YOUR DENTAL UNITNESS

Instructions for use

# Patient Chair

# ARCADIA P

# SWAN

ENGLISH

**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**

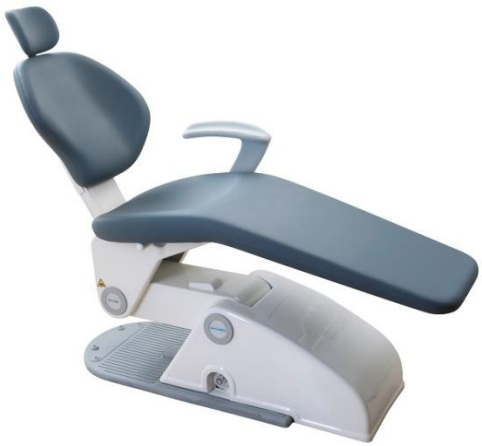
The chair has been designed to offer the highest safety and comfort. For this reason, the backrest has not protrusions in the lower part, is completely rounded, allowing the doctors team the correct posture with laid patient.

The backrest is ultra-flat and with no protrusions in its lower part, allowing the perfect posture, with laid patient, of the medical team; at the same time it is anatomically shaped in order to distribute optimally the patient body loads, whatever his size is.

The backrest is equipped with a balance movement that allows the patient to avoid his clothes entanglement during the lowering of the dental unit and the need to adjust the headrest at the end of the movement.

Solid chair with greatest stability. Either floor-standing or assembled to cuspidor column with highly advantageous small footprint.Backrest compensation with armrests for optimal lower back support. Trendelenburg positioning included. This symmetric chair can be used both by right-handed and left-handed dentists.

The **Swan** chairs has a folding legrest .



**Arcadia P**

**FIXED AND PERMANENT INSTALLATION**

**Swan**

**MOVEMENT ON WHEELS INSTALLATION**

## 1.1. SYMBOLS

| | | |
|---|---|---|
|  | **CAUTION** | 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

**e-mail: aftersales@omsdentalunits.com**

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

## 1.3. FOR YOUR SAFETY

### 1.3.1. Safety precaution

**DANGER**

To avoid risk of electric shock, this device should only be connected to power networks with protective ground according to the regulations in force in your country.

**DANGER**

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.

**DANGER**

The device should be installed with electrical systems according with the regulations in force in your country.

**DANGER**

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

**DANGER**

The use of the device is not allowed to non-professional operators or who have not read the manual instructions.

Always check that the dental units is in good condition.

**CAUTION**

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.

**CAUTION**

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

**DANGER**

Do not use the equipment in close conjunction with anaesthetic gas or highly oxygentated enviroments as well as nitrous oxide.

**CAUTION**

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

**DANGER**

No modification on this unit are allowed , do not use non-approved accessories and/or unauthorized modification that might be danger or cause injury to persons and damage

**CAUTION**

Maintenance procedures shall not be performed while equipment is in use with a 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 carry on service on the parts, you must disconnect the power to the system .

**DANGER**

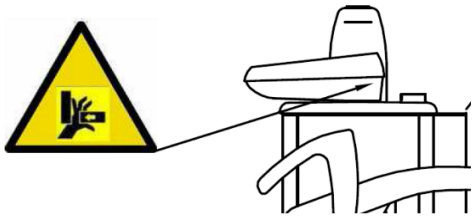
When servicing the unit or in case of maintenaince, always switch the unit off.

**CAUTION**

To connect a suction system it must be observed the instructions given in this manual and the wiring diagram; the suction system must be marked CE in accordance with Directive 93/42/EEC and s.m.i. or Regulation (UE) 2017/745 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).

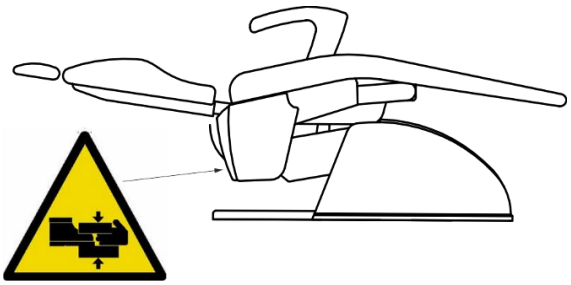
**DANGER**

The unit with cuspidor on the floor (PLUS), when drive the chair lift motor with the patient check the patient's arm side, to avoid the risk of crushing with the bowl.



**DANGER**

During the movements of the patient chair, both in manual and automatic position , do not put hands and feet near the baseplate of the chair to avoid the risk of crushing, read the chair instructions.



**CAUTION**

During the automatic movement of the chair the dental user must stay closer to the dental unit.

**CAUTION**

Do not sit on the heatrest or on legrest lower part of the chair.

