

Instructions for use

**Patient Chair**

**ARCADIA EXT**



1.	GENERAL INFORMATION .....	4
1.1.	SYMBOLS .....	5
1.2.	SERVICE.....	5
1.3.	SAFETY .....	6
1.4.	DEFINITION OF THE DESTINATION.....	14
1.5.	ENVIRONMENT CONDITION ACCEPTED.....	14
1.6.	WARRANTY .....	14
2.	TECHNICAL CHARACTERISTICS.....	15
2.1.	DATA PLATE .....	19
3.	COMMAND - CONTROL - WARNING.....	20
3.1.	SAFETY SYSTEMS.....	20
3.2.	CHAIR COMMAND FROM FOOTCONTROL.....	21
3.3.	MANUAL COMMAND FROM CHAIR.....	23
3.4.	AUTOMATIC COMMANDS FROM THE CHAIR .....	24
4.	CHAIR.....	30
4.1.	DOUBLE JOINT HEADREST .....	30
4.2.	DOUBLE JOINT HEADREST WITH CLICK.....	32
4.3.	HEADREST WITH 3D MOVIMENT .....	34
4.4.	ARMREST .....	36
5.	POSITION VERSION ON WHEELS .....	37
6.	MAINTENANCE AND KEEPUP .....	47
6.1.	CLEANING AND DISINFECTING.....	47
6.2.	SCHEDULED MAINTENANCE .....	50
6.3.	FUNCTIONAL AND SAFETY CHECKS.....	50
6.4.	EXTRAORDINARY MAINTENANCE .....	52

7.	TECHNICAL INSTRUCTIONS FOR INSTALLATION .....	55
7.1.	PACKING .....	55
7.2.	TESTING AND IMPLEMENTATION .....	55
8.	INFORMATION RELATING TO ELECTROMAGNETIC COMPATIBILITY IN ACCORDANCE WITH IEC 600601-1-2.....	57
9.	DISPOSING OF THE DEVICE AT THE END OF LIFE .....	61
10.	REPORTING ACCIDENTS TO PEOPLE .....	62

## **ATTENTION**

**Before using the device it's necessary to read carefully the O.M.S. fully use instructions and eventually all attached instructions coming from the accessories supplied.**

**This document is destined to dentists and operators of dental surgerys.**

# 1. GENERAL INFORMATION

---

The patient chair was conceived to guarantee the maximum security and comfort. For this reason the backrest has no overhang at the bottom, allowing the operating team a correct posture with the lying patient.

At the same time the backrest is anatomically shaped to distribute optimally and uniform loads of the patient's body, whatever its size.

The backrest can have a counterbalancing entry (optional) which prevents the patient the uncomfortable pulling the clothes during the descent phase and the need for readjustment of the headrest position at the end of the movement.

The hinge of the headrest is lowered below the rim of the backrest for patients of modest size.

The chair is available in two versions, with permanent installation or equipped with wheels for moving.



**Version with permanent installation**



**Movable version on wheels**

## **1.1. SYMBOLS**



### **ATTENTION**

Indicates a dangerous situation which may cause material or physical damage from mild to moderate.



### **DANGER**

Indicates a dangerous situation which may cause a direct connection to serious injury or death.



### **NOTE**

Warning, explanation or integration, important information for users and technicians.

---

## **1.2. SERVICE**

**O.M.S. SPA Officine Meccaniche Specializzate**

**Via Dante 20/A 35030 Caselle di Selvazzano (PD) Italia**






**tel: +39 0498976455 - [www.omsdentalunits.com](http://www.omsdentalunits.com)**

**e-mail: [aftersales@omsdentalunits.com](mailto:aftersales@omsdentalunits.com)**

**Always communicate the serial number of the device.**

## **1.3. SAFETY**

### **1.3.1. General**

	<b>DANGER</b>
	To avoid risk of electric shock, this device should only be connected to power networks with protective ground in compliance with regulations in force in your country.
	<b>DANGER</b>
	Before powering the device after installation, repair or any other technical intervention, verify, and if necessary, ground cables to the screw marked with the ground symbol.
	<b>DANGER</b>
	The device should be installed in spaces with electrical systems in accordance with the regulations in force in your country.
	<b>DANGER</b>
	The installation of the device must be done from an authorized O.M.S. technician; the choice of pipelines by the designer and the laying of the same must be done by a qualified electrician in accordance with current legislation in your country
	<b>DANGER</b>
	<p>The use of the device is prohibit to non-professional operators or who have not read the manual instructions.</p> <p>Always check that the device is in good condition.</p>
	<b>ATTENTION</b>
	Do not use the device if any part is defective or worn out. In this case, request the assistance of O.M.S. authorized technicians.
	<b>ATTENTION</b>



Replace the faulty or worn parts only with original spare parts, guaranteed O.M.S.

---

**DANGER**

Device not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide.

---

**ATTENTION**

Do not use the device in presence of liquids on the floor.

---

**DANGER**

Do not modify this device without the manufacturer permission, the use of non-approved accessories and/or unauthorized modification can constitute imminent danger of injury to persons and damage to materials.

---

**ATTENTION**

All maintenance operations must be performed after switching off the unit and in the absence of the patient.

---

**DANGER**

In some parts, identified with symbol "ATTENTION PARTS UNDER VOLTAGE"



The voltage is present even after turning off the main switch, in case you need to intervene on the parts, you must disconnect the power to the system which powers off the device before operate.

---

**DANGER**

---





The main switch achieves the isolation of the unit from the mains direct power supply, before making any operation inside the unit make sure that the switch is off.

## ATTENZIONE

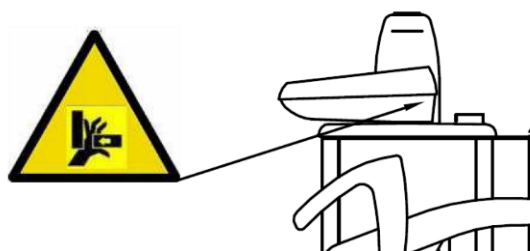


To connect a vacuum, it must be observed the instructions given in this manual and the wiring diagram; the vacuum must be marked CE in accordance with Directive 93/42/EEC and s.m.i. Medical devices and safety international standards CEI EN 60601-1 (medical electrical equipment-General requirements for safety), CEI EN 60601-1-2 (medical electrical equipment – collateral regulation: electromagnetic compatibility).

## DANGER



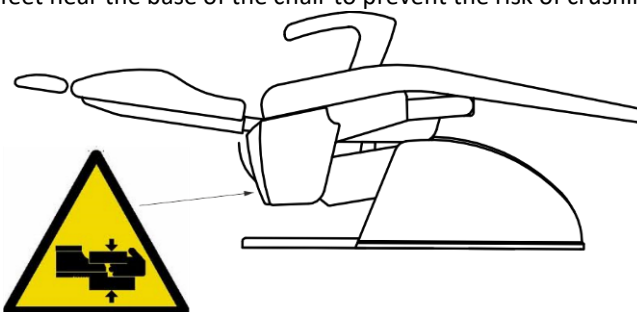
In the version with ground water box, during the ascent of the patient chair check the patient positioning on the arm side, to prevent the risk of crushing with the basin.



## DANGER



During the movements of the patient chair, both in manual and in particular in machine, do not put hands and feet near the base of the chair to prevent the risk of crushing, read



the chair instructions.

## ATTENTION



During the automatic movement of the chair the operator must remain near the dental complex.

## ATTENTION



Do not sit at the end of the head or feet of the chair.

### ATTENTION



In case of prolonged treatment in elder patients, pay attention to the formation of bedsores.

### ATTENTION



During the movement of the chair and in particular the headrest the patient's hair can get tangled.

### ELECTRIC SHOCK DANGER



Patient chair on wheels: before effecting any moving of the platform of the patient chair, detach power supply, the power supply of the patient chair must be connected only and only after the correct positioning with the column of the dental unit.

### ATTENTION

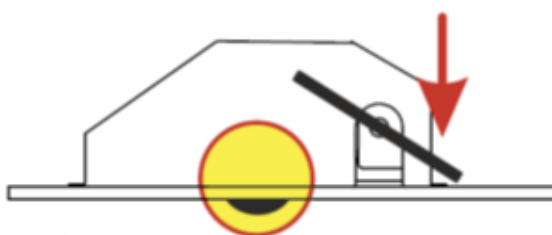


Patient chair on wheels: detach the connection among patient chair and unit before effecting any move of the platform of the patient chair

### DANGER



Patient chair on wheels: before making sit the patient on the patient chair activate the platform for the ground arrest.



