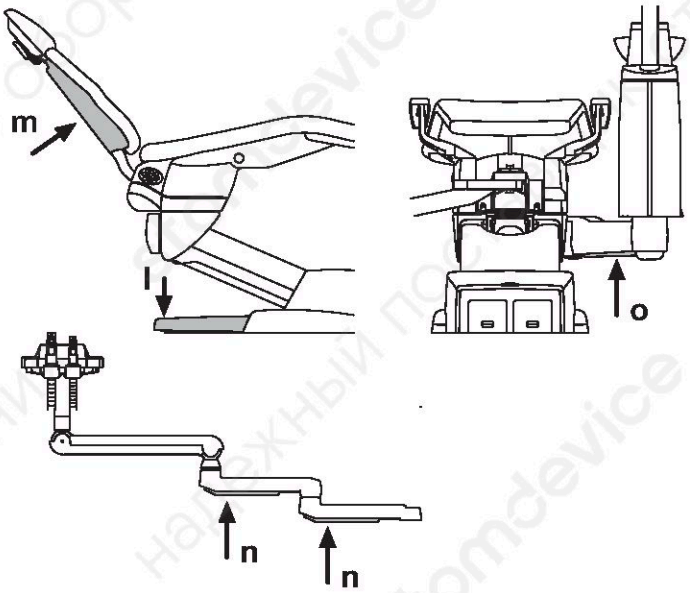






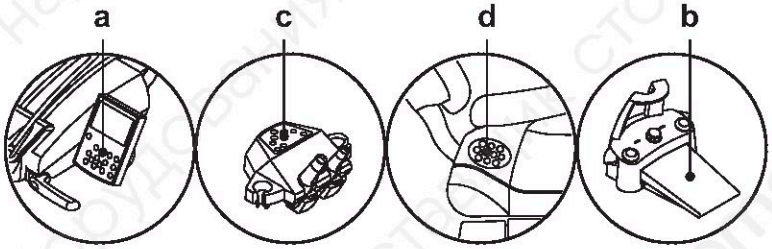
4.1. Safety devices

The equipment is supplied with the following safety devices:
- Dental chair footboard is equipped with a device (**l**) that immediately stops the dental chair down movement in the presence of an obstacle and automatically moves the seat up to free the obstacle.
- The dental chair back rest is equipped with a device (**m**) which immediately stops the back rest or dental chair from moving down when an obstacle is encountered and automatically moves it back up to clear the obstacle.
- The support arms of the assistant's module feature a safety device (**n**) which stops downward chair movement if an obstacle is encountered. The chair will then automatically move upwards so the user can remove the obstruction.
- The hydrogroup support arms are equipped with a safety device (**o**) which immediately stops the dental chair from moving down when an obstacle is encountered and automatically moves it back up to clear the obstacle.
- Dental chair movements:
  - with the instrument extracted NOT working: manual movements allowed, automatic movements inhibited, but if they are already in progress at the moment of extraction they are not interrupted;
  - with instrument extracted and working: all the dental chair movements are inhibited.



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4.2. Emergency devices



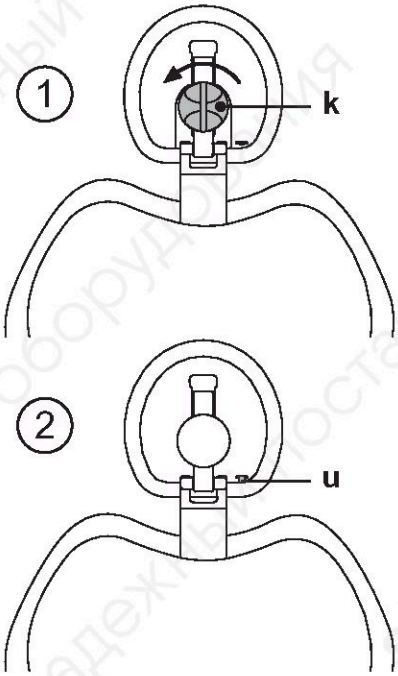
WARNING!
Use the devices below when movement of the equipment needs to be blocked:
- **Dental chair control buttons (a), (c) or (d).**
  Pressing any dental chair button blocks all movements are blocked.
- **Foot control (b)**
  Foot control actuation: all movements are blocked.

4.3. Adjustable headrest

The headrest may be of two types:

1 with manual cushion lock lever

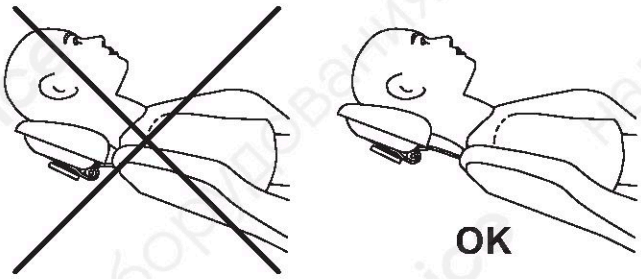
2 with pneumatic cushion lock lever



Adjusting headrest height.
- with manual locking (**1**):
  The head rest blade is positioned through a magnetic clutch. The operator should pull up and/or push down the headrest until it is in the desired position.
- **with pneumatic locking** (**2**):
  Press and hold down the locking button (**u**) to position the headrest as desired. Once you have reached the desired position, release the button (**u**) to lock the headrest in place.

Adjusting the cushion:
- with manual lock (**1**): rotate the lock knob (**k**) anti-clockwise, position the cushion as desired and then retighten the lock knob.
- with pneumatic lock (**2**): press the lock button (**u**) and keep it pressed as you adjust the cushion as desired. Once the cushion is oriented as desired just release the button (**u**) to lock in place.

Proper positioning of the headrest.



WARNING!
For correct use of the headrest, position the patient's head as shown in the figure.

Important information.

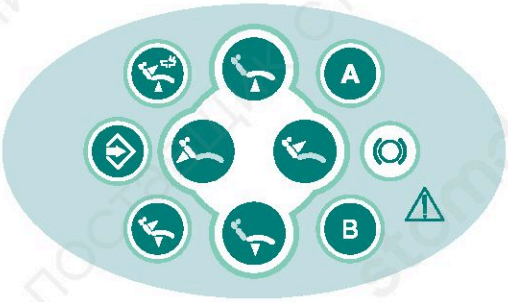
WARNING!
- **Maximum on-headrest load: 30 Kg.**
- **Do not attempt to move cushion while patient is resting against it.**
- **Do not attempt to modify the position of the cushion without first releasing the lock mechanism.**
- **The pneumatic locking device is active only when the air circuit is pressurized and the dental unit is on.**

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4.4. Dental chair control panel

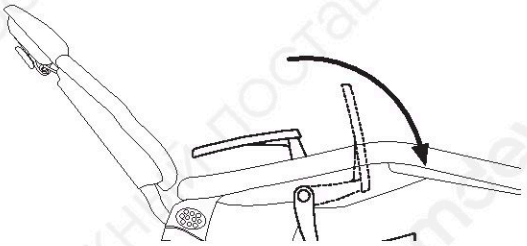
Description of the buttons:



- Button to save dental chair functions
- Button to reach home position
- Button to reach rinse position
- Button to raise seat
- Button to raise back rest
- Button to lower seat
- Button to lower back rest

- Button to retrieve programmed position "A"
- Button to retrieve programmed position "B"
- Button to disengage dental chair seat brake (operative only with turnable seat)

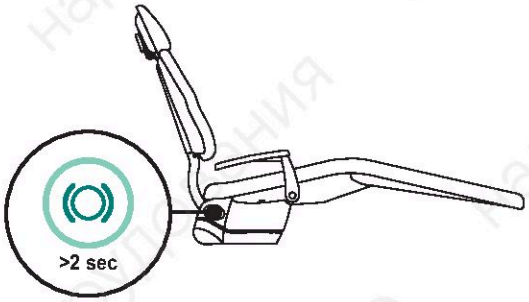
4.5. Movable armrests (optional)



Both arm rests are movable and can be turned downwards so that the patient can more conveniently get on and off the chair.

WARNING!
• Maximum weight supported by armrest: 68 kg.

4.6. Seat rotation (optional)



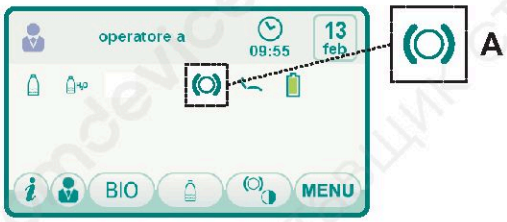
The dental chair may be equipped with a pneumatic device that allows the seat to be turned 30° clockwise or counter-clockwise to give the doctor or assistant more free space under certain work conditions.

Follow the directions given below to turn the seat:

- Hold down the brake key, located on the control panel on the side of the dental chair, for at least 2 seconds to release the seat.

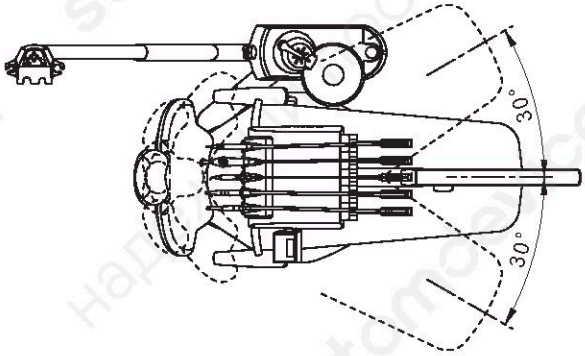
***NOTE**: a buzzer rings intermittently and an icon (A) appears on the top right side of the display screen to signal the seat is released. When released, all the controls used to move the dental chair are disabled.*

***NOTE**: operation of the foot control can be modified so that when pressing the "Automatic chair return" button for at least 2 seconds (see paragraph 5.2), chair seat release/locking is activated.*
To activate this function, call Technical Service.



- Turn the seat to the desired position.

WARNING!
Be extremely careful not to accidentally bang the hydrogroup when performing this operation.



- Press the brake key again to block the seat.

WARNING!
Before attempting to lower the patient, always verify that the seat is actually blocked.

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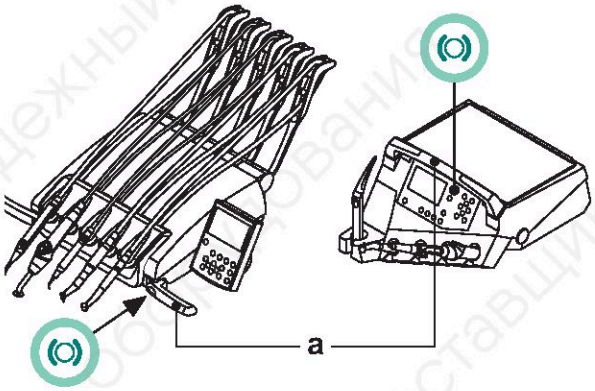
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5. Instrument board operation

Layout of instruments.
The positions the instruments are placed in on the board are determined by the customer at the time of order.

Starting the instruments.
- The syringe is always on (see paragraph 5.3.).
- The curing light is turned on with the key when the instrument is withdrawn (see paragraph 5.7.)
- Intraoral camera turn on when the instrument is extracted (see paragraph 5.8.).
- If connected to an external PC, the integrated ZEN-Xi sensor is always operative (see paragraph 5.9.).
- Once picked up, all the instruments are operated with the foot control. (see paragraph 5.2.).

Simultaneous use of the instruments.
A device sees that the instruments cannot be used simultaneously.
The first instrument removed is operative while those removed there after are deactivated by this device.
This device allows the chuck to be replaced in one instrument while another is used on the patient.



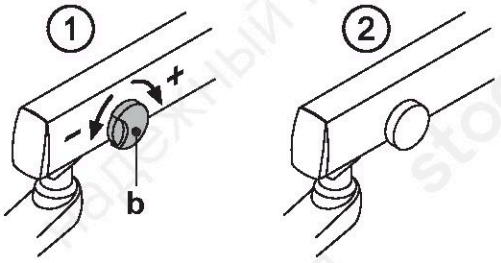
Putting the instrument board place.
The instrument board can be moved in all directions.
To adjust the height of the board and/or direct it horizontally, simply grasp the handle (**a**).

NOTE (only for pantograph arm with pneumatic brake): *to adjust the height of the dentist's instrument board, you first need to press the brake release button* (◎).

NOTE model R7 CART / R7 M CART: *o adjust the height of the dentist's instrument board, you first need to press the brake release button* (◎).

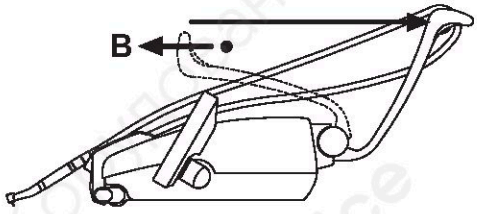
Pantograph arm.
There are two types of pantograph arm:

1. with manual locking (only A5 series)
2. with pneumatic locking



Adjusting the pantograph arm with manual brake.
Balancing of the pantograph arm is determined at the time of installation.
Any future adjustments can be made using the knob (**b**) found on the pantograph arm.
Turn clockwise: to increase clutching of the pantograph arm.
Turn counter-clockwise: to decrease clutching of the pantograph arm.

Instrument return arm stopping device (only for CONTINENTAL version instrument boards).
If this device is provided, the instrument return arm can be locked in the instrument extracted position.
When the device is used a click is heard about 2/3 of the total arm travel.
To go back to the original condition, simply move the arm to the end of its travel (**B**).

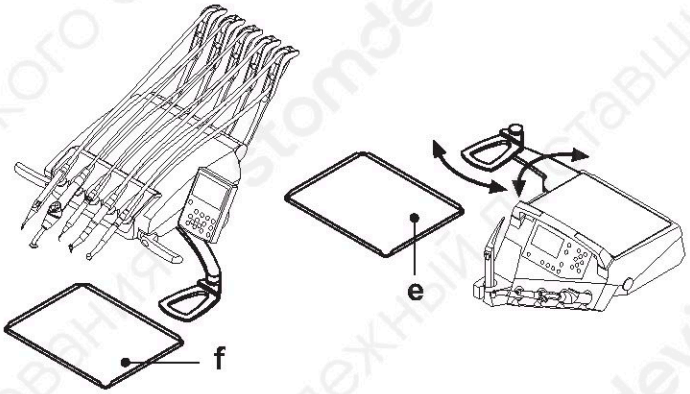


Tray holder module for CONTINENTAL version dentist's instrument board.
The tray holder module (**f**) is made of stainless steel and can easily be removed from its support.

WARNING!
Maximum permitted load on the tray holder module (f): 2 kg distributed.

Tray holder module for INTERNATIONAL version dentist's instrument board.
The stainless steel tray holder (**e**) can be easily removed from its mount.
The tray holder can be turned both clockwise and counter-clockwise so that it can be placed in the most convenient position for the operator. The tray holder arm can be turned both clockwise and counter-clockwise for a total of 60° passing through 8 set positions.

WARNING!
Maximum permitted load on the tray holder module (e): 2 kg distributed.



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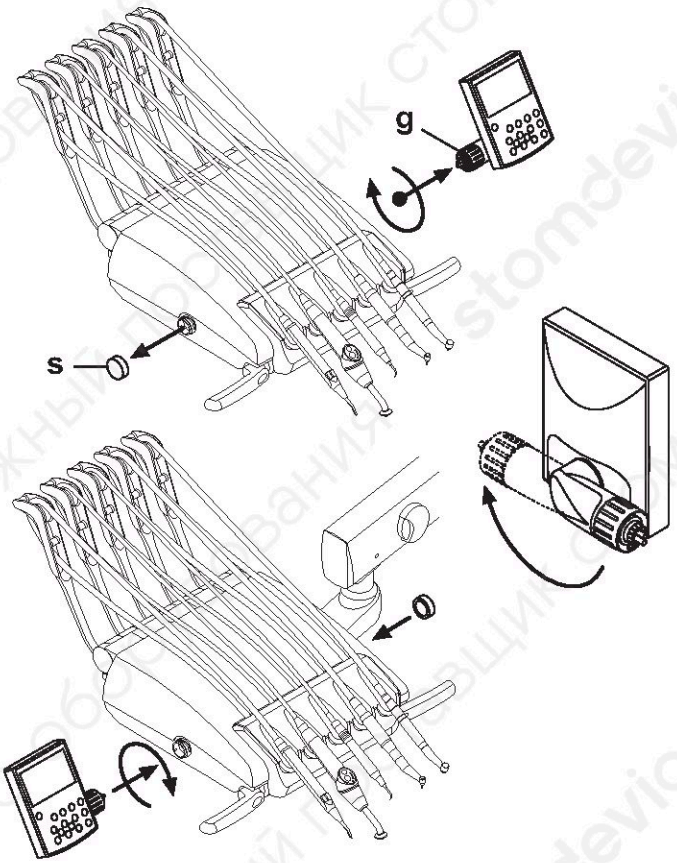
Inverting the console unit position for left-handed operators

WARNING!
BEFORE CARRYING OUT THIS OPERATION, TURN OFF THE DENTAL UNIT. DO NOT REMOVE THE CONSOLE FROM THE DENTIST'S MODULE IF THE DENTAL UNIT IS ON.
To invert the position of the console unit on the dentist's module, operate as follows:

- Remove the console unit after unscrewing the fastening ring nut (**g**) by turning it anticlockwise.
- Remove the protective snap-on cap (**s**) of the quick-coupling on the left-hand side and fit it on the coupling on the right-hand side.
- Turn the console unit brace 180°.
- Fit the console unit to the quick-coupling on the left-hand side.
  To correctly position the console unit, push the brace fully into place in the support and at the same time turn the ring nut by about 1/3 turn until it locks without forcing tightening.

NOTE: *to prevent the dentist's module from slipping out on the opposite side during this operation, it is advisable to beforehand turn it about 90° with respect to its support arm (see figure).*

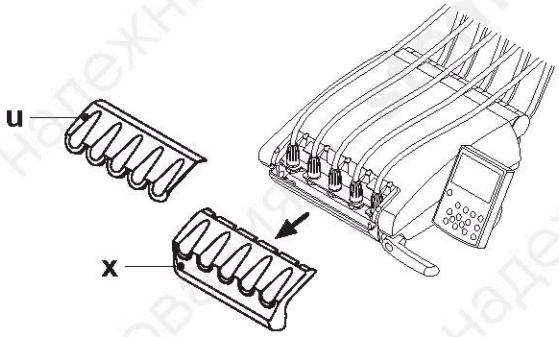
- At this point, you can turn the dental unit on again.



WARNING!
During the console cleaning operations do not exert excessive pressure on the pushbutton panel to prevent damaging stress on the connection.

Cleaning the dentist's instrument board.
Clean the dentist's instrument board using a suitable product (see paragraph 1.4).

NOTE for CONTINENTAL version dentist's instrument boards: *the instrument holder (**x**) can be removed to facilitate the cleaning operations; to remove it, simply pull it out of its seat as it is only secured with magnets.*
The silicone instrument holder (u) can also be sterilized in an autoclave at 121°C (see paragraph 1.5.).

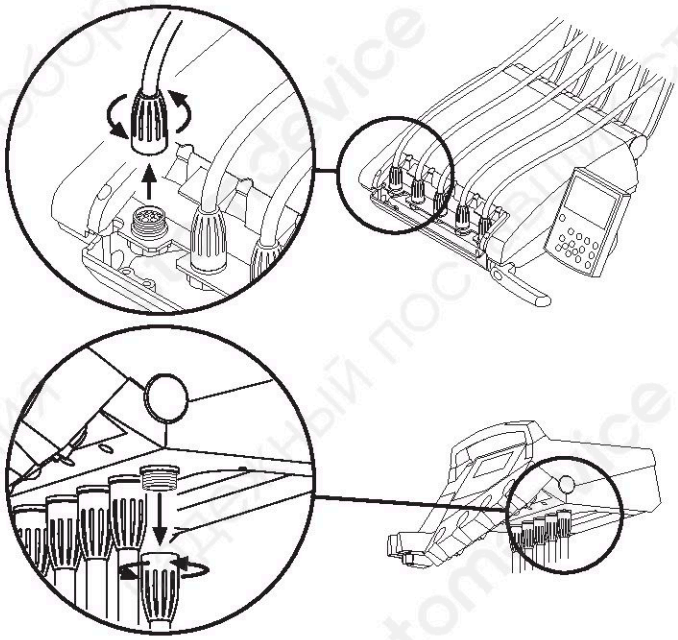


Removable instrument cords
All the instruments have removable cords to ease cleaning.

NOTE for CONTINENTAL version dentist's instrument boards: *to remove the tubings you first need to remove the instrument holder and then unscrew the relative plastic fastening ring nuts.*

NOTE for INTERNATIONAL version dentist's instrument boards: *to remove the tubings, unscrew the relative plastic fastening ring nuts below the dentist's instrument board.*

WARNING!
• Shut off the operatory unit before attempting to take off the cords.
• After shutting off the operatory unit, empty the syringe's ducts by pressing and holding down the relative air and water buttons directly on the bowl until water spray is no longer present.
• The cords of the TURBINE, MICROMOTOR and SCALER contain water, therefore hold the end of the cord on the handpiece side over the bowl when removing the cord.
• When putting a cord back on, make certain the contacts are perfectly dry and the plastic ring nut is tight.
• Each cord may be remounted only in the position for the corresponding instrument.



Clean the instrument cord using a suitable product (see Paragraph 1.4).

WARNING!
The instrument cords are NOT suitable for autoclave or cold disinfection.

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5.1. Doctor's control console

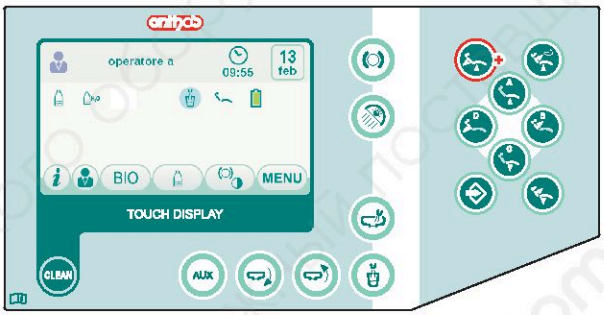
The R7 series dental units have a R7 "hybrid" dentist's console consisting of a membrane pushbutton panel and a resistive touchscreen display. 4.3" Wide colour TFT display with LED backlighting, resolution 480x272 pixels and 262k colours.



1

1 Pushbutton panel for the following models:
R7 CONTINENTAL
R7 M CONTINENTAL

2 Pushbutton panel for the following models:
R7 INTERNATIONAL
R7 M INTERNATIONAL
R7 CART
R7 M CART



2

Description of the buttons:

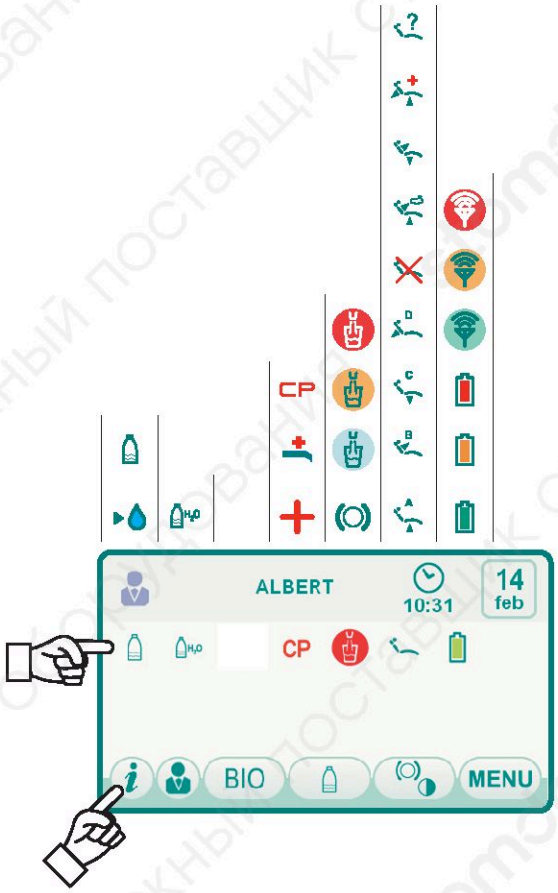
- Dentist's instrument board brake release button (INTERNATIONAL models)
- SMART TOUCH screen disable button
- Operatory light on/off button
- Water to cup button
- Auxiliary function button (available)
- Bowl counter-clockwise button (active only with powered bowl).
- Bowl clockwise button (active only with powered bowl)
- Water to bowl function button
- Dental chair functions save button
- Emergency position button.
- Automatic return button.
- Rinse position button.
- Chair seat up and set position "A" button.
- Chair back up and set position "B" button.
- Chair seat down and set position "C" button.
- Chair back down and set position "D" button.

***NOTE:** Operation of dental chair buttons:*
- Button pressed shortly: set position automatically reached.
- Button held down: positioned reached by hand.

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Warning icons.
Touching the icon button on the touch display, you can at any time view the warning icons that show the operating status of the dental unit.
The warning icons viewable are the following:



- Feeding with distilled water activated.
- Feeding with mains water activated.
- Distilled water level low. (excluding models R7 M)
- BIOSTER cycle in progress.
- Suction tubes being washed.
- Suction stopped due to full canister.
- Wireless foot control battery charged.
- Wireless foot control battery 50% charged.
- Wireless foot control battery flat.
- Wireless foot control connected and active.
- Wireless foot control connected but not active.
- Searching for connection to the wireless foot control.
- Dental chair seat brake released (only with turnable seat).
- COLD water-to-glass.
- WARM water-to-glass.
- HOT water-to-glass.
- Dental chair position automated programme A.
- Dental chair position automated programme B.
- Dental chair position automated programme C.
- Dental chair position automated programme D.
- Dental chair movements blocked.
- Rinse automated programme chair position.
- Home automated programme chair position.
- Emergency automated programme chair position.
- Dental chair save function on.
- Chair position manually set up.

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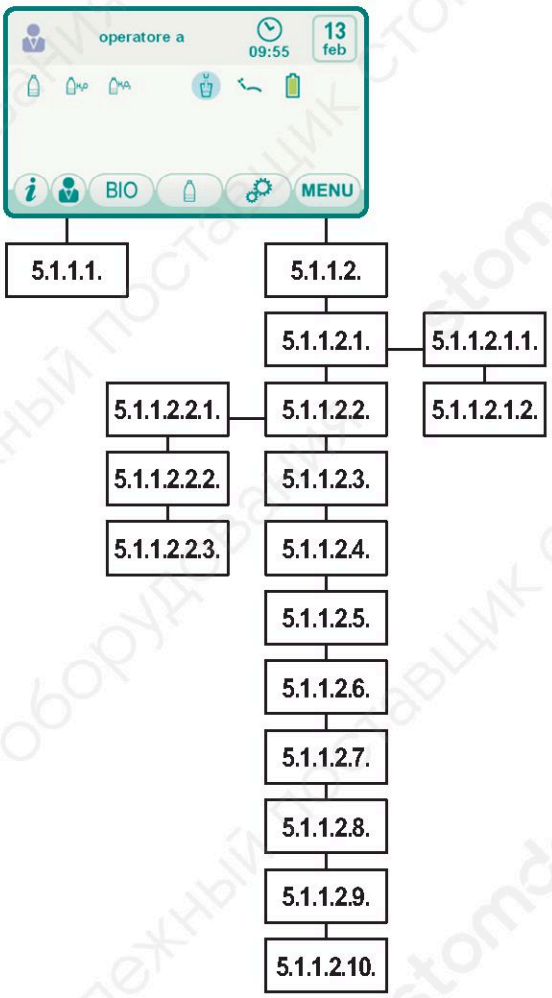
5.1.1. User interface

When turned on, the dental unit performs a brief autodiagnosis cycle that ends when the main screen containing the name of the operator last set is displayed. As of this moment a number of settings can be edited from user-friendly menus (see diagram).

Menu scrolling control.
- To access the setting menu, touch the icon button MENU.
- To access the various submenus, touch the relative icon button.
- To change a setting in a menu, touch the relative icon button.
- To change a numerical value in a menu, touch the icon buttons − or +.
- To exit from a menu, touch the icon button ESC.

Layout of the user interface menu.
The user interface menu is structured as shown in the diagram and includes the following menus:

5.1.1.1. Operator selection.
5.1.1.2. GENERAL SETTINGS.
5.1.1.2.1. HYGIENE SYSTEM SETTING.
5.1.1.2.1.1. BIOSTER disinfection cycle setting.
5.1.1.2.1.2. FLUSHING cycle setting.
5.1.1.2.2. HYDRO UNIT SETTINGS.
5.1.1.2.2.1. Bowl water delivery setting.
5.1.1.2.2.2. Cup water delivery setting.
5.1.1.2.2.3. Bowl movement control.
5.1.1.2.3. FOOT CONTROL ADJUSTMENT.
5.1.1.2.4. OPERATING LAMP ADJUSTMENT.
5.1.1.2.5. OTHER SETTINGS.
5.1.1.2.6. TIME AND DATE SETTING.
5.1.1.2.7. CHRONOMETER.
5.1.1.2.8. FAVOURITE BUTTONS CUSTOMISATION.
5.1.1.2.9. OPERATOR DATA ENTRY.
5.1.1.2.10. LANGUAGE SELECTION.



Error messages.
During the initial self-diagnostic cycle, the dental unit may detect some malfunctions in the internal system.
In this case, an error message is shown on the display (see paragraph 10) which remains visible until the operator touches the TOUCH DISPLAY.
If the malfunction is not hazardous, the dental unit will continue to operate.



Stand-by mode.
The dental unit goes into power saving mode (stand-by) after approximately 10 minutes of non-use; this mode is shown by the ANTHOS logo on the control panel display.
Normal operating conditions are restored as soon as any operation is performed.



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5.1.1.1. Operator selection

The SMART TOUCH console of the R7 series dental units allows managing 3 different operators.
The following data can be set for each operator:
- Operator's name.
- Turbine and scaler power adjustment.
- 3 electric micromotor operating modes
- 4 scaler operating modes .
- Turning on and adjustment of the fibre optics of each instrument.
- Incremental or ON/OFF control of the turbine and the scaler power .
- Automatic dental chair movement programs.
- Hydro unit configuration parameters

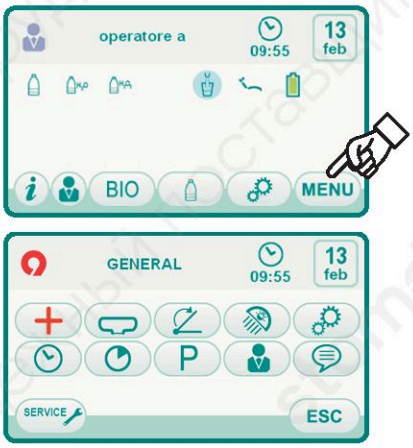


Operator selection.
From the main page, repeatedly touch the icon button until finding the desired operator.

NOTE: *the operator is changed cyclically.*

5.1.1.2. General settings

From the main page, carry out the following operations:
- Touch the icon button MENU to access the GENERAL SETTINGS menu containing the following icon buttons:



HYGIENE SYSTEM SETTINGS
(only if at least a hygiene system is present)

HYDRO UNIT SETTINGS

FOOT CONTROL ADJUSTMENT

OPERATING LAMP ADJUSTMENT

OTHER SETTINGS

TIME AND DATE SETTING

CHRONOMETER

PERSONALIZATION OF FAVOURITE KEYS

OPERATOR DATA ENTRY

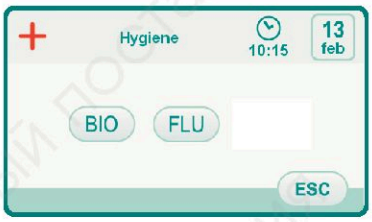
LANGUAGE SELECTION

SERVICE
ACCESS SERVICE MENU
(FOR TECHNICAL SERVICE,ONLY)

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5.1.1.2.1. Hygiene system settings





NOTE: menu available only if at least a hygiene system is present.