**CAUTION**

In case of prolonged treatment in elder patients, pay attention to the pressure ulcer

**CAUTION**

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

**ELECTRIC SHOCK DANGER**

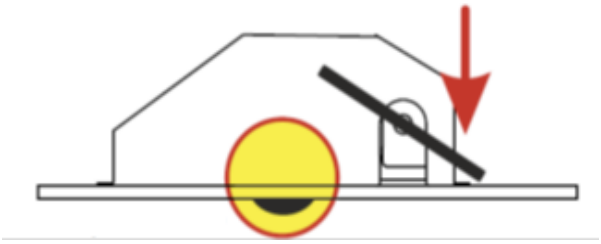
Chair on wheels: before carrying out any moving of the chiar platform , disconnect the power supply, the power supply must be connected only after the correct positioning with the cuspidor of the dental unit.

**CAUTION**

Chair on wheels: disconnect the connection between patient chair and unit before make any move of the platform of the patient chair

**DANGER**

Chair on wheels: before the patient be seated down on chair make sure the platfortm for is stuck on the ground by using the stop pedal.



**DANGER**

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

**CAUTION**

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

## 1.4. INTENDED USE

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 ≤ 3000m

Pollution degree 2

Overvoltage category II

## 1.6. WARRANTY

The standar warranty period of OMS is 36 (thirty six) months , from the date of installation belong to the end customer. The warranty conditions are shown inside the warranty book supplied with the device.

The warranty is applied to the end customer and follow the product specified INSTALLATION AND INSPECTION REPORT , Only parts are covered under warranty and under no circumstances will OMS S spa cover the labour cost

**Please ensure that INSTALLATION AND INSPECTION REPORT is correctly completed in all the sections by an authorised O.M.S. spa technician, and signed by you as well as the technician. To activate the warranty, you must return the signed original INSTALLATION AND INSPECTION REPORT to O.M.S. spa by fax or certified email within TEN DAYS from the date of installation, otherwise the guarantee will not be valid 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 - PEC: omsstaff@legalmail.it**

# 2. **TECHNICAL CHARACTERISTICS**

| | |
|---|---|
| **Model** | ARCADIA P / SWAN |
| **Manufactured by** | O.M.S. S.p.A. Officine Meccaniche Specializzate |
| | Via Dante 20/A - 35030 Caselle di Selvazzano Padova Italia |
| **Class** | I  |
| **Application parts type** | B |
| **Protection level device** | IPX0 |
| **Protection level foot control** | 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** | 2.7 A |
| **Nominal power** | 600 W |

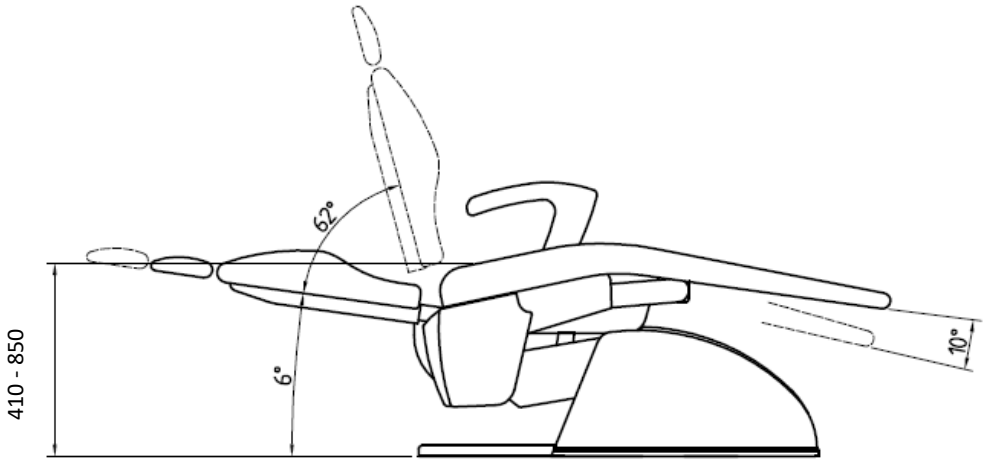
## OPERATION TIME OF CHAIR LIFT AND BACKREST MOTORS

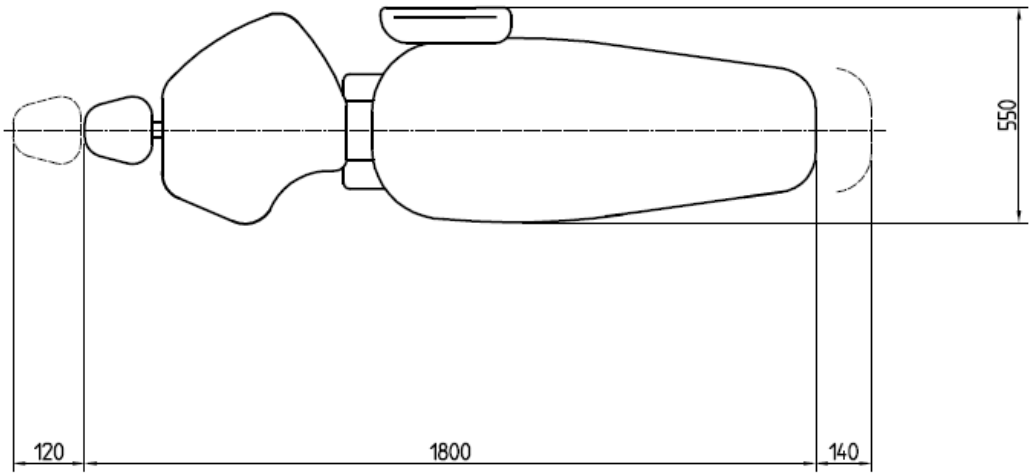
Intermittent operation 60 sec “ON”, 600 sec “OFF”