### DANGER



Patient chair on wheels: the positioning of the chair should be done without the patient.

---

**ATTENTION**

Patient chair on wheels: handling area must be completely cleared.

## **1.4. DEFINITION OF THE DESTINATION**

Patient chair support (and of the unit).

## **1.5. ENVIRONMENT CONDITION ACCEPTED**

### **1.5.1. ENVIROMENTAL CONDITIONS PERMITTED FOR TRANSPORT AND STORARGE**

The unit packed can be exposed for a period not exceeding 15 weeks to the following environmental conditions:

Temperature from -40 to +70°C

Relative humidity from 10 to 100% non-condensing

Atmospheric pressure from 500 to 1060 hPa

### **1.5.2. PERMITTED ENVIRONMENTAL CONDITIONS FOR OPERATION AND OTHER SPECIFICATIONS**

Temperature from +10 to +40°C

Relative humidity from 30 to 75%

Atmospheric pressure from 800 to 1060 hPa

Altitudine nominale di funzionamento  $\leq 3000\text{m}$

Pollution degree 2

Overvoltage category II

## **1.6. WARRANTY**

The product is covered by a warranty period of 36 (thirty six) months from the date of installation from the purchaser. The warranty conditions are shown inside the warranty book supplied with the device.

The guarantee is applied to the purchaser also to the product specified in the installation, testing report and covers all mechanical and electrical interventions relating to the product concerned.

**The guarantee will be operative after the ordering party will compiled and send to O.M.S. spa the record of installation and testing. Essential condition to access the warranty is to return to O.M.S. spa of installation and testing record, in original by fax or by certified mail within ten days of installation, penalty the decadence of the guarantee.**


**O.M.S. SPA Officine Meccaniche Specializzate**

**Via Dante 20/A 35030 Caselle di Selvazzano (PD) Italia**

**fax: +39 0498975566 - e-mail: [aftersales@omsdentalunits.com](mailto:aftersales@omsdentalunits.com) - PEC: omsstaff@legalmail.it**

## 2. TECHNICAL CHARACTERISTICS

---

<b>Model</b>	ARCADIA EXT
<b>Manufactured by</b>	O.M.S. S.p.A. Officine Meccaniche Specializzate Via Dante 20/A - 35030 Caselle di Selvazzano Padova Italia
<b>Class</b>	I 
<b>Application parts type</b>	B
<b>Protection level device</b>	IPX0
<b>Protection level foot control</b>	IPX1

### POWER SUPPLY

**Rated voltage** 230 Vac +/-10%

**Rated frequency** 50/60 Hz

Network connections that comply with the rules in force in the territory.

**Rated current** 2.5 A

**Nominal power** 600 W

### OPERATION TIME

Anticipated equipment for continuous use with the followings intermittent loads:

chair	intermittent	1' on / 10' off
-------	--------------	-----------------

### OTHERS

**Cable length rheostat** 2,5 m

**Power cable length (only wheel version)** 1,4 m

**Total weight** about 126 Kg

**Maximum load permitted on the patient chair**

200 Kg with cupidor on the floor (not attached)

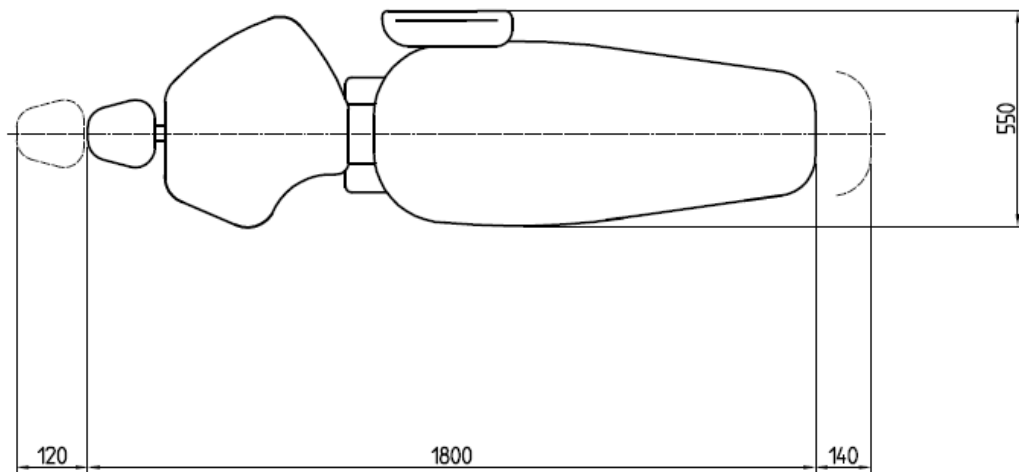
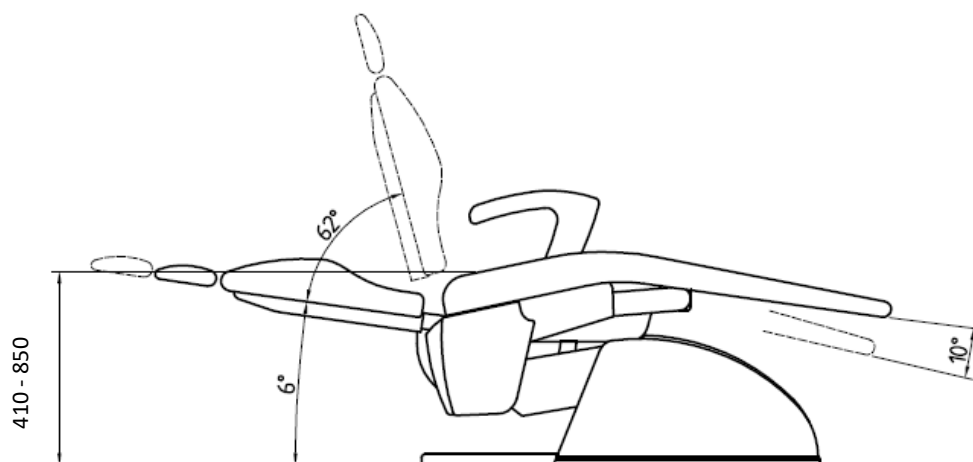
155Kg with cupidor attached to chair,

**Minimum space recommended for installation**

about 3.20x3.00x3.00 m (LxHxP)



## DIMENSIONS



**NOTE:**

The measures are to be considered indicative and might change according to the configuration of the dental unit and backrest type.

## IMPORTANT

---



**Note:**

The device is designed and manufactured in compliance with Directive 93/42/EEC medical devices (and s) and international safety regulations CEI EN 60601-1 (medical electrical equipment-General requirements for safety), CEI EN 60601-1-2 (medical electrical equipment – collateral regulation: electromagnetic compatibility), IEC 80601-2-60 (Medical electrical equipment: Particular requirements for basic safety and essential performance of dental equipment), ISO 6875 (patient chairs) , UNI CEI EN ISO 14971 (risk analysis), CEI EN 62304 (ing. Software), CEI EN 62366 (ing. Usability), CEI EN 60601-1-6 (Usability).

---



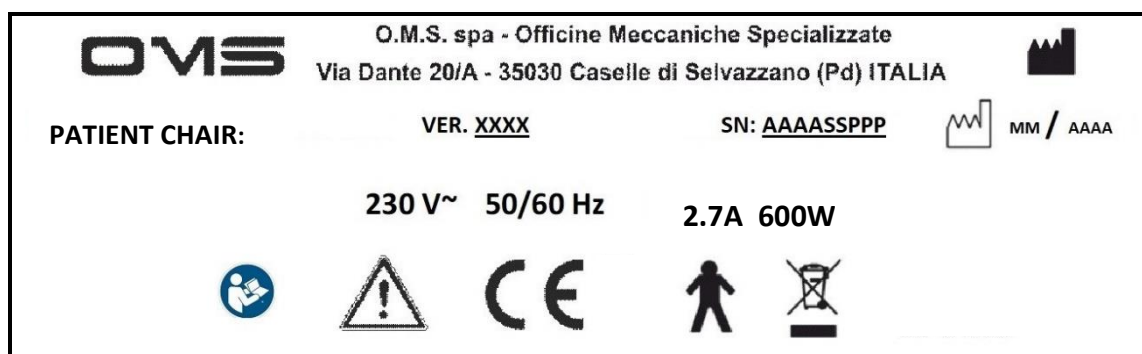
**Note:**

O.M.S. declines every responsibility to the effects of the safety and the reliability if the assemblage, the additions, the ritaratures, the changes or reparations are not effected from technical authorized O.M.S. with instructions and components exclusively furnished from O.M.S. and if the electric plant of the environment in matter is not conforming to the norms IEC and/or the instrument is not used in conformity to the use instructions.