From the GENERAL SETTINGS menu touch the icon button (+) to access the HYGIENE SYSTEM SETTINGS submenu containing the following icon buttons:

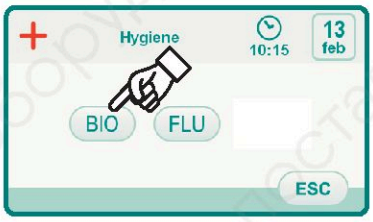
BIO — BIOSTER /S disinfection cycle setting (only if the BIOSTER /S system is present)

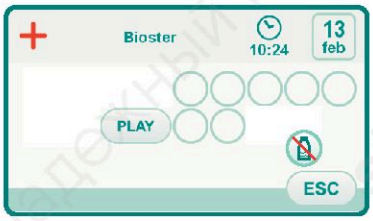
FLU — Flushing CYCLE SETTING (only if the FLUSHING system is present)

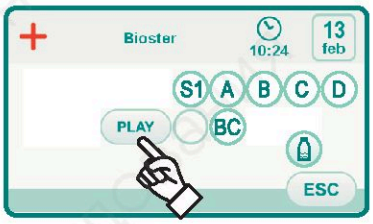
5.1.1.2.1.1. BIOSTER /S disinfection cycle setting

This setting is shared by all users.
From the HYGIENE SYSTEM SETTINGS menu carry out the following operations:

- Touch the icon button BIO to access the BIOSTER/S DISINFECTION CYCLE SETTING submenu.
- Withdraw the instruments to be treated (the corresponding icon will appear on the display):
  S1: syringe on instrument board.
  A: instrument in position A
  B: instrument in position B
  C: instrument in position C
  D: instrument in position D
  F: instrument on assistant's board.
  BC: water to cup duct. (always operative)
  The syringe on the assistant's board cannot be disinfected using the BIOSTER S cycle.







- To start the disinfection cycle, touch the icon button PLAY (see Paragraph 7.4).

NOTE: the disinfectant contact time is preset and not modifiable (600 seconds).

NOTE: the BIOSTER S cycle can only be activated if the SHS/S system is on (see paragraph 7.2).

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5.1.1.2.1.2. Flushing CYCLE SETTING

This setting is shared by all users.
From the HYGIENE SYSTEM SETTINGS menu carry out the following operations:

- Touch the icon button FLU to access the FLUSHING CYCLE SETTING submenu .

NOTE: *this submenu cannot be entered if the distilled water tank is low (see paragraph 7.2.). A message on the control panel display and an acoustic signal (BEEP) will signal the impossibility to enter the submenu.*

- Set the flushing time by touching the icon buttons ⊖ or ⊕.

NOTE*: the time may range from at least 1 minute to at most 5 minutes, with 1 minute intervals.*

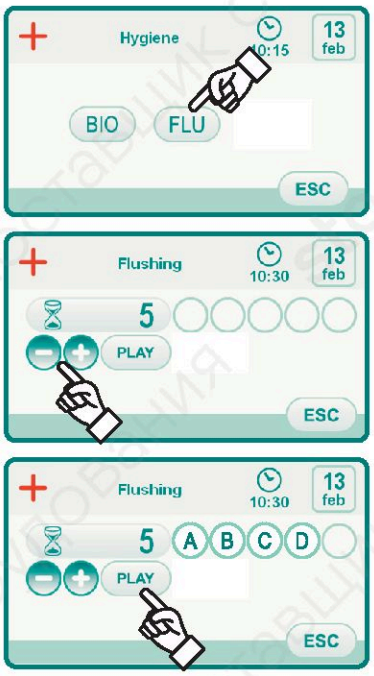
NOTE: *for the distilled water tank, it is advisable not to set a time longer than 2 minutes.*

- Withdraw the instruments to be treated (the corresponding icon will appear on the display):
  A: instrument in position A
  B: instrument in position B
  C: instrument in position C
  D: instrument in position D
  F: instrument on assistant's board.

NOTE: *the syringe is always active, therefore as soon as it is inserted in the instrument container it will immediately start delivering water.*

NOTE: *the Flushing CYCLE does not start if at least one instrument is not selected.*

- To start the FLUSHING cycle, touch the icon button PLAY (see paragraph 7.6.).



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5.1.1.2.2. Hydro unit settings

From the GENERAL SETTINGS menu touch the icon button to access the HYDRO UNIT SETTINGS submenu containing the following icon buttons:


Water to bowl settings


Water to cup settings


Automatic bowl movement setting
(only with motor-driven bowl)





5.1.1.2.2.1. Bowl water delivery setting

From the HYDRO UNIT SETTINGS menu touch the icon button to access the BOWL WATER SETTING submenu containing the following icon buttons:


Bowl flushing controller
with dental chair brought to rinse position


Bowl flushing controller
with dental chair brought to reset position


Cuspidor bowl flushing automatism
with return from the rinse position for the chair


A Bowl flushing controller with cup call


Setting of timed or ON/OFF bowl flushing

35 Bowl flushing time (in seconds)



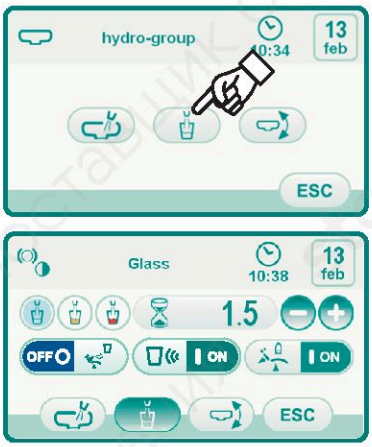


- To select/deselect a function, touch the relative icon button.
- To change the bowl flushing time, touch the icon buttons or .
- To confirm the selected settings, it is sufficient to exit this submenu by touching the icon button ESC.

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5.1.1.2.2. Cup water delivery setting

From the HYDRO UNIT SETTINGS menu touch the icon button to access the CUP WATER SETTING submenu containing the following icon buttons:



- COLD cup water selection
- WARM cup water selection
- HOT cup water selection
- 5 — Cup water delivery time (in seconds)
- Cup water delivery automatic function with rinse position recall.
- Cup detection sensor activation/deactivation (only if the cup sensor is present)
- Distilled water tank depressurization automatic function with chair home position recall

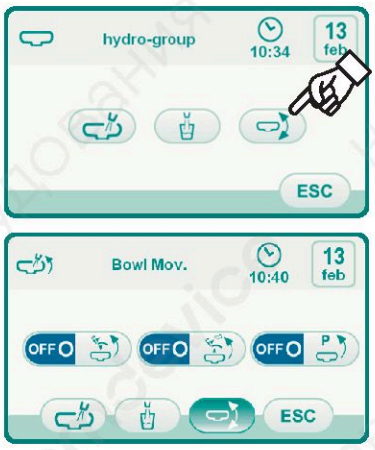
• To select/deselect a function, touch the relative icon button.
• To change the cup water delivery time, touch the icon buttons or .

NOTE: *the cup time of filling can be set up from a minimum of 1 second to a maximum of 10 seconds with increments of 0.1 seconds.*

• To confirm the selected settings, exit this submenu by touching the icon button ESC.

5.1.1.2.3. Automatic bowl movement setting

From the HYDRO UNIT SETTINGS menu touch the icon button to access the AUTOMATIC BOWL MOVEMENT SETTING submenu containing the following icon buttons:



- Bowl rotation automatic function with chair rinse position recall
- Bowl rotation automatic function with chair home position recall
- P — Bowl rotation automatic function with automatic dental chair program recall

• To select/deselect a function, touch the relative icon button.
• To confirm the selected settings, it is sufficient to exit this submenu by touching the icon button ESC.

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5.1.1.2.3. Foot control adjustment

From the GENERAL SETTINGS menu touch the icon button to access the FOOT CONTROL ADJUSTMENT submenu containing the following icons:



- Cable connection icon (only with wireless foot control)
- Wireless connection status icon (only with wireless foot control)
- Battery percentage charge icon (only with wireless foot control)
- Foot control joystick operation setting with instrument removed

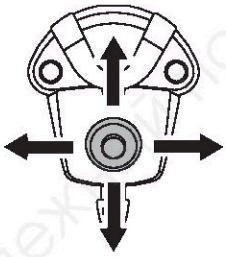
NOTE: *the first 3 icons are just for signalling, while the fourth one allows to select/deselect the operation mode of the foot control upper joystick.*

This setting is shared by all users.

- To select/deselect the type of foot control operation, touch the relative icon button :

OFF The joystick activates the chair manual movements (default).

ON The joystick is used for the following functions:



- ON/OFF control for micromotor rotation direction inversion, scaler ENDO function activation , camera MIRROR function activation.
- ON/OFF control for peristaltic pump activation.
- ON/OFF control for operating lamp.
- Instrument memory change.

- To confirm the selected settings, exit this submenu by touching the icon button ESC.

5.1.1.2.4. Operating lamp adjustment

From the GENERAL SETTINGS menu touch the icon button to access the OPERATING LAMP SETTING submenu containing the following icon buttons:



- Light off automatism with chair rinse position recall
- Light off automatism with chair home position recall
- Lamp brightness reduction automatism with curing lamp instrument removal (only with VENUS PLUS –L LED lamp)

NOTE: *with the off-control automatism activated, it is sufficient to recall any chair movement to turn on again the operating light.*

NOTE: *with the brightness reduction automatism activated, it is sufficient to replace the curing lamp instrument to reactivate the set brightness.*

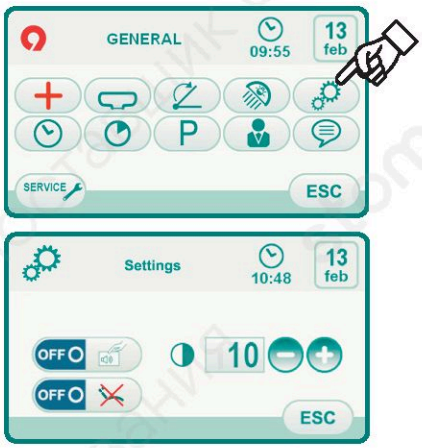
- To select/deselect an automatic function, touch the relative icon button.
- To confirm the selected settings, it is sufficient to exit this submenu by touching the icon button ESC.

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5.1.1.2.5. Other settings

These settings are unique for all the operators.
From the GENERAL SETTINGS menu touch the icon button to access the OTHER SETTINGS containing the following icon buttons:



Touch display acoustic signal activation/deactivation

Dental chair movement activation/deactivation

Display brightness adjustment

- To activate or deactivate an acoustic signal each time the TOUCH DISPLAY is touched.
- To enable/disable the dental chair movements, touch the relative icon button.

NOTE: *when the chair is locked, it is indicated by a dedicated icon on the TOUCH DISPLAY (see paragraph 5.1.).*

WARNING!
For greater working safety, this operation is obligatory if you need to use an external electric scalpel.

- To adjust the display brightness, touch the relative icon buttons or .

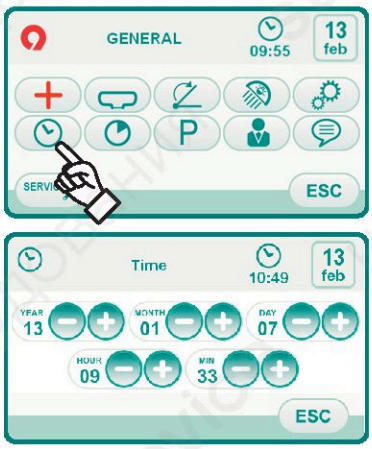
NOTE: the settable value ranges from 1 to 10.

- To confirm the selected settings, exit this submenu by touching the icon button ESC.

5.1.1.2.6. Time and date setting

This setting is shared by all users.
From the GENERAL SETTINGS menu touch the icon button to access the TIME AND DATE SETTING submenu.

- To change the data displayed, touch the relative icon buttons or .
- To confirm the selected settings, exit this submenu by touching the icon button ESC.



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5.1.1.2.7. Chronometer

This setting is shared by all users.
From the GENERAL SETTINGS menu touch the icon button to access the CHRONOMETER SUBMENU.
• To change the various data displayed , touch the relative icon buttons or .



***NOTE:** the time can bet set from 00:00:00 to 10:59:59.*
• Once you have set the time, touch the icon button to start the countdown.

***NOTE:** at this point, you can exit this menu by touching the icon button ESC without interrupting the countdown.*

• To interrupt the countdown, touch the icon button .



NOTE:** at this point, touching the icon button **you can reset the chronometer to the last time set.
• When the set time runs out, the dental unit emits an intermittent signal and the CHRONOMETER menu is once again shown on the TOUCH DISPLAY. To interrupt the intermittent signal, touch the icon button ESC or any button on the console.

***NOTE:** the last time set remains stored.*

5.1.1.2.8. Personalization of favourite keys

This submenu allows you to select the function to attribute to the 3 lower icons visible in the main page.
This setting is shared by all users.
From the GENERAL SETTINGS menu touch the icon button P to access the FAVOURITE BUTTONS CUSTOMISATION submenu where you can view the 3 positions modifiable with the icons of the functions currently set.
• To change the function for a specific position, touch the relative icon buttons or .
• The settable functions are the following:





BIO	BIOSTER S DISINFECTION CYCLE SETTING (position P1 only)
FLU	FLUSHING CYCLE SETTING (position P1 only)
	Hydro unit settings
	Foot control adjustment
	Operating lamp adjustment
	Other settings
	Time and date setting
	Chronometer
	Language selection
	Independent water supply selection/deselection

• To confirm the selected settings, exit this submenu by touching the icon button ESC.

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5.1.1.2.9. Operator data entry

From the GENERAL SETTINGS menu touch the icon button to access the OPERATOR DATA ENTRY submenu.





NOTE: *the data modified always refers to the operator set on the main page.*

- To enter the desired text, touch the icon buttons of the various letters (max. 20 characters).
- To enter capital letters, touch the icon button .
- To enter numbers or special characters, touch the icon button 123?.
- To cancel any typing mistakes, touch the icon button canc cancelling from left to right.
- Once you have entered the text, touch the icon button ESC to exit from the submenu and automatically save the data.

5.1.1.2.10. LANGUAGE selection

This setting is shared by all users.
From the GENERAL SETTINGS menu touch the icon button to access the LANGUAGE SELECTION SUBMENU.





- To change the language, touch the icon button of the relative flag.
- To confirm the setting selected, exit this submenu by touching the icon button ESC.

5.1.2. Setting the dental chair's "rinse" and "home" positions

This setting is specific for each operator.
Perform the following operations from the main screen:

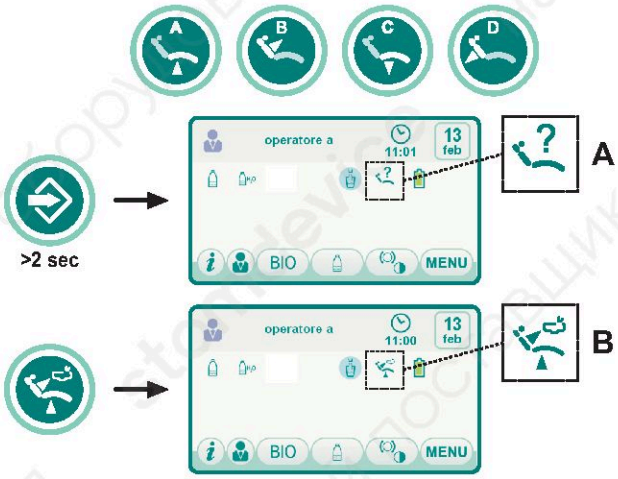
- Bring the dental chair into the desired position with the manual movements buttons.

NOTE: *in the case of the "Rinse position" the position of the bowl can be saved, if powered.*

- Hold button "SAVE" for at least 2 seconds to activate memory mode. The system beeps and the relevant icon (**A**) appears on the console display to signal save mode has been activated.

NOTE: *Hold down button "SAVE" for at least 2 seconds to quit without saving the changes made.*

- Press buttons "AUTOMATIC RETURN" or "RINSE POSITION" to assign the position to the button. The icon (**B**) for the selected program will appear on the console display to confirm the data have been saved.



NOTE: *The seat height cannot be changed when in the "RINSE POSITION".*

NOTE: *The "RINSE POSITION" button brings the backrest and seat into the rinse position.*
When button "RINSE POSITION" is pressed again, the backrest and seat return to the previous position.

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5.1.3. Programming the chair positions A, B, C and D

This setting is specific for each operator.
Perform the following operations from the main screen:

- Bring the dental chair into the desired position with the manual movements buttons.

***NOTE**: the position of the bowl can be saved, if powered.*

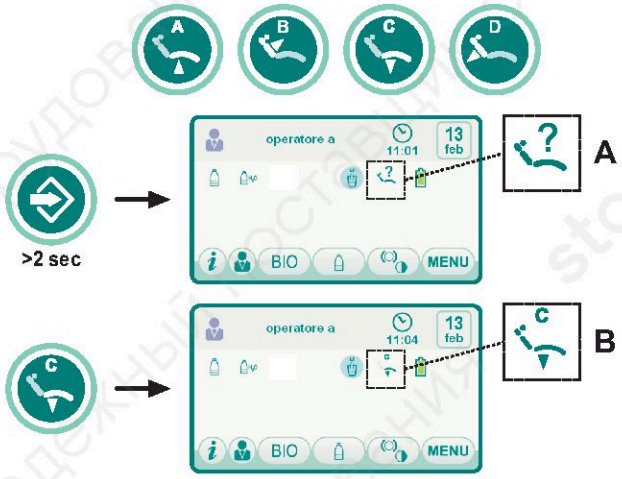
- Hold button "SAVE" for at least 2 seconds to activate memory mode.

***NOTE:** Storage mode activation is signalled by a short beep and by the dedicated icon (**A**) on the TOUCH DISPLAY.*

- Push the A, B, C or D keys to associate the relevant position to the key (e.g. C).

***NOTE:** The icon (**B**) referring to the program selected (e.g. C) will appear on the TOUCH DISPLAY to confirm that it has been stored.*

***NOTE**: To call up a set position simply briefly press the button assigned to the relative position.*



5.1.4. Emergency stop button

This button can be used in the event of an emergency to bring the patient into the Trendelemburg position.

***NOTE**: The Trendelemburg position is already set and cannot be changed.*



5.1.5. SMART TOUCH screen disable button.

This button allows enabling/disabling the TOUCH DISPLAY screen so that you can easily clean the console.

NOTE: The disabled status is indicated by a clear message on the TOUCH DISPLAY.



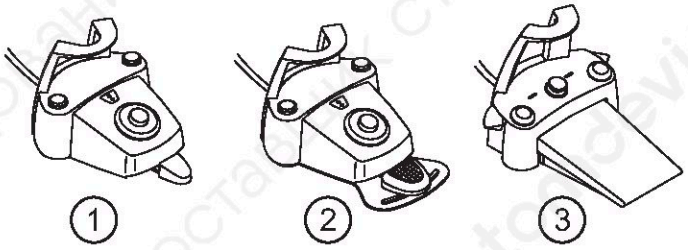
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5.2. Foot control

3 types of foot controls are available:

1. **"Multifunction" foot control**
2. **"Push-pedal" foot control**
3. **"Power Pedal" foot control.**

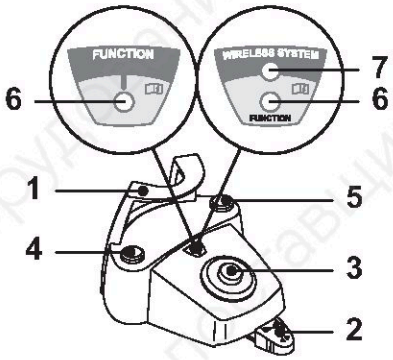


NOTE: *the "multifunction" and "pressure" foot controls can also be supplied in wireless version.*

5.2.1. "Multifunction" foot control

Description of the parts

1 Handle
2 Control pedal
3 Dental chair movements
4 Chip-air/patient rinsing position control.
5 Water Clean System/Automatic dental chair return control.
6 LED (not active).
7 Battery charge LED (wireless version only).



Joystick for dental chair movement (3).

With instrument removed

- Starts the instrument.
- Adjusts the rpm of rotary instruments.
- To right: operation with spray (if foreseen for selected instrument).

NOTE*: At the end of work, air is automatically blown to eliminate any drops of liquid remaining in the spray ducts.*

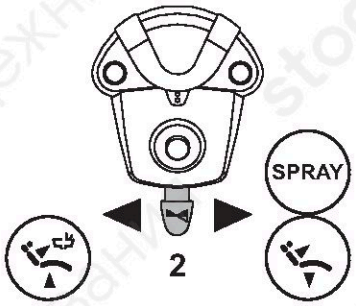
- To left: spray-free operation

With instruments in place

- Fully right: dental chair automatic return (RA).
- Fully left: patient rinse position reached (PR).

NOTE*: If the pedal is pushed fully left again, the dental chair moves back to the work position.*

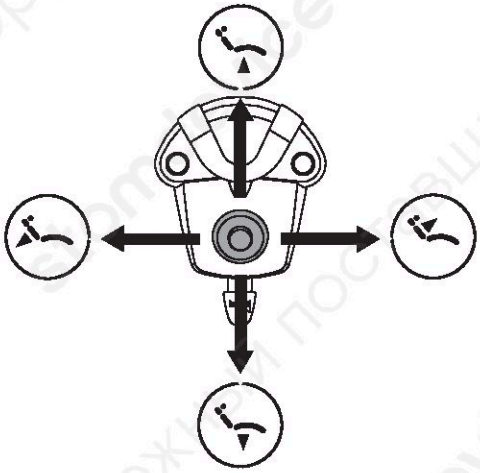
WARNING!
These dental chair functions are activated by keeping the pedal at the end of the travel for at least 2 seconds.



Controller joystick for dental chair movement (3)

These buttons move the dental chair as follows:

- Dental chair seat up.
- Dental chair backrest up.
- Dental chair seat down.
- Dental chair backrest down.



To stop the chair movement, release the joystick.

NOTE*: all the buttons used to move the dental chair are inoperative when an instrument is removed and the foot control pedal is actuated.*

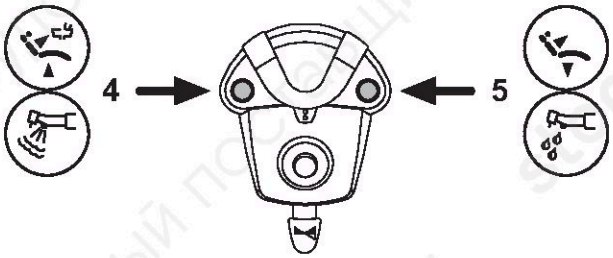
NOTE*: the joystick operating mode can be changed with the instrument removed (see Paragraph 5.1.1.2.3.).*

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Left-hand button operation (4).
- *Key held down (at least 2 seconds) with the instrument removed:*
  Chip-air operation: delivers air to the turbine or micromotor.
  Air is delivered by pressing the button. Air is no longer blown when the button is released.
- Key held down (at least 2 seconds) with the instruments in place:
  "Rinse position" (PR) program activated.

***NOTE**: Press the key again to bring the chair back to the work position.*



Right-hand button operation (5)
- *Key held down (at least 2 seconds) with the instrument removed:*
  Water Clean System operation: running water is sent to the instruments such as the turbine, micromotor and scaler to flush the spray ducts.
  Water is delivered by pressing the button. Water is no longer delivered when the button is released and air is automatically blown to eliminate any drops of liquid remaining in the spray ducts.
- *Key held down (at least 2 seconds) with the instruments in place:*
  "Dental chair automatic return" program activated.

WIRLESS version.
This foot control can also be supplied in wireless version (see Paragraph 5.2.4).

Protection against liquid penetration.
The foot control is protected against liquid penetration. Degree of protection: IPX1.

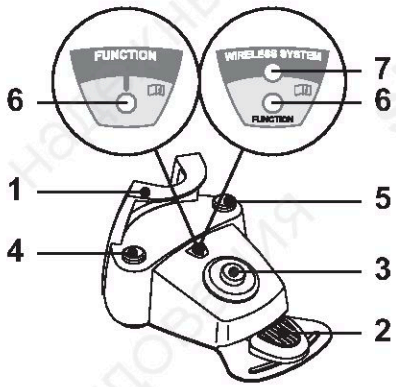
Cleaning.
Clean the foot control using a suitable product (see Paragraph 1.4).

***NOTE**: If the foot control slips on the floor, dust the slip-proof rubber found under the base with a dry cloth.*

5.2.2. "Push-pedal" foot control

Description of the parts

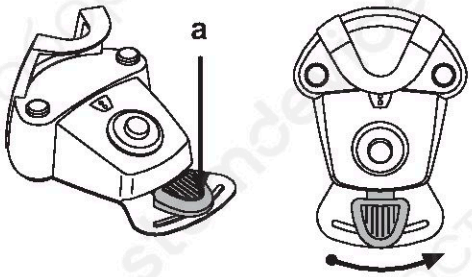
1 Handle
2 Control pedal
3 Dental chair movements
4 Chip-air/patient rinsing position control.
5 Water Clean System/Automatic dental chair return control.
6 Spray operation LED
7 Battery charge LED (wireless version only).



Control pedal (2)
Operation:
- Remove the instrument
- Push the foot pedal to start the instrument (**a**)
- Adjust the rpm/power of the instrument with the control pedal:
  - to right: to increase
  - to left: to decrease

***NOTE**: the control pedal adjusts the speed/power of the instrument from the minimum to the maximum value set from the instrument board.*
- To stop the instrument, simply release the control pedal (**a**).

***NOTE**: with the spray active, at the end of the operation a blast of air is automatically activated to remove any residual drops of liquid in the spray ducts.*



WARNING!
Instrument spray is activated and deactivated by pressing the buttons (4) or (5).
A beep sounds to signal the operating status has been changed.
When the LED (6) is on, it indicates operation with spray.

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Joystick for dental chair movement (3).
These buttons move the dental chair as follows:



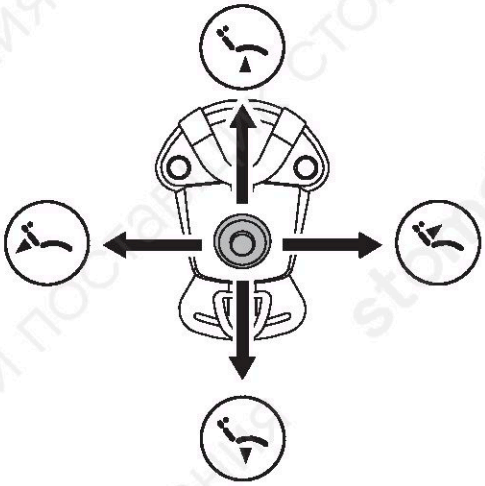
Dental chair seat up.

Dental chair backrest up.

Dental chair seat down.

Dental chair backrest down.

To stop the chair movement, release the joystick.



NOTE: *All the buttons used to move the dental chair are inoperative when an instrument is removed and the foot control pedal is actuated.*

NOTE*: the joystick operating mode can be changed with the instrument removed (see Paragraph 5.1.1.2.3.).*

Left-hand button operation (4).
Operation:

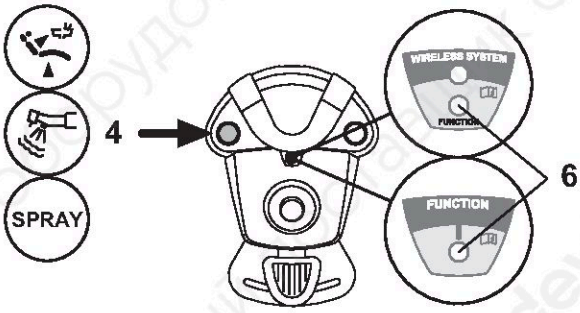
- Holding down the button for at least 2 seconds with the instruments in rest position:
  Activation of the "Patient rinsing position" program.

NOTE: *Pressing the button a second time returns the dental chair into working position.*

- Holding down the button for at least 2 seconds with instrument extracted:
  Chip-air control: sends a jet of air to the turbine or the micromotor.
  Air delivery is activated by pressing the button; the jet of air is interrupted when the button is released.

NOTE: *The control works only when the turbine and micromotor are in working position.*

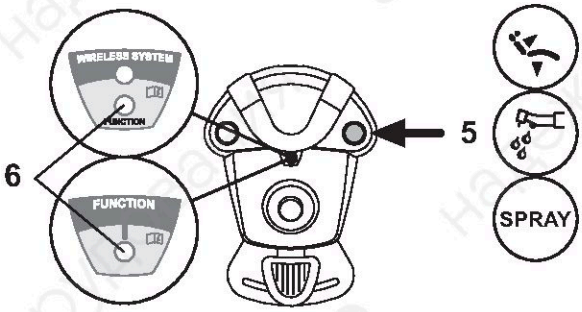
- Briefly pressing the button with the instrument extracted:
  Activation or deactivation of instrument spray.



WARNING!
A short acoustic signal warns of the switch.
When the LED (6) is on, it indicates operation with spray.

Right-hand button operation (5).
Operation:

- Holding down the button for at least 2 seconds with the instruments in rest position:
  Activation of the "Automatic dental chair return" program.
- Holding down the button for at least 2 seconds with instrument extracted:
  Water Clean System control: sends a jet of running water to instruments such as the turbine, the micromotor and the scaler for rinsing the spray ducts.
  Water delivery is activated by pressing the button (**4**); when the button is released, the jet of water is interrupted and a blast of air is automatically activated to remove any residual drops of liquid in the spray ducts.
- Briefly pressing the button with the instrument extracted:
  Activation or deactivation of instrument spray.



WARNING!
A short acoustic signal warns of the switch.
When the LED (6) is on, it indicates operation with spray.

Wireless version.
This foot control can also be supplied in wireless version (see Paragraph 5.2.4).

Protection against liquid penetration.
The foot control is protected against liquid penetration. Degree of protection: IPX1.

Cleaning.
Clean the foot control using a suitable product (see Paragraph 1.4).

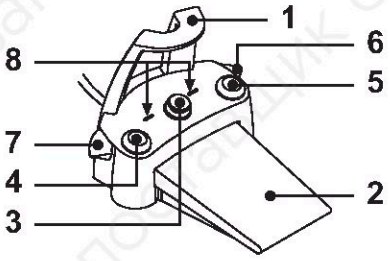
NOTE*: if the foot control slips on the floor, dust the slip-proof rubber found under the base with a dry cloth. .*

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5.2.3. "Power Pedal" foot control

Description of the parts.

1 Handle.
2 Foot control.
3 Dental chair movements.
4 Chip-air control or activation/deactivation of instrument spray function.
5 Water Clean System control or activation/deactivation of instrument spray function.
6 Automatic dental chair return or programme "B" recall activation.
7 Patient rinse position or programme "A" recall activation.
8 Spray operation LED.



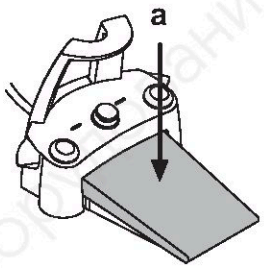
Foot control operation (2).

• *With instrument removed*
- Pushing the pedal (**a**), the instrument is started.
The instrument's rpm (or power) can be adjusted by varying the pressure exerted on the foot control.

***NOTE**: the foot control adjusts the speed/power of the instrument from the minimum to maximum value set from the instrument board.*
- Release the foot control to stop instrument operation.

