

# **///Olsen**

The Brand of Innovation  
*Installation Manual - Quality*





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Dear technician,

This manual has been developed to guiding as proper installation for Quality dental unit, aiming to standardize the process of installation, making it easier and ensure customer satisfaction.

Before installing the equipment, when possible, please check the installation environment, place where the equipment will be installed, available spaces, placement of furniture, patient's movement area, work position of the professional(s) and assistant(s), to ensure the best placement and performance of the equipment, granting a comfortable working environment not only for professionals but also for patients.

Make sure the necessary supplies are available for the proper functioning of the equipment:

**Compressed Air:** The dental compressor must be oil free with dynamic pressure between 5.5 and 7.0 bar (80-100 psi), minimum displacement of 150 l / min and 30 liters reservoir. Please recommend the use of coalescing filter in the equipment's air inlet.

**Plumbing:** - Up to 10 meters: use hose Ø1/4". From 10 to 20 meters: use hose Ø5/16". Use specific woven hose for compressed air. For longer stretches, it is recommended project of distribution with specific rigid pipe.

**Water to Spittoon Bowl and Cup-filler:** Install an easy access block valve to stop water supply to the equipment at the end of working day and also to limit water pressure, if necessary. The water pressure must to be between 2.8 and 6.0 BAR and ideal pH between 6.5 and 8. If the water pressure is not enough, we recommend consulting an experienced professional for hydraulic systems. We also recommend to use a filter in the equipment's water inlet.

**Sewage System:** The sewage pipe must have good hydraulic declivity and should preferably be installed underground. Use Ø40 mm pipe.

**Power Supply:** Single phase installation, proper grounding and provided with an exclusive circuit breaker. If the electricity network has tension variations, we do recommend power stabilizer.

**Vacuum Pump Sewage System:** Connecting Junction Box to the Vacuum pump installation, use curved pipes. Don't use 90° fittings, to avoid debris deposits and decreasing suction power.

**Fixing chair to the ground:** For safety reasons, both for the professional and patient, we recommend to fix the equipment on the ground, with anchor bolt screws provided with the equipment.

Fixation is strong recommended to prevent shifting of the equipment and consequently disruption of electrical, hydraulic and pneumatic connections. Damages caused to the equipment for not fixing the same are entire responsibility of the technician and the owner.
















# Before Starting

Before starting the equipment installation, please check the following items:

- 1- Installation site:** Check the doors' width to ensure the equipment's box will get in; otherwise you must to unpack the equipment before.
- 2- Power supply:** Check if electrical power is available at dental office. Check also voltage and where circuit breaker's box is located.
- 3- Compressed Air:** Make sure the compressor is installed and working properly. Check plumbing conditions. If necessary proceed drainage / cleaning to avoid water and debris into the equipment. Check filters conditions. If there is no filter, ask the customer to install it. Check the main compressed air block valve. If there is no block valve, install it inside the Junction Box.
- 4- Water Network:** Check water supply and its pressure. If water pressure is not enough we do recommend to install water pressurizer system. Make sure there is water block valve available. If there is no water block valve, install it inside the Junction Box.
- 5- Hydro-sanitary, electrical and compressed air sketches:** Check the exactly location of each abovementioned plumbing to avoid accidents when using the drilling machine.
- 6- Chair fixation point:** Inform the customer about necessity of chair anchorage. Position the chair according the dental office layout.

## Tools

Necessary tools to intall the equipment:

	Universal Plier with electrical insulation		Cutting Plier with electrical insulation		Snap Rings Plier
	Flat Blade Screwdriver: 3/16 x 4"		Philips Screwdriver: 3/16 x 4"		Blunt Scissors
	L Wrench: 11 x 11mm		2 Combination Wrenches: 13mm		Magnetic Level
	Hex Wrench 3mm and 5mm		Adjustable Wrench		Hammer Drill
	Concret drill 12mm		Extension Cord 10m		Cleaning Cloth

# Assembly Instructions



P01  
1- Place the box next to the installation site. Use the existent handles for transportation.



P02  
2-Cut the three green tapes with cutting pliers. Pull up housing cover.



P03  
3-Remove the protective plastic with blunt scissors and carefully removing from the chair the following items:



P04.1



P04.2



P04.3



P05

4-Stool Upholstery (P04.1) and Stool Structure (P04.3), which is tied on the opposite side (P04.2);

5-Chair Backrest



P06  
6-Chair armrests and headrest;



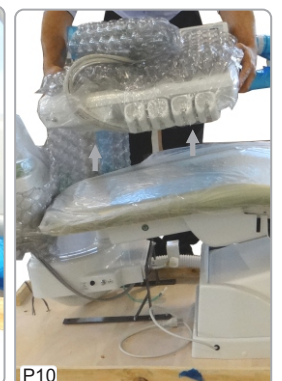
P07  
7-Arm of Operation Light, which is tied at the three indicated points.