---

## 2.1. DATA PLATE

On the instrument a nameplate is applied that brings the general data of the instrument.



Device model

Rated voltage and nature of current (alternating ☐)

Rated frequency

Rated current

Rated power

Device serial n°

Manufacturer

WEEE symbol

Applied part Type B

Mandatory, see enclosed documentation

Follow operating instructions

## 3. COMMAND - CONTROL - WARNING

---

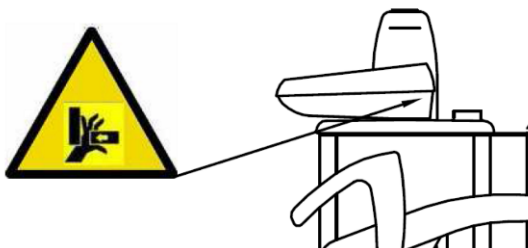
### 3.1. SAFETY SYSTEMS

The unit is equipped with safety devices that minimize the risk of collision during the movement of the chair, in particular there is a safety on the basin floor water group in version, which intervenes when the tray is rotated by the side of the chair, limiting the ascent of the chair at a defined height.

#### DANGER



In the version with a floor water group during the ascent of the chair check the positioning patient on the arm to prevent the risk of crushing with the basin.

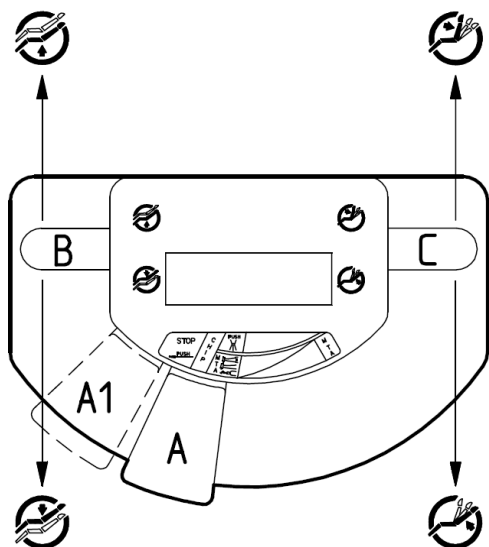


#### Note:

During any automatic chair movement (reset, memory placement or rinse position) by pressing any patient chair command (from the dental unit or push off of the foot controller) the chair stops immediately.

The movement of the chair, either at power-up that in normal use, can be prevented if one or more safety systems are active

### **3.2. CHAIR COMMAND FROM FOOTCONTROL**



The footcontrol has two side levers (B and C) that allow the operator to position the chair using the controls on the foot:



Ascent command pantograph;



Descent command pantograph;



Ascent backrest command;



Descent backrest command.



**Note:**

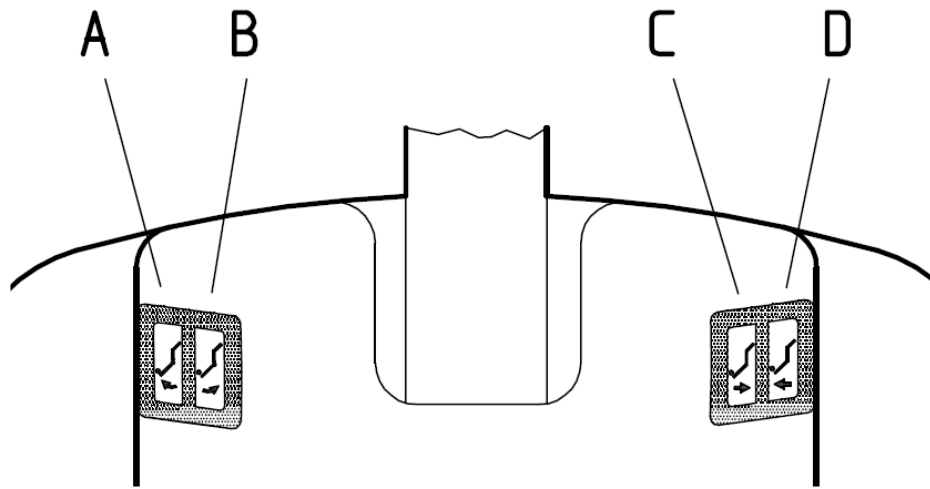
All electric movements of the chair are equipped with electro-mechanical limit switches. Once you have reached the extremes of the pantograph or backrest, they automatically break the power of the engine in question thus avoiding the violent stresses that would produce using mechanical limit switches.

---

### **3.3. MANUAL COMMAND FROM CHAIR**

The activation of ascent and descent (pantograph-back) is achieved by using the commands on the upper end of the backrest of the Chair (see figures 3 and 4). These are the functions of each:

- A. Ascent backrest command** (push the button towards the outside);
- B. Descent backrest command** (push the button towards the inside);
- C. Descent pantographic command** (push the button towards the inside);
- D. Ascent pantographic command** (push the button towards the outside).



### 3.4. AUTOMATIC COMMANDS FROM THE CHAIR

The patient chair is endowed with commands that allow to make automatically assume default positions, they have different functions depending on the version of the patient chair.



**Note:**

When you turn on the chair you can run any resetting of movements. This is necessary to use the various automatic controls of the chair, rinsing and memories (if present).

---

#### 3.4.1. ARCADIA EXT COMBINE TO THE DENTAL UNITS WITH SOSPEND WATER GROUP: LINEA ESSE – LINEA PATAVIUM – TEMPO 9 ELX

##### 3.4.1.1. STANDARD VERSION

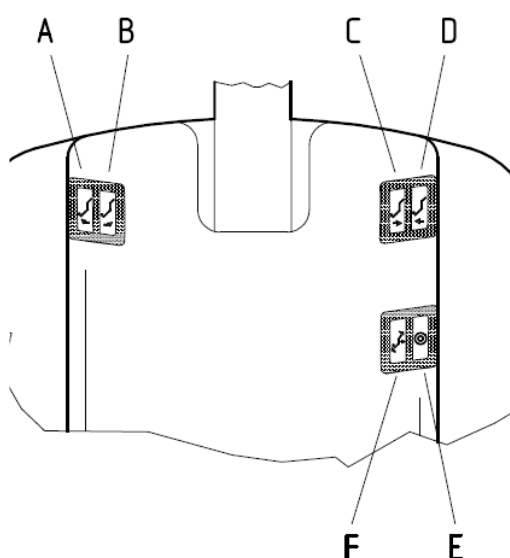
The operation of the controls is as follows:

**E. Rinse command** (push the button towards the outside):

starting from any position, this command activates the ascent of the backrest to the maximum of its stroke to allow the patient to enter the glass rinsing.

**F. Reset command** (push the button towards the inside):

Starting from any position other than the one reset, this command allows, when pressed in the direction of the arrow, to lower the pantograph of the patient chair in the minimum position and at the same time to pick up the back up to the maximum of its stroke.