## OTHERS

| | |
|---|---|
| **Cable length foot control** | 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 cuspidor 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:**

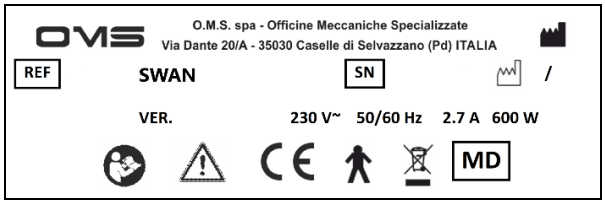
**The device is designed and manufactured in compliance with or Regulation (UE) 2017/745 medical devices (and s) and international safety regulations CEI EN 60601-1 (medical electrical equipment-General requirements for safety), CEI EN 60601-1-2 (medical electrical equipment – collateral regulation: electromagnetic compatibility), IEC 80601-2-60 (Medical electrical equipment: Particular requirements for basic safety and essential performance of dental equipment), ISO 7494-1 (patient chairs) , UNI CEI EN ISO 14971 (risk analysis), CEI EN 62366 (ing. Usability), CEI EN 60601-1-6 (Usability).**

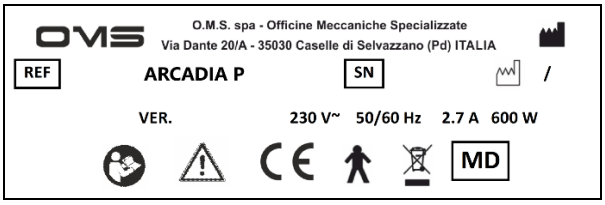
**Note:**

**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. **PRODUCT LABEL**

The product label show the following information.




- REF: device reference
- Rated voltage and nature of current (alternating ~)
- Rated frequency
- Rated current
- Rated power
- SN: Device serial n°
- DATE of Manufacturer
- WEEE symbol
- MD: Medical Device symbol
- Applied part Type B
- Refer to instruction manual /booklet
- Follow operating instructions

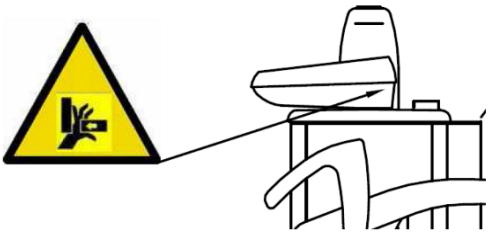
# 3. COMMAND - CONTROL - WARNING

## 3.1. SAFETY SYSTEMS

Care should be taken when driving the patient chair to minimize the risk of collision during the movement, Obstruction in the patiente chair's line of movement activate safety switches that stop the motorized movements as well as cuspitor when is out (PLUS VERSION).

**DANGER**

In the version with a floor cuspidor , the bowl is above the patient chiar and stops upward chair movements, Move the bowl into home position to resume normal operation.

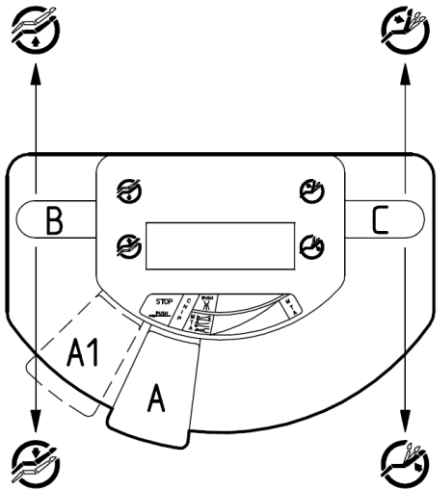


**Note:**

**While using automatic chair position (ei: zero position , pre set or rinsing position) the movement can get stops immediately by pressing any patient chair command (from the dental unit or push off of the foot controller)**

**The movement of the chair, can be stuck if one or more safety switches are actived**

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




The footcontrol has two side knobs (B and C) that allow to drive the chair upside and downside.

Chair up

Chair down

Backrest up;

Backrest down.