***NOTE**: with the spray active, at the end of the operation a blast of air is automatically activated to remove any residual drops of liquid in the spray ducts.*

• *With instrument in place*
When the foot control is pressed, all automatic dental chair movements are automatically blocked.



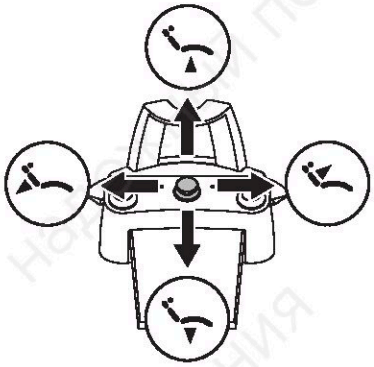
Joystick for dental chair movement (3).
These buttons move the dental chair as follows:

Dental chair seat up.

Dental chair backrest up.

Dental chair seat down.

Dental chair backrest down.



To stop movement, release the button.

***NOTE**: all dental chair movements are blocked when an instrument is being used or the BIOSTER system is running.*

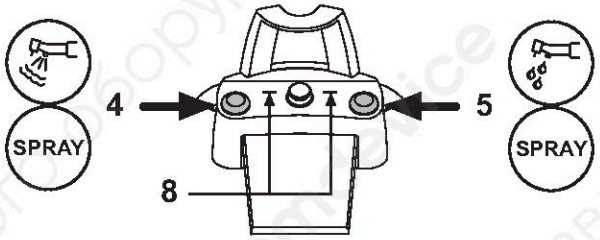
***NOTE**: the joystick operating mode can be changed with the instrument removed (see Paragraph 5.1.1.2.3.).*

Left-hand button operation (4).

• Holding down the button for at least 2 seconds with instrument extracted:
Chip-air control: sends a jet of air to the turbine or the micromotor.
Air delivery is activated by pressing the button; the jet of air is interrupted when the button is released.

• Briefly pressing the button with the instrument extracted:
Activation or deactivation of instrument spray.

⚠ WARNING!
A short acoustic signal warns of the switch.
When the LED (8) is on, it indicates operation with spray.



Right-hand button operation (5).

• Holding down the button for at least 2 seconds with instrument extracted:
Water Clean System control: sends a jet of running water to instruments such as the turbine, the micromotor and the scaler for rinsing the spray ducts. Water delivery is activated by pressing the button (**5**); when the button is released, the jet of water is interrupted and a blast of air is automatically activated to remove any residual drops of liquid in the spray ducts.

• Briefly pressing the button with the instrument extracted:
Activation or deactivation of instrument spray.

⚠ WARNING!
A short acoustic signal warns of the switch.
When the LEDs (8) are on, they indicate operation with spray.

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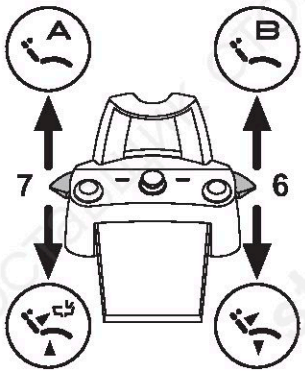
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Right lever operation (6).

NOTE: *the lever functions only with the instruments in their rest position.*

For safety reasons, the selected function starts only after the switch has been briefly actuated and then released.

- Lever pushed down:
  "Dental chair automatic return" program activated.
- Lever pulled up:
  Dental chair program "B" start.



Left lever operation (7).

NOTE: *the lever functions only with the instruments in their rest position.*

For safety reasons, the selected function starts only after the switch has been briefly actuated and then released.

- Lever pushed down:
  "Rinse position" (PR) program activated

  NOTE: *when the switch is actuated the second time, the dental chair reaches its work position.*
- Lever pulled up:
  Dental chair program "A" start.

Protection against liquid penetration.

The foot control is protected against liquid penetration.
Degree of protection: IPX1.

Cleaning.

Clean the foot control using a suitable product (see Paragraph 1.4).

NOTE: *if the foot control slips on the floor, dust the slip-proof rubber found under the base with a dry cloth.*

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5.2.4. Wireless foot control

The "multifunction" and "pressure" foot control can also be supplied in wireless version.
The wireless foot control contains a ZIGBEE transmitter module (module certified for Europe, Canada and the USA).

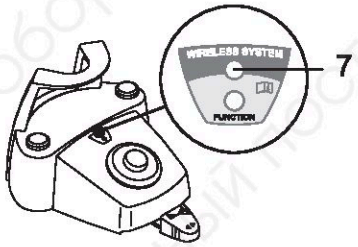
Warnings for use.

⚠ WARNING!
- **Avoid keeping the wireless foot control in proximity of other RF sources, such as wireless LAN cards, other radio devices, home RF devices, microwave ovens. The recommended distance is at least 2 metres in the case of microwave ovens and 1 metre in all other cases.**
- **Even though the electromagnetic field irradiated by the foot control is insignificant, it is advisable NOT to use it in proximity of life support equipment (e.g. pacemakers or heart stimulators) and hearing aids. Before using any electronic device in health facilities, always ascertain that it is compatible with the other equipment present.**
- **Exclusively use the dental unit to charge the battery of the WIRELESS foot control.**
- **The internal battery may only be replaced by a qualified technician.**

Warnings for first use.
It is advisable to fully charge the foot control battery before using it for the first time.

WIRELESS foot control operation.
The WIRELESS foot control operates in exactly the same way as the wired version, therefore refer to the paragraphs above paying attention to the specific model used.
In addition, the WIRELESS foot control has a specific LED (7) that indicates the battery charge and the communication status with the dental unit.

LED (7) indications.
The colour of the LED indicates the battery charge, while the type of flashing indicates the communication status with the dental unit.

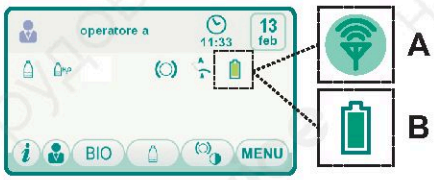


Battery charge:

COLOUR	DESCRIPTION (CABLE DISCONNECTED)	DESCRIPTION (CABLE CONNECTED)
GREEN	Battery charge (>75%)	Battery charged
ORANGE	Battery charge (<50%)	Battery charging
RED	Battery needs charging (<25%)	Battery charge error
Off	Battery flat	**Dental unit off or foot control fault**

Communication status:

FLASHING	DESCRIPTION
Slow	Connection active in wireless mode
Fast	Connection active with charging cable inserted
Double	Connection search
On fixed	Communication error



☞ ***NOTE:*** *this information can be shown also on the TOUCH DISPLAY through the specially provided icons (A) or (B) (see paragraph 5.1.) or in the specially provided control menu of the foot control (see paragraph 5.1.1.2.3.).*

Battery characteristics.
The WIRELESS foot control is equipped with a rechargeable Lithium-Polymer battery (Li-Poly, 3.7V, 5200 mAh type Guangzhou Markyn Battery Co. Model 9051109).

The battery life is approximately 2 months (estimating 8 hours of consecutive daily operation) with the battery fully charged and fully efficient. The battery efficiency reduces with age. It is estimated that the efficiency is reduced to 60% after 500 complete recharging cycles. Also in this condition, the battery should last about 1 month.

☞ ***NOTE****: When the battery efficiency is so far reduced as to be deemed unsatisfactory to support the daily usage requirements, have it replaced by a qualified technician (original spare part no. 97901336).*

⚠ WARNING!
Do not attempt to replace the battery yourself.

Limited battery warranty.
The battery in the foot control is covered by a 6-month warranty from the date of installation.

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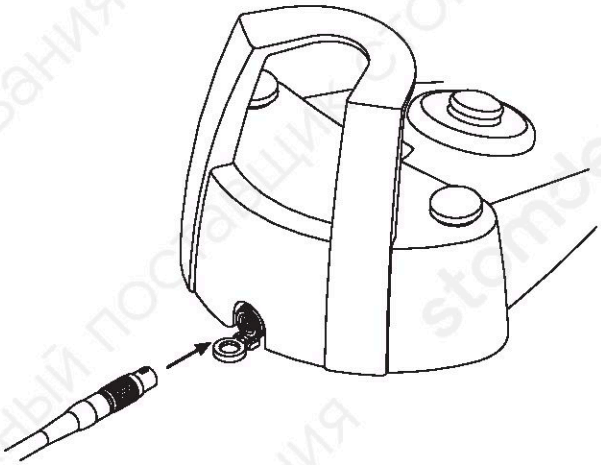
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Recharging the battery.
When the batteries in the WIRELESS foot control need to be recharged, operate as follows:
- Open the protective cap of the connector on the rear of the foot control and connect the recharging cable.
- Connect the other end of the recharging cable to the dental unit (see figure).

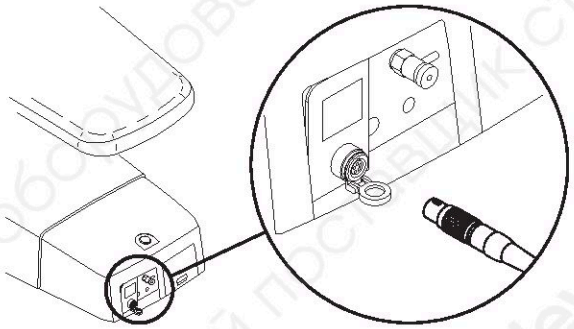
At this point, the foot control, while it remains fully operational, will start recharging the battery (Battery charging warning LED on).

***NOTE**: The battery is fully recharged in about 6 hours.*

WARNING!
Exclusively use the dental unit to charge the battery of the WIRELESS foot control.



Natural battery discharge.
Should the battery not be used for long periods of time, it may slowly discharge all the same.
After long periods of disuse, it is advisable to always fully charge the battery before use.

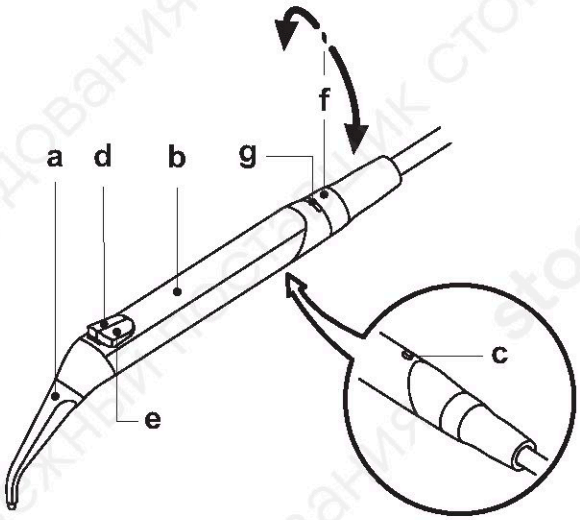


Maintenance and disposal
The wireless foot control does not contain parts that can be repaired directly by the user.
In the event of a malfunction, do not attempt to carry out maintenance operations, but directly contact the manufacturer or his local distributor at the numbers indicated in the warranty certificate.
At the end of its lifetime, the battery must be replaced by a specialised technician at a Service Centre.

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5.3. Syringe

Description of the instrument.
[a] Nozzle.
[b] Handpiece.
[c] Syringe release button.
[d] Air button.
[e] Water button.
[f] Hot/cold selector.
[g] Hot/cold indicator light.



Technical charachteristics.
- Operating time:
  - 3F syringe: continuous operation,
  - 6F syringe: 5 sec. operation, 10 sec. rest.
- Power supply:
  - 6F syringe (CEFLA s.c. models): 24 Vac; 50/60 Hz; 2 A; 50 W.
- Classification in accordance with standard EN 60601-1:
  - 6F syringe (CEFLA s.c. models): CLASS II, type B.
- Installation plan: consult the Technical Installation Manual (see Paragraph 11.).

Operation.
- Place the instrument in its work position.
- Button (**e**) = water;
  Button (**d**) = air;
  Buttons (**e + d**) = spray.
- 6F syringe, operation with hot water, air and spray: turn the selector [f] clockwise (LED g on).
- 6F syringe, operation with cold water, air and spray: turn the selector [f] anticlockwise (LED g off).

Removing the handpiece.
- The nozzle (**a**) is screwed onto the grip (**b**).
- Turn the selector switch counter-clockwise (LED **g** off) and press the button (**c**) to take the grip off the syringe casing.

Removable syringe cord
The syringe has a removable cord to ease cleaning (see chapter 5).

Cleaning.
Use soft disposable paper towel dampened with detergents/disinfectants

⚠ WARNING!
- **Do not soak the syringe in liquid disinfectants or detergents.**
- **Products not recommended: harsh products and/or products containing acetone, chlorine and sodium hypochlorites.**

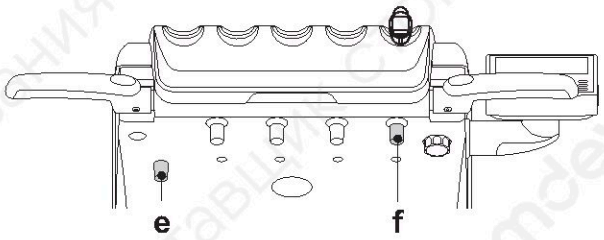
Sterilization.
Syringe grip and spout: see paragraph 1.5.
☞ ***NOTE:*** *Bag before sterilizing.*

Instructions for use.

⚠ WARNING!
- **The instrument is supplied NOT STERILE and must be sterilized before use (see paragraph 1.5.).**
- **It is recommended to use single-use protections and nozzles.**

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5.4. Turbine

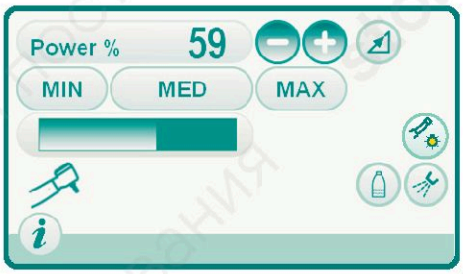


Connecting the handpiece and changing the chuck.
Refer to the specific instructions furnished with the handpiece.

Use.

WARNING!
Read the instructions for use of the various turbines.
- The cock (**f**) adjusts the water flow to the spray.
- The cock (**e**) adjusts the amount of air spray for all the instruments.
- Place the instrument in its work position.

NOTE: *instrument activation is indicated by the relative management page appearing on the TOUCH DISPLAY.*



- The icon buttons available on the TOUCH DISPLAY are the following:

Settable value increase

Settable value decrease

Turbine rotation speed selection

Fibre optics on/off

Independent water supply selection/deselection (only with S.H.S./S system)

Instrument spray type enable and selection

Row of general operating icons (see paragraph 5.1.)

MIN — Quick selection of power at 1% of the maximum turbine rotation speed

MED — Quick selection of power at 50% of the maximum turbine rotation speed

MAX — Quick selection of power at 100% of the maximum turbine rotation speed.

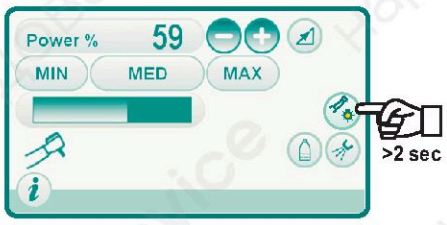
- Use the foot control pedal to start the instrument (see paragraph 5.2).

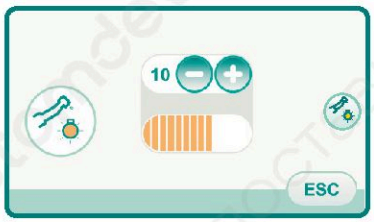
NOTE*: The turbine cord can also be used to connect the air micromotors equipped with 4-way connector and conform to ISO 13294 - Dental Air Motor.*

Fibre optic brightness adjustment.
- To adjust the fibre optic brightness, touch and hold (for at least 2 seconds) the icon button .
- Adjust the brightness by touching the icon or .

NOTE: *the settable value ranges from 1 to 16.*
- To confirm the brightness selected, exit this submenu by touching the icon button ESC .

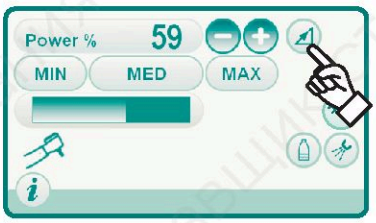
NOTE: *after 30 seconds of not using the instrument (foot control lever deactivated), the fibre optics turns off.*





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Turbine rotation speed change.
With the instrument in working position, select turbine speed change mode by touching the following icon buttons:



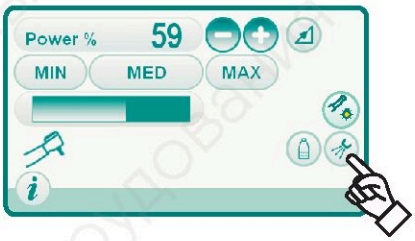
Linear change proportional to the movement of the the foot control lever

ON/OFF change that results in delivery of the maximum power set upon activation of the foot control lever

The active mode icon is shown on the TOUCH DISPLAY.

***NOTE**: the data is automatically stored.*

Instrument spray control button.
With the instrument in working position, select the type of spray delivered by the instrument by touching the following icon buttons:



Water + air spray operation

Water-only spray operation

Operation without spray

The change is cyclic each time the button is touched and the active mode icon is shown on the TOUCH DISPLAY.

***NOTE**: the data is automatically stored.*

Removable cord
The turbine has a removable cord to ease cleaning (see paragraph 5.).

Cleaning and care.
Refer to the specific instructions furnished with the instrument.
It is recommended to use Daily Oil (CEFLA s.c.) for lubrication.

Sterilization.
Only instrument handpiece: see paragraph 1.5.

⚠ WARNING!
Carefully read the operating instructions supplied with the handpiece before attempting to sterilize.

Instructions for use.

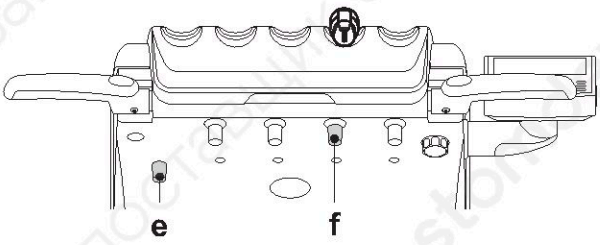
⚠ WARNING!

- **The instrument is supplied NOT STERILE and must be sterilized before use (see paragraph 1.5.). Before performing sterilization, check the instructions for use included with the device.**
- **Only for American and Canadian markets: instruments must be FDA-approved.**
- **The turbine must never be started without attaching the chuck or false chuck.**
- **The chuck release button must be held down during operation! Friction between the button and micromotor rotor overheats the head and may cause burns.**
- **The patient's internal tissues (tongue, cheeks, lips, etc...) must be protected against contact with the button by using suitable instruments (mirror, etc...).**
- **The chucks and various instruments attached to the handpieces must comply to the standard ISO 10993-1 Biological evaluation of medical devices.**

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5.5. Micromotor

Coupling the handpieces and changing the chuck.
Refer to the specific instructions furnished with the micromotor and various handpieces.



Use.

WARNING!
Also read the instructions for use of the various motors.
The instrument is supplied non-sterile.

- **Operating time: work 5 min., rest 5 min.**
- The cock (**f**) adjusts the water flow to the spray.
- The cock (**e**) adjusts the amount of air spray for all the instruments.
- Place the instrument in its work position.

NOTE: *instrument activation is indicated by the relative management page appearing on the TOUCH DISPLAY.*



- The main icon buttons available on the TOUCH DISPLAY are the following:

Settable value increase

Settable value decrease

Reduction ratio selection

Reduction ratio selection

Speed change mode selection

Micromotor rotation direction selection

Fibre optics on/off

Independent water supply selection/deselection (only with S.H.S./S system)

Instrument spray type enable and selection

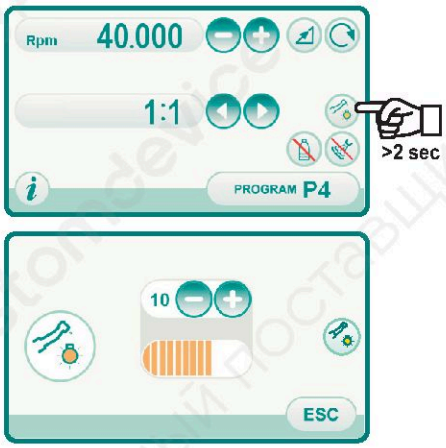
Row of general operating icons (see paragraph 5.1.)

RESTORATIVE — Micromotor operating mode selection (only with i-MMs micromotor).

PROGRAM P1 — Micromotor operating program selection

- Use the foot control pedal to start the instrument (see paragraph 5.2).

Fibre optic brightness adjustment.
- To adjust the fibre optic brightness, touch and hold (for at least 2 seconds) the icon button .
- Adjust the brightness by touching the icon buttons or .



NOTE: *the settable value ranges from 1 to 16.*
- To confirm the brightness selected, exit this submenu by touching the icon button ESC .

NOTE: *after 30 seconds of not using the instrument (foot control lever deactivated), the fibre optics turns off.*

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Instrument spray control button.
With the instrument in working position, select the type of spray delivered by the instrument by touching the following icon buttons:

Water + air spray operation

Water-only spray operation

Operation without spray

The change is cyclic each time the button is touched and the active mode icon is shown on the TOUCH DISPLAY.

NOTE: *the data is automatically stored.*



Rotation speed change mode selection.
With the instrument in working position, select rotation speed change mode by touching the following icon buttons:

Linear change proportional to the movement of the the foot control lever

ON/OFF change that results in delivery of the maximum power set upon activation of the foot control lever

The active mode icon is shown on the TOUCH DISPLAY.

NOTE: *the data is automatically stored.*



Micromotor rotation direction inversion.
Select the micromotor rotation direction by touching the relative icon button:

Normal rotation direction

Inverted rotation direction

Inverted rotation direction is signalled by 3 beeps.

WARNING!
Subsequently, when the micromotor is extracted, 3 warning beeps are emitted if the rotation direction is inverted.

NOTE: When the rheostat lever is activated, inversion of the micromotor rotation direction is deactivated.



Micromotor operating mode selection (only with i-MMs micromotor).
The micromotor has 2 different operating modes that can be selected by touching the relative icon button:

RESTORATIVE — **RESTORATIVE** (see paragraph 5.5.1.)

ENDODONTIC — **ENDODONTIC** (see paragraph 5.5.2.)



NOTE: *the change occurs cyclically.*

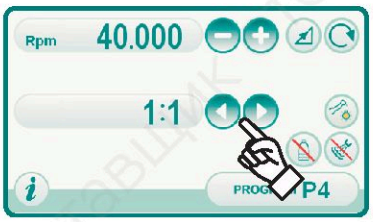
Micromotor operating program selection.
The micromotor has 4 operating programs identified with P1, P2, P3, P4 that can be selected by touching the relative icon button.
Each operating program stores the following data:
- operating mode (only with i-MMs micromotor).
- maximum rotation speed / torque value
- fibre optics ON/OFF
- fibre optic brightness
- rotation direction inversion ON/OFF
- type of spray delivered
- Handpiece reduction ratio.



NOTE: *the change occurs cyclically.*

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Reduction ratio selection.
Using the icon buttons ◀ or ▶ you can select the desired reduction ratio from those stored.
The torque value (set or current) is expressed in % or Ncm for the certified reduction gears.



WARNING!
An icon appears next to the torque value identifying the reading tolerance on the value indicated:

Ncm 5,0 **tolerance of ±10%**

Ncm 5,5 **tolerance of ±20%.**

NOTE: *the data is automatically stored.*

Removable cord
The micromotor has a removable cord to ease cleaning (see paragraph 5.).

Cleaning and care.
Refer to the specific instructions furnished with the instrument.
It is recommended to use Daily Oil (CEFLA s.c.) for lubrication.

WARNING!
- **Do not soak the micromotor in liquid disinfectants or detergents.**
- **Products not recommended: harsh products and/or products containing acetone, chlorine and sodium hypochlorites.**

Sterilization.
Only instrument handpiece: see paragraph 1.5.

WARNING!
Carefully read the operating instructions supplied with the instrument before attempting to sterilize.

Instructions for use.

WARNING!
- **The instrument is supplied NOT STERILE and must be sterilized before use (see paragraph 1.5.). Before performing sterilization, check the instructions for use included with the device.**
- **Only for American and Canadian markets: instruments must be FDA-approved.**
- **Never put the contra angle on the micromotor while it is running.**
- **The chuck release button must be held down during operation! Friction between the button and micromotor rotor overheats the head and may cause burns.**
- **The patient's internal tissues (tongue, cheeks, lips, etc...) must be protected against contact with the button by using suitable instruments (mirror, etc...).**
- **The chucks and various instruments attached to the handpieces must comply to the standard ISO 10993.**

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5.5.1. RESTORATIVE operating mode

RESTORATIVE operation characteristics
- speed adjustable from 100 to 40000 RPM (handpiece 1:1),
- Rotation speed change mode settable from variable to fixed and vice versa
- Alarm signal when the maximum torque is reached
- Fast capture of the maximum speed during motor rotation.

Menu with micromotor extracted but not active.
All the icon buttons are active and each function available can be changed (see paragraph 5.5.).



NOTE: *each setting or value changed will automatically be stored in the operating program selected (e.g. P1).*



Menu with micromotor extracted and active.
The modifiable functions are the following:
- Maximum drill rotation speed using the icon buttons or ,
- Current speed freezing using the following icon button:



Sets the current rotation speed as maximum speed

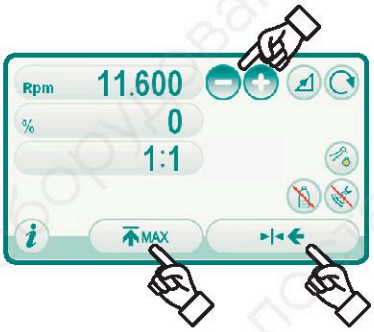
- Foot control lever change mode using the following icon buttons: ù



Sets the current rotation speed as maximum speed at the same time activating a function to change the foot control lever ON/OFF mode



Switches the foot control lever change mode from ON/OFF to linear



5.5.2. ENDODONTIC operating mode

ENDODONTIC operation characteristics
- Speed adjustable from 100 to 600 rpm with the value always referring to the drill irrespective of the reduction ratio
- Torque adjustable from 0.1 to 5.0 Ncm, excluding the 1:1 reduction gear (4.5 Ncm)
- Motor rotation speed change mode settable from variable to fixed and vice versa
- Fast capture of the maximum speed during motor rotation.

Menu with micromotor extracted but not active.
All the icon buttons are active and each function available can be changed (see paragraph 5.5.).
As well as the standard settings, in ENDODONTIC mode you can also set "Operation when maximum torque reached" by touching the relative icon button:



Rotation lock



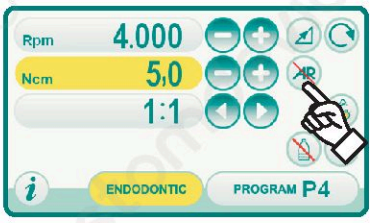
Rotation lock and subsequent inversion of the rotation direction



Rotation lock, inversion of the normal rotation direction and subsequent return to the normal rotation direction



NOTE: *each setting or value changed will automatically be stored in the operating program selected (e.g. P1).*



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Menu with micromotor extracted and active.
The modifiable functions are the following:
- Maximum drill rotation speed using the icon buttons ⊖ or ⊕ ,
- Current speed freezing using the following icon button:



Sets the current rotation speed as maximum speed

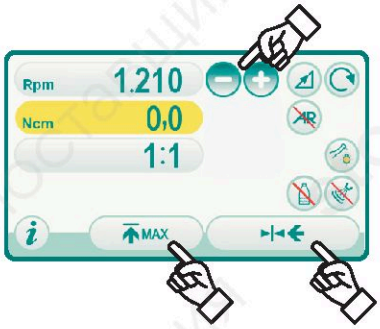
- Foot control lever change mode using the following icon buttons:ù



Sets the current rotation speed as maximum speed at the same time activating a function to change the foot control lever ON/OFF mode



Switches the foot control lever change mode from ON/OFF to linear



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5.6. Scaler

Connecting the handpiece and inserts.
Refer to the specific instructions furnished with the handpiece.

WARNING!
Before attempting to connect the handpiece, make certain the contacts are perfectly dry. Blow air from the syringe, if necessary, to dry

Use.
- Operating times: see operating instructions supplied with the handpiece.
- The cock **[f]** adjusts the cooling water flow.
- Place the instrument in its work position.

NOTE: *instrument activation is indicated by the relative management page appearing on the TOUCH DISPLAY.*
- The icon buttons available on the TOUCH DISPLAY are the following:

Scaler power increase

Scaler power decrease

Scaler power change mode selection

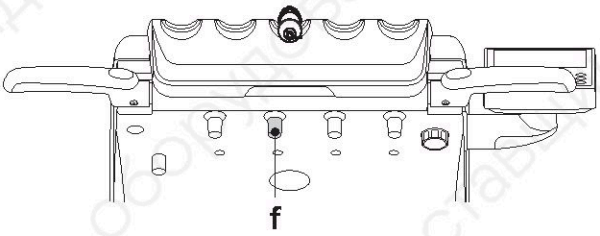
Fibre optics on/off

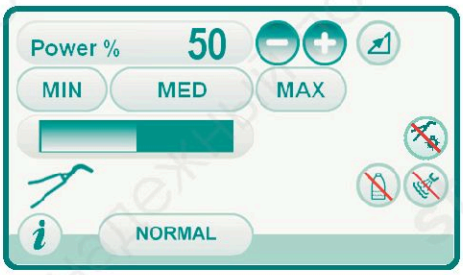
Independent water supply selection/deselection (only with S.H.S. /S system)

Cooling water enable

Row of general operating icons (see paragraph 5.1.)

NORMAL — Scaler operating mode selection





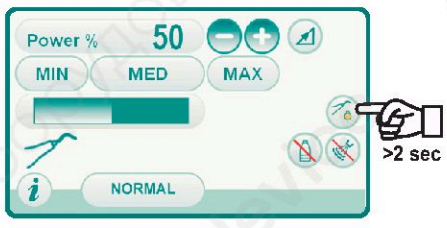
- Use the foot control pedal to start the instrument (see paragraph 5.2).

WARNING!
The instrument is supplied non-sterile.
Only for the American and Canadian markets: the instruments must be FDA-approved.

Fibre optic brightness adjustment.
- To adjust the fibre optic brightness, touch and hold (for at least 2 seconds) the icon button .
- Adjust the brightness by touching the icon buttons or .

NOTE: *the settable value ranges from 1 to 16.*
- To confirm the brightness selected, exit this submenu by touching the icon button ESC .

NOTE: *after 30 seconds of not using the instrument (foot control lever deactivated), the fibre optics turns off.*





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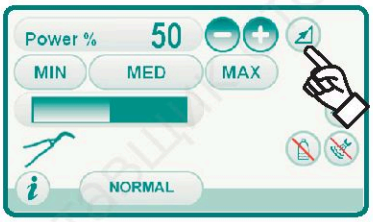
Scaler power change mode selection.
With the instrument in working position, select scaler power change mode by touching the following icon buttons:

Linear change proportional to the movement of the foot control lever

ON/OFF change that results in delivery of the maximum power set upon activation of the foot control lever

The active mode icon is shown on the TOUCH DISPLAY.

NOTE: *the data is automatically stored.*



Cooling water enable.
With the instrument in working position, select whether or not water should be delivered by the instrument by touching the following icon buttons:

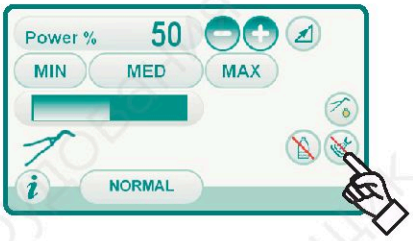
Operation with water

Operation without water

The change is cyclic each time the button is touched and the active mode icon is shown on the TOUCH DISPLAY.