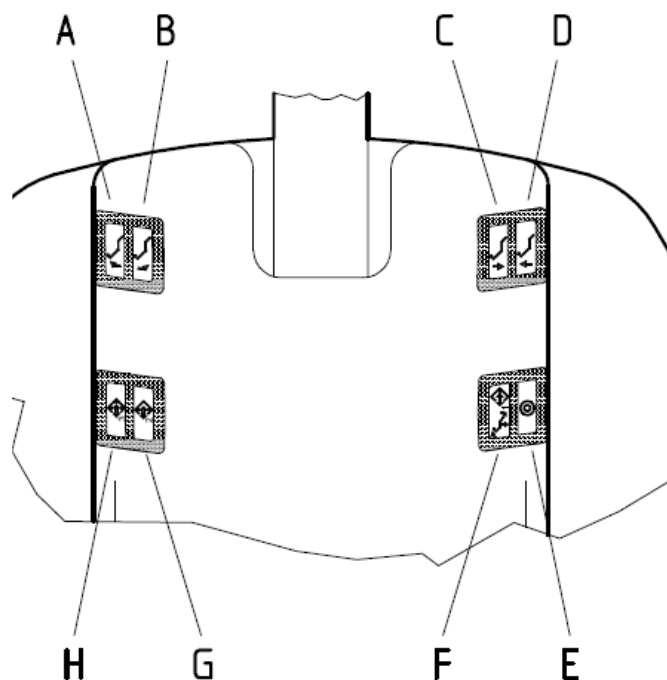






The operation of the controls is as follows:

- E. Rinse command /last position** (push the button towards the outside): starting from any position, this command activates the ascent of the backrest to the maximum of its stroke to allow the patient to enter the glass rinsing; If the command is pressed again the backrest returns to its previous position in the rinse cycle.
- F. Reset command/memory recall 1** (push the button towards the inside): starting from any location other than the one reset, this command activates the descent of the patient chair pantograph in the minimum position of the backrest simultaneously up to the maximum of its stroke; When the Chair is in the zero position, pressing the button activates the memory recall 1 of the chair.
- G. Recall memory command 2** (push the button towards the inside): the pressure of the button activates the recall of memory 2 of the chair.
- H. Recall memory command 3** (push the button towards the outside): the pressure of the button activates the recall of memory 3 of the chair.



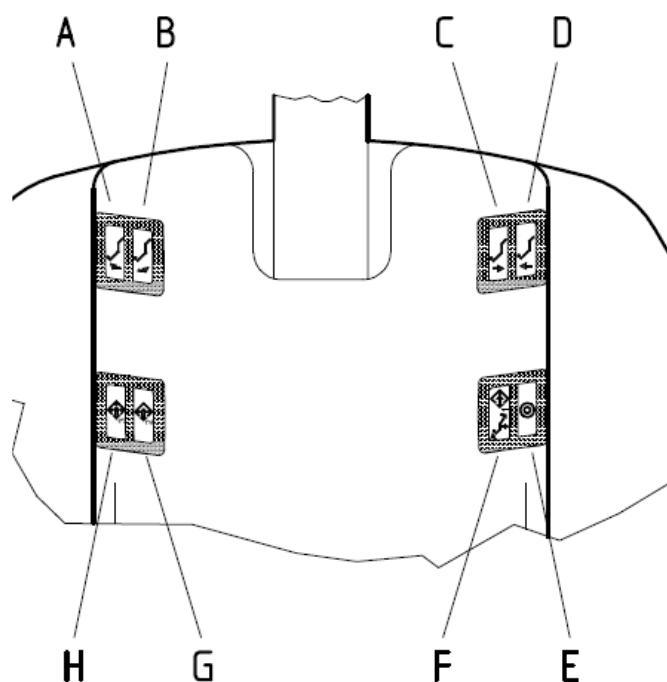
## PROGRAM STORAGE

To store the channel position simply manually move the chair to the desired position (using the manual controls) and then press and hold the button for the program that you want to memorize (F, G or H) until you hear the beep confirming.

### 3.4.2.       ARCADIA EXT COMBINE TO DENTAL UNITS WITH FLOOR WATER GROUP: LINEA ESSE – LINEA PATAVIUM – TEMPO 9 ELX

The operation of the controls is as follows:

- E. **Rinse command/last position** (push the button towards the outside) starting from any position, this command activates the ascent of backrest and seat to allow the patient to enter the glass rinsing; If the command is pressed again the backrest returns to its previous position in the rinse cycle.
- F. **Reset command/ memory recall 1** (push the button towards the inside): starting from any position other than the one reset, this command activates the descent of the patient chair pantograph in the minimum position and simultaneously the backrest up to the maximum of its travel; When the chair is to the zero position, pressing the button activates the memory recall 1 of the chair.
- I. **Memory recall 2** (push the button towards the inside): the pressure of the button activates the recall of memory 2 of the chair.
- J. **Memory recall 3** (push the button towards the outside) the pressure of the button activates the recall of memory 3 of the chair.



#### PROGRAM STORAGE

To store the channel position simply manually move the chair to the desired position (using the manual controls) and then press and hold the button for the program that you want to memorize (F, G or H) until you hear the beep confirming.

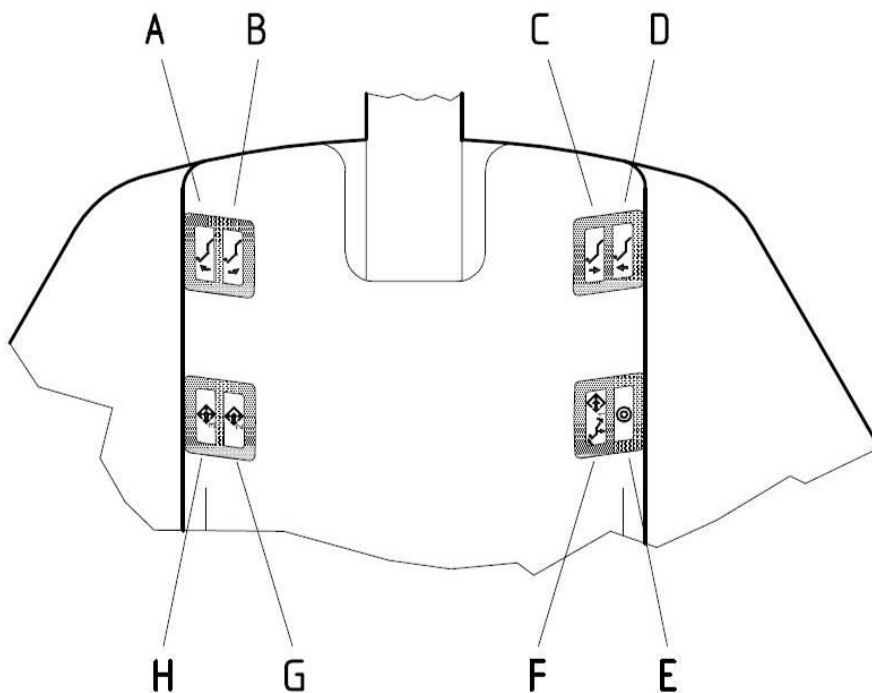
### 3.4.3. ARCADIA EXT COMBINE TO DENTAL UNITS WITH SOSPENDED WATER GROUP VIRTUOSUS CLASSIC

The operation of the controls is as follows:

- i. **Rinse command** (push the button towards the outside): starting from any position, this command activates the ascent of backrest allow the patient to enter the glass rinsing; If the command is pressed again the backrest returns to its previous position in the rinse cycle.
- ii. **Reset command/ memory recall 1** (push the button towards the inside): starting from any position other than the one reset, this command activates the descent of the patient chair pantograph in the minimum position and simultaneously the backrest up to the maximum of its travel; When the chair is to the zero position, pressing the button activates the memory recall 1 of the chair.

E. Selected program in instruments table

F. Not available



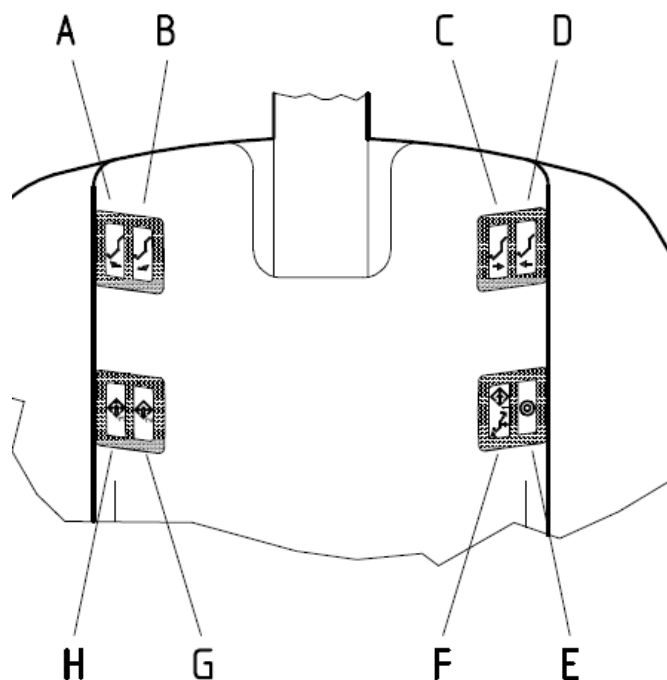
#### PROGRAM STORAGE

To store the channel position simply manually move the chair to the desired position (using the manual controls) and then press and hold the button for the program that you want to memorize (F, G or H) until you hear the beep confirming