## 3.3. MANUAL MOVEMENTS BUTTONS FROM BACKREST

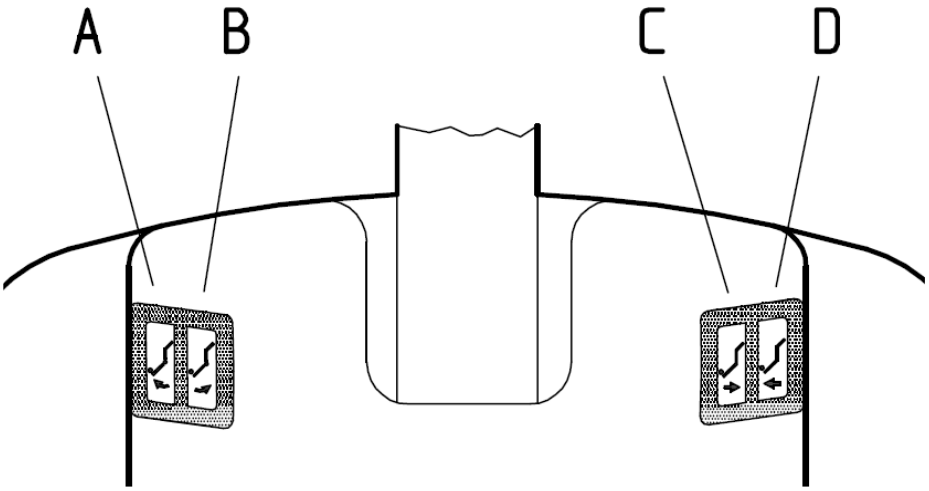
The drive up and down (lift motor- Backrest) can also be done by using the buttons on the backrest (see figures 3 and 4).

**A.** **Backrest UP** (push the button towards the outside);

**B.** **Backrest DOWN**(push the button towards the inside);

**C.** **Chair UP** (push the button towards the inside);

**D.** **Chair DOWN** (push the button towards the outside).



## 3.4. AUTOMATIC BUTTONS FROM THE CHAIR

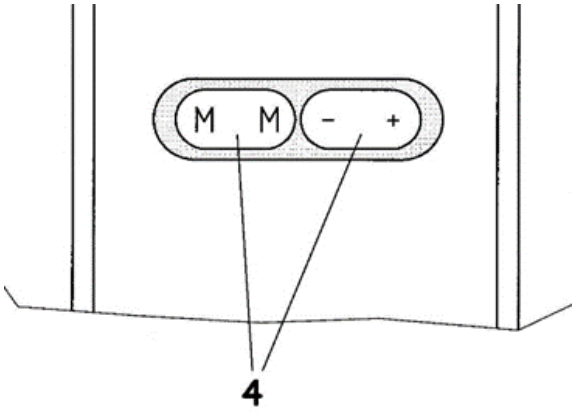
On the backrest has been installed the automatic position buttos, that can be used in different way, dipend of which unit has been intalled.

**Note:**

**When switch on the chair is necessary go to zero position. This allow you to use the automatic position as well as , rinsing position (if has been installed as option).**

### 3.4.1. ARCADIA P / SWAN INSTALLED TO THE DENTAL UNITS WITH SUSPENDED CUSPIDOR: LINEA ESSE – LINEA PATAVIUM

#### 3.4.1.1. BUTTONS ON THE BACKREST




**4 –** Using the buttons **+** e **–** can be selected the pre set that going to be use. The number of the Pre Set is displayed on the base of the chair (on the right side)

- Pressing the button + the memory changed from 1 to 9 .
- Pressing the button - the memory changed from 1 to 9.

The the memory of the pre set has been selected press the button blue on the base of the chair to move the chair.

### 3.4.1.2. PROGRAM PRE SET OF CHAIR POSITION

Before to save a new Pre Set position, is needed to select the number of the Pre Set is going to be save.

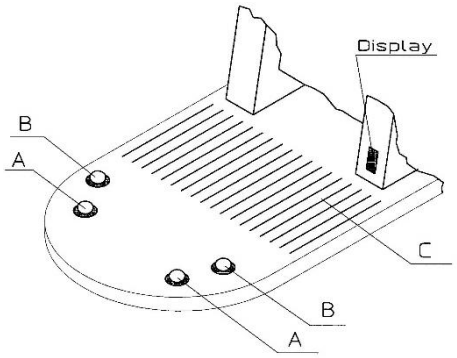
- Pressing the button + the memory changed from 1 to 9 .
- Pressing the button - the memory changed from 1 to 9.

Move the chair using the button to the position, then prush both buttons M e M. You will heard a beep that conferm the position has been saved.

**Note**

**The pre set number 9 is rinsing position**

### 3.4.1.3. BUTTONS ON THE BASE OF THE CHAIR




The base of the chair has 5 buttons, (A, B, C)

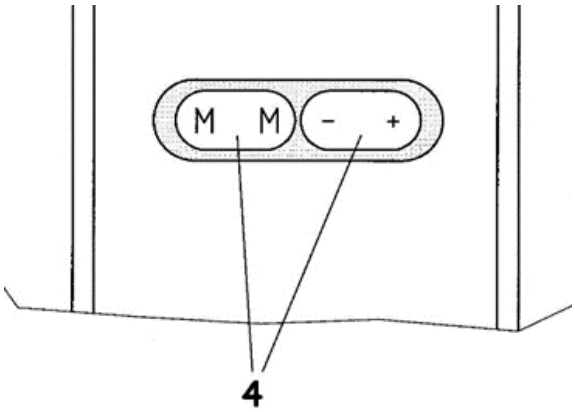
A. **BUTTONS BLUE** (N° 2 Simetric buttons doctor and Assistant ): by pressing this buttons the chiar goes to the pre set selected on the display

B. **BUTTONS RED** (N° 2 Simetric buttons doctor and Assistant): By pressing this buttons the chiar goes to the positon zero. This button can be also used as stop, if the chair is moviming in o

C. **SAFETY MEMBRANE AREA**: there is a safety area that works by pressing the area C . The movementes can get stop while the chair is going down by pressing it , then chair will move up. If the chair is not moving by pressing that area, the chiar goes in rinsing position, after rinsing by pressiong the button A, the chiar goes back to the latest position.