NOTE: *during operation without water, the maximum power delivered is 50% of the maximum power settable.*

NOTE: *the data is automatically stored.*



Scaler operating mode selection.
With the instrument in working position, select scaler operating mode by touching the following icon buttons:

NORMAL — Normal operating mode

ENDO — ENDO operating mode

The change is cyclic each time the button is touched and the active mode icon is shown on the TOUCH DISPLAY.

NOTE: *when the foot control is activated, the operating mode cannot be changed .*

NOTE: *the data is automatically stored.*



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Removable cord
The scaler has a removable cord to ease cleaning (see paragraph 5.).

Cleaning and care.
Refer to the specific instructions furnished with the instrument.

⚠ **WARNING!**
- **Do not soak the handpiece in liquid disinfectants or detergents.**

Sterilization.
- Torque wrench, scaler bits and scaler handpiece: steam autoclave at 135°C (2 bar) following the instructions for use of the device.

⚠ **WARNING!**
Carefully read the operating instructions supplied with the instrument before attempting to sterilize.

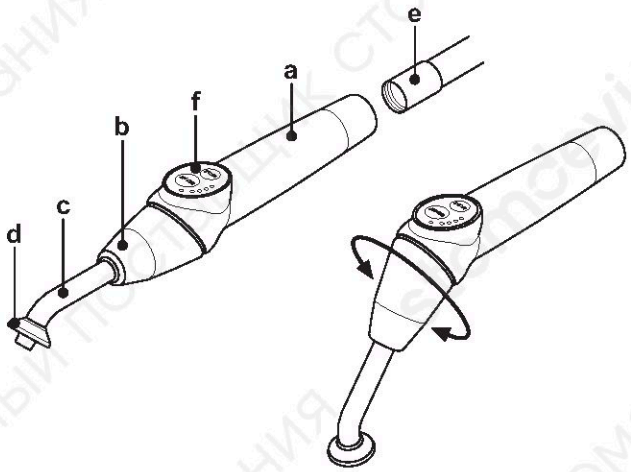
Instructions for use.

⚠ **WARNING!**
- The instrument is supplied NOT STERILE and must be sterilized before use (see paragraph 1.5.).
  Before performing sterilization, check the instructions for use included with the device.
- Only for American and Canadian markets: instruments must be FDA-approved.
- **Make sure the threaded sections of the inserts and handpiece are perfectly clean.**
- **Do not change the shape of the inserts.**
- **Check wear and tear of the inserts on a regular basis, replacing them in the following cases:**
  - obvious wear.
  - drop in performance.
  - out of shape or banged.
- **Notes on U-PZ7 descalers:**
  - Class 1 LED apparatus;
  - Do not direct the light beam in anyone's eyes When cleaning or servicing the device (it is recommended to keep the fi ber optics shut off).
- **To avoid hazards or malfunctions When connecting the board, do not reverse the positions of the cords for scalers that are different brands.**
- **The inserts attached to the handpiece must comply to Biocompatibility standard ISO 10993.**

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5.7. T LED curing light (not available for the American and Canadian markets)



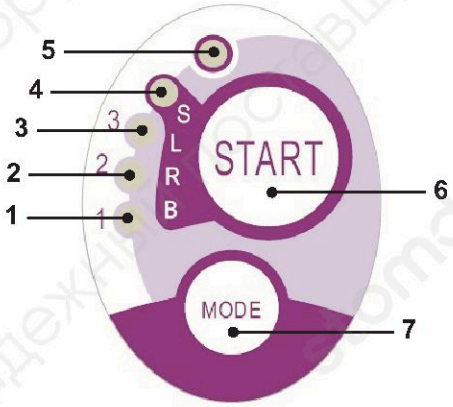
Technical specifications.
Supply voltage: 24-36 VDC
Max. power absorbed: 6 VA
Light source: 1 5W LED
Wavelength: 430-490 nm
Acoustic signals: at cycle start, every 5 seconds, and at cycle end
Type of operation : intermittent (3 consecutive cycles - 60 sec. rest)
Programs: 6 (preset)

General description of the light
a) Light handpiece
b) Rotary end section
c) Fiber optic
d) Eye protection
e) Power cord
f) Start button

NOTE: *The curing light can be used in different configurations (wand, gun or any intermediate position) to aid the user.*

NOTE: *The curing light is delivered in its original packing which should be kept for future shipment.*

Description of the control pad



[1] LED 1 (STANDARD cycle) :
Emission of 1000 mW/cm² for 20 seconds (this cycle is set as default at the time of sale).

[2] LED 2 (FAST cycle) :
Emission of 1600 mW/cm² for 15 seconds.

[3] LED 3 (STRONG cycle) :
Emission of 1800 mW/cm² for 20 seconds.

[4] LED S :
When LED S is on, you access ramp cycle mode and at the same time the LEDs B, R and L next to it come on:

[LED S + LED 1] ramp cycle B (BONDING) :
Ramp cycle with emission of 500 mW/cm² for 5 seconds, ramp from 500 to 1000 mW/cm² for 5 seconds and 1000 mW/cm² for 5 seconds for a total of 15 seconds.

[LED S + LED 2] ramp cycle R (RAPID RESTORATION) :
Ramp cycle with emission of 500 mW/cm² for 5 seconds, ramp from 500 to 2200 mW/cm² for 5 seconds and 2200 mW/cm2 for 5 seconds for a total of 15 seconds.

[LED S + LED 3] ramp cycle L (LONG RESTORATION) :
Ramp cycle with emission of 500 mW/cm² for 5 seconds, ramp from 500 to 1800 mW/cm² for 5 seconds and 1800 mW/cm² for 10 seconds for a total of 20 seconds.

[5] Malfunction signalling LED:
This red LED comes on only if there is a malfunction.

[6] START button:
Pressing the START button starts the cycle selected at that moment (the cycle indication LED will come on).
If it is pressed again at any time during the cycle, light beam emission will immediately be interrupted.

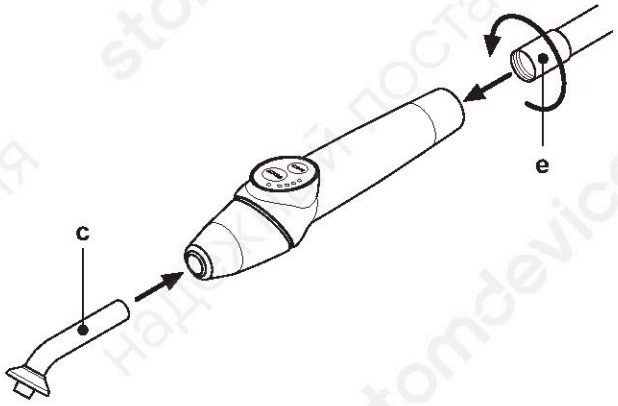
[7] MODE button:
This button is used to select the cycle to be run. It allows changing from the cycle you are in at that moment to the immediately following cycle.
The first three cycles (1, 2 and 3) are at constant power and the LEDs come on individually.
When LED S is on, you access ramp cycle mode and at the same time the LEDs B, R and L next to it come on.
Once the LED of the cycle you intend to use has come on, the lamp is ready for use. Pressing the START button, light beam emission is activated according to the cycle selected .

NOTE*: the cycle can be selected and the button is operative only when the curing light is not emitting any light. If the button is accidentally pressed while light is being emitted, nothing will happen.*

Cycle	LED	Total time	Ø8 mm	Total energy
STANDARD	1	20''	1.000 mW/cm²	20.000 mJ
FAST	2	15''	1.600 mW/cm²	24.000 mJ
STRONG	3	20''	1.800 mW/cm²	36.000 mJ
BONDING	S+1	15''	ramp cycle	11.250 mJ
RAPID REST.	S+2	15''	ramp cycle	20.250 mJ
LONG REST.	S+3	20''	ramp cycle	26.250 mJ

Operation.

WARNING!
The instrument is supplied non-sterile.
Before use, disinfect the lamp grip. The optical fibre and the eye protection can be sterilized in a steam autoclave at 135°C.
- Put the fiber optic (**c**) in its housing until it clicks.
- Attach the curing light handpiece to the end of its power cord and tighten the ring (**e**).



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- Take the light out of its housing on the assistant's board or instrument board.

***NOTE**: instrument activation is indicated by the relative management page appearing on the TOUCH DISPLAY.*



- Turn the front of the light and/or fiber optic to the position most suitable for curing (wand, gun or intermediate position).
- Use the MODE button to select the desired cycle as previously directed (the selected cycle is always indicated by the illuminated LED).

***NOTE**: The curing light has a permanent memory therefore the last cycle used will always be present the next time it is used.*

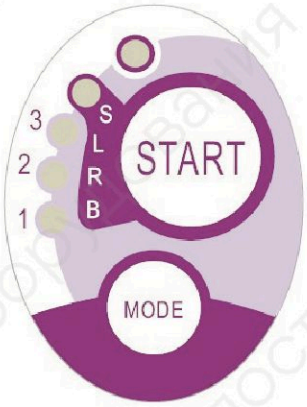
- Place the fiber optic in the position required for curing.

***NOTE**: The fiber optic should be placed as close to the material to be cured as possible without touching it.*

- Press button START to start the cycle.

WARNING!
Operation: runs 2 consecutive cycles, rests 60 seconds.

***NOTE**: When a programmed cycle is activated, the LEDs (1, 2, 3, B, R, L) indicate the time that elapses (in multiples of 5 seconds) and turn off every 5 seconds of operation.*



The curing light comes with a beep that BEEPS when the cycle starts, BEEPS every 5 seconds of operation and lastly BEEPS twice at the end of the work cycle.

- Allow light emission to stop by itself. However, it can be stopped at any time by simply pressing the START button again.

WARNING!

- **The curing light is equipped with a system that signals malfunctions by illuminating the LEDS in different combinations (see next paragraph).**
- **The curing light is equipped with a cut-out.**

Indicators.
The following indicators are provided on the control console to signal curing light failure:

- **LED 5 and LED 1, green, constantly on.**
  Lamp does not emit any light. Contact technical service department.
- **LED 5 and LED 2, green, constantly on.**
  Instrument start up controller failure.
  Contact technical service department.
- **LED 5 and LED 3, green, constantly on.**
  Power supply too low.
  Contact technical service department.
- **LED 5 and LED 4 flash continuously.**
  Handpiece cut-out tripped. These LEDS will continue to flash until the light has cooled down enough (about 5 minutes) for it to be used again.
  If the problems persists, contact the technical service department.

Maximum curable thickness.
The maximum curing thickness with single cycles is 3 millimeters (refer to the instructions of the composite material used as well).

WARNING!
This thickness must not be exceeded as the layer may not be completely cured.

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Safety guidelines.

WARNING!

- 
  The LED is a Class 2 light source in accordance with IEC 62471. DO NOT FIX THE BEAM.
  The light emitted may cause eye damage in the event of direct radiation without eye protection.
  Eye protection must always be worn when using the curing lamp and do not direct the light beam in eyes.
  The light emitted may damage soft tissues (oral cavity mucous, gums, skin).
  Be extremely careful to direct the light precisely on the material to be cured.
- **People with eye diseases, such as those who have had cataracts removed or retina diseases must be adequately protected when the curing lamp is used, for example with s uitable protective eyewear.**
- **The rotary end can turn 180° counter-clockwise in relation to the handpiece to change over from wand to gun configuration.**
  To go back to wand configuration, turn clockwise.
  A click is heard when the two positions are reached. Do not turn any more once the click is heard.
  The intermediate positions can be used even if a click is not heard.
  Put the fiber optic back into the correct position after turning the end section.
- **Do not pull the power cord.**
- **Do not expose the handpiece to excessive vibrations.**
- **Do not drop the handpiece and in particular the fiber optic. The lamp may break if accidentally banged.**
  Check the condition of the handpiece if it has been banged or dropped before using the curing light. Try to turn on the light and check operation first without using it on the patient.
  If cracked, broken or if there are any other faults, do not use the curing light on the patient and contact the technical service department.
  The fiber optic is rather delicate and may crack or break if banged, affecting the final amount of light emitted. If dropped, carefully inspect the fiber optic to verify if it is cracked or broken. If cracked, a strong light appears in the spot in which the fiber is cracked. In all these cases, the fiber optic must be replaced.
- **The curing light handpiece (sold separately) can be connected only to dental units with connections for this curing lamp. Connection to any other equipment may damage the circuits inside the lamp and seriously injure the user and patient.**
- **The curing lamp handpiece is not protected against liquid penetration (IP20).**
- **The curing lamp handpiece is not suitable for use in the presence of flammable anaesthetic gas mixed with air, oxygen or nitrous oxide (N_2O).**

Cleaning.

The curing lamp may be a vehicle for cross contamination between patients. The most contaminated parts are the fiber optic and eye protection. Before sterilizing them, make sure there are no residues of curing products: if necessary, clean with alcohol or a plastic spatula.
Exclusively sterilize the optical fibre and the eye protection in an autoclave at a sterilization temperature of at least 134°C.

WARNING!

- **The fiber optic is able to support 500 autoclave cycles after which it tends to become opaque and therefore emit less light.**
- **The eye protection must also be replaced after 500 cycles.**
- **Contact the manufacturer to purchase original spare parts (fiber optic + eye protection: code 97660404).**

The handpiece cannot be put in autoclave; disinfect it on the outside with suitable products and cover it with disposable plastic wrap. Use soft disposable paper towels to disinfect the handpiece. Do not use harsh products or soak in liquids.

WARNING!

- **The curing light handpiece is NOT suitable for autoclave.**
- **The curing light handpiece is not protected against penetration of liquids therefore it CANNOT be soaked in solution to be sterilized.**
- **The outside of the lamp should be disinfected with the fiber optic on. Do not use any type of disinfectant on the exposed optical surface of the handpiece when the fiber is removed. The surface will become irreparably opaque if it comes into contact with disinfectant.**

Maintenance.

This equipment does not require any particular type of maintenance. Only technicians authorized by the manufacturer can replace and/or repair the handpiece and dental unit. The handpiece has been purposely constructed in a manner that requires specific tools to open it and therefore it cannot be removed by the user. The warranty is automatically void if the handpiece is altered in any way.

Troubleshooting.

- **When the lamp is removed, the light does not come on (no leds on control console illuminated).**
  Make sure the Midwest connection is correctly attached to the power cord.
  Carefully screw the ring, try to turn on the lamp and then take it off again.
  If the problem persists, contact the technical service department.
- **Less light emitted**
  - Make certain the fiber optic is not cracked or damaged in any way: replace it if it is.
    Contact the manufacturer to purchase original spare parts.
  - Make sure there are no residues of curing products on the end of the fiber optic: if necessary, wipe off with alcohol or a plastic spatula.

If the handpiece has to be sent back, please disinfect it.
Ship it back in its original packing.
In addition, please enclose a description of the fault with the shipping note.

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5.8. C-U2 dental camera

The C-U2 dental camera system, complete with an extremely lightweight ergonomic handpiece, is specially designed for simple and well-conceived usability in examining the oral cavity. Auto-exposure and fi xed focus features provide easy operation. This system is designed to allow the dentist to more effi ciently show and explain to patients all oral conditions and reasons for planned treatment. The C-U2 system allows fi lming and taking high-defi nition (1280x720) live images of the section in question to be taken through a touch of a fi ngertip on the touch-sensitive area of the handpiece. The live intraoral images are displayed on the monitor or Personal Computer.

WARNING!

The camera may be used as a diagnostic tool however the results are to be compared to direct observation and/or other diagnostic means. Diagnosis based solely on the image obtained by the camera may result in poor evaluation as the electronically processed colors and shapes, may not correspond to those truly present.

WARNING!

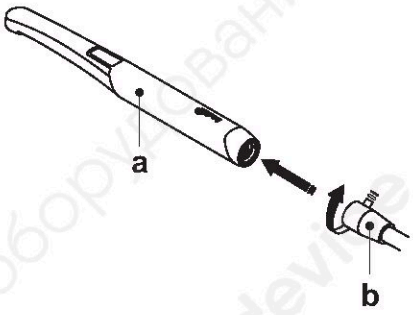
• The external PC and the external monitor must be of medical grade, namely they have to be certifi ed and comply with the standard IEC 60601-1 3rd Ed. They have to be able to ensure a double insulation level for both patient (2 MOPP) and operator (2 MOOP):
- with respect to the power mains;
- to all the I/O ports (USB, LAN) supplied with Safety Extra Low Voltage (SELV).
• Even though the electromagnetic fi eld irradiated by the device is insignifi cant, it is advisable not to use it in proximity of life support equipment (e.g. pacemakers or heart stimulators) according to the specifi cations included in the user manual of such equipment.
• The disposable infection control sheaths must be used with the device. Change the sheath for each new patient.
• After putting on a new disposable infection control sheath, check it over before using the camera, making sure it is not torn anywhere. If it is, take it off and put on a new one.
• Do not place the handpiece in liquids or in autoclave under any circumstances.
• Store the handpiece in a clean dry area.
• Do not bend the connecting cable excessively.
• Be extremely careful not to drop the handpiece and do not expose it to excessive vibrations.
• Never use a damaged handpiece. Make sure the camera is in good condition and has no sharp edges before attempting to use it. If in doubt, do not use the handpiece, carefully put it away, and contact technical assistance.
• Before starting the equipment, check the condition of the lens protection.
• Do not aim the light beam at the operator's or patient's eyes during operation.
• During continuous use (example, more than 10 consecutive minutes), the temperature of the camera's tip usually increases signifi cantly; if this is uncomfortable, put the handpiece in its holder for a few minutes to allow the light source to cool down. When the camera needs to be used for a prolonged time, reduce light brightness.
• If left running for extended periods, make sure the temperature of the tip is acceptable before attempting to use the camera. Briefl y touch the clear plastic part with your fi ngertip being careful not to touch the lens

Connecting the handpiece.

Attach the handpiece of camera C-U2 (a) to the end of the cord and tighten the ring nut (b).

WARNING!

Make sure the cord is firmly screwed onto the handpiece.



Camera system usage.

• Put the instrument in its work position.
At this point the camera is on and may be in *LIVE* mode (the monitor shows "live" images) or *FREEZE* mode (the last images frozen appear on the monitor), more precisely:
1- LIVE status in multi image mode
2 - FREEZE status in multi image mode
3 - LIVE status in single image mode
4 - FREEZE status in single image mode.

***NOTE:** If the camera is in LIVE mode, the main screen is displayed when the instrument is put back in place.*
If the camera is in FREEZE mode, the relative menu remains on the monitor when the instrument is put back into place.

• The main icon buttons available on the TOUCH DISPLAY are the following:

Camera LED on/off

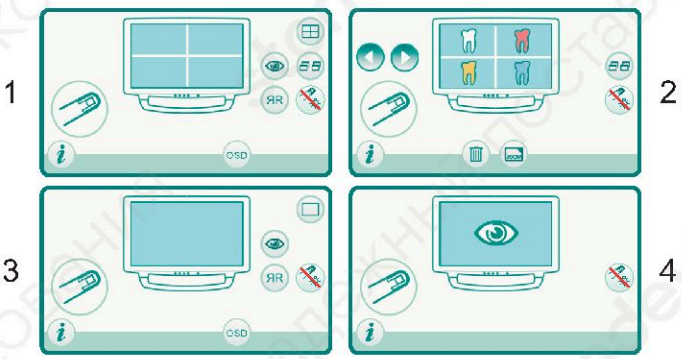
MIRROR function activation/deactivation

Multiple image or single image operating mode selection

OSD control panel access

Image storage page selection (only with multiple image operation)

Frozen image display

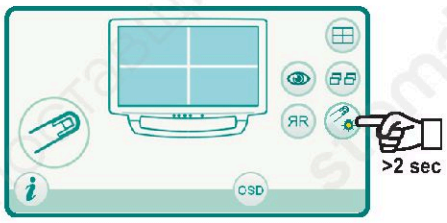


***NOTE:** for an explanation of the other icon buttons viewable, refer to the paragraphs relating to the various operating modes.*

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• Briefly press the foot control to stop from 1 to 16 images divided in 4 pages on the monitor.

NOTE: *The images shown on the monitor by the camera are only temporarily saved. To permanently save the images, connect the camera to a PC that complies to standard IEC 60950 which has a USB 2.0 HIGH SPEED port and image software program.*



Camera LED on.
Touching the icon button you can turn the camera LED on and off.
The active mode icon is shown on the TOUCH DISPLAY:

LED off

LED on

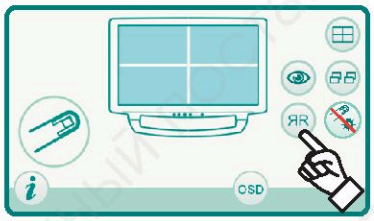


If necessary, access brightness adjustment by touching and holding (for at least 2 seconds) the icon button and then adjust the brightness using the icon buttons or .
To confirm the brightness selected, exit this submenu by touching the icon button ESC .

MIRROR function.
By touching the icon button it is possible to move from the real image view to the mirror one.
The active mode icon is shown on the TOUCH DISPLAY:

Real image

Mirror image

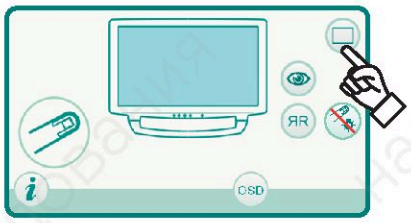


NOTE: *This function can only be used in LIVE mode.*

Setting operation in single image or multiple image mode.
With the camera activated and in LIVE mode, touching the icon button you can switch between single image and multiple image mode.
The active mode icon is shown on the TOUCH DISPLAY:

Single image mode active

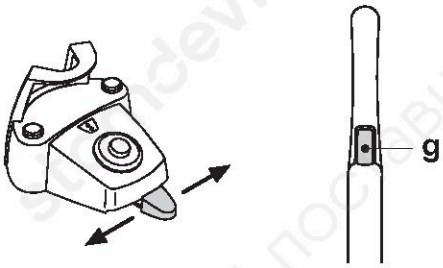
Multiple image mode active



NOTE: *activation of multiple image mode is also indicated on the display by a dedicated icon in the top right corner.*

"FREEZE" function.
This camera allows images to be frozen on the monitor.
This function can be activated in different ways:
• With the foot control (see paragraph 5.2.).
• By tapping the touch button [**g**] on the camera's handpiece.

In order to go back to the "live" image, simply tap the button again or actuate the foot control.
These images can be displayed in two different ways: single image or multi image.
In the latter mode, the screen is divided into four parts and 4 frozen images are displayed simultaneously.

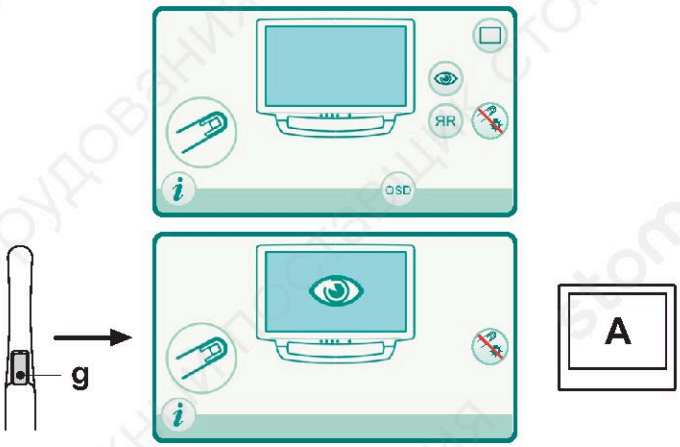


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Operation in single image mode.
Take out the camera in *LIVE* mode and set to single image mode, the "live" image appears on the monitor:

- Tap the touch button [**g**] on the camera's handpiece (or actuate the foot control) to freeze the image which is immediately displayed on the monitor, deleting any previous images.
- Touching the icon button the last frozen image is displayed.

NOTE: *The last image frozen remains on the monitor even if the camera is put back in place.*



Operation in multiple image mode
Extracting the camera in LIVE mode and in multiple image mode, a "moving" image is shown on the display, and in the top right corner the icon with the number of the active storage page appears (e.g. 1):

- Touch the icon button to move from one to the next of the 4 storage pages available.
- Touch the icon button to view the 4 images already stored on the storage page selected.

NOTE: *the number of the page selected is shown in the centre of the monitor.*

- Image storage: pressing the touch-activated button [g] on the camera handpiece (or activating the pedal control), the image is frozen and shown directly on the monitor putting it in the first free box (e.g. A) of the page active at that moment.
  Each subsequent frozen image is put in the next box going clockwise.

NOTE: *once the 4 available boxes have been filled, each subsequent frozen image will replace the existing ones again going clockwise.*

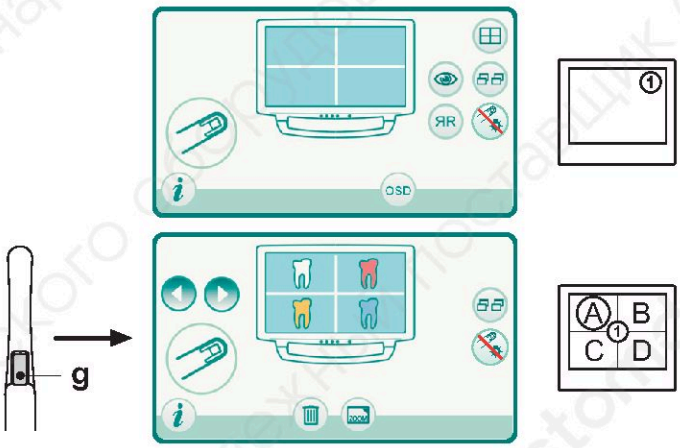
NOTE: *to store other images without deleting the previous ones, touch the button and to move to the next active storage page.*

- During display (FREEZE status):
  - Touching the icon button the 4 available pages are displayed in succession,
  - Touching the icon buttons or you can select one of the 4 images on the page displayed,
  - Touching the icon button the selected image is displayed full-screen.

NOTE: *touching the icon button again, you go back to display of 4 images.*

  - Touching the icon button the selected image is deleted.

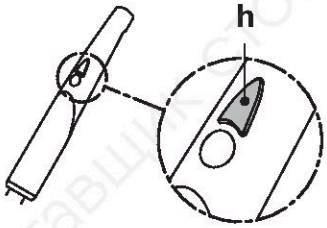
NOTE: *Touch the icon button for 3 seconds to delete all 4 images on the page displayed.*



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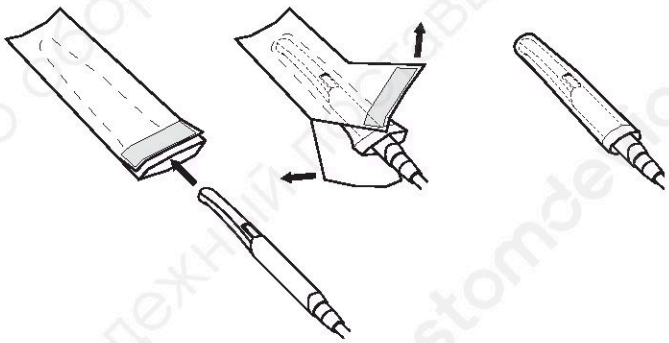
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Handpiece status.
An optical guide, illuminated by a multicolour LED indicator, found in the area near the control button (h), shows handpiece status as per the table given below:



Color	Situation
Blue light fl ashes, very slowly	Handpiece in standby
Light blue steady light	Handpiece activated, live images displayed
Blue/ light blue fl ashing light	Handpiece in image freeze mode
Brief red fl ashes	Internal error: contact Customer Service

MyRay Capture
This program allows the C-U2 camera to be set up when it is connected to a PC/WORKSTATION.
For a full description on how the MyRay iCapture program works, refer to the instructions, in electronic format, supplied with the C-U2 handpiece.



Disposable infection control sheaths
The camera can be a vehicle of cross-contamination between patients.
For this reason always use it with a disposable infection control sheath (code 97901590) and disinfect it on the outside after use everyday .
The sheath (with white paper backing) is enclosed in two protective layers: a transparent one with blue tab at the front and a paper one at the back.
Follow the directions below to install a new infection control sheath:

1. Insert the camera handpiece tip between the layer with white tab and the rear paper backing. The lens, surrounded by the LEDS, must face downwards towards the rear paper layer. Gently push the handpiece to the end of the sheath.
2. Pull the blue tab removing the protective covers.
3. The dental camera is now protected and ready for use.

WARNING!
- **Always make certain the handpiece is correctly inserted inside the infection control sheath.**
- **To assure hygienic conditions for the users and patients, the disposable infection control sheaths must be changed after each use.**
- **Disposal: the disposable infection control sheaths are to be treated as special waste materials (like surgical gloves).**

Cleaning and disinfecting
Clean the handpiece with a suitable product after each use: refer to Paragraph 1.4.

WARNING!
- **The intraoral camera is not designed for cold disinfection by being soaked, for example in solutions such as glutharaldeide or hydrogen peroxide.**
- **All products must be used as directed by the manufacturer.**
- **All material used to clean and disinfect must be thrown away.**

Maintenance and repairs
The C-U2 camera system does not require any particular maintenance.
In the event of malfunctions, please send back the complete handpiece.

WARNING!
There are no parts that can be repaired on site. In the event of a malfunction, please contact an authorized dealer.

Returning parts.
- Please send back any defective devices in their original packaging. Do not reuse damaged boxes.
- The device must be disinfected before being shipped to prevent cross-contamination. Handpieces that have not been adequately cleaned and disinfected will not be accepted

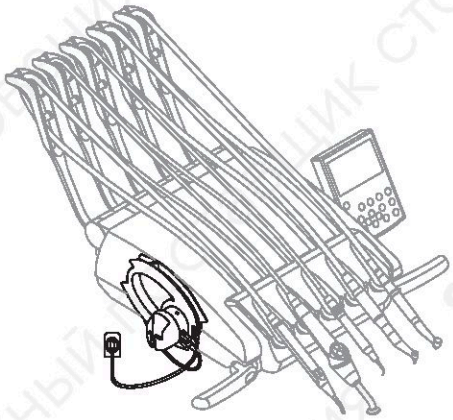
WARNING!
The sender shall be held responsible for any equipment damaged incurred during shipment regardless of whether or not the devices are under warranty.

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5.9. ZEN-Xi integrated sensor

Integrated sensor ZEN-Xi is a medical device employed to acquire intraoral x-rays in an electronic format with a Personal Computer interface device. When used together with dental practice management software, the x-ray pictures can be saved in the patient's folder and viewed on the desktop pc monitor at a later time.



WARNING!
Do not use the system for any other purpose different from acquisition of intraoral x-rays and do not use it if you are not a professional in the dental and radiology fields.

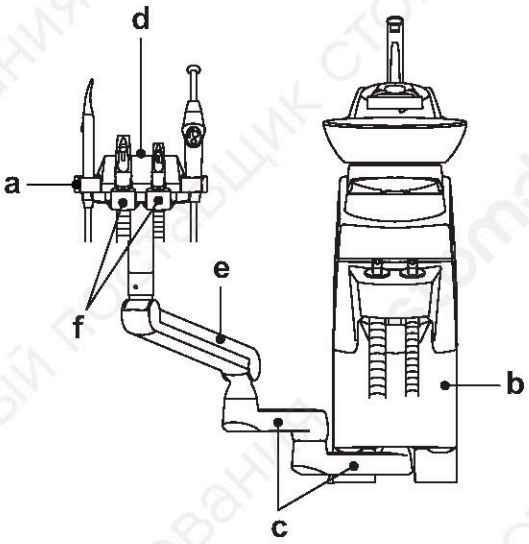
Use.
Use and care instructions for integrated sensor ZEN-Xi are enclosed with the apparatus.