### 3.4.4.      **ARCADIA EXT COMBINE TO DENTAL UNITS WITH FLOOR WATER GROUP: VIRTUOSUS CLASSIC, CARVING PLUS AND UNIVERSAL ML**

The operation of the controls is as follows:

- E. Rinse command** (push the button towards the outside): Starting from any position, this command activates the ascent of the backrest and the seat to allow the patient to access the rinsing glass;
- F. Reset command/ memory recall 1** (push the button towards the inside): starting from any position other than that of zeroing, this command activates the descent pantograph of the chair in a minimum position and at the same time the ascent of the backrest to the maximum of its stroke; When the patient chair is in the zeroing position, pressing the button activates the recall of memory 1 of the chair.
- G. Program selection in instrument table**
- H. Not available**



#### **PROGRAM STORAGE**

To store the channel position simply manually move the chair to the desired position (using the manual controls) and then press and hold the button for the program that you want to memorize (F, G or H) until you hear the beep confirming.

## 4. CHAIR

---

### 4.1. DOUBLE JOINT HEADREST

The articulated headrest is adjustable in height with an excursion of about 23 cm and has two articulations which can be controlled at the same time using the lever located in the back; It makes the headrest it easy to move on two rotation axes.

By carrying the headrest cushion to an inclination of about 90 ° with respect to the swivel mechanism, it can be rotated on itself by 180 °. It is also possible to lower the joint mechanism in a position that gives the headrest greater comfort for patients of modest stature.



**Note:**

**Once the headrest is positioned in the working position, reposition the release lever in place to lock the movement.**

---





## 4.2. DOUBLE JOINT HEADREST WITH CLICK

The double joint headrest with Click is adjustable in height with an excursion of about 23 cm and has two articulations simultaneously commandable using the lever placed in the rear; it makes it easy to move the headrest on two rotation axes.

By carrying the headboard cushion to an inclination of about 90 ° with respect to the swivel mechanism, it can be rotated on itself by 180 °. It is also possible to lower the joint mechanism in a position that gives the headrest greater comfort for patients of modest stature.



**Note:**

**Once the headrest is positioned in the working position, reposition the release lever in place to lock the movement.**

---







### **4.3. HEADREST WITH 3D MOVIMENT**

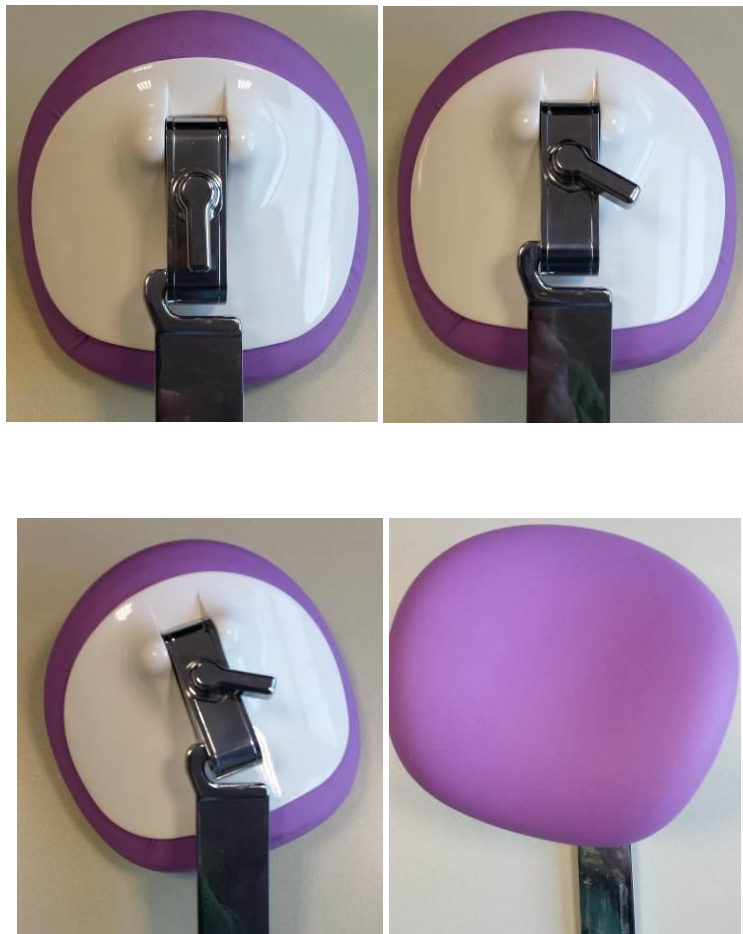
The 3D headrest movement is adjustable in height with an excursion of about 23 cm and has a articulation on the rear joint that also allows the lateral movement, using the lever placed in the rear; It makes it easy to move the headboard on three rotation axes.



**Note:**

**Once the headrest is positioned in the working position, reposition the release lever in place to lock the movement.**

---





#### **4.4. ARMREST**

The patient chair is supplied as standard with the left armrest only. Optionally it can be requested with both armrests; the right armrest is provided with a button (at the base of the same) whose pressure allows to break the armrest forward or backward to facilitate the passage of the patient.

Once the armrest is pulled back, it is also possible to remove it simply by pulling it in the direction of the axis of rotation, helping with small rotatory movements; Proceed exactly in reverse order to reinsert it, taking care that the insertion is fully thoroughly before turning the armrest.

The extraction and insertion manovres of the armrest must be accomplished gently avoiding, in case of difficulty, to force any movement.

## 5. POSITION VERSION ON WHEELS

### ELECTRIC SHOCK DANGER



Patient chair on wheels: Before carrying out any movement of the footrest of the chair, disconnect the main plugs, the electric power plug of the chair must be connected only and only after the correct positioning with the column of the dental unit.

### ATTENTION

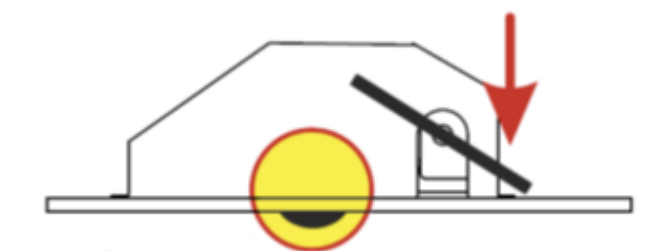


Patient chair on wheels: disconnect the connection between the chair and the unit before carrying out any movement of the footrestchair.

### DANGER



Patient chair on wheels: before sitting the patient on the patient chair, operate the pedal for the ground lock.



### DANGER



Patient chair on wheels: the positioning of the chair must be carried out without the patient.

### ATTENTION

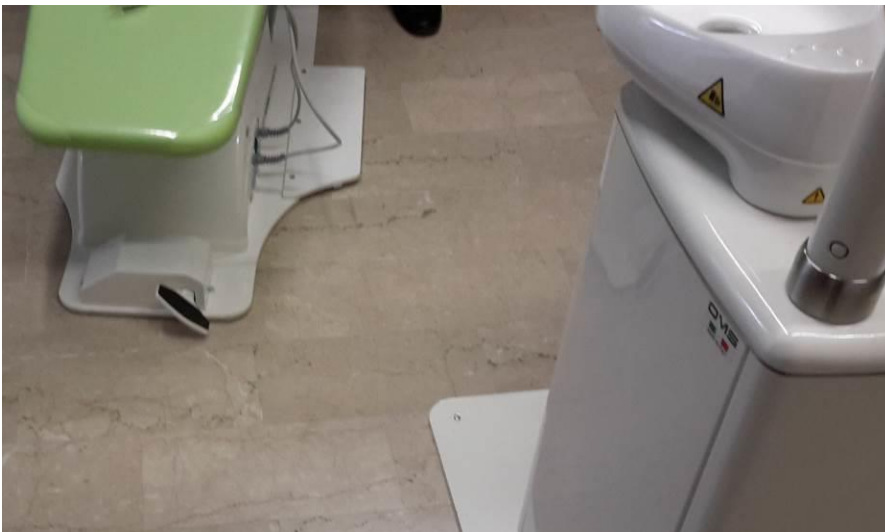
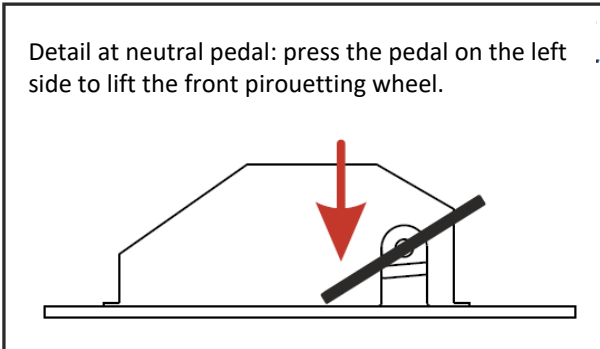


Patient chair on wheels: The handling area must be completely cleared.