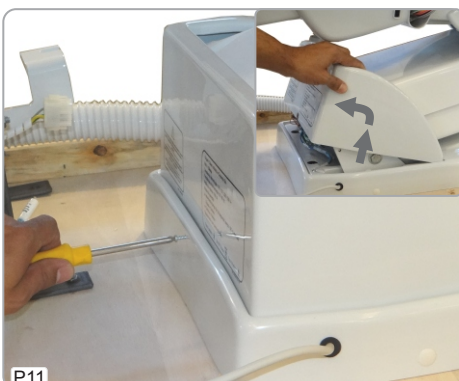
P08  
8-Junction Box;



P09  
9-Water tank and Chair Anchorage Kit.



P10  
10-Move up the working table from the chair seat.



P11  
11-Remove the front plastic cover of the pantograph using philips screwdriver.



P12  
12-Remove the finishing covers and keep them.



P13  
13-Remove the chair fixing screws using L Wrench 11mm.



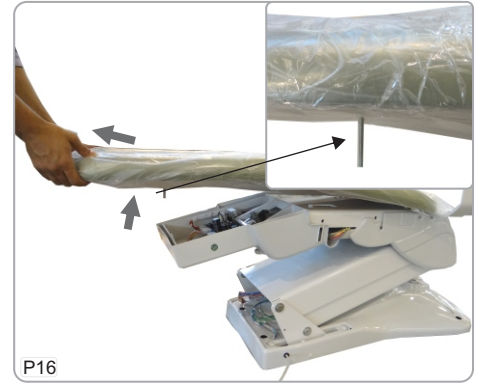
# Assembly Instructions



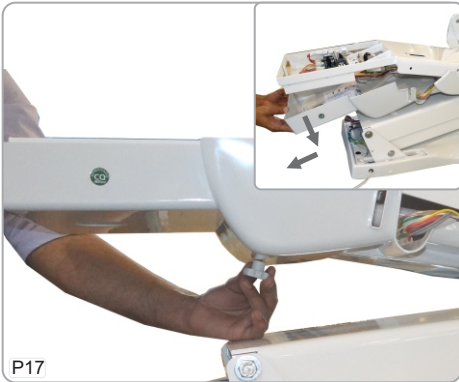
P14 14-Remove the chair from wooden base. .



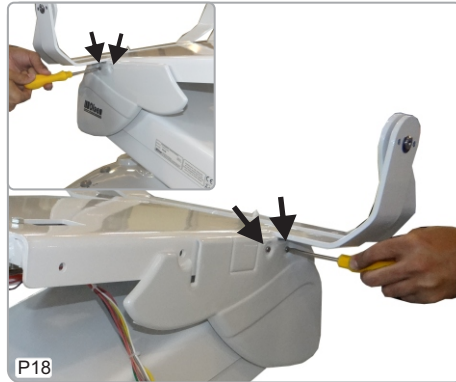
P15 15-Release the seat fixing handle screw.



P16 16-Remove the seat upholstery, watching the screw to avoid damages (detail).



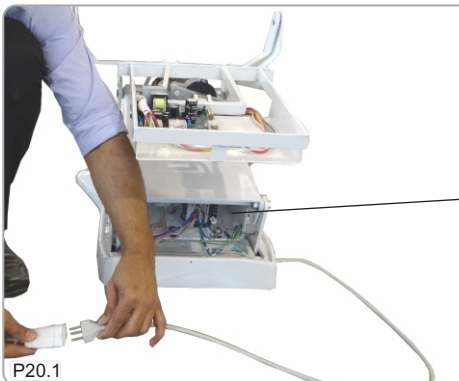
P17 17-Release the handle screw and remove the seat lower covering.



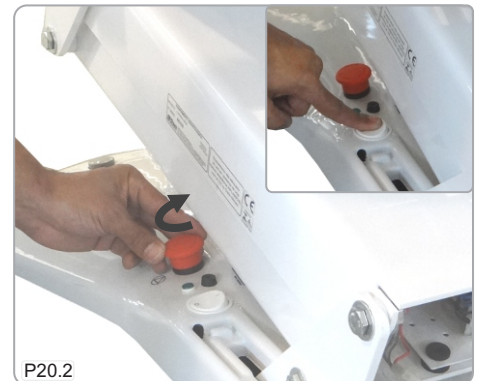
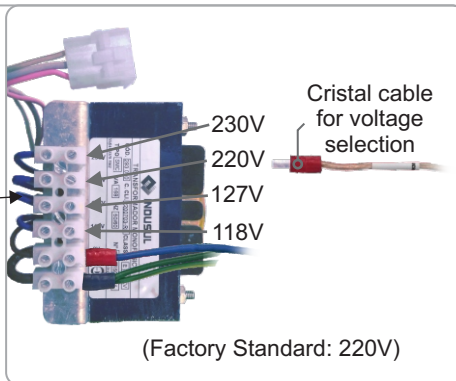
P18 18-Release the four screws for the rear pantograph cover using flat screwdriver.