NOTE: *Integrated sensor ZEN-Xi does not interact with the dental unit from an electric point of view.*

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6. Assistant's board operation



Main features:

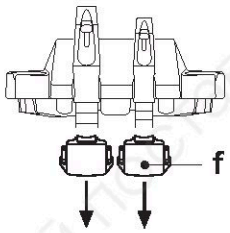
- Two articulated arms secure the board (**a**) to the hydrogroup (**b**) allowing it to be placed in the most convenient work position.
  The fixed arm (**c**) can turn 120° around the bowl.
  The pantograph arm (**e**) allows the assistant's board to be moved 335 mm vertically through 6 work positions.

***NOTE**: to completely lower the assistant's board, simply move it all the way up and then lower it.*

- The assistant's board (**a**) comes with a control console (**d**) with buttons used to operate the dental chair and hydrogroup.
- The assistant's module may be equipped with 2 suction cannulae and 2 instruments.
- The assistant's board comes with sliding rollers (**f**) that guide and hold up the suction tubes.

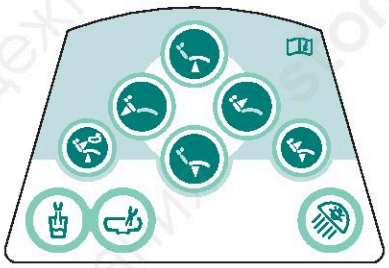
***NOTE**: the assistant's board is equipped with a safety device that locks out dental chair movement when the board's arms are obstructed.*

Cleaning the sliding rollers.
Push down and take off the sliding rollers (**f**).
Clean the sliding rollers using a suitable product: refer to Paragraph 1.4.



6.1. Assistant's touchpad

Description of the buttons:

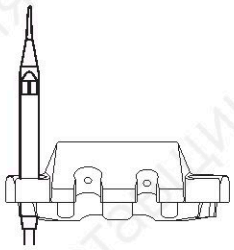


- Operatory light on/off button.
- Water to cup button.
- Water to bowl button.
- Automatic return position recall button.
- Rinse position button.
- Chair seat up.
- Chair back up.
- Chair seat down.
- Chair back down.

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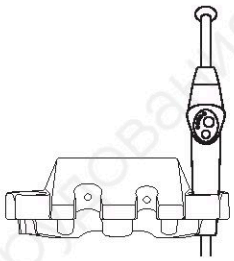
6.2. Syringe on assistant's board

For detailed information regarding operation of this instrument see paragraph 5.3.



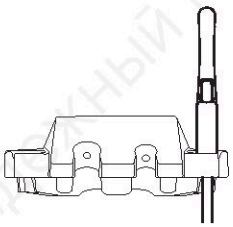
6.3. Curing lamp on assistant's board

For detailed information regarding operation of this instrument see paragraph 5.7.



6.4. Intraoral camera on assistant's board

For detailed information regarding operation of this instrument see paragraph 5.8.

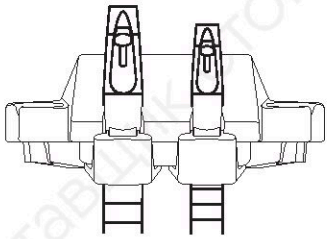


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6.5. Suction tubes

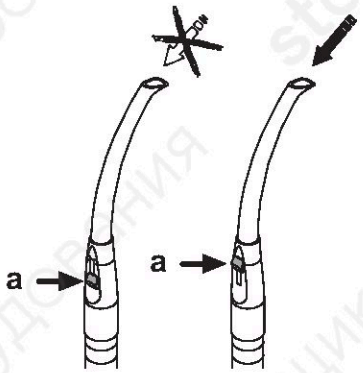
Suction starts by taking the tube off the board. To adjust suction, use the slider (**a**) located on the tube handpiece.



NOTE: *When the tube is put back in place, suction stops approximately 2 seconds later.*
This is done to dry the suction tubes.

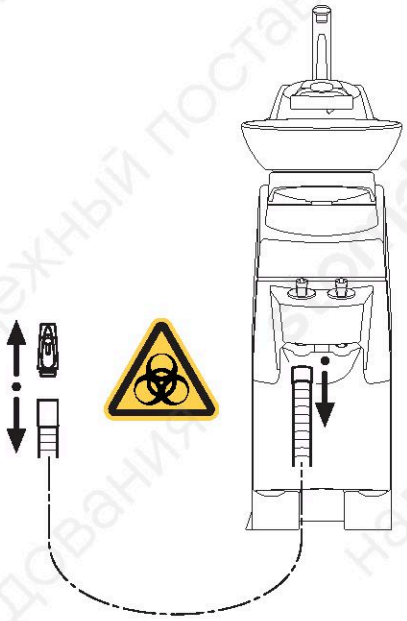
Cleaning the suction tubes.
As the dental units may be equipped with different suction systems (liquid ring or wet, air) carefully follow the instructions provided by the suction system manufacturer when disinfecting the system regarding the product to be used, times and directions for use.

WARNING!
For cleaning of the suction system, it is recommended to use STER 3 PLUS (CEFLA s.c.) diluted in a 6% solution (equivalent to 60 ml of product in 1 litre of water).



Removing the suction tubes.

WARNING!
Always wear gloves to prevent contact with infected material when removing the suction tubes.
Remove the suction tubes from the conveyor fittings by turning and twisting the tube fitting.
Detach the suction tubes from the holders by turning and twisting the tube fitting.



WARNING!
Never directly grasp the suction tube.

Sterilization.
- Cannula holder terminals: can be sterilized in a steam autoclave (see paragraph 1.5.).
- Suction tubes: soak to cold sterilize.

WARNING!
Never use procedures in which the temperature goes over 55 °C with the tubes.

Maintenance.
Periodically lubricate the O-rings of the cannula holder terminals (see Paragraph 9.4.) using S1-Protective Lubricant for O-Rings (CEFLA s.c.).

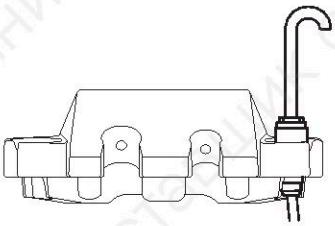
Note about biocompatibility.
Only suction tubes supplied with the dental unit and there after original replacement tubes can be used.
The suction tubes must comply to the standard EN 10993-1 Biological evaluation of medical devices.

ISOLITE suction tube.
For ISOLITE suction tube operation, please refer to the specific use instructions given by the manufacturer.

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6.6. Hydraulic saliva ejector

The hydraulic saliva ejector starts running when the tube is removed from the support.

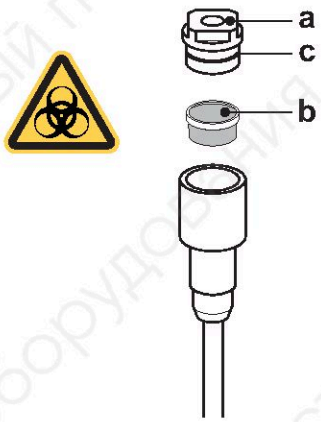


Cleaning after each use.
Aspirate about ½ litre of STER 3 PLUS (CEFLA s.c.) diluted in a 6% solution (equivalent to 60 ml of product in 1 litre of water).

Cleaning the saliva ejector filter
This operation must be carried out at the end of each work day.

WARNING!
Put on gloves before attempting to perform this operation!

- Aspirate about ½ litre of STER 3 PLUS diluted in a 6% solution (equivalent to 60 ml of product in 1 litre of water).
- In order to prevent possible dripping of liquids and secretions from the filter (**b**) to be extracted, aspirate only air for about 5 seconds.
- Take off the cap (**a**) by turning and twisting at the same time.
- Remove the filter (**b**).
- Clean/replace the filter (code 97290060).
- Put the filter and cap back in place.



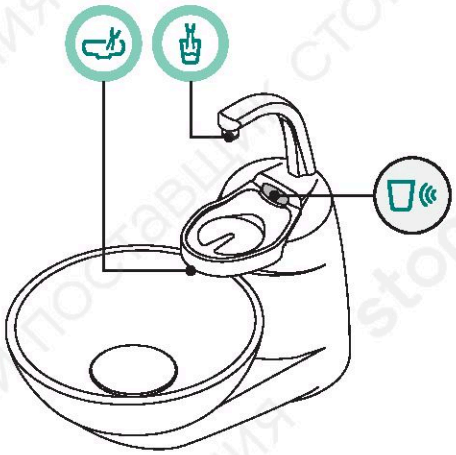
Routine maintenance
Lubricate the o-rings (**c**) with **S1 – Protection for o-rings lubricant**.

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7. Hydrogroup operation

7.1. Fill cup and bowl



The bowl can freely move 305° on the hydrogroup. The bowl may be powered (optional) or can be turned by hand.
The bowl and water to cup spout can be removed to ease cleaning.

Control buttons.

Water to cup button.

Bowl flush button.

Cup sensor.
You can have an optical sensor fitted at the base of the cup fountain, which detects the cup and automatically activates filling.
The sensor operates as follows:
- 2 seconds after positioning the cup under the fountain, it is filled with water for 2 seconds (this time is not modifiable)
- Once the cup has been removed, the filling cycle can be repeated only after 3 seconds
- During the filling cycle, removing the cup and/or pressing the "CUP WATER DELIVERY" button, the water delivery cycle will immediately be interrupted.

NOTE: *to disable the cup sensor see paragraph 5.1.1.2.2.2.*

Adjusting the amount of water used to fill the cup.
See paragraph 5.1.1.2.2.2.

Adjusting the temperature of the water sent to the cup.
See paragraph 5.1.1.2.2.2.

Setting bowl flushing.
Water can be delivered to the bowl either in manual (with the ON/OFF button) or timed.
See paragraph 5.1.1.2.2.1. to set the desired mode of operation and water delivery time.

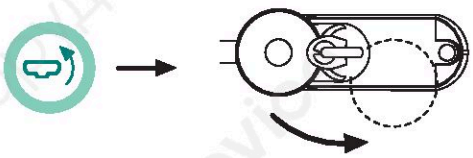
Setting automatic bowl flushing.
The bowl is automatically flushed in the following cases:
- when button "Water to cup" is pressed,
- when button "Dental chair automatic return" is pressed,
- when button 'Rinse position" is pressed.

To change operation see paragraph 5.1.1.2.2.1.

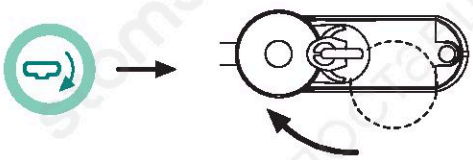
Powered bowl movement.

Bowl counter-clockwise button.

Bowl clockwise button.



NOTE: *the bowl can also be moved directly by hand.*



Automatic bowl motion (only with powered bowl).
The bowl moves automatically in the following cases:
- press button "Dental chair rinse position",

NOTE*: in this case, the position of the bowl can also be set (see paragraph 5.1.2.).*

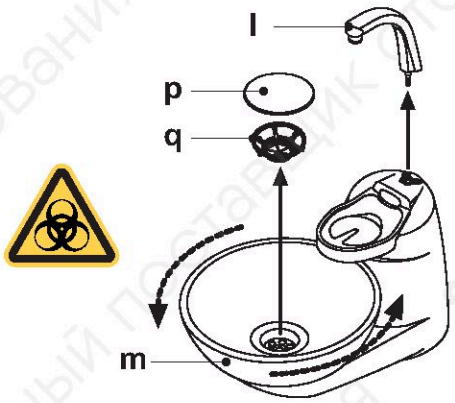
- by pressing button "Dental chair reset position".

See paragraph 5.1.1.2.2.3.for information on how to modify operation.

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Taking off the bowl filter and rinse spout.

- Pull up the spout (**l**) and take it off.
- Pull up the filter (**q**) and its cover (**p**) to remove them.
- Turn the bowl (**m**) counter-clockwise to release it and then pull it up to take it out.



Disinfecting and cleaning.

WARNING!
Always wear gloves to prevent contact with infected material when cleaning the bowl and bowl filter.
The parts are to be cleaned daily at the end of each work day.

- Spouts and bowl: thoroughly wash with a specially formulated cleaner (for example MD 550 Orotol DÜRR).
- Bowl filter: clean with running water and commercially-available cleaning products.

WARNING!
Do not use acids or harsh products.

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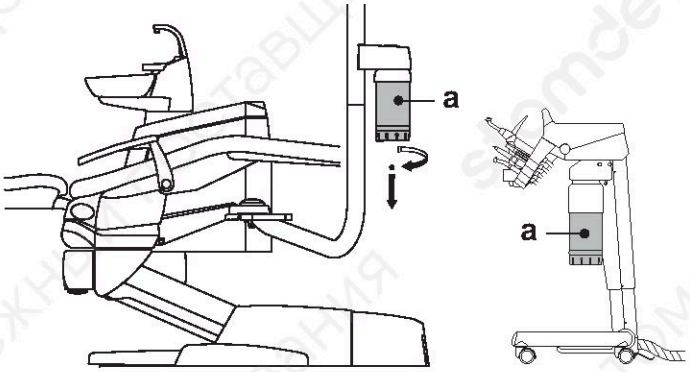
7.2 S.H.S./S system (Semplified Hygienization Sistem)

Models R7 CONTINENTAL, R7 INTERNATIONAL and R7 CART.

Description of the system
The system S.H.S. /S is equipped with a distilled water tank (**a**).
The tank can hold 1.8 liters.
Distilled water is delivered to:
- the sprays of all the instruments found on the instrument and assistant's board.
- the syringe on the assistant's board.
- to fill the cup
- water quick-connect coupler (if present)

The icon button on the TOUCH DISPLAY (see paragraph 5.1.1.2.8.) allows activating/deactivating the SHS/S system.

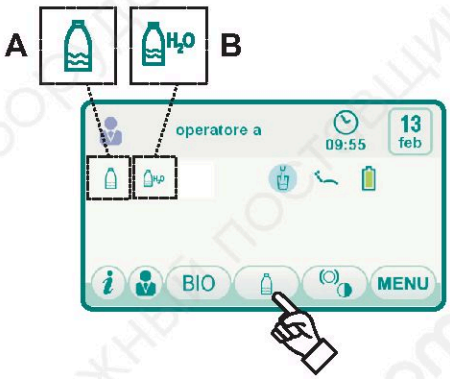
NOTE: *the distilled water delivery status is shown by the icon (**A**) on the control panel display.*



Tank reserve level.
When the liquid in the tank falls below the reserve level, the relative icon (**B**) appears on the instrument board's console.

Filling the tank.
When the water level in the tank is low (about 500 cc), fill it as directed below:
- Deactivate the S.H.S. /S system by tapping the icon button . Check that the icon (**B**) on the console display disappears.

NOTE: during this operation, the pressurized air contained in the tank will automatically be discharged to the outside.
- Turn the tank counter-clockwise (**a**) and remove it.
- Pour distilled water into the tank until the maximum level is reached.



WARNING!
Use only distilled water. For a higher guarantee of hygiene you can add 600 parts per million (ppm) of hydrogen peroxide using 20 ml of Peroxy Ag+ (not available for the American and Canadian markets) per litre of distilled water, or oxygenated water (20 ml of 3% oxygenated water per litre of distilled water).
- Put the tank back in place turning it clockwise.

WARNING!
Make sure that the tank is properly tightened.
- Touch the icon button to re-enable the S.H.S. /S system and confirm that filling is complete. Check that the icon (**A**) appears on the console display.

WARNING!
If you are going to be absent from the surgery for long periods of time (holidays), completely empty out the tank (a) before leaving.

Cleaning the tank.
We suggest cold-sterilizing periodically (at least once a month) only the tank with peracetic acid-based products (for American and Canadian markets we recommend using an EPA-approved product) in the following manner:
- take the tank out of the dental unit and empty it;
- prepare the solution of peracetic acid based product following the instructions provided by the manufacturer;
- fill the tank up to the rim with the peracetic acid based product;
- let the peracetic acid solution soak in the tank for the time stated by the manufacturer;
- empty the peracetic acid solution from the tank;
- rinse the tank with distilled water;
- fill the tank with distilled water and, if necessary, add hydrogen peroxide or oxygenated water as described above;
- put the tank back in place in the dental unit.

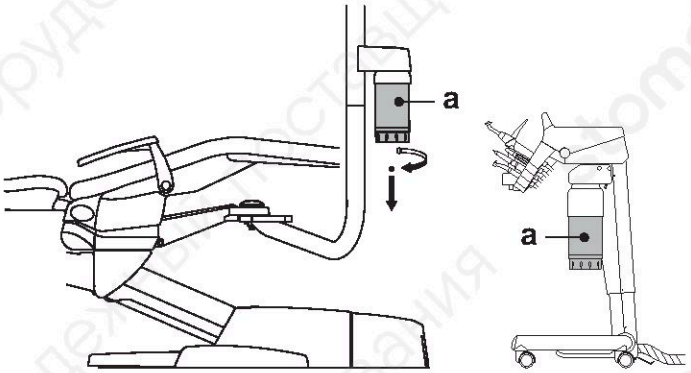
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7.3. Manual SHS system

Models R7 IDRICO SINGOLO, R7 M CONTINENTAL, R7 M INTERNATIONAL, R7 M CART and R7 P.

Description of the system
The system comes with a canister (a), placed on the instrument board support arm, that contains distilled water.
The tank can hold 1.8 liters.
The tank feeds:
- the sprays of all the instruments found on the instrument and assistant's board.
- The syringe on the assistant's board.
- to fill the cup
- water quick-connect coupler (if present)

A by-pass lever (b), placed on the side of the canister, is used to shut off the system if municipal water is to be supplied to the instruments.



WARNING!
With the manual SHS system, the tank reserve (a) and SHS system active/inactive warning icons are not shown on the TOUCH DISPLAY.

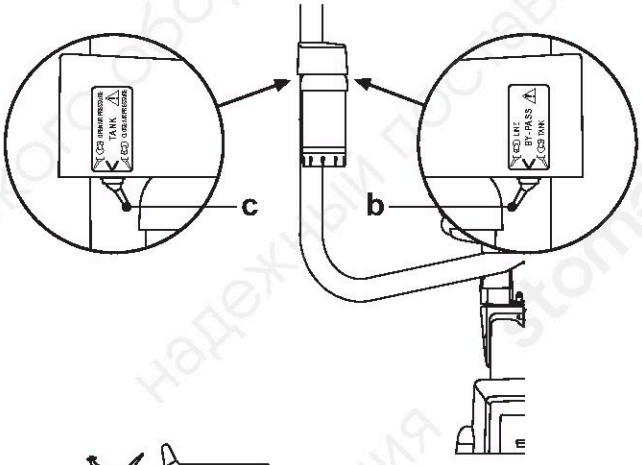
This system allows running a disinfection cycle for the instrument spray ducts (see paragraph 7.3.1.).

WARNING!
Perform a disinfecting cycle at the end of each work day.

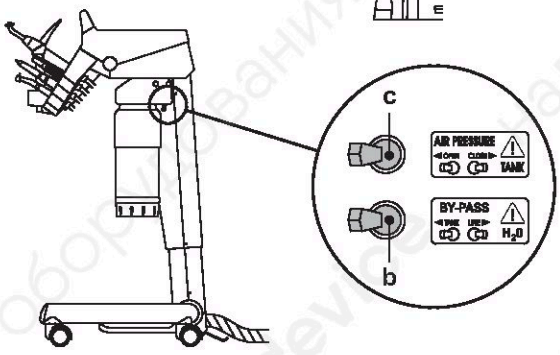
Filling the tank.
When the water level in the tank is low (about 500 cc), fill it as directed below:
- Turn the switch (**c**) to "CLOSE AIR PRESSURE".
- Turn the tank counter-clockwise and remove the tank (**a**).

NOTE: *while this operation is being performed, the pressurised air in the tank is automatically released outside.*
- Pour distilled water into the tank until the maximum level is reached.

WARNING!
Use only distilled water. For a higher guarantee of hygiene you can add 600 parts per million (ppm) of hydrogen peroxide using 20 ml of Peroxy Ag+ (not available for the American and Canadian markets) per litre of distilled water, or oxygenated water (20 ml of 3% oxygenated water per litre of distilled water).
- Put the tank back in place turning it clockwise.
- Turn the toggle (**c**) to position "OPEN AIR PRESSURE".



WARNING!
- **Assure the tank is firmly secured in place before switching the toggle (c) to position "OPEN AIR PRESSURE".**
- **When you are going to be away from the office for an extended period of time (holiday), always empty the hydrogen peroxide tank (a) before leaving.**



BY-PASS function
The system can be shut off if municipal water is to be delivered to the instruments.
This function is obtained by turning switch (b), beside the canister, to position "LINE".
Turn the toggle (**b**) to position "TANK" to go back to working with distilled water.

Cleaning the tank.
We suggest cold-sterilizing periodically (at least once a month) only the tank with peracetic acid-based products (for American and Canadian markets we recommend using an EPA-approved product) in the following manner:
- take the tank out of the dental unit and empty it,
- fill the tank with disinfectant liquid up to the rim,
- leave the disinfectant liquid to dwell in the tank for at least 10 minutes,
- completely empty out the tank,
- rinse the tank with distilled water,
- fill the tank with distilled water and, if necessary, add hydrogen peroxide or oxygenated water as described above,
- put the tank back in place in the dental unit.

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7.3.1. Disinfection cycle with oxygenated water

With the S.H.S. system, you can execute a manual disinfection cycle of the water ducts of all the instruments on the dentist's instrument board and the syringe on the assistant's board using oxygenated water (hydrogen peroxide).

To disinfect, proceed as directed below:

A) ***Prepare the disinfectant:***

- Pour undiluted PEROXY Ag+ (not available for the American and Canadian markets) (or 3% oxygenated water) into the tank marked with an orange band.

NOTE: *make sure that the tank is completely filled.*

B) ***Putting in the disinfectant:***

- Check that the spray tap of each dynamic instrument is completely open (if not, no or too little water will come out).
- Make sure the spray cocks (**c**) found towards the bottom of the board, are open (if they are not, either very little or no water at all will flow out).
- Take out the bottle of distilled water (**a**) turning it clockwise.
- Replace the bottle of distilled water (**a**) with the one containing disinfectant.
- Remove the syringe and empty the duct with the water button.

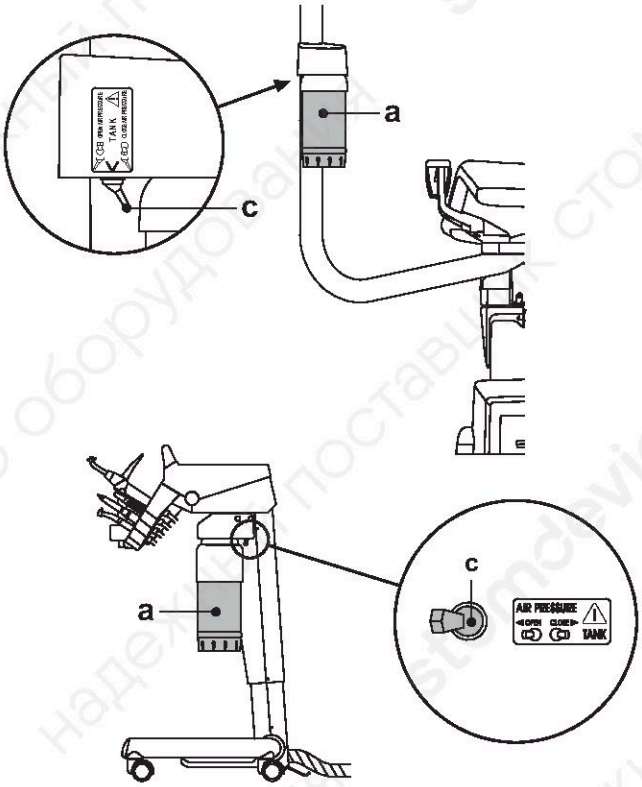
NOTE: *when emptying is complete, no water will come out of the duct.*

- Repeat the same procedure for the syringe on the assistant's board (with the water key). Use the Water clean system with the foot control for the remaining dynamic instruments (see paragraph 5.2).
- Turn the toggle (**c**) to position "OPEN AIR PRESSURE".
- Remove the instruments and fill the ducts with the hydrogen peroxide solution. Use the Water clean system with the foot control for the dynamic instruments and the water button for the syringes.

NOTE: *let the disinfectant flow from the instruments for about 6-7 seconds.*

- Put the instruments back in place.

NOTE: *at this point, the ducts contain the disinfectant.*



C) ***Putting in disinfectant***

WARNING!
The disinfectant must be left to dwell in the ducts for at least 10 minutes, but not more than 30 minutes.

D) ***Rinsing the ducts:***

- Turn the toggle (**c**) to position "CLOSE AIR PRESSURE".
- Unscrew the bottle (**a**) containing the disinfectant turning it clockwise.
- Put in the bottle containing distilled water.
- Remove the syringe and empty the water duct.

NOTE: *when emptying is complete, no water will come out of the duct.*

- Repeat the same procedure to drain the hydrogen peroxide from the ducts for the various instruments.
- Turn the toggle (**c**) to position "OPEN AIR PRESSURE".
- Remove the instruments and wait for distilled water to flow out. Use the Water clean system (see paragraph 5.2) with the foot control for the dynamic instruments and the water button for the syringes.

NOTE: *allow water to flow out approximately 6-7 seconds.*

- At this point, the ducts contain distilled water again and the dental unit is ready to be used.

WARNING!
• After disinfection, make sure that you close the tank containing the disinfectant (exposed to air, it loses its effectiveness).
• It is good practice to perform a disinfection cycle at least once a day, preferably at the end of the day.

PEROXY Ag+ storage.
For proper storage of **PEROXY Ag+** follow the manufacturer's instructions printed on the package.
It is important to keep the package tightly closed and store it in a cool place at a temperature not exceeding 25°C.

WARNING!
Never leave PEROXY Ag+ or oxygenated water in the tank marked with an orange band for more than one month.
In case of long absences from the studio (holidays), completely empty out the tank marked with an orange band before leaving.

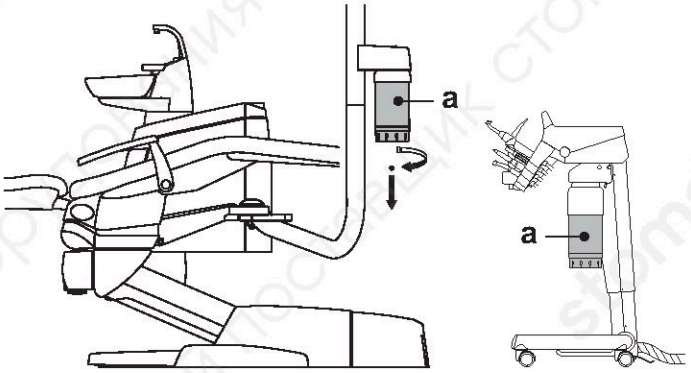
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7.4. BIOSTER/S automatic disinfection system

Models R7 CONTINENTAL, R7 INTERNATIONAL and R7 CART.

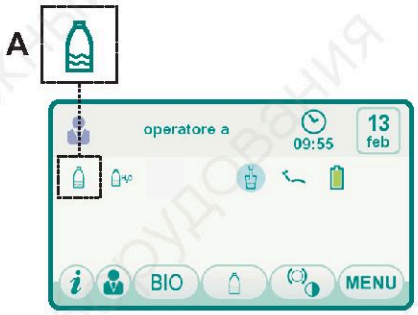
Description of the system.
The BIOSTER S system allows running a disinfection cycle of the water ducts of all the instruments on the dentist's instrument board, of a dynamic instrument on the assistant's board and of the cup water delivery ducts.

To run the disinfection cycle, operate as follows:



A) *Preparing the disinfectant solution:*
- Pour undiluted PEROXY Ag+ (not available for the American and Canadian markets) (or 3% oxygenated water) into the tank marked with an orange band.

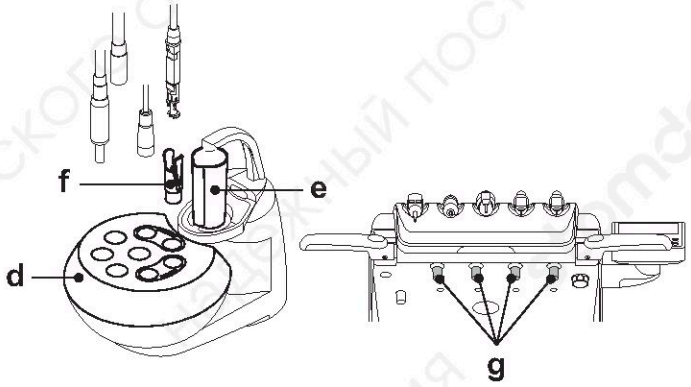
NOTE: *Make sure that the tank is completely filled.*



B) *Setting the BIOSTER S cycle:*
- Replace the tank (**a**) with the tank containing the disinfectant and activate the S.H.S./S system (see paragraph 7.2.).

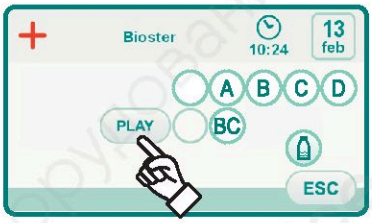
NOTE: *the BIOSTER/ S cycle can only be activated if the SHS/S system is enabled (icon A on).*
- Using the TOUCH DISPLAY, access the "BIOSTER disinfection cycle setting" menu (see paragraph 5.1.1.2.1.1.).
- Place the container (**d**) of the instruments to be disinfected over the bowl.
- Put the cords of the instruments to be disinfected in the container.

WARNING!
Use the adapter (f) provided for the syringe. The heater should be turned off.
The syringe on the assistant's board cannot be disinfected using the BIOSTER S cycle.
The micromotor cord must be completed with motor body.
Turbine and scaler cords must be inserted without the handpiece.
- If the water to cup ducts need to be disinfected, place the container (**e**) provided under the cup spout.
- Make sure the spray cocks (**g**) found under the instrument board are open.



C) *Executing the BIOSTER S cycle:*
- Start the flushing cycle by touching the icon button PLAY on the TOUCH DISPLAY
- The first automatic phase consists of filling the water ducts with disinfectant.

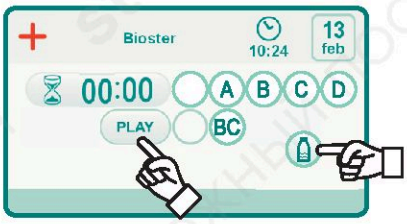
NOTE: *in the first 5 seconds the disinfectant is also delivered by the cup water fountain.*
- The time remaining to the end of the filling phase (duration: 30 seconds) is shown on the TOUCH DISPLAY.
- At the end of the water duct filling phase, 1 beep is emitted and a timer appears on the TOUCH DISPLAY, which indicates the disinfectant contact time.



D) *Disinfectant contact time:*
- The contact time is fixed and cannot be modified: 600 seconds.
- At the end of the disinfectant contact phase, an acoustic signal is emitted for 1 minute (1 beep every second).

E) Duct rinsing phase
- If you want to rinse the ducts with distilled water, replace the tank (a) containing the disinfectant liquid with the original tank containing distilled water and activate the SHS/S system by tapping the icon button .
- Start the duct rinsing phase by tapping the icon button PLAY on the TOUCH DISPLAY.
- The time remaining to the end of the rinsing phase (duration: 120 seconds) is shown on the TOUCH DISPLAY.