Follow the sequence shown below for a correct position of the patient chair:

1. Press the release pedal to move the chair and close to the column of the unit on the side of the Spittoon

Detail at neutral pedal: press the pedal on the left side to lift the front pirouetting wheel.



2. Approximate with the left side of the base of the chair parallel to the base of the column.







3. Position the patient chair side by side with the unit so that the bases on the short edge are aligned in the rear and so that the bases on the long side are perfectly parallel. The plate protruding to the left of the base of the chair must be positioned as in the picture.



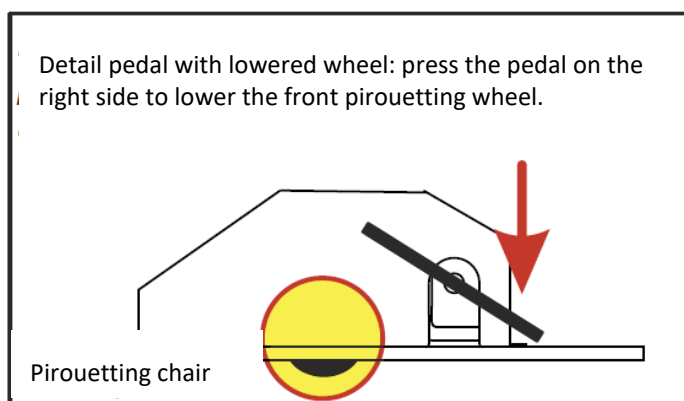
**DANGER**



The plate protruding to the left of the base of the chair must be positioned as in the picture. This gives maximum mechanical stability.

---

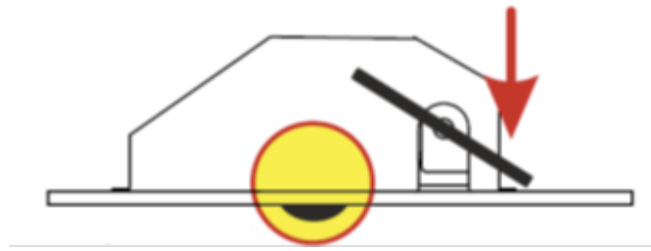
4. Lock the chair on the ground using the pedal.



**DANGER**



Patient chair on wheels: before sitting the patient on the patient chair, operate the pedal for the ground lock.



5. Attach the connector to the base of the column



6. Feed the chair using the appropriate power plug.



**ELECTRICK SHOCK DANGER**



Patient chair on wheels: before carrying out any movement of the footrest of the chair, disconnect the main plugs, the electric power plug of the chair must be connected only and only after the correct positioning with the column of the dental unit.

---

## 6. MAINTENANCE AND KEEPUP

---

The operations described, which we strongly recommend to carry out with the procedures and periodicity indicated, is to ensure maximum durability and efficiency over time to your equipment.

The following paragraphs listed the for the various maintenance activities, with the relative frequency, the indication of the executing officer and any reference details.

The activities are classified in:

- Cleaning/disinfecting,
- adjustments,
- scheduled maintenance,
- extraordinary maintenance.

View all the configurations using the various accessories available in the list and therefore must be applied according to the options you have chosen when ordering.

### **6.1. CLEANING AND DISINFECTING**

For hygiene (and to avoid prolonged exposure of surfaces to stains of corrosive substances) clean the device frequently.

For hygiene and cleaning, it's raccomandated, without incurring any risk of damage, O.M.S. recommends the use of products that contain:

- Quaternary Ammonium
- Phenolic compounds
- Iodophors

That do not contain:

- Alcool
  - Hypochlorite
  - Soda
- Organic Solvents

O.M.S. recommends these products already tested, always refer to the manufacturer's instructions and safety data sheets

- ZETA 4.

Disinfectant

- OROCID MULTISEPT.

### **Upholstery Patient chair**

For the thorough cleaning of the upholstery of the patient chair you can use a product suitable for the treatment of skay such as

- EMULSIO.

For daily cleaning and disinfection use a little aggressive product such as:

- GREEN & CLEAN SK.

O.M.S. provides, on request, the tested and proven products in the company.



**Note:**

**O.M.S. declines all responsibility for problems arising from the use of substances other than those recommended.**

---



DISINFECTION AND CLEANING			
Activities	Frequency	Who makes it?	Notes/reference
Patient chair: Upholstery, headrest and armrests	After each patient	Trained operator	Use only the products indicated by OMS.
Rheostat cleaning	daily	Trained operator	Use only the products indicated by OMS.
Painted casing	daily	Trained operator	It is recommended not to use denatured alcohol detergents based on soda or organic solvents, because they could ruin the paint and upholstery

### 6.1.1. ARMCHAIR



**Note:**

Daily cleaning and disinfection must be done with the use of unaggressive products for the upholstery in the Skay of the patient chair.

The periodical thorough cleaning of the upholstery, armrests and headrest must be done with products suitable for the treatment of the Skay and adopting the following procedure:

1. Shake well before use.
2. Pour the product onto a dry cloth, do not pour directly onto the surface to be treated.
3. Start to treat a small surface by verifying that there are no alterations on the Skay, then extend to the rest of the upholstery and go up to the complete evaporation.
4. Pass a damp cloth to take away residues from the treated surface.

Do not abuse in use and wait at least 60 days before repeating the treatment.

## 6.2. SCHEDULED MAINTENANCE

Scheduled Maintenance			
Activities	Frequency	Who makes it?	Note/reference
General functional checks	Annual or after 8000 hours of use	Authorized Technician	
Periodic checks of general safety/performance - IEC 62353	Two years	Authorized Technician	Mandatory by law

## 6.3. FUNCTIONAL AND SAFETY CHECKS

In order to guarantee the operational and functional safety of the chair, it is necessary to do an annual maintenance procedure, that must be done with authorized OMS technicians.

Medical devices are built to ensure safety even in the event of first failure for the patient, the operator or third parties, must follow the periodically checks, the level of effective safety.



### ATTENTION

It is necessary to perform periodic safety tests and checks at least every two years in order to identify any electrical failures (e.g. damaged insulation), which may reduce the initial safety level.

Such checks must be done by a OMS authorized technician, with appropriate tools and equipment and according to well-defined standards; The IEC 62353 standard is the benchmark for the control of electro-medical devices manufactured in accordance with IEC 60601-1.

Periodic tests and checks shall include visual checks, measurements of ground connections and dispersed currents; The results and measured values are necessarily recorded on specific forms and must be stored in order to demonstrate the maintenance of the appliance (complete with its accessories) in time, and to monitor the safety level of the device.

- Following the first commissioning (installation),
- After repair or maintenance work,
- During periodic checks.

### DANGER



The use of the dental patient chair is permitted only if all safety checks have been successful past.

---

## **6.4. EXTRAORDINARY MAINTENANCE**

Some extraordinary maintenance operations are described below; Except for paint retouching, we recommend that all must be done by authorized technicians O.M. S.

O.M.S. will provide on request all wiring diagrams, list of components, descriptions, calibration instructions, or other information that assist the authorized technicians O.M.S. in the repair of the device.