### 3.4.2. ARCADIA P / SWAN INSTALLED WITH DENTAL UNITS: FLOOR STANDING CUSPIDOR, ESSE PLUS – PATAVIUM PLUS

#### 3.4.2.1. BUTTONS ON THE BACKREST




**4 –** Using the buttons **+** e **–** can be selected the pre set that going to be use. The number of the Pre Set is displayed on the base of the chair (on the right side)

- Pressing the button + the memory changed from 1 to 9 .
- Pressing the button - the memory changed from 1 to 9.

The the memory of the pre set has been selected press the button blue on the base of the chair to move the chair.

#### 3.4.2.2. PROGRAM PRE SET OF CHAIR POSITION

Before to save a new Pre Set position, is needed to select the number of the Pre Set is going to be save.

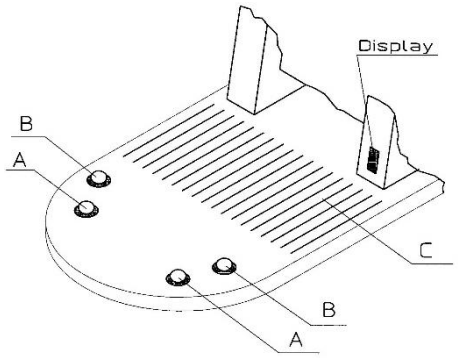
- Pressing the button + the memory changed from 1 to 9 .
- Pressing the button - the memory changed from 1 to 9.

Move the chair using the button to the position, then prush both buttons M e M. You will heard a beep that conferm the position has been saved.

**Note**

**The pre set number 9 is rinsing position**

**3.4.2.3.** **BUTTONS ON THE BASE OF THE CHAIR**

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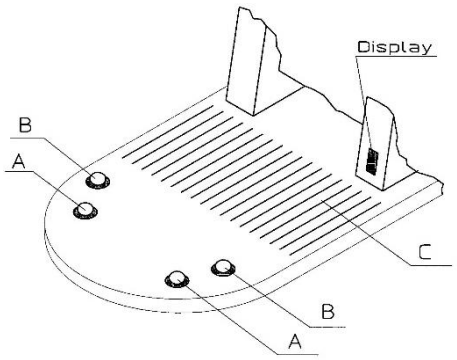
C. **SAFETY MEMBRANE AREA**: there is a safety area that works by pressing the area C . The movementes can get stop while the chair is going down by pressing it , then chair will move up. If the chair is not moving by pressing that area, the chiar goes in rinsing position, after rinsing by pressiong the button A, the chiar goes back to the latest position.

### 3.4.3. ARCADIA P / SWAN INSTALLED WITH DENTAL UNITS: VIRTUOSUS VIRTUOSUS 2020, VIRTUOSUS PLUS VIRTUOSUS 2020, CARVING PLUS, PUNTO KART

#### 3.4.3.1. BUTTONS ON THE BASE OF THE CHAIR

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C. **SAFETY MEMBRANE AREA**: there is a safety area that works by pressing the area C . The movementes can get stop while the chair is going down by pressing it , then chair will move up. If the chair is not moving by pressing that area, the chiar goes in rinsing position, after rinsing by pressiong the button A, the chiar goes back to the latest position.

# 4. **CHAIR**

## 4.1. **DOUBLE JOINT HEADREST**

The double joint headrest can be adjustable, height with an excursion of about 23 cm and has two joint that can be controlled at the same time, pull out the lever located in the back, to realease the locking mechanism ; manually set the headrest to the requiered angle, then lock again.

Positioning the headrest's cushion at 90 ° to the angle adjusted 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 childrent patients

**Note:**

**Once the headrest has been adjusted to the working position, place back the lever to lock the movement.**








## 4.2. DOUBLE JOINT HEADREST WITH CLICK

The Double Joint Click headrest can be adjustable, height with an excursion of about 23 cm and has two joint that can be controlled at the same time, pull out the lever located in the back, to realease the locking mechanism ; manually set the headrest to the requiered angle, then lock again.

**Note:**

**Once the headrest has been adjusted to the working position, place back the lever to lock the movement.**





## 4.3. HEADREST WITH 3D MOVIMENT

The Double Joint Click headrest can be adjustable, height with an excursion of about 23 cm and has two joint that can be controlled at the same time, pull out the lever located in the back, to realease the locking mechanism ; manually set the headrest to the requiered angle, then lock again.