NOTE: *in the first 20 seconds the liquid is also delivered by the cup water fountain.*
- At the end of the rinsing phase (the TOUCH DISPLAY shows the message "End of cycle: replace instrument") it is sufficient to replace the extracted instruments to go back to the working condition.



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Interrupting the disinfection cycle.
The syringe on the assistant's board cannot be disinfected using the BIOSTER S cycle. ESC.

NOTE: *once the cycle has been activated, it CANNOT be interrupted.*

PEROXY Ag+ storage.
For proper storage of PEROXY Ag+ follow the manufacturer's instructions printed on the package.
It is important to keep the package tightly closed and store it in a cool place at a temperature not exceeding 25°C.

WARNING!
Never leave PEROXY Ag+ or oxygenated water in the tank (a) for longer than one month.
If you are going to be absent from the surgery for long periods of time (holidays), completely empty out the tank (a) before leaving.

NOTE: *to empty the tank, it is advisable to use a suction cannula.*

Error messages shown on the console display.
If the system detects a malfunction, a fault message appears on the display screen (see paragraph 10.).

WARNING!
If the disinfecting cycle is incorrectly interrupted, the equipment will shutdown until either the disinfecting cycle is performed again or the washing cycle is carried out.

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7.5. Automatic instrument FLUSHING CYCLE (FLUSHING)

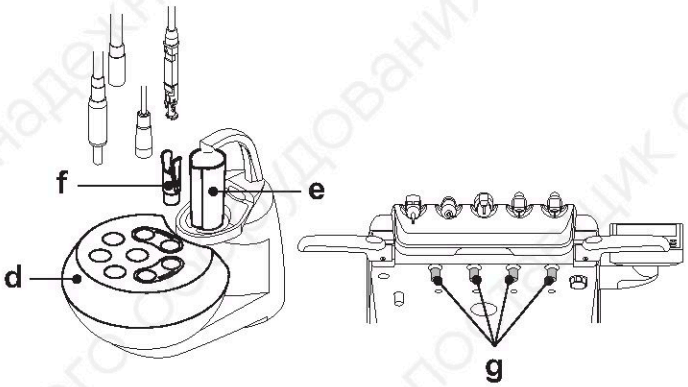
Description of the system.
The automatic FLUSHING cycle allows to carry out an automatic flushing cycle to renew water present in the water ducts of the instruments on the dentist's and the assistant's boards and the water-to-cup duct.
Flushing may be carried out with mains water, treated water or distilled water (if the S.H.S. system is present).
The cycle duration can be set up from 1 to 5 minutes.

⚠ WARNING!
It is advisable to carry out a FLUSHING cycle at the beginning of each working day and between two patients.

Setting the FLUSHING cycle.
- If the S.H.S./S system is present and you want to execute the flushing cycle with distilled water, check that the relative icon (**A**) on the console display is on (see paragraph 7.2.).
  If the manual SHS system is present and you want to run the flushing cycle with distilled water, check that the bypass lever is in TANK position (see paragraph 7.3.).

☞ ***NOTE:*** *it is advisable to execute the flushing cycle with a full tank of distilled water.*
- By using the TOUCH DISPLAY, enter the "FLUSHING cycle setting" menu and set the cycle duration (see paragraph 5.1.1.2.1.2.).
- Position the container (**d**) for the instruments to be disinfected on the bowl.
- Insert the tubings of the instruments to be disinfected in the container.

⚠ WARNING!
Use the adapter [f] provided for the syringe. The heater should be turned off.
The micromotor should be put in without the handpiece.
Turbine and scaler cords must be inserted without the handpiece.
- Make sure that the spray taps (**g**) in the lower part of the dentist's instrument board are open.
- Insert the special supplied container (e) under the cup spout.



FLUSHING cycle setting.
- Start the flushing cycle by touching the icon button PLAY on the TOUCH DISPLAY (see paragraph 5.1.1.2.1.2.).
- At the end of the flushing cycle (the display shows the message "End of cycle: put back instruments"), put the instruments extracted back into place to return to the working condition.



Interruption of the FLUSHING cycle.
You can interrupt the flushing cycle at any time STOP by touching the icon button and return to the initial cycle setting menu.



Error messages shown on the console display.
If the system detects a malfunction, a fault message appears on the display screen (see paragraph 10.).

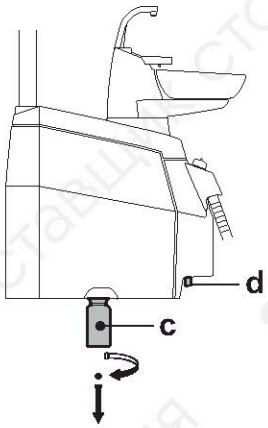
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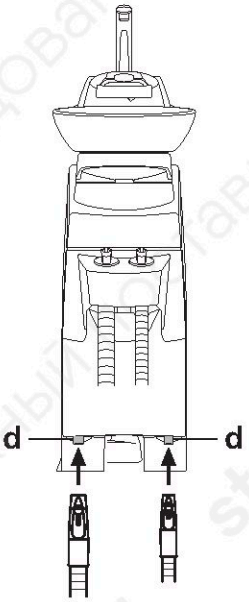
7.6. ACVS system (Automatic Cleaning Vacuum System)

Description of the system.
This system allows cleaning the surgical suction system.
The system comes with a tank (**c**) that contains the liquid disinfectant and two fittings (**d**) used to wash the suction tubes.
The detergent liquid tank has a total capacity of 250 cc.
The washing cycle is automatically carried out and should usually be performed at the end of each surgical procedure and whenever the dental unit is cleaned and disinfected.

WARNING!
It is recommended to use STER 3 PLUS (CEFLA s.c.) as detergent liquid, diluted in a 6% solution (equivalent to 60 ml of product in 1 litre of water).



How to start the washing cycle.
To start the washing cycle, follow the directions given below:
- Check that the tank (**c**) contains the detergent liquid.
- Remove both suction tube terminals from the assistant's board, making sure the suction motor starts running.
- Open the mechanical closing of the suction tube terminals.
- Insert the terminals in the fittings (**d**) found under the manifold.
  The vacuum created by the Venutri meters triggers the washing cycle.
- Washing cycle stages:
  - deliver municipal water for 50 sec. using intermittent operation (2 sec. ON - 1 sec. OFF):
  - stop the water flow and let in 10 cc of liquid disinfectant;
  - stop letting in liquid disinfectant and continue sucking for 10 sec.
- The washing cycle ends when the suction flow is interrupted and the motor stops running.
  "Put the suction tubes back in place" appears on the display.
- At this point, put the ends of the suction tubes in the supports on the assistant's board to go back to the work conditions.



Filling the tank.

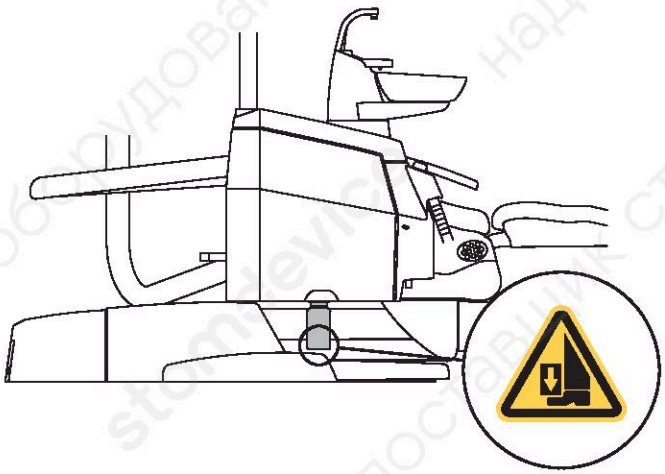
If the detergent liquid in the tank (**c**) is below the minimum level, act as follows:
- Position the dental chair at maximum height.
- Remove the tank by turning it anticlockwise.
- Pour the detergent liquid into the tank until it is full.
- Refit the tank by turning it clockwise.

Stopping the washing cycle.
If the system detects a malfunction, a fault message appears on the display screen (see paragraph 10.).

NOTE: *Once the problem has been solved, the washing cycle automatically restarts.*

Warnings for use.

WARNING: FOOT CRUSHING HAZARD
Pay attention to the patient and the staff during dental chair descent.



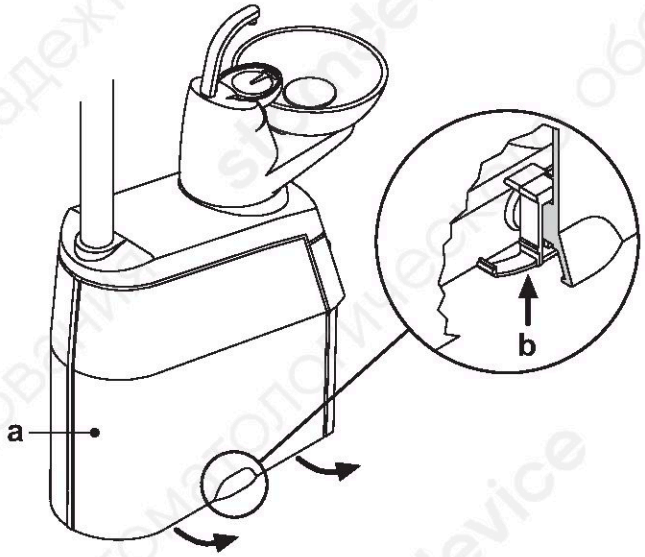
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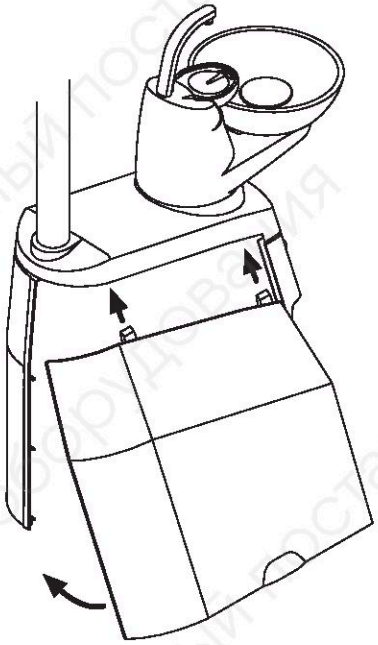
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7.7. Opening/closing the side hydrogroup cover

Opening the cover.
• Open the cover on the side of the hydrogroup (**a**) after pushing up and releasing the lock lever (**b**).

Closing the cover.
• Put on the cover making sure the two locks are inserted in the notches in the hydrogroup.
• Lastly, bring the bottom of the cover near the hydrogroup frame to engage the lock lever again.





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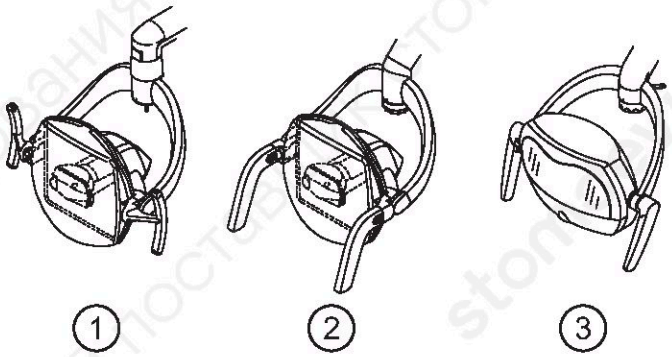
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8. Accessories

8.1. Operating lamp

The operating lamp comes in 3 models:

1. **Lamp with halogen light source – model VENUS.**
2. **Lamp with halogen light source – model VENUS PLUS.**
3. **Lamp with LED light source – model VENUS PLUS-L.**

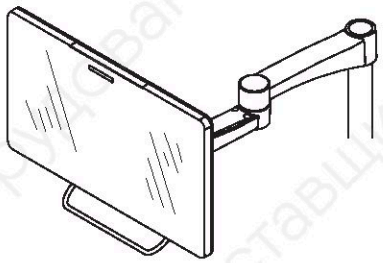


The instructions for use and maintenance of the lamps are available in PDF format and can be downloaded from the download area of the website www.anthos.com.

NOTE: *During the automatic movements of the dental chair, the lamp automatically turns off to prevent blinding the patient.*

8.2. Monitor on lamp pole

The instructions for use and maintenance of the monitor are provided with the device.

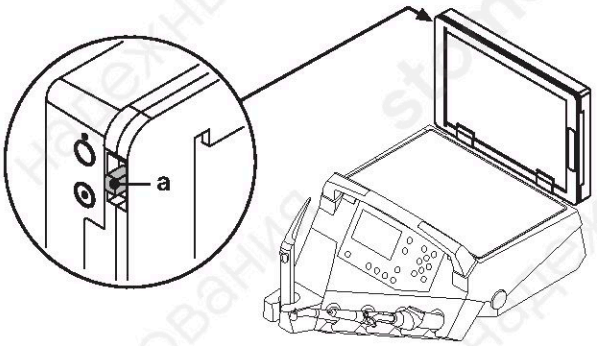


8.3. Negatoscope for panoramas

An x-ray film viewer for panoramic x-rays can be mounted on all INTERNATIONAL version instrument boards.
The screen dimensions are as follows: H=210mm, L=300mm.
Per accendere il negatoscopio è sufficiente agire sull'apposito interruttore (**a**):

= negatoscope on

= negatoscope off



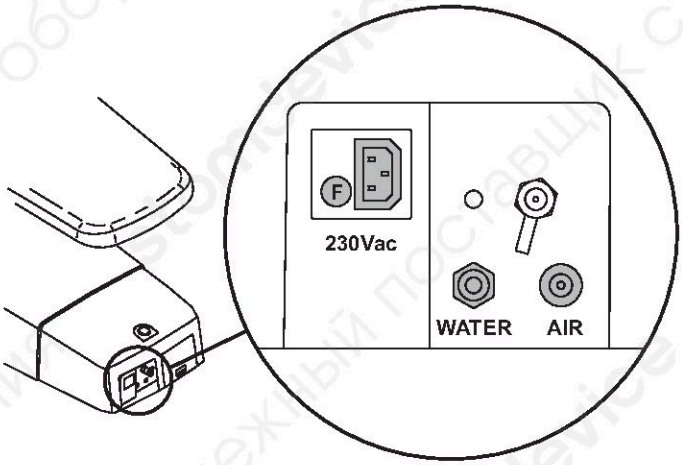
8.4. Air/water/230V quick-connect couplers

The air/water/230V quick-connect couplers are placed to the side of the electrical box.

WARNING!
Shut off the equipment before attempting to connect or disconnect the air/water outlets.

Technical specifications.
- Power outlet: 230VAC 2A in accordance with IEC/EN 60320-2-2/F (only on dental units with 230 VAC power supply).
- Air quick-connect coupler pressure: 6 Bar.
- Water quick-connect coupler pressure:
  - municipal water, 2.5 Bar
  - with S.H.S. system, 1,8 Bar
- Water quick-connect coupler delivery rate:
  - municipal water, 1800 ml/min
  - with S.H.S. system, 950 ml/min

NOTE: *with S.H.S. system: to use the quick-coupling with mains water, disable the distilled water tank (see Paragraph 7.2 - 7.3).*



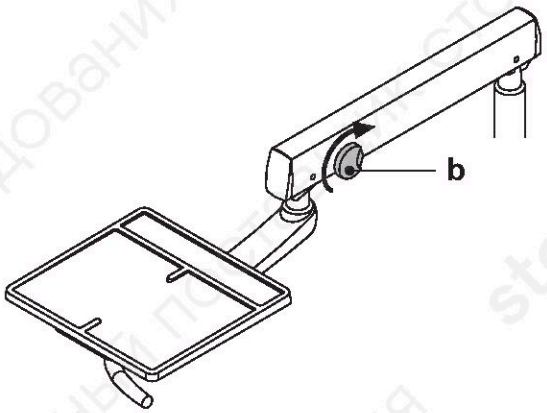
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8.5. Auxiliary tray holder

Models R7 CART, R7 M CART, and R7 P.

The instrument tray holder can hold two standard size trays.
Turn the knob **(b)** to adjust vertical movement according to the weight.
- turn clockwise to increase resistance (heavy loads).
- turn counter-clockwise to decrease resistance (light loads).



⚠ WARNING!
Maximum allowable load on tray 3.5 Kg (no x-ray film viewer) or 2.5 Kg (with x-ray film viewer)

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9. Maintenance

Preventive maintenance

CEFLA s.c., the manufacturer of the dental units, in accordance with applicable standards IEC 60601-1 3.a Ed. - 2007, IEC 62353 and directive MDD 93/42, and subsequent changes, for medial devices underlines that the preventive maintenance checks for the dental unit specified in the Technical care manual and Maintenance and warranty handbook are to be carried out by authorised personnel at least once every 12 months.

ATTENZIONE!

The warranty is void if the equipment is serviced, repaired, altered or modified in any way by personnel who have not been duly authorized by CEFLA s.c..

Safety checks.

In accordance with standard IEC 62353, the safety checks specified in the Technical care manual and Maintenance and warranty handbook supplied with the dental unit are to be carried out at the intervals required by current local regulations. If no precise indications are given, CEFLA s.c., the manufacturer of the dental units, recommends checking them at least every 24 months at the time of installation and whenever electrical parts that are live are repaired/updated.

WARNING!

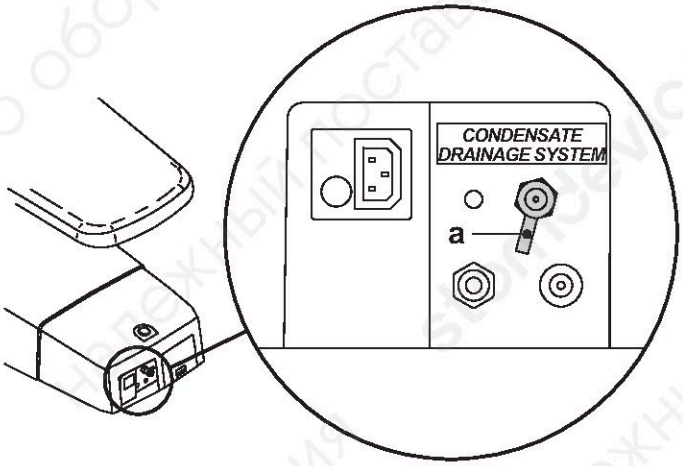
The manufacturer shall not be held liable for any personal injury or equipment damage if the precautions given above are not observed.

9.1. Instrument maintenance

Maintenance instructions for the instruments are enclosed with each instrument.

WARNING!

Maintenance of the instruments should be carried out with the equipment shut off.



9.2. Draining condensate

This operation should be done daily before starting work.
Proceed as follows:
- put a container under the cock (**a**) found below the hydrogroup,
- loosen the cock's knob,
- after the tank has been emptied, fully close the cock.

9.3. Cleaning the surgical suction filter

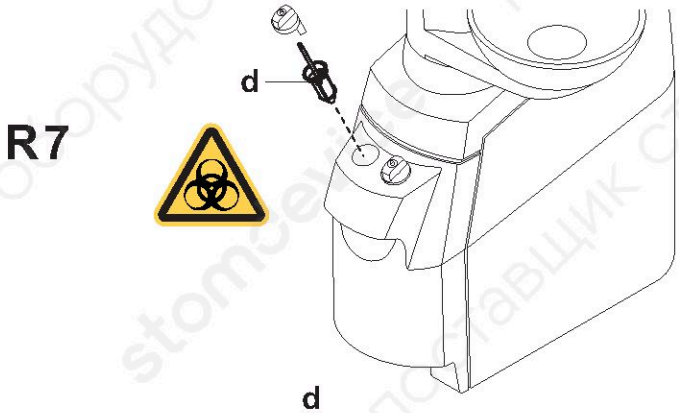
This operation should be done daily at the end of work.

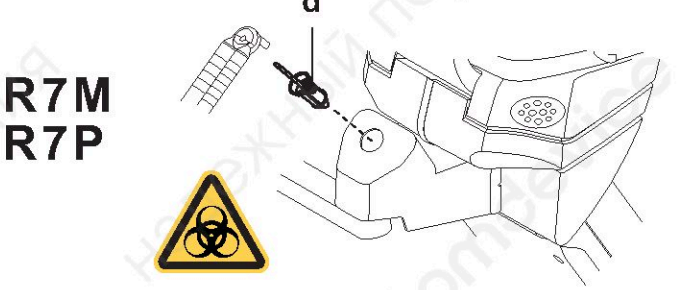
WARNING!

Always wear gloves to prevent contact with infected material when cleaning the suction filters.

Proceed as follows:
- Take out the filter (**d**).
- Clean/replace the filter (code 97461845).
- Put the filter back in place being careful to removing any amalgam still present at the filter housing's entrance.

NOTE: *To prevent liquids and matter from dripping from the filter taken out, perform the operations given above with the suction tube running.*

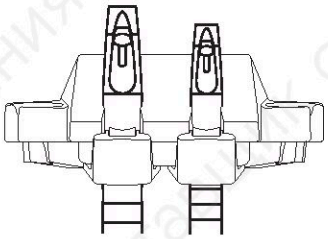




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9.4. Surgical suction

The surgical suction system must be sanitized using a product suitable for this purpose.



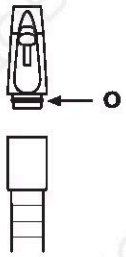
⚠ WARNING!
For cleaning of the suction system, it is recommended to use STER 3 PLUS (CEFLA s.c.) diluted in a 6% solution (equivalent to 60 ml of product in 1 litre of water).

At the end of each surgical procedure.
- Execute an automatic flushing cycle or aspirate about ½ litre of sanitizing solution with each of the cannulas used.
- Sterilize the cannula holder terminals in steam autoclave (see paragraph 1.5.).

At the end of each work day.
- Draw in 1 liter of water with each suction tube, alternating water and air (keep the suction tube alternately in and out of the water).
- After rinsing with water, execute an automatic flushing cycle or aspirate about ½ litre of sanitizing solution with each of the cannulas used.

⚠ WARNING!
Whatever sanitizing product you use, follow the instructions given by the manufacturer.

NOTE: *After these operations, it is advisable to aspirate only air in order to dry the entire suction system (5 minutes).*



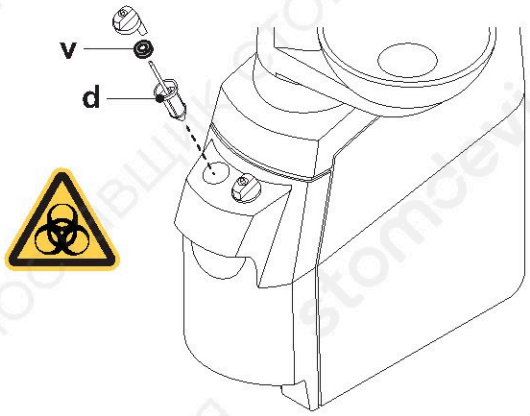
Once a week.
Remove the cannula body from its cord attachment and lubricate the O-rings (**o**) using **S1-Protective Lubricant for O-Rings** (CEFLA s.c.).

Once a year.
Replace the suction tubes and ends of the tube holder.

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9.5. CATTANI surgical separator



At the beginning of each work day.
Insert inside filter (**d**) a tablet (**v**) of VF CONTROL PLUS (CEFLA s.c.)

WARNING!
Always wear gloves to prevent contact with infected material when carrying out this operation.

At the end of each surgical procedure.
- Execute an automatic flushing cycle or aspirate about ½ litre of sanitizing solution with each of the cannulas used.
- Sterilize the cannula holder terminals in steam autoclave (see paragraph 1.5.).

At the end of each work day.
- Draw in 1 liter of water with each suction tube, alternating water and air (keep the suction tube alternately in and out of the water).
- After rinsing with water, execute an automatic flushing cycle or aspirate about ½ litre of sanitizing solution with each of the cannulas used.

NOTE: *After these operations, it is advisable to aspirate only air in order to dry the entire suction system (5 minutes).*

Every 15 days.
- Clean the separator container and probes with a soft sponge and neutral detergent.
- Clean the drain valve for the separator's container with the device provided for this purpose.

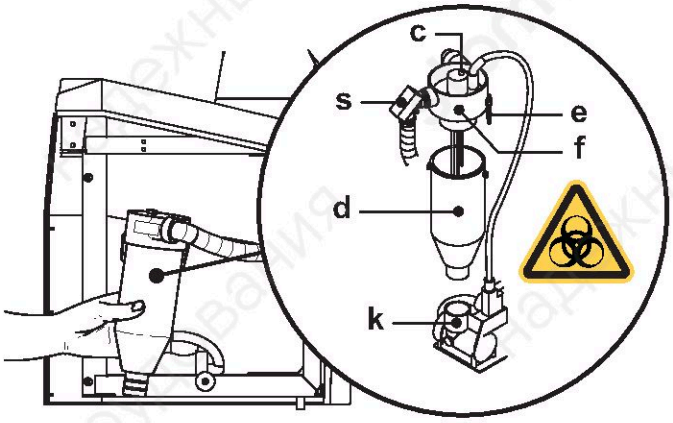
Once a year.
- By technician: check the siphons and drains, check all the internal tubes and plastic and rubber parts subject to wear.

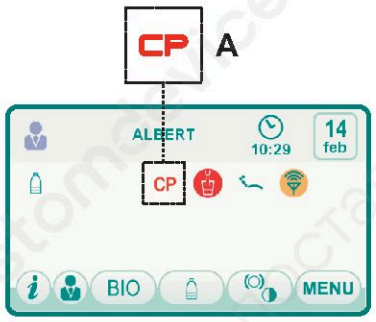
Before leaving the surgery empty for a few days.
- Start the aspirator and run it 20 - 30 minutes without sucking in liquids. The aspirator will dry itself completely. As a result, salt caused by moisture and basic substances will not form, salt that may cause fan seizure and motor blockage.

How to remove the separator's container.

WARNING!
Gloves must be worn when carrying out the following operation to prevent contact with infected material.

- Move the dental chair fully up.
- Open the side hydrogroup cover (see paragraph 7.7.).
- Turn the electrical box.
- Completely empty the separator bowl, pressing the timed button (**c**) located on the cover.
- If present, remove the valve (**s**) for central systems.
- Turn and raise the container (**d**) until it is detached from the drain pump (**k**).
- Detach the bowl (**d**) from the cover (**f**) pulling up the two side rubber bands (**e**).
- After the cleaning operations, refit the vessel (**d**) after lubricating the O-rings with S1-Protective Lubricant for O-Rings (CEFLA s.c.) O-ring before hand with silicon spray.
- Lastly, close the side hydrogroup cover.



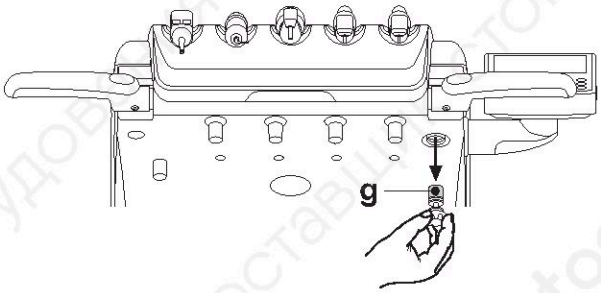


Drain pump locked warning.
A dedicated icon (**A**) on the TOUCH DISPLAY will indicate if the drain pump below the separator vessel locks.
At this point, shut off the equipment and empty the separator bowl by hand.
If the icon appears again, call technical service.

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9.6 Cleaning the turbine return air filter



Monthly check the oil container filter (**g**) present in the turbine's return air line.
If necessary, replace the filter element (code 97290014).

9.7. METASYS amalgam separator

The maintenance instructions for the METASYS amalgam separator are enclosed with the equipment if the equipment comes with this type of separator.
The separator's control device is located in the hydrogroup.

⚠ WARNING!
Always wear gloves to prevent contact with infected material when cleaning the separator.

⚠ WARNING!
When disposing one-time use containers full of amalgam, observe current local and national laws.

9.8. DÜRR amalgam separator

The maintenance instructions for the DÜRR amalgam separator are enclosed with the equipment if the equipment comes with this type of separator.
The separator's control device is located in the hydrogroup.

⚠ WARNING!
Always wear gloves to prevent contact with infected material when cleaning the separator.

⚠ WARNING!
When disposing one-time use containers full of amalgam, observe current local and national laws.

9.9. Dental chair

The dental chair does not require any particular maintenance.
It is nevertheless advisable to once a year have an authorised ANTHOS technician check overall functioning.

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10. Fault messages

M = Message shown on console display
C = Cause
R = Remedy

M: **"H2O level low, fill tank"**
C: The water in the independent water system's tank has dropped below the minimum acceptable level.
R: Fill the tank (see paragraph 7.2.).

M: **"Put instruments back in place"**
C: The system detected an instrument was already withdrawn while the disinfecting cycle was being set.
R: Make sure all the instruments are in place and then set the cycle again. If the fault message appears again, call technical support.

M: **"Check instruments, repeat cycle"**
C: The system detected the withdrawn instruments were altered during the flushing or disinfecting cycle.
R: Check the selected instruments and repeat the disinfecting (see paragraph 7.4.) or flushing (see paragraph 7.5.) cycle.

M: **"H2O2 level low, fill tank"**
C: The hydrogen peroxide in the relative tank has dropped below the minimum acceptable level.
R: Fill the hydrogen peroxide tank (see paragraph 7.4.).

M: **"Open H2O spray cocks"**
C: The system is not able to fill the lines with hydrogen peroxide during the disinfecting cycle.
R: Open the water spray cocks and repeat the disinfecting cycle (see paragraph 7.4.). If the message appears again, call technical support.

M: **"Remove all instruments"**
C: The system detected an internal malfunction during the disinfecting cycle.
R: Repeat the disinfecting cycle, selecting all the instruments. If the message appears again, call technical support.

M: **"Empty WHE system"**
C: WHE system malfunction.
R: Empty the tank inside the WHE system and restart the system (see paragraph 5.1.1.2.1.3.). If the message appears again, call technical support.

M: **"Turn on WHE"**
C: The system is attempting to perform a task which requires that the WHE system is turned on.
R: Turn on the WHE system (see paragraph 7.3.).

M: **"Check suction tubes, repeat cycle"**
C: The system has detected that the suction tubes are not connected to the relative fittings during the flushing or disinfecting cycle.
R: Make sure the suction tubes are properly connected and repeat the disinfecting (see paragraph 7.4.) or flushing (see paragraph 7.5.) cycle. If the message appears again, call technical support.

M: **"Withdraw at least one instrument"**
C: An attempt has been made to start a disinfecting cycle without selecting any instruments or the cup.
R: Repeat the disinfecting cycle selecting at least one instrument or the cup. If the message appears again, call technical support.

M: **"Instrument configured"**
C: The instrument in the indicated position on the board has been automatically configured with the factory settings.
R: If the message appears again, call technical support.

M: **"Put suction tubes back in place"**
C: Suction tubes extracted when dental unit is turned on.
R: Make sure the suction tubes are correctly placed in their housings. If the message appears again, call technical support.

M: **"Put instrument back in place"**
C: Instrument extracted when dental unit is turned on.
R: Make sure all the instruments are correctly placed in their housings. If the message appears again, call technical support.

M: **"Check suction tube filter"**
C: Suction tube flushing cycle malfunction.
R: Make sure the filters are clean, the suction tubes are not closed and that the suction unit works correctly and then repeat the flushing cycle. If the message appears again, call technical support.

M: **"Hydrogroup emergency device activated"**
C: While performing an automatic movement, the assistant's board encountered an obstacle.
R: Clear the obstacle and press the button for the desired program again.

M: **"Lower dental chair"**
C: The bowl does not move because the dental chair is in its way.
R: Lower the dental chair so that it is no longer in the way.