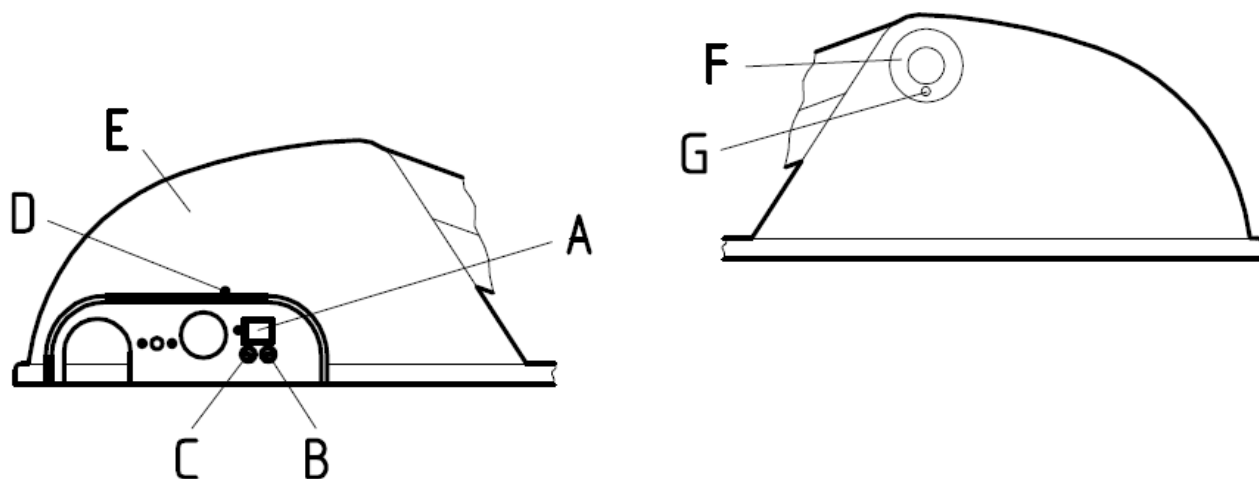
<b>EXTRAORDINARY MANTAINENCE</b>			
<b>Activities</b>	<b>Frequency</b>	<b>Who makes it?</b>	<b>Notes/ References</b>
Paint retouching	When necessary	Trained operator	
Fuse Replacement	When necessary	Trained operator	Refer to the technical documentation
Interventions for any malfunction, malfunction or downtime	When necessary	Trained operator	Refer to the technical documentation

### **6.4.1. RETOUCHING**

In case of small enamel scratches, it is possible to perform the retoug with the color bottle specially supplied in the accessory box. It is recommended to shake the bottle before use and to mix the color well, raising and lowering the brush several times inside the bottle containing the enamel. The retouching must be performed "dots" the ruined area, with small drops of color.

### 6.4.2. REPLACEMENT OF FUSES

ATTENTION: In order to replace a fuse, you must first identify the causes that have caused the rupture and only after removing them proceed with the replacement. The new protection fuse must have the same characteristics as the one replaced, indicated on the electrical diagram of the device.



On the base of the armchair, the protection fuses (B) and (C) can easily be identified, that can be replaced externally by means of a screwdriver

A series of spare fuses provided by O.M.S. Is located inside the accessory box

You can see here below the values of the main fuses, for the sole reference only:

- A. General Power of the Armchair 6.3AT, 230 Vac
- B. Transformer power supply 4.0 AT, 230 Vac

#### **DANGER**



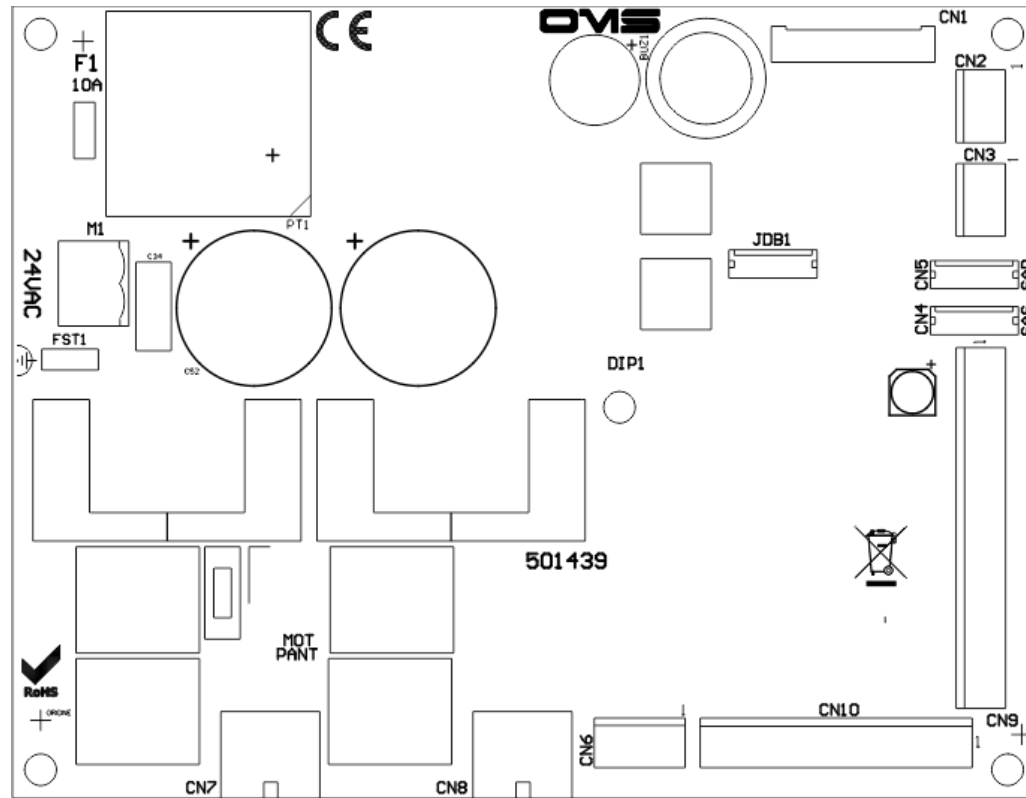
The main switch realizes the insulation of the device from the direct power supply, before making any operation inside the device make sure that switch is off.

Other fuses are inside the protective cover on the armchair electronic card.

The protective cover can be removed by unscrewing the screws (D) and (G), the cover (F) covering the screw (G) will simply be removed by pulling it out.

### Chair board

F1 10AT, 32 Vdc



A series of spare fuses supplied by O.M.S. are located inside the accessory box.

### DANGER



The replacement of the fuses must be done by an authorized technician O.M. S.

## 7. TECHNICAL INSTRUCTIONS FOR INSTALLATION

---

### **7.1. PACKING**

The unit shipped enclosed in a box (weight approx. 165 kg), contains:

Patient chair, fixing screws patient chair, right armrest \*, suction \*, operating instructions, wiring diagrams, guarantee coupon

(\*)Present only in the case of a specific request to the order.

Outside each case there is a mark showing the order number, the order confirmation number, the device model.

N.B.: The packing of a possible seat O.M.S. is separate

#### **MOUNTING**

1. first operation to do, the Chair must be unpacked and placed in the vicinity of the predispositions previously made using the installation plan in possession of the local organisation.
2. Attach the seat to the chair, insert the headrest and right armrest.
3. Record any "games" by screwing or unscrewing the adjustment feet (supplied).
4. Attach the chair to the floor using the two expansion screws (supplied).
5. Make the electrical connection and proceed with the installation of the cover.
6. Connect the ground wires to the screw marked with the earth symbol.
7. Insert the headrest and right armrest.

### **7.2. TESTING AND IMPLEMENTATION**

1. . Check the correct operation of the manual descent and ascent pantograph and backrest controls, the automatic reset control, the rinse position and the "last-position" working position. Memorize and verify the good positioning of the 3 programs (see Manual controls and 4.3 automatic controls).
2. Check the correct operation of the limit switches and safety systems (see Safety Systems Section).



#### **IMPORTANT WARNING:**

During the testing, it is necessary to ensure the mechanical stability of the device, after having placed all the movable elements and accessories (tablet, lamp, water group, etc.) in the most unfavourable position. If it is not possible to fix the chair to the floor, stabilizer elements are available.

---

**DANGER**



The main switch realizes the insulation of the appliance from the direct power supply, before making any operation inside the appliance make sure that the switch is off.