**Note:**

**Once the headrest has been adjusted to the working position, place back the lever to lock the movement.**




## 4.4. **ARMREST**

The ARCADIAP / SWAN chair has a left armrest always installed as optional can be installed the right armrest; the right armrest has a button (on the lower part), by pressing that button unlock the armrest and can be move forward o backwards

The armrest can be also completly removed. Moving the armrest backwards, and then pulley outside, it will get out.

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# 5. **MOVING CHAIR WITH WHEELS**

**RISK OF ELECTRIC SHOCK**

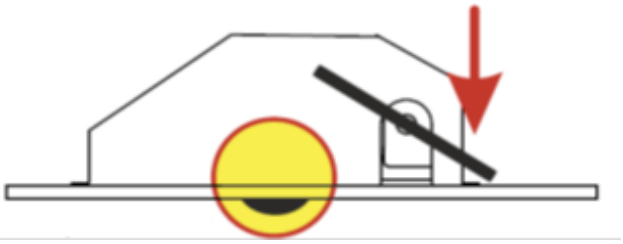
Chair on wheels: Before carrying out any movement of the footprint of the chair, disconnect the main connectors, as electric power and movement cable. The chair must be connected only after the correct alligment with the column of the dental unit.

**CAUTION**

Chair on wheels: disconnect the connection between the chair and the unit before carrying out any movement of the footprint

**DANGER**

Chair on wheels: before the patient be seated down on chair make sure the platfortm is stuck on the ground by using the stop pedal



**DANGER**

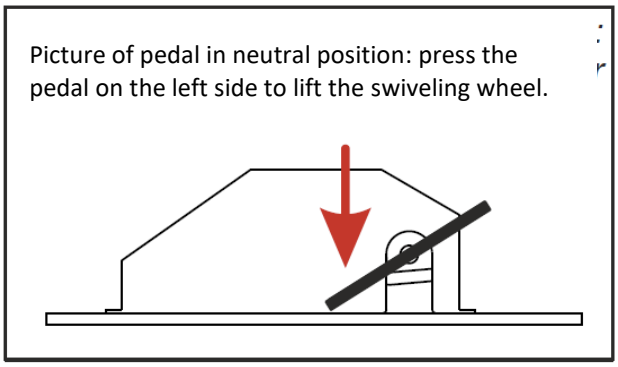
Chair on wheels: the positioning of the chair must be carried out without the patient.

**CAUTION**

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 pedal to release. Move the chair closer to the column of the unit on the side of the cuspidor

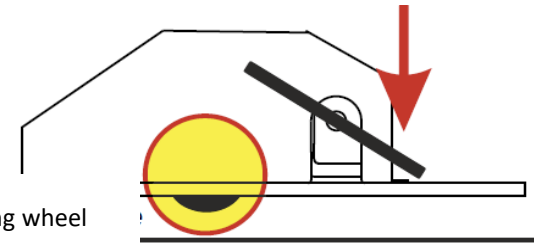



**2.** Get closer the footprint base with the left side of the cuspodir

3. Place the chair on the side of the cuspidor colum. Check that the long side is perfectly parallel.

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

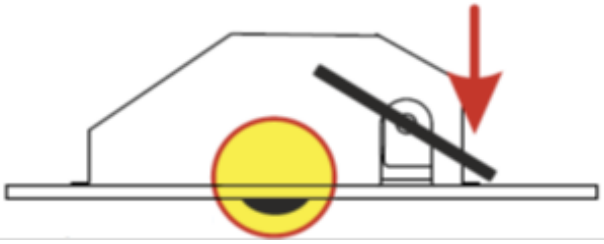
Picture of pedal in neutral position: press the pedal on the left side to lift the swiveling wheel.



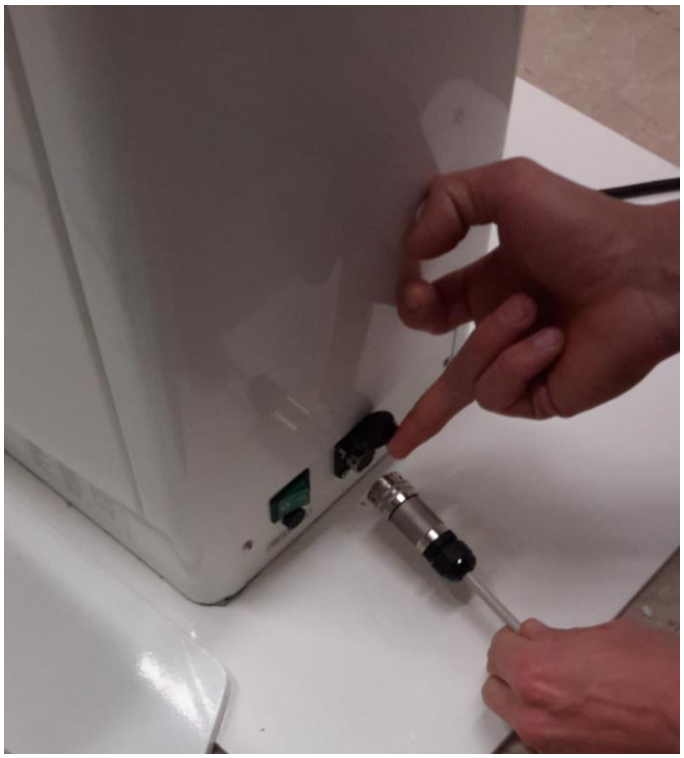
Swiveling wheel

**DANGER**

Chair on wheels: before the patient be seated down on chair make sure the platfortm is stuck on the ground by using the stop pedal.