M: **"Check operating light fuses"**
C: The operating light does not turn on because electric power is not supplied.
R: Call technical support.

M: **"Maintenance required"**
C: Scheduled maintenance required.
R: Call technical support to schedule the maintenance work.

M: **"Footboard emergency device activated"**
C: The dental chair encountered an obstacle.
R: Press the "seat up" button and clear the obstacle.

M: **"Backrest emergency device activated"**
C: The dental chair backrest encountered an obstacle.
R: Press the "seat up" button and clear the obstacle.

M: **"Move bowl"**
C: The dental chair does not move because the bowl is in the way.
R: Move the bowl so that it is no longer in the way of the dental chair.

M: **"Seat emergency device activated"**
C: The dental chair encountered an obstacle.
R: Press the "seat up" button and clear the obstacle.

M: **"Delivery emergency device activated"**
C: The side delivery board encountered an obstacle.
R: Press the dental chair "seat up" button and clear the obstacle.

M: **"Dental chair blocked, put instrument back in place"**
C: An attempt was made to move the dental chair with an instrument withdrawn.
R: Put instrument back in place and repeat dental chair movement.

M: **"Dental chair blocked"**
C: An attempt was made to move the dental chair while it was blocked
R: Remove dental chair blockage (see paragraph 4.).

⚠ **IMPORTANT INFORMATION!**
M: "XXXX, call technical support" (where XXXX represents a numerical code)
C: This type of message indicated a serious internal error.
R: Call technical support quoting the number of the error.

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11. Specifications

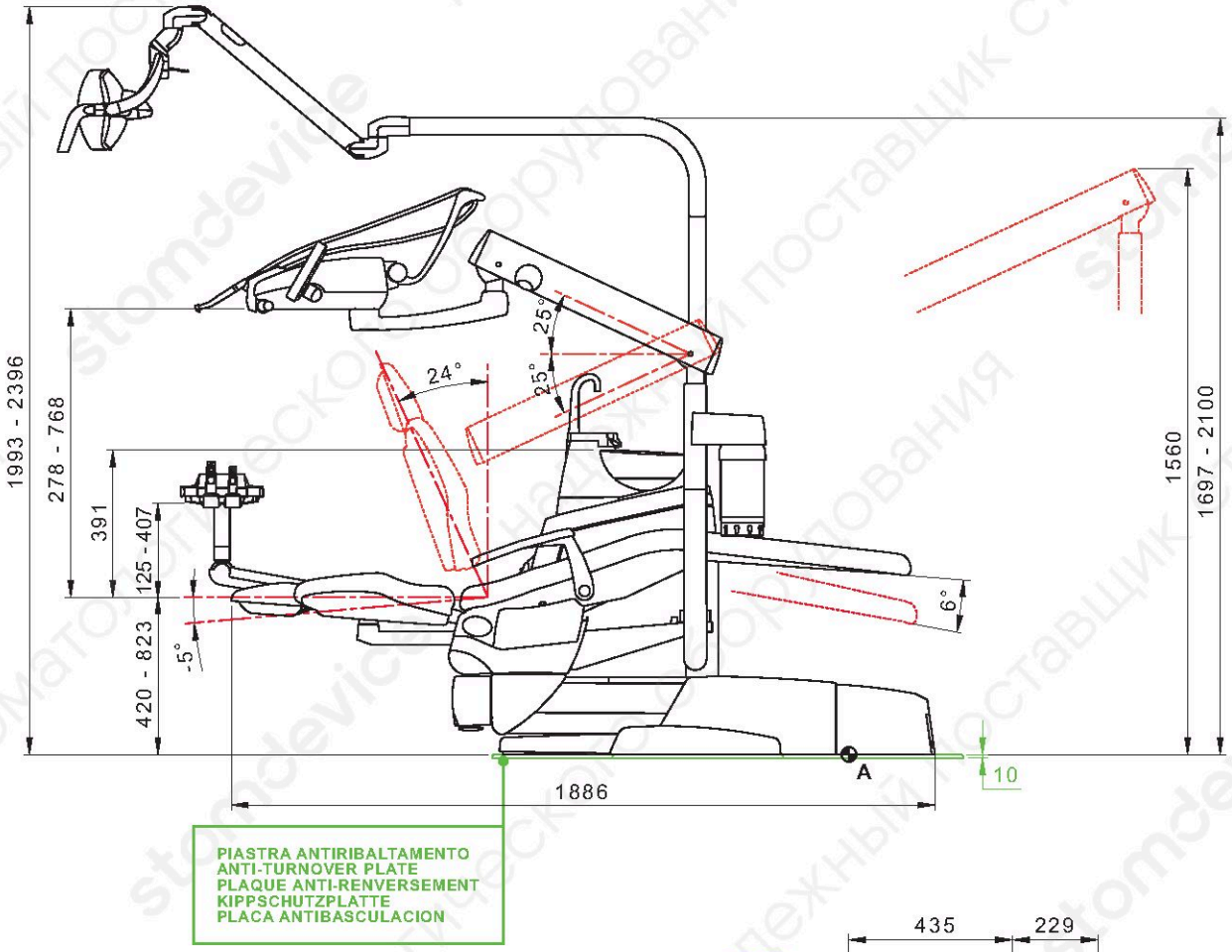
Installation plan:	97042064	
Technical manual:	97071158	
Dental unit spare parts catalogue:	97023117	
Dental chair spare parts catalogue:	97023117	
Maximum dental unit weight:	110 Kg.	
Maximum dental chair weight:	140 Kg.	
Maximum dental chair capacity:	160 Kg.	
Voltage:	230V~ / 115V~	
Frequency:	50/60 Hz.	
Power absorbed:	R7 R7 M	1200 W (230V~) 1000 W (115V~)
	R7 P	1000 W (230V~) 700 W (115V~)
Air supply pressure:	6-8 bar.	
Air delivery rate:	82 l/min.	
Water connection:	1/2 Gas.	
Water supply pressure:	3-5 bar.	
Water delivery rate:	10 l/min	

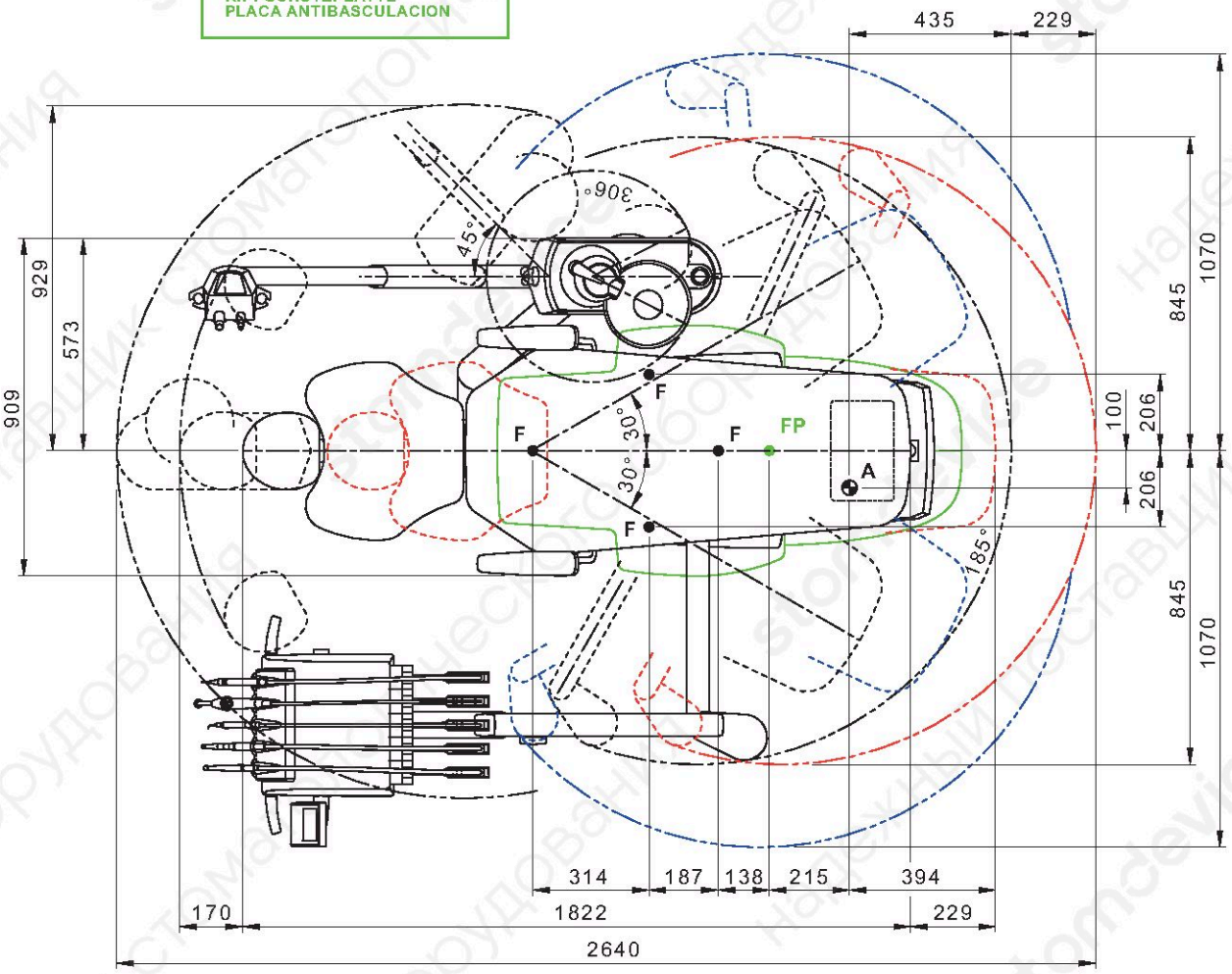
Water usage:	2 l/min.	
Water hardness:	< 25 °f (14 °d)	
Drain connection:	ø40 mm.	
Drainage rate:	10 l/min.	
Drain duct inclination:	10 mm/m.	
Aspirator connection:	ø40 mm.	
Vacuum (minimum):	65 mbar.	
Vacuum delivery rate:	450 l/min.	
Mark of approval:	CE 0051	
Electrical work in compliance with:	IEC 60364-7-710	
Dental unit packaging dimensions:	1570 x 780 x 1130(h)	
Dental chair packaging dimensions:	1510 x 730 x 1000(h)	
Dental unit packaging weight:	R7	140 Kg
	R7 M	110 Kg
	R7 P	70 Kg
Dental chair packaging weight:	160 Kg.	

FUSES			
Identification	Value	Protection	Position
Dental unit. Fuse F2 Fuse F4 Fuse F5 Fuse F6	 T 8 A T 10 A T 6,3 A T 6,3 A T 6,3 A	 230 V~ : Dental unit power supply line. 115 V~ : Dental unit power supply line. Secondary protection: Hydrogroup. Secondary protection: Dental unit. Secondary protection: Operatory light.	 Electrical box. Electrical box. Electrical box. Electrical box.
Dental chair. Fuse F1	 T 4 A	 230 V~ : Dental chair power supply line.	 Electrical box.
Quick-connect couplers. Fuse	 T 2 A	 230 V~ : Electrical outlet power supply line.	 Electrical box.
MONITOR power supply. Fuse	 T 4 A	 21 V~: MULTIMEDIA power line.	 Dental chair card area.

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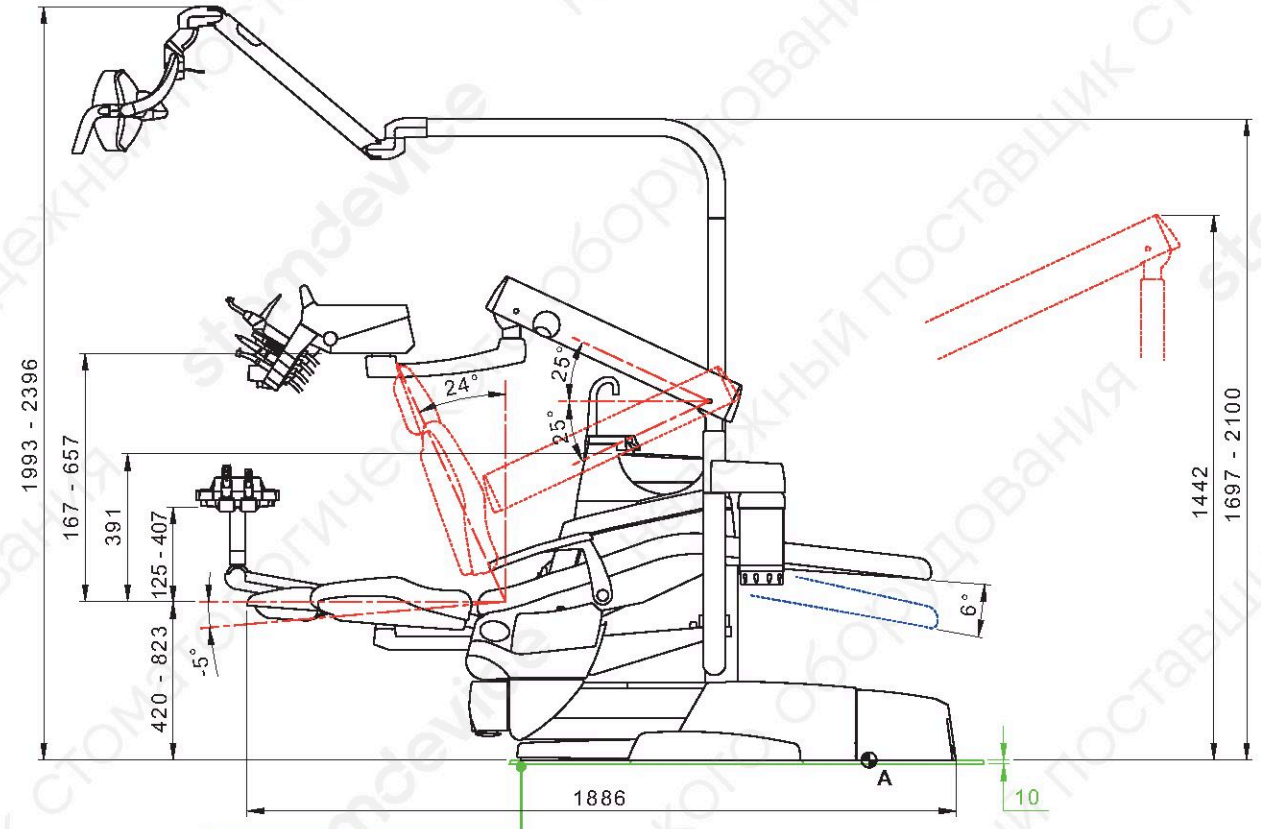
11.1. Overall dimensions: R7 CONTINENTAL



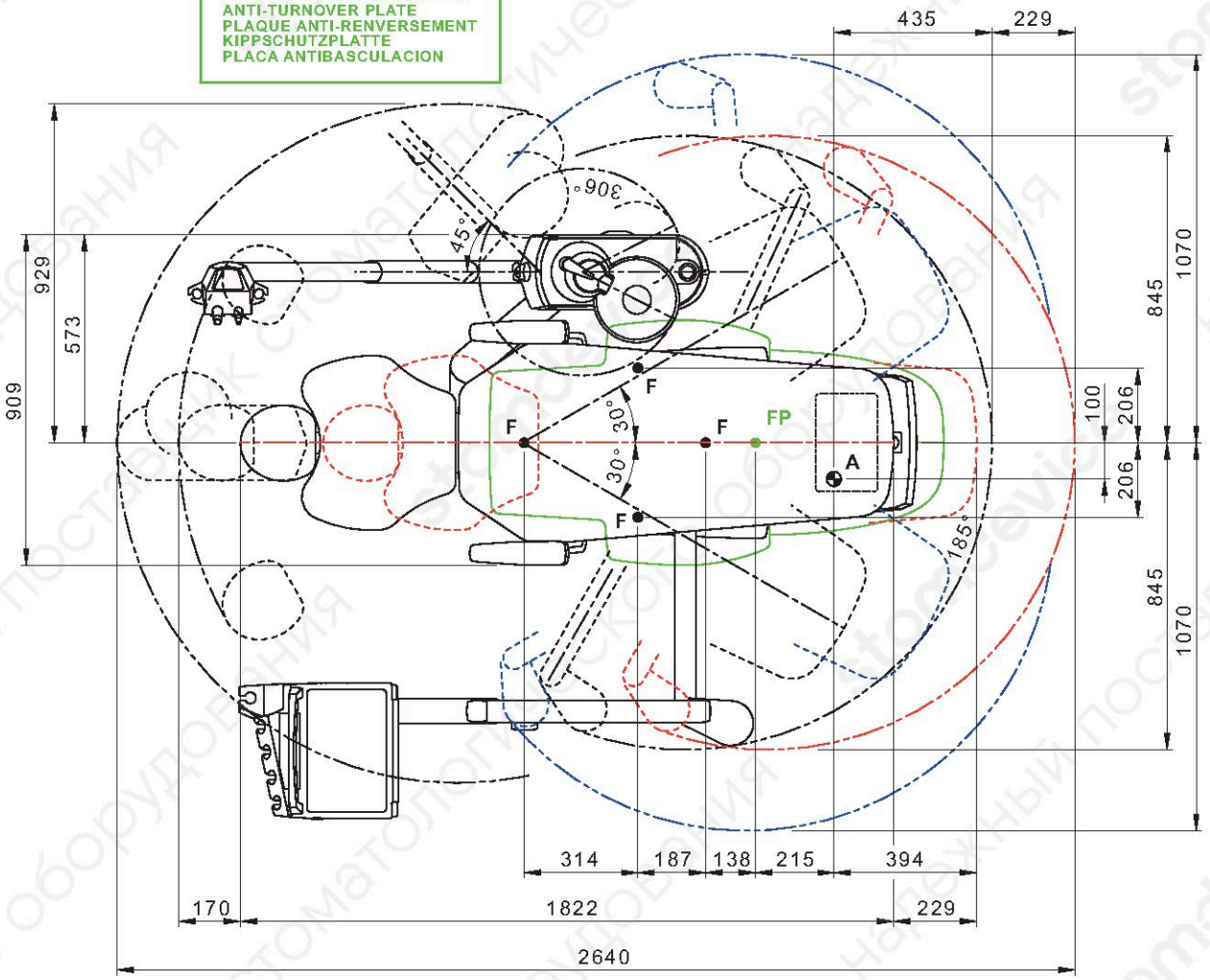


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11.2. **Overall dimensions: R7 INTERNATIONAL**

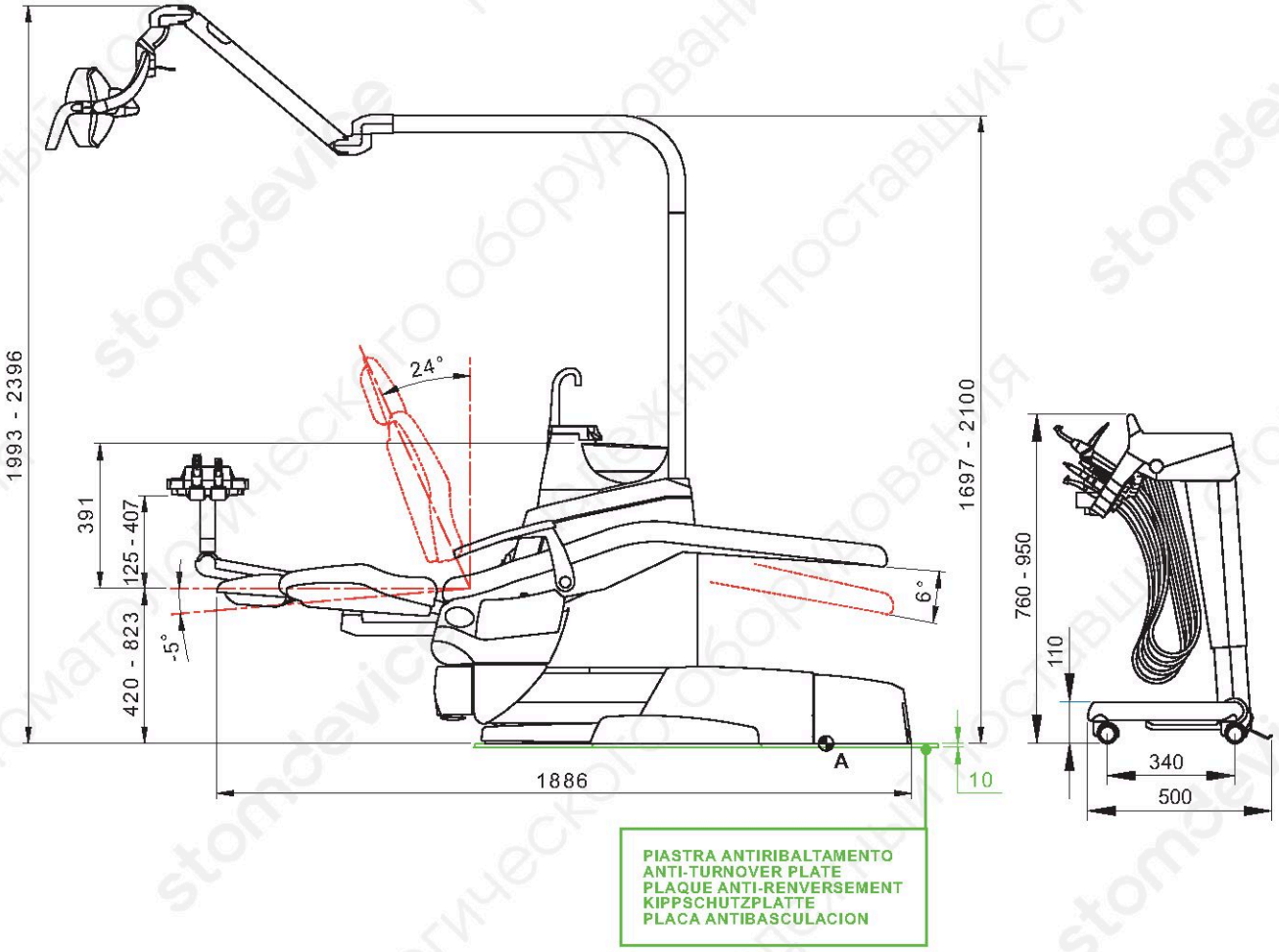


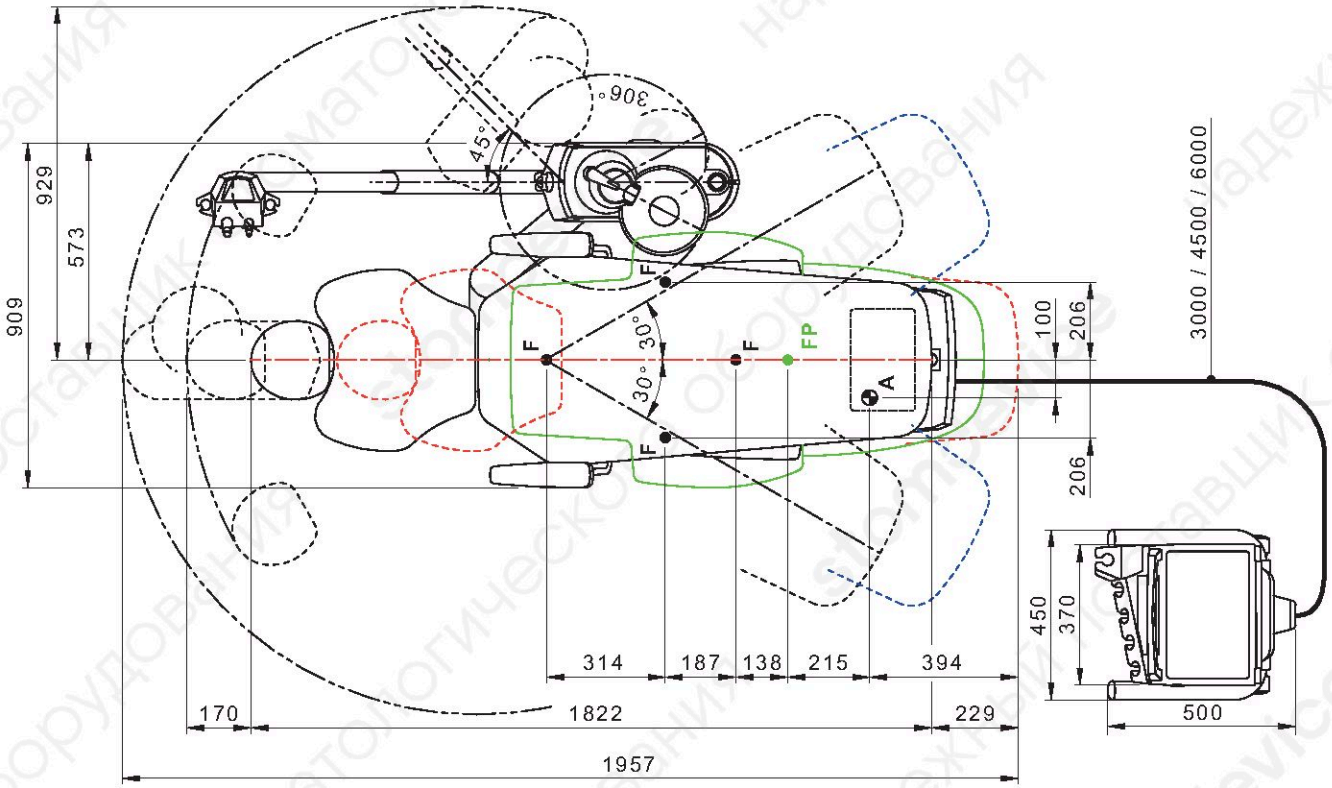
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ANTI-TURNOVER PLATE
PLAQUE ANTI-RENVERSEMENT
KIPPSCHUTZPLATTE
PLACA ANTIBASCULACION



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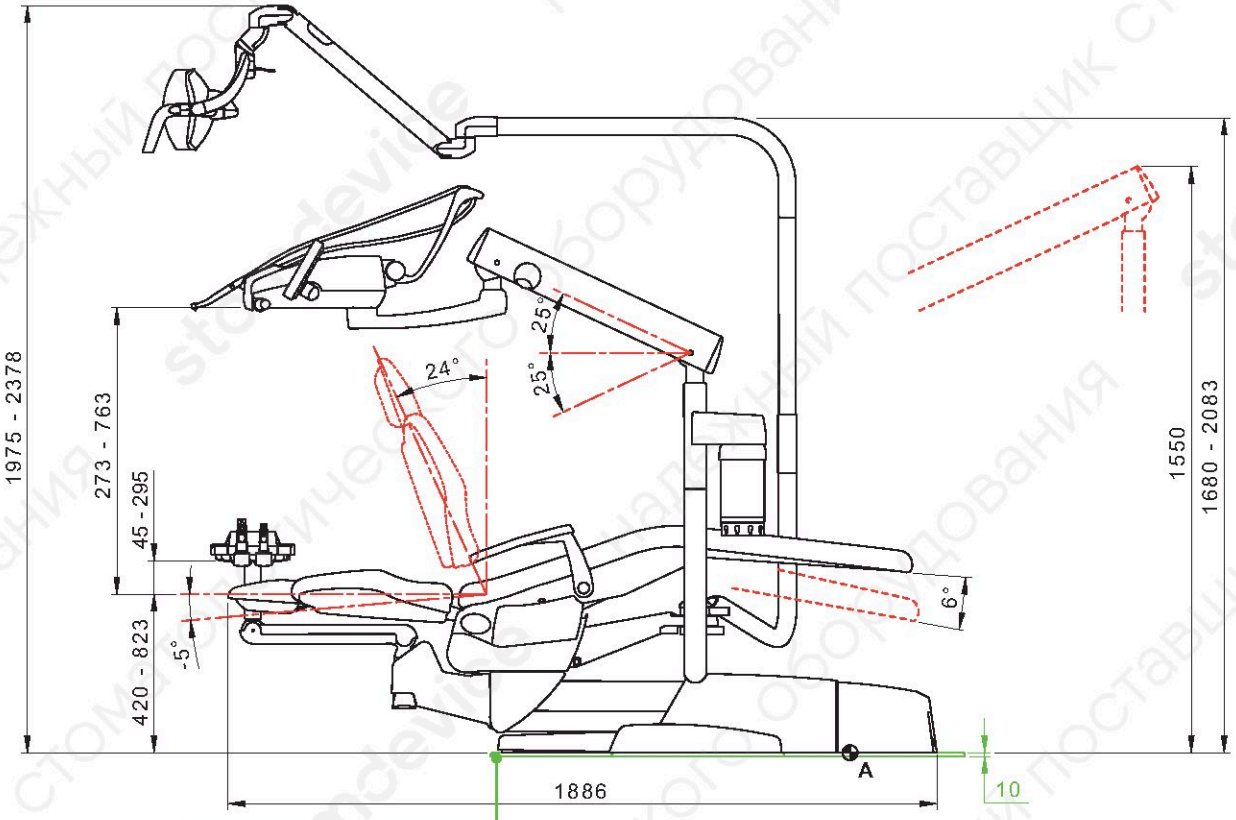
11.3. Overall dimensions: R7 CART



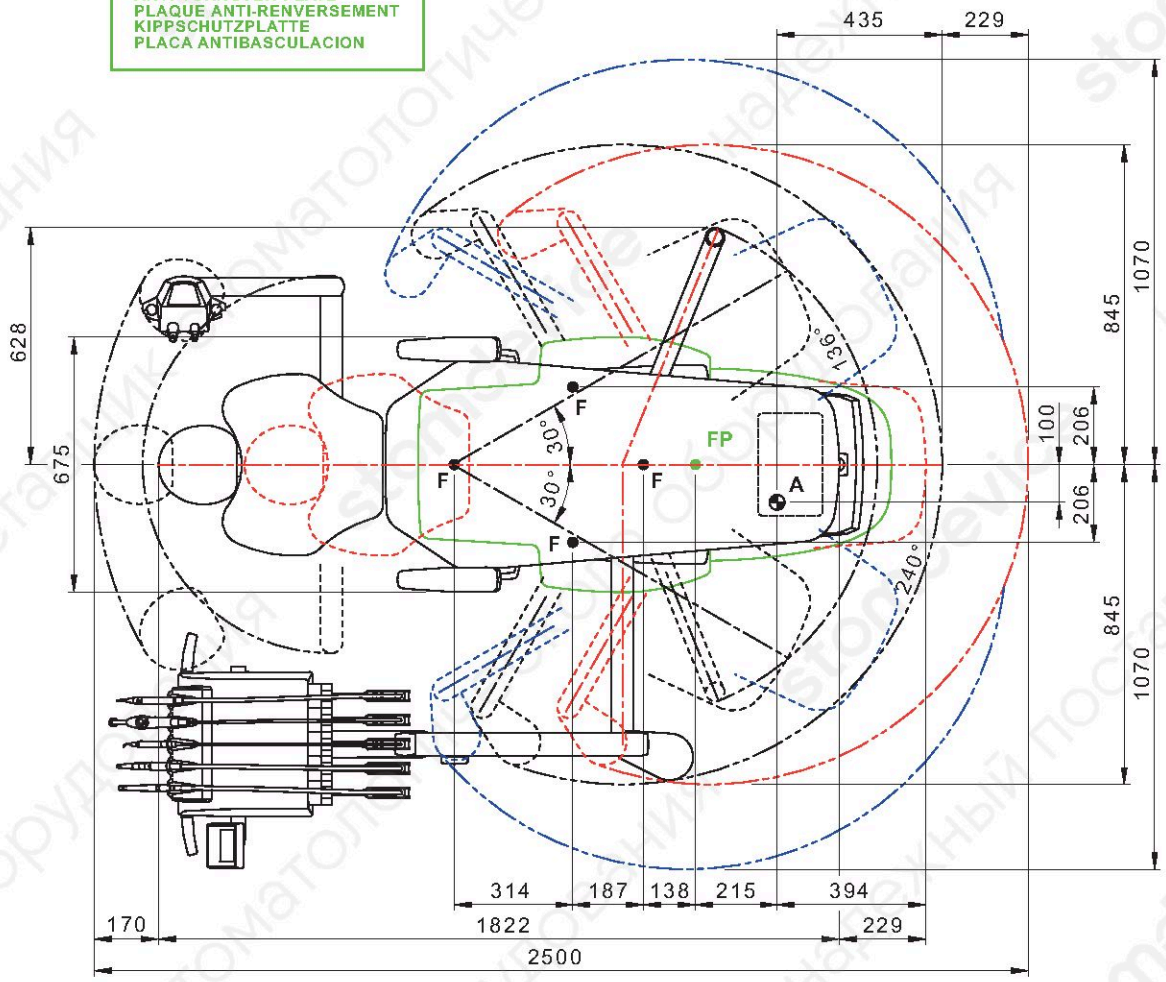


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11.4. Overall dimensions: R7 M CONTINENTAL