## 8. INFORMATION RELATING TO ELECTROMAGNETIC COMPATIBILITY IN ACCORDANCE WITH IEC 600601-1-2

The device is designed and manufactured in compliance with the standard CEI en 60601-1-2 (Electro-medical apparatus, collateral standard: electromagnetic compatibility) and therefore has a degree of immunity and emissions such as not to create dangerous interference with devices complying with the same norm. Warning: Interference with electrical equipment that has a level of emission or immunity that does not conform to CEI en 60601-1-2 may occur. In such cases, these equipment should not be used at the same time with O.M.S. equipment; If the device is in a stalemate due to such interference, it is sufficient to turn it off and on again.


In the presence of particular holes in the supply voltage, it is possible that the micromotor has a momentary drop in speed that does not affect the safety and performance of the same, the duration of the event is limited to the duration of the voltage drop.

Manufacturer's Guide and declaration – Electromagnetic emissions		
The device is intended to work in the electromagnetic environment below specified. The customer or user of the device must ensure that it is used in this environment.		
Emission test	Compliance	Electromagnetic Environment-Guide
Emission RF CISPR 11	Group 1	The device uses RF energy only for its internal operation. As a result, its RF emissions are very low and probably does not cause any interference in the electronic devices located nearby.
Emission RF CISPR 11	Class B	The device is suitable for use in all environments, including domestic ones and those connected directly to a low-voltage public network power supply that feeds buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Fluctuations voltage emissions /flicker IEC 61000-3-3	In compliance	

Manufacturer's Guide and declaration – Electromagnetic immunity			
The device is intended to work in the electromagnetic environment below specified. The customer or user of the device must ensure that it is used in this environment.			
Immunity test	Test level IEC 60601	Level of Compliance	Electromagnetic Environment-Guide
Electrostatic discharge (ESD) IEC 61000-4-2	contact $\pm 6$ kV air $\pm 8$ kV	$\pm 6$ kV $\pm 8$ kV	The floors must be in wood, concrete or ceramic tiles. If the floors are covered with synthetic material, the relative humidity should be at least 30%.
Transients/rapid electrical pulse sequence ( <i>Burst</i> ) IEC 61000-4-4	$\pm 2$ kV For power lines $\pm 1$ kV For input/output lines	$\pm 2$ kV $\pm 1$ kV	The quality of the main voltage should be that of a typical commercial or hospital environment.
Surge ( <i>Surge</i> )	$\pm 1$ kV between the phases	$\pm 1$ kV	The quality of the mains voltage should be that of a typical

IEC 61000-4-5	$\pm 2$ kV between phases and ground	$\pm 2$ kV	commercial or hospital environment
Voltage gaps, short interruptions and voltage variations on the input lines dell'alimentazione  IEC 61000-4-11	$<5\% U_T$ (>95 % hole in $U_T$ per 0.5 cycle)  $40\% U_T$ (60 % hole in $U_T$ per 5 cicli)  $70\% U_T$ (30 % hole in $U_T$ per 20 cicli)  $<5\% U_T$ (>95 % hole in $U_T$ per 5S)	$<5\% U_T$ 0.5 cycle (10mS)  $40\% U_T$ 5 cycle (100mS)  $70\% U_T$ 20 cycle (500mS)  $<5\% U_T$ 5S	The quality of the mains voltage should be that of a typical commercial or hospital environment. If the user of the device requires continuous operation during the interruption of the mains voltage, it is recommended to power the device with a UPS or with batteries.
magnetic field at Network frequency (50/60 Hz)  IEC 61000-4-8	3 A/m	3 A/m	The magnetic fields at network frequency should have characteristic levels of a typical locality in a environment such as commercial or hospital.
NOTE: $U_T$ is the network tention in c.a. before the application of test level.			

Manufacturer's Guide and declaration – Electromagnetic immunity			
The device is intended to work in the electromagnetic environment below specified. The customer or the user of the device must ensure that it is used in this environment.			
Immunity test	Level test IEC 60601	Level of Compliance	Electromagnetic Environment-Guide
			Portable and mobile RF communication equipment should not be used near any part of the device including cables, the recommended separation distance calculated with the equation applicable to the frequency of the transmitter. Recommended Distance Separation:  $d = 1,17 \sqrt{P}$  $d = 1,17 \sqrt{P}$ from 80 MHz to 800 MHz

RF conduct IEC 61000-4-6	3 Veff from 150 kHz to 80 MHz	3 V	$d = 2,34 \sqrt{P}$ from 800 MHz to 2,5 GHz  where P is the maximum rated output power of the transmitter in Watts (W) according to the manufacturer of the transmitter and D is the recommended separation distance, in meters (m).  The field intensities of fixed RF transmitters, as determined by an electromagnetic investigation on site A should be below the level of compliance for each frequency range B.  Interference may occur near devices marked with the following symbol:  
RF irradiata IEC 61000-4-3	3 V/m from 80 MHz to 2,5 GHz	3 V/m	
Note 1: At 80 MHz and 800 MHz, the separation distance for the highest frequency range applies.			
Note 2: These guidelines are not applicable in all situations. Electromagnetic propagation is influenced by the absorption and reflection of structures, objects and people.			
<p>a The intensities fields for stationary transmitters, such as the base stations for radio telephones (cellular and cordless) and terrestrial radiomobiles, radioamateur devices, transmitters in AM/FM and TV transmitters can not be foreseen theoretically with precision. An electromagnetic survey of the site should be considered to evaluate an electromagnetic environment caused by fixed RF transmitters. If the field strength measured in the place do to the device is used exceeds the applicable level of compliance above, the operation of the device should be observed. If you notice abnormal performance, additional measures may be required as a different orientation or position of the device</p> <p>b The field strength in the frequency range from 150 khz to 80 MHz should be less than 3 V/M</p>			

Recommended distances separation between portable and mobile radiocommunication devices.			
The device is intended to operate in a environment electromagnetic space where RF radiated disturbances are under control. The customer or the user of the device can help prevent electromagnetic interference by ensuring a minimum distance between mobile and portable RF communication devices (transmitters) and the device as recommended, in relation to the maximum output power of the radio equipment.			
Maximum output power of the specified transmitter  W	Separation distance for transmitter frequency  m		
	From 150 kHz a to MHz  $d = 1,17 \sqrt{P}$	from 80 MHz to 800 MHz  $d = 1,17 \sqrt{P}$	from 800 MHz to 2,5 GHz  $d = 2,34 \sqrt{P}$
0,01	0,12	0,12	0,24
0,1	0,37	0,37	0,74
1	1,17	1,17	2,34
10	3,70	3,70	7,40
100	11,70	11,70	23,40

For the transmitters specified for maximum output power not shown above, the recommended separation distance  $d$  in meters (m) can be calculated using the equation applicable to the frequency of the transmitter, where  $p$  is the maximum rated output power of the transmitter in Watts (W) according to the manufacturer of the transmitter

NOTE 1: to 80 MHz and 800 MHz, applies the separation distance for the highest frequency range.

NOTE 2: These guidelines may not be applied in all situations. Electromagnetic propagation is influenced by the absorption and reflection of structures, objects and people.

## 9. DISPOSING OF THE DEVICE AT THE END OF LIFE

---

European Directives 2002/96/EC and 2003/108/EC electrical and electronic on waste equipment (RAEE).



The symbol of the crossed bin shown on the equipment or its packaging indicates that the product at the end of its useful life must be collected separately from the other waste. The user must, therefore, confer the equipment reached at the end of the life of the appropriate waste collection centres of electronic and electrotechnical, or return it to the retailer at the time of purchase of a new equipment of equivalent type, in reason of one by one.

The appropriate separate collection for the subsequent start of the equipment disposed of recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and health and promotes the reuse and/or recycling of the materials of which the equipment is composed.

## 10. REPORTING ACCIDENTS TO PEOPLE

Dir. 93/42/CEE All. II (D.G. 2/1 Rev. 0)

CUSTOMER NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
SERIAL NUMBER OF DEVICE \_\_\_\_\_  
ACCIDENT \_\_\_\_\_  
\_\_\_\_\_

DAMAGE TO THE PATIENTS OR USER HEALTH \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Space reserved for the company (Quality assurance)

Possible cause of the accident:

- ☐ Malfunction  
☐ deterioration of characteristics and/or performance  
Shortage of operating instructions

Other \_\_\_\_\_

Damage \_\_\_\_\_  
\_\_\_\_\_

Proposed operational decisions \_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Space reserved for the Company (Directorate General)

Operational decisions \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective actions \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

In case of an accident send the form to O.M.S.. with the maximum priority.