**5.** Use the connector on the base of the column



**6.** connect the chair using the appropriate power socket ..

**RISK OF ELECTRIC SHOCK**

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**

To guarantee the dental unit's proper operation, the unit must be checked and serviced by a qualified OMS services technican according to the maintenance schedule that has been set for your dental units.

In the annual maintenance, "CARE KIT" the service technican replaces all parts specified by the Care Kit. These include, but are not limited to, parts in contact with air, water and suction system. In additional the service technician checks and services all dental units parts suspect to wear and tear in normal use. There includes part in the cuspidor, foot control, instrument console, arms, patient chair, assistant arm and operation light. Also the mechanical stability and electrical safety inspection is performed.

The default maintenance interval is 365 days. The message "Care Kit" will remaind you the annual maintenance well in advance.

The activities are classified in:

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

## 6.1. **CLEANING AND DISINFECTING**

For hygiene (and to avoid stains of corrosive agents) clean the device frequently.

For hygiene and cleaning, without 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 sheetsDetergente

- SK SURFACES DISINFECTOR

  Disinfectant

- SK INSTRUMENTS DISINFECTOR 1

**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:

- SK SURFACES DISINFECTOR

**Note:**

**O.M.S. declines all responsibility for problems or damages caused by using different productor 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. |
| Foot Control | daily | Trained operator | Use only the products indicated by OMS. |
| Metal Casting Painted | daily | Trained operator | It is not recommended use cleaning agent with Ethanolo (alcohol) detergents based on soda or organic solvents, they might wreck the paint and upholstery |

### 6.1.1. PATIENT CHAIR

**Note:**

**Daily cleaning and disinfection must be done with approved OMS products. DO NOT use agresive product for daily upholstery cleaning**

The deep cleaning of the upholstery, armrests and headrest shall carry out every 90 days, with products suitable for the treatment and following this procedure.

1. Wipe the upholstery with EMULSIO.
2. Start to treat a small surface and check that there are no changes on the upholstery, then apply it on the whole he upholstery.
3. Wipe the uphosetery with a water to remove the EMUSION from the surface
4. Wait at least 90 days before repeat 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

To guarantee the dental unit's proper operation, the unit must be checked by a qualified OMS services technican according to the maintenance schedule that has been set for your dental units

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.

**CAUTION**

It is mandatory perform periodic safety tests and checks at least every two years in order to avoid 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.

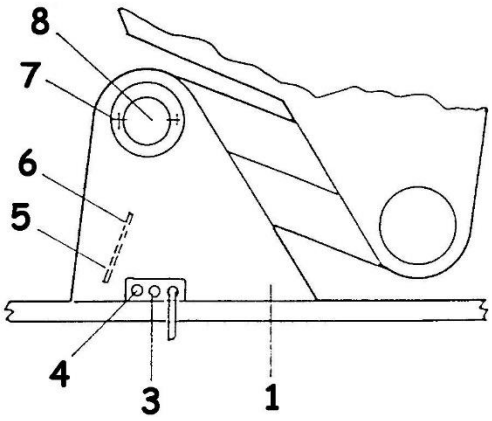
O.M.S. will provide on request all wiring diagrams, list of components, descriptions, calibration instructions, or other information that assist the authorized technicians O.M.S. in the repair of the device.

| **EXTRAORDINARY MANTAINENCE** | | | |
|---|---|---|---|
| **Activities** | **Frequency** | **Who makes it?** | **Notes/ References** |
| Fuse Replacement | When necessary | Trained operator | Refer to the technical documentation |
| Anomaly, malfunction, or downtime | When necessary | Trained operator | Refer to the technical documentation |

### 6.4.1. FUSE REPLACEMENT

**DANGER**

Before to replace a fuse, is needed find the reason why is blown up , replace the fuse just when the problem has been fixed. The new fuse has to be the technical features as the replaced one, indicated on the electrical diagram of the dental unit.




The fuse are placed on the baseplate of the chair, general fuse (3) e (4), can be easyly replaced without open a covers the third one (rif. 5) is located on the PCB (6) Inside of the chair's cover: To replace that fuse, need to remove the chair's cover (1) before unscrew (7), located under the cover (8).