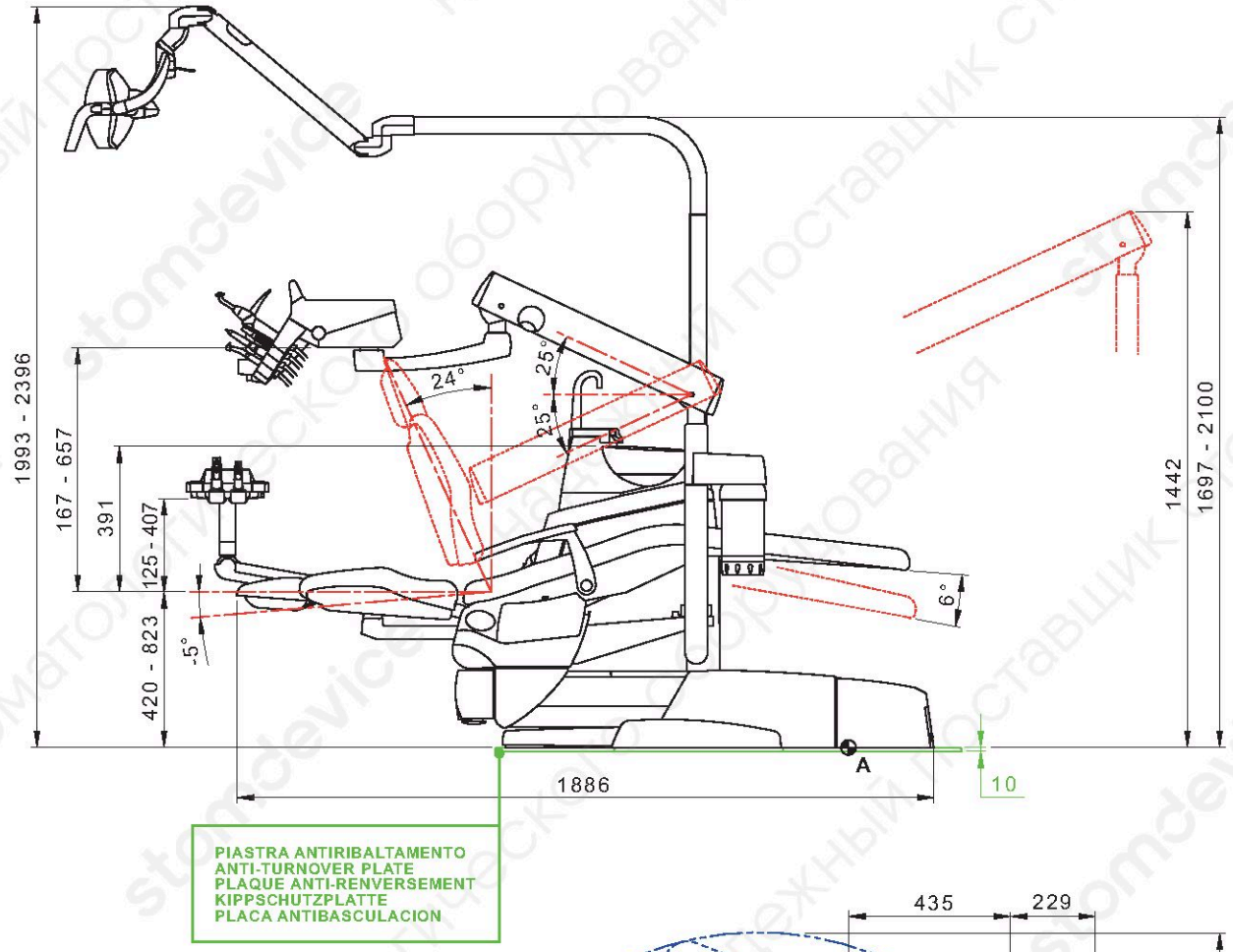


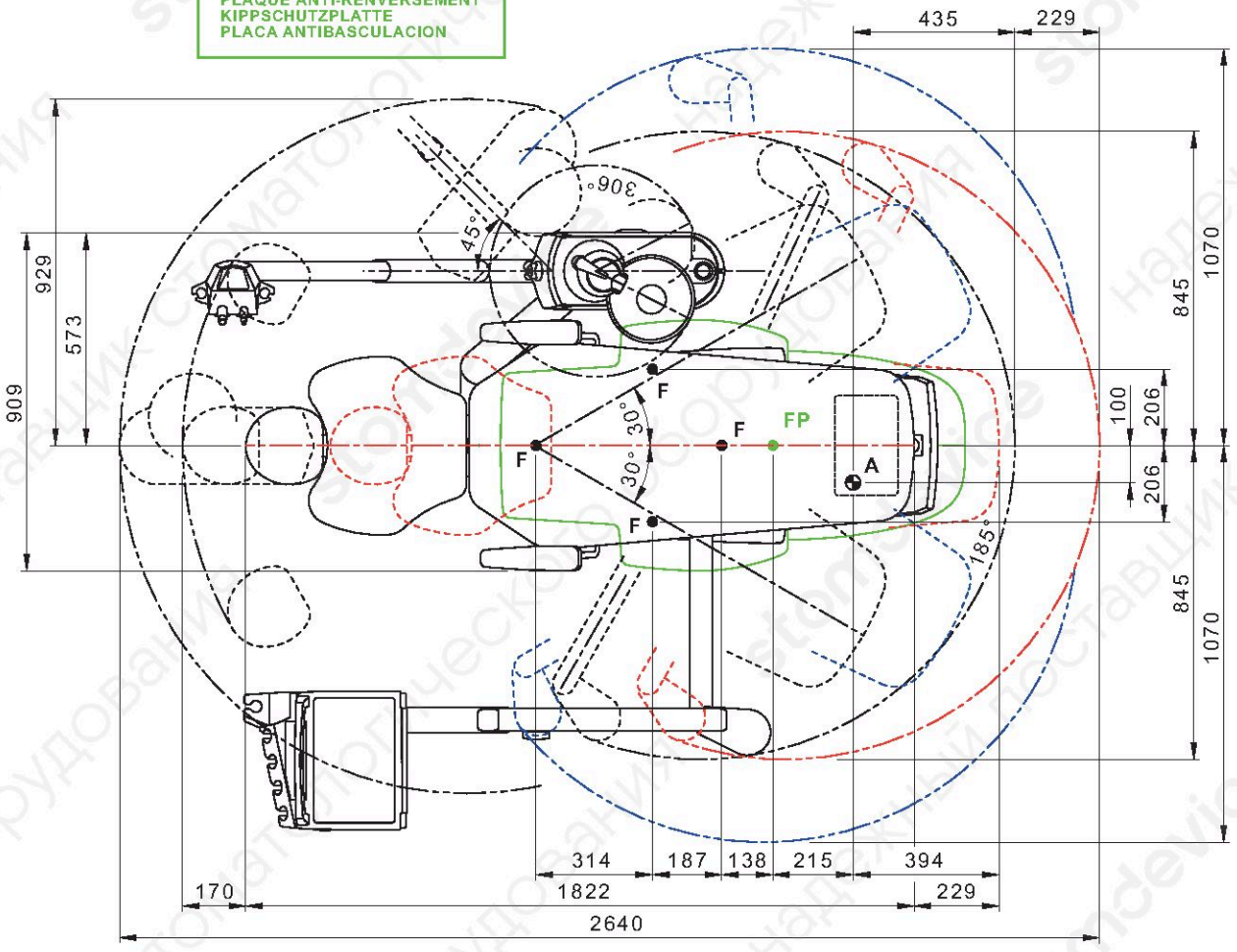
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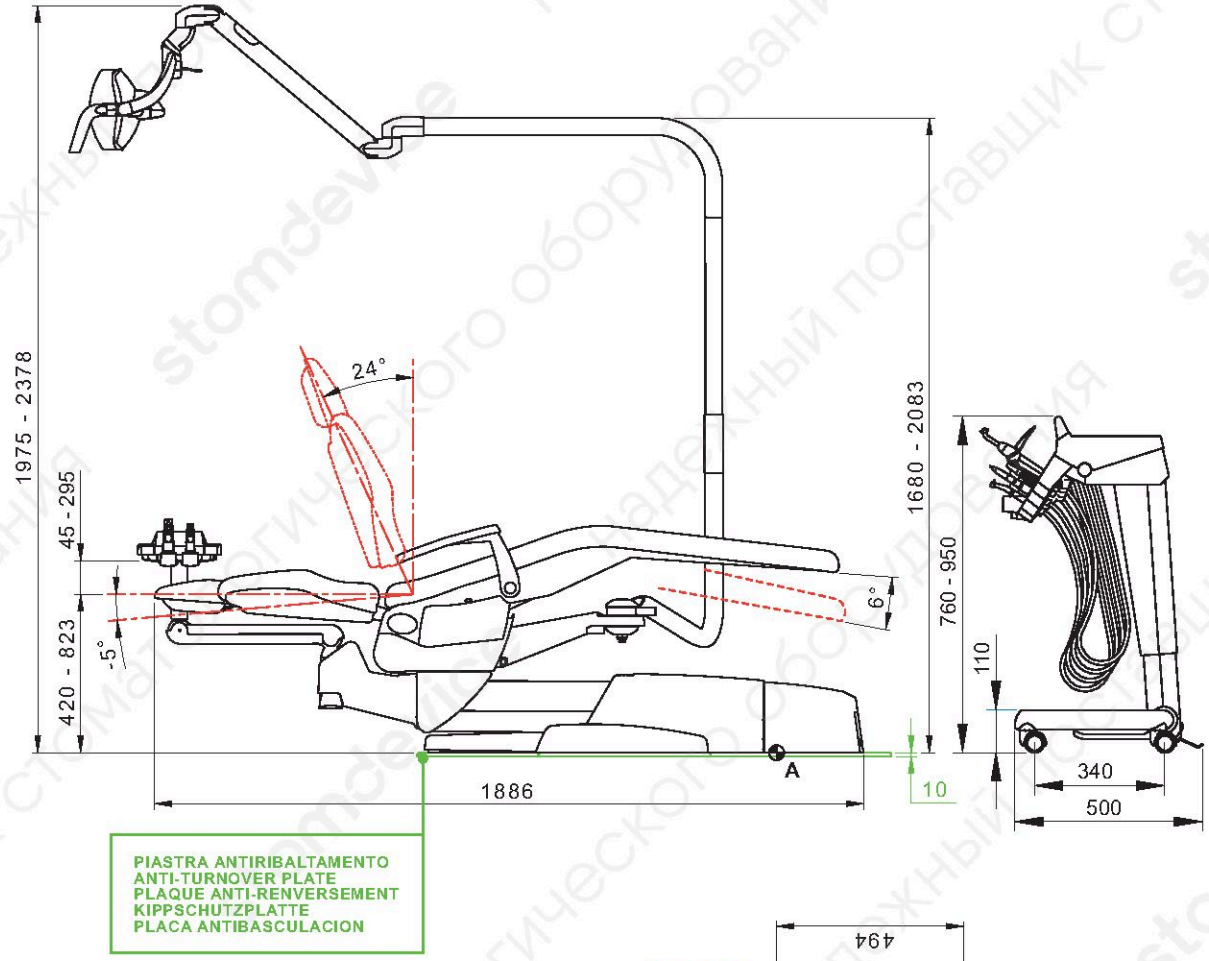
11.5. Overall dimensions: R7 M INTERNATIONAL



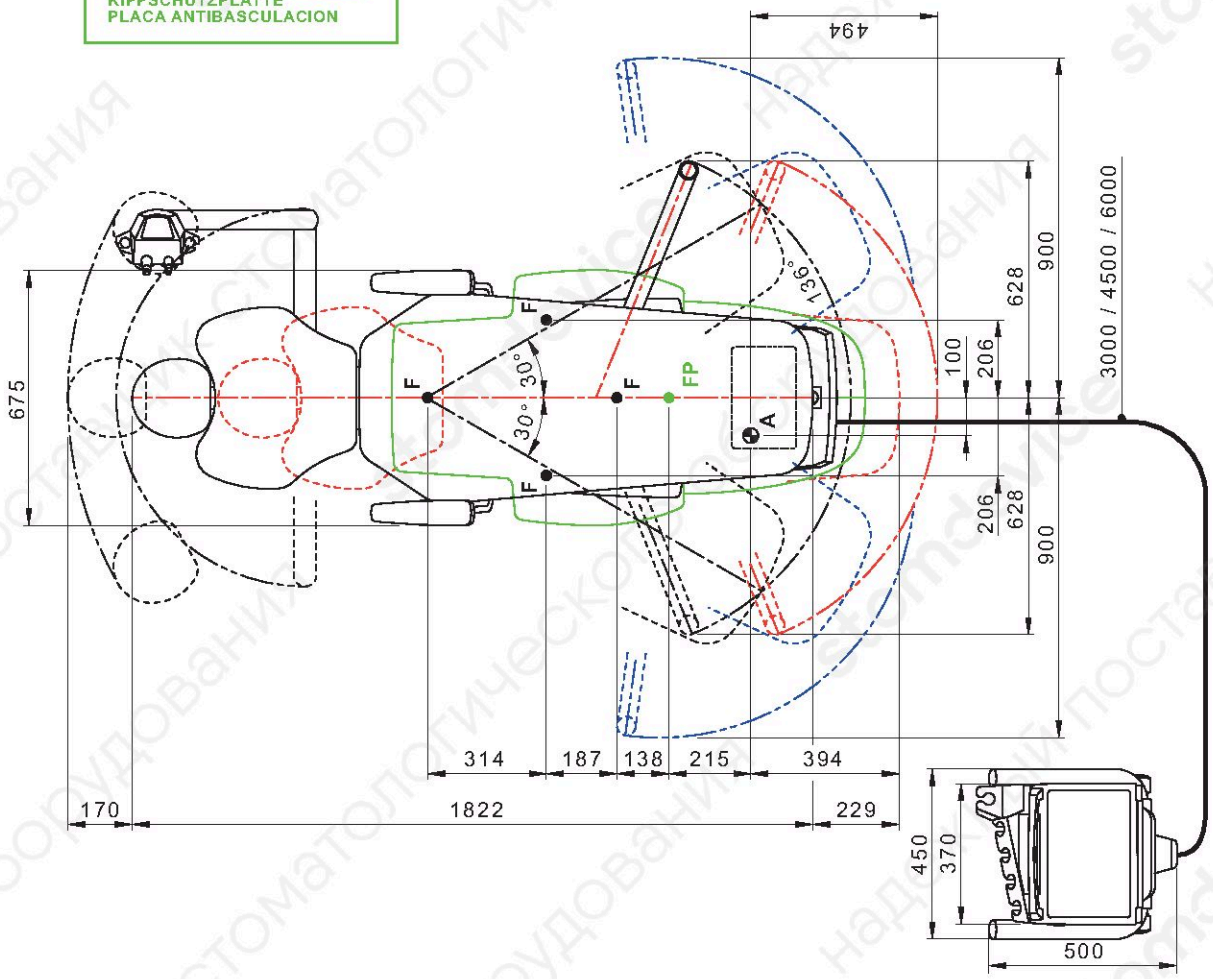


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11.6. Overall dimensions: R7 M CART

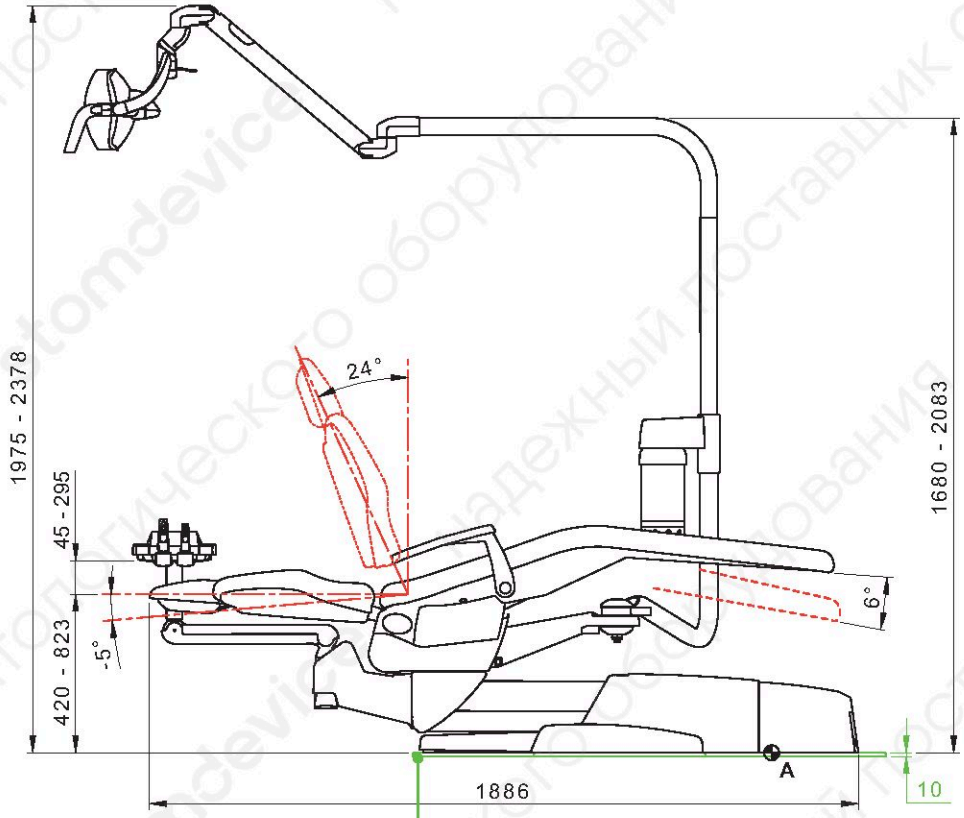


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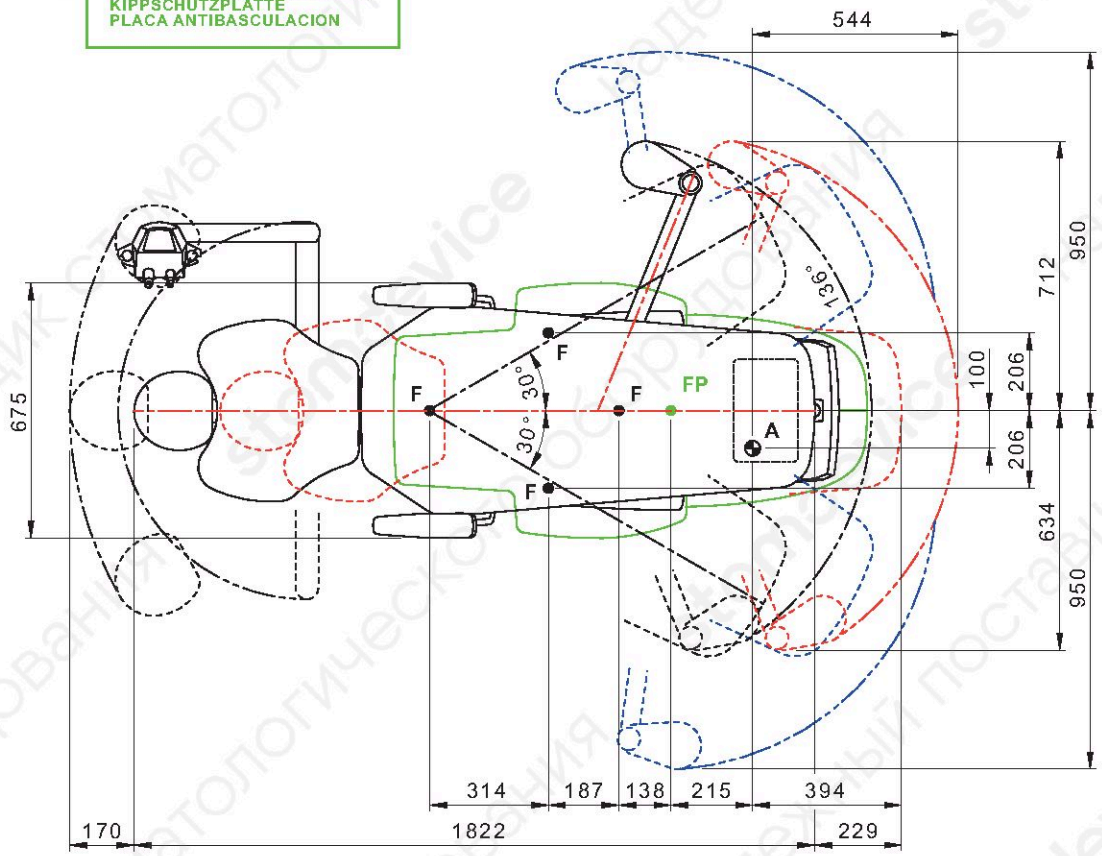


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11.7. Overall dimensions: R7 P

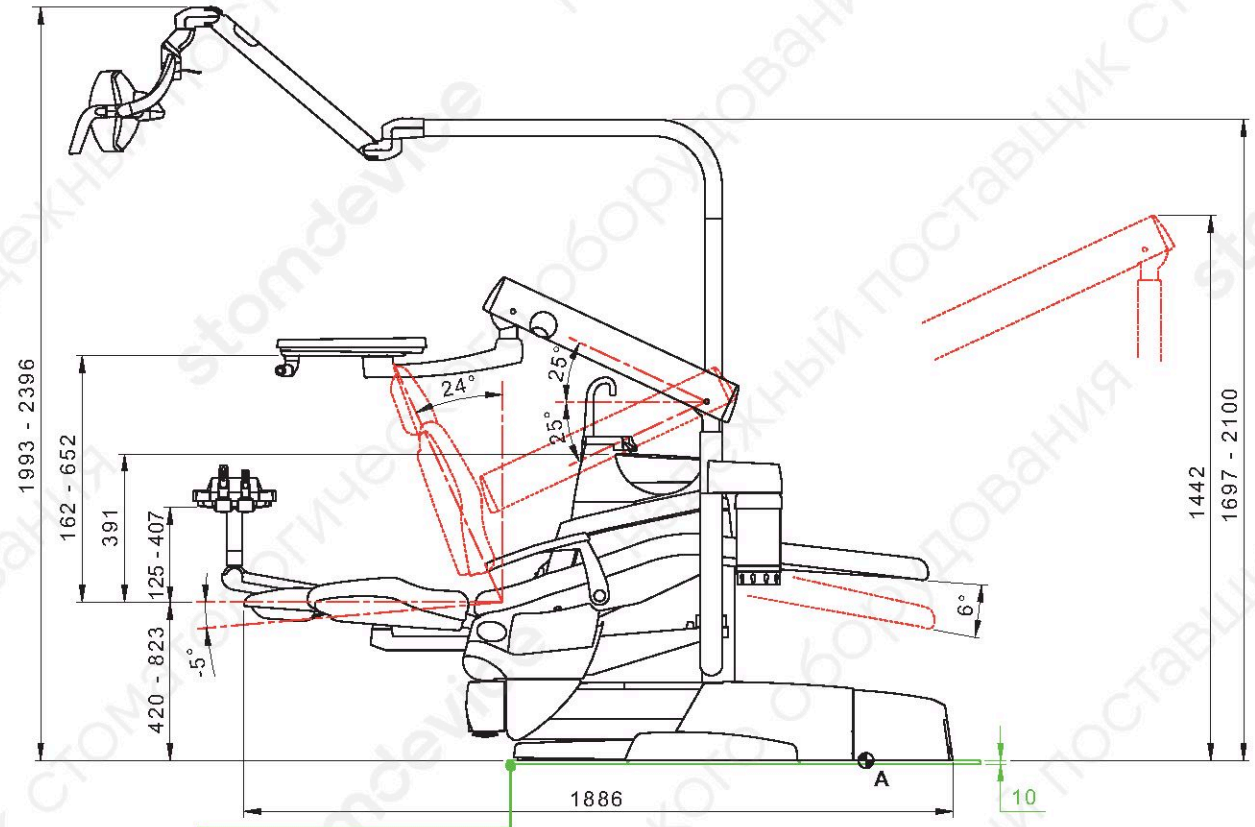


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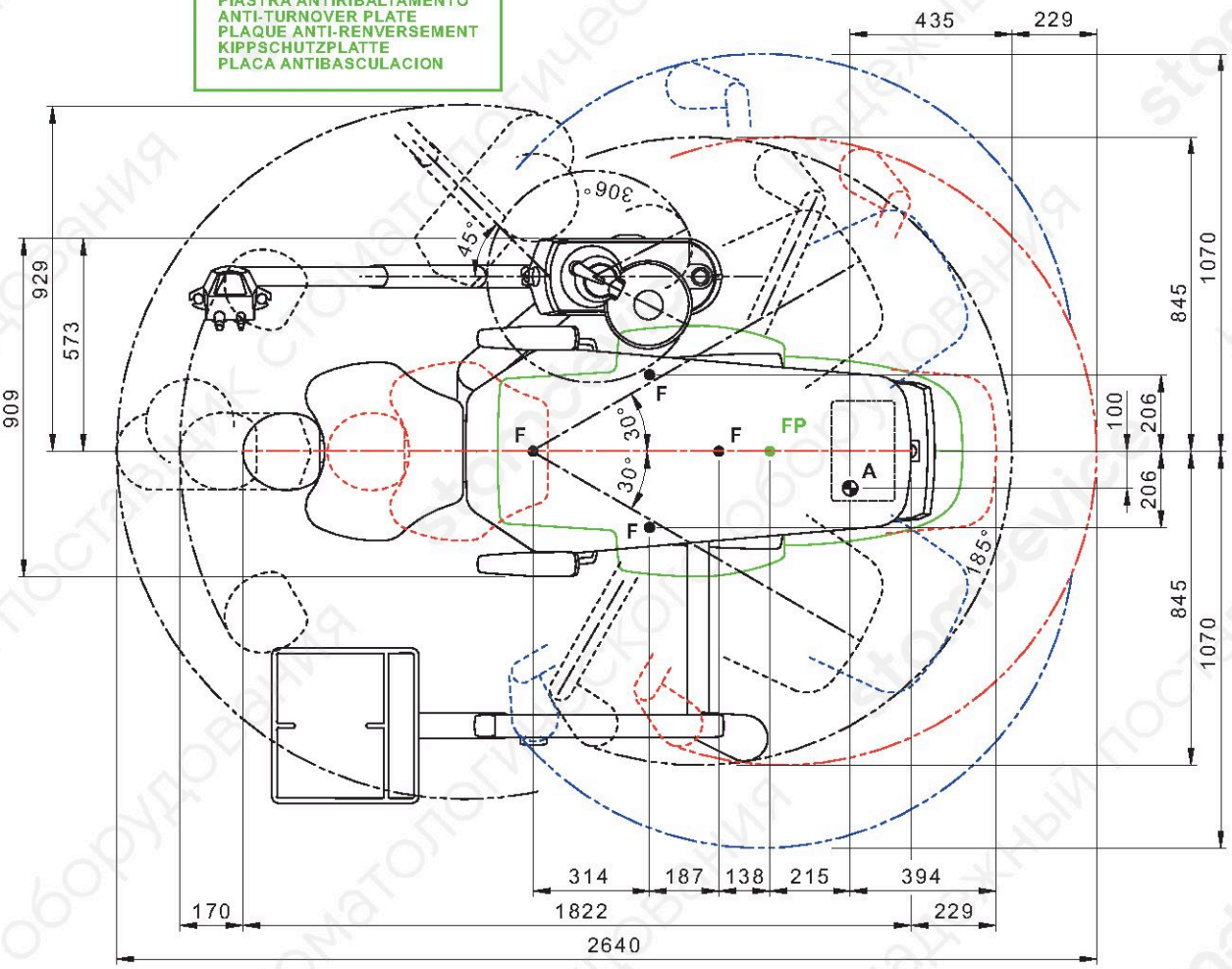


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11.8. **Overall dimensions: R7 SINGLE HYDRO GROUP**



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12. Dental Unit maintenance plan			
WHEN	**PART**	**HOW**	**SEE PARAGRAPH**
Before starting work.	Condensate drain.	/	See paragraph 9.2
	CATTANI surgical separator.	Insert inside each suction tube filter a tablet of **VF CONTROL PLUS**.	See paragraph 9.5
After each treatment.	Contra angle handpiece.	Sterilize or disinfect the outside.	See documentation enclosed with handpiece.
	Turbine.	Sterilize or disinfect the outside.	See paragraph 5.4
	Micromotor.	Disinfect outside.	See paragraph 5.5
	Scaler.	Sterilize or disinfect outside.	See paragraph 5.6
	Syringe.	Sterilize or disinfect outside.	See paragraph 5.3
	Curing lamp.	Sterilize fiber optic, disinfect outside.	See paragraph 5.7
	C-U2 camera.	Disinfect outside. **Do not use acids or harsh products.**	See paragraph 5.8
	Surgical suction tubes.	Aspirate about ½ litre of sanitizing solution with each suction tube. Sterilize the suction tube holder terminals.	See paragraph 9.4
When needed.	Basin.	Clean with commercial detergents formulated for ceramic materials. **Do not use acids or harsh products.**	See paragraph 7.1
	METASYS surgical separator.	See documentation enclosed with equipment.	/
	DURR surgical separator.	See documentation enclosed with equipment.	/
	Operating lamp.	See documentation enclosed with equipment.	/
	Monitor on lamp post.	See documentation enclosed with equipment.	/
	Removable instrument tubings.	Clean with a suitable disinfectant carefully following the directions for use provided by the manufacturer. **Do not use acids or harsh products.**	See paragraph 5
	Coated surfaces and dental chair upholstery.	Clean with a suitable disinfectant carefully following the directions for use provided by the manufacturer. Spray product on disposable soft paper. **Do not use acids or harsh products.**	See paragraph 1.4
At the end of the work day.	Bowl filter.	Clean filter in running water The content must be disposed of separately.	See paragraph 7.1
	Surgical suction filter.	Check the filter and replace it if the suction rate is reduced (code 97461845).	See paragraph 9.3
	Surgical suction tubes.	Clean the filter of the saliva ejector terminal.	See paragraph 9.4
	Water saliva ejector.	Clean the filter of the saliva ejector terminal.	See paragraph 6.6
Weekly.	CATTANI surgical separator.	Clean the separator's container, drain valve and probes.	See paragraph 9.5
	Suction tube holder terminals.	Lubricate the O-rings.	See paragraph 9.4
Monthly.	Turbine return air filter.	Check the filter and replace it if necessary (code 97290014).	See paragraph 9.6
Yearly.	Dental chair.	Contact the technical service department for general inspection.	/

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