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

3. fuse lift and backrest motor 4AT 220, Vac
4. fuse trasformer power supply 0.5AT, 220 Vac
5. fuse low power 0.5AT, 24 Vac

**DANGER**

The main power switch cut-off the device from the electrical network, Do not make any servicing on the unit while the power switch is on

**DANGER**

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

# 7. **TECHNICAL INSTRUCTIONS FOR INSTALLATION**

## 7.1. **PACKING**

The contents of the delivery package are as follow, and the weight is 180Kg

- Patient Chair
- Fixing screws patiente chair
- Right armrest (delivery in the case of a specific request to the order)
- Suction system devices (delivery in the case of a specific request to the order)
- User Manual, wiring diagrams, warranty information

Each box has a mark showing, the order confirmation number, the device model.

## 7.2. **INSTALLATION**

1. Unpack and place the different unit components to one side for ease of access and installation.
2. Connect the cuspidor to chiar.
3. The floor must be straight within 1%, however you may have to adjut the chair using the support of the chair.
4. Fix the chair on the floor using the two expansion anchors and screw (supplied).
5. Connect the unit to the electrical network, then place the cover.
6. Connect the ground cables to the screw marked with the earth symbol.
7. Place the headrest and right armrest.

## 7.3. POST INTALLLATION CHECK

1. After install the unit, carry out the all relevant checking, describe on “INSTALLATION AND INSPECTION REPORT”, as well as carry out the following check list.

- ❑ Check the main air and water connection
- ❑ Check the drain and suction connections
- ❑ Check the mains voltage cable and gounding connections
- ❑ Adjust the internal air and water pressures.
- ❑ Adjust the bowl and rinse & cup fill water flow rates
- ❑ Check the operation of the suction system
- ❑ Check the operation of the foot control
- ❑ Check the operation of the suction arm
- ❑ Check the operation of the safety switches
- ❑ Drive the chair lift motor
- ❑ Driver the backrest motor

**DANGER**

The main power switch cut-off the device from the electrical network, Do not make any servicing on the unit while the power switch is on

# 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** | **Complience** | **Electromagnetic Environment-Guide** |
| Emission RF<br><br>CISPR 11 | Gruop 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<br><br>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<br><br>IEC 61000-3-2 | Class A | |
| Fluctuations voltage emissions /flicker<br><br>IEC 61000-3-3 | In complience | |

| **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)<br><br>IEC 61000-4-2 | contact ± 6 kV<br><br>air ± 8 kV | ± 6 kV<br><br>± 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 *(Burst)*<br><br>IEC 61000-4-4 | ± 2 kV For power lines<br><br>± 1 kV For input/output lines | ± 2 kV<br><br>± 1 kV | The quality of the main voltage should be that of a typical commercial or hospital environment. |
| Surge *(Surge)*<br><br>IEC 61000-4-5 | ± 1 kV between the phases<br><br>± 2 kV between phases and ground | ± 1 kV<br><br>± 2 kV | The quality of the mains voltage should be that of a typical commercial or hospital environment |
| Voltage gaps, short interruptions and voltage variations on the input lines | <5 % $U_T$ | <5 % $U_T$ | 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 |

| | | | |
|---|---|---|---|
| dell'alimentazione<br><br>IEC 61000-4-11 | (>95 % hole in $U_T$ per 0.5 cycle)<br><br>40 % $U_T$<br><br>(60 % hole in $U_T$ per 5 cicli)<br><br>70 % $U_T$<br><br>(30 % hole in $U_T$ per 20 cicli)<br><br><5 % $U_T$<br><br>(>95 % hole in $U_T$ per 5S) | 0.5 cycle (10mS)<br><br>40 % $U_T$<br><br>5 cycle (100mS)<br><br>70 % $U_T$<br><br>20 cycle (500mS)<br><br><5 % $U_T$<br><br>5S | 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)<br><br>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:<br><br>*d = 1,17 √P*<br><br>*d = 1,17 √P* from 80 MHz to 800 MHz<br><br>*d = 2,34 √P* from 800 MHz to 2,5 GHz |
| RF conduct<br><br>IEC 61000-4-6 | 3 Veff<br><br>from 150 kHz to 80 MHz | 3 V | 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). |
| RF irradiata<br><br>IEC 61000-4-3 | 3 V/m<br><br>from 80 MHz to 2,5 GHz | 3 V/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.<br><br>Interference may occur near devices marked with the following |

| | | | |
|---|---|---|---|
| | | | symbol:  |

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.

a The intensities fiels 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

b The field strength in the frequency range from 150 khz to 80 MHz should be less than 3 V/M

**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**<br><br>**W** | **Separation distance for transmitter frequency**<br><br>**m** | | |
|---|---|---|---|
| | **From 150 kHz a to MHz**<br><br>*d = 1,17 √P* | **from 80 MHz to 800 MHz**<br><br>*d = 1,17 √P* | **from 800 MHz to 2,5 GHz**<br><br>*d = 2,34 √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 2012/19/UE 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**

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.

O.M.S. spa - Officine Meccaniche Specializzate
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C.F. e P. IVA 00228440285 TVA/VAT IT 00228440285 CCIAA PD 87089 Mecc. PD 000016 - Tribunale 4911 (Vol.Doc. 9278) - Cap. Soc. € 702.000 int. ver.
Iscrizione al Registro A.E.E. N.: IT08020000000899