P19 19-Remove the rear pantograph cover and keep the four screws.



P20.1



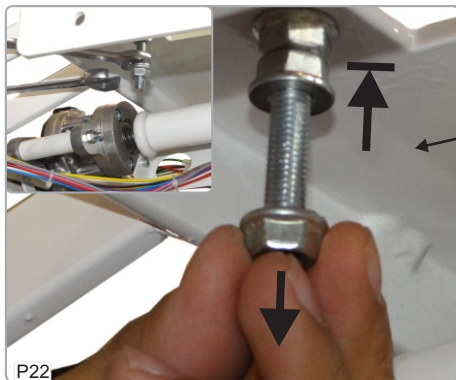
P20.2

20-Before plug in the equipment, please check the network voltage and proceed necessary changes at transformer and fuse. Plug in the equipment (P20.1) and turn it on. Firstly releasing the emergency button (P20.2) and after by pressing the On/Off Switch (detail).



P21

21-Raise the seat up to its maximum height.

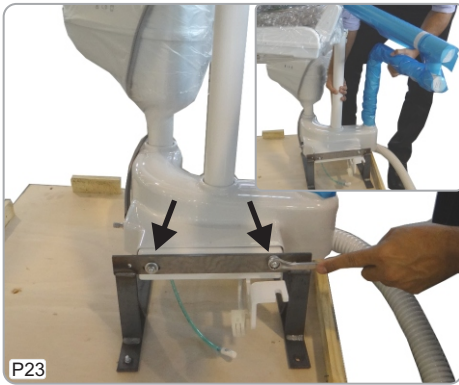


P22

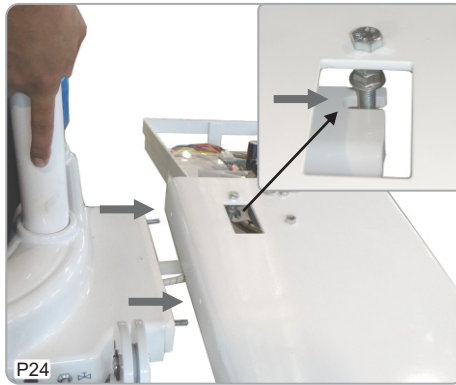
22-Release the counter nuts above indicated using two 13mm wrenches. Thread up the top nut (touching the metal plate). Remove the lower nut from the screw and keep it.



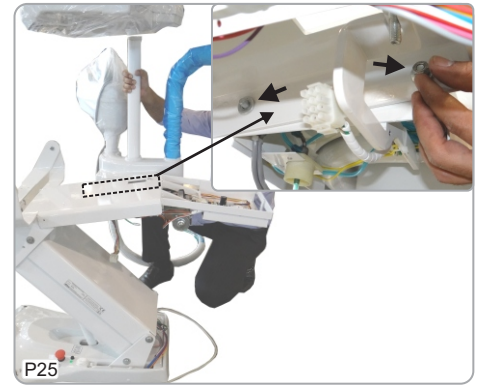
# Assembly Instructions



P23  
23-Unscrew the holder nuts using 13mm wrench and remove the Delivery Unit from the holder.



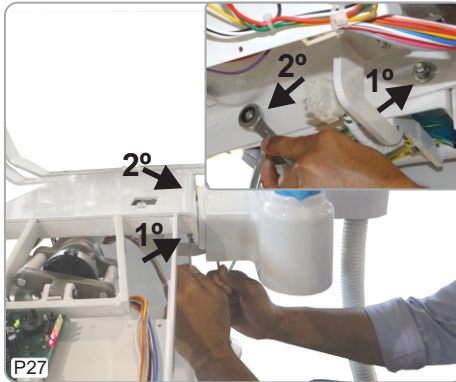
P24  
24-Couple the Delivery Unit to the chair, watching the right insertion of the screws and Delivery Unit's metal bracket (detail).



P25  
25-Take the two nuts from the holder (P23) and use it to fix the Delivery Unit to the chair. Do not tighten screws now.



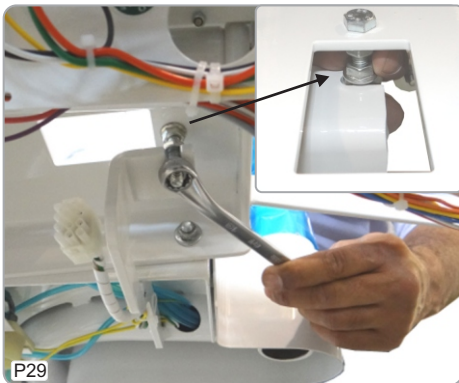
P26  
26-Put the Working Table at working position and fix magnetic level on the post of Operating Light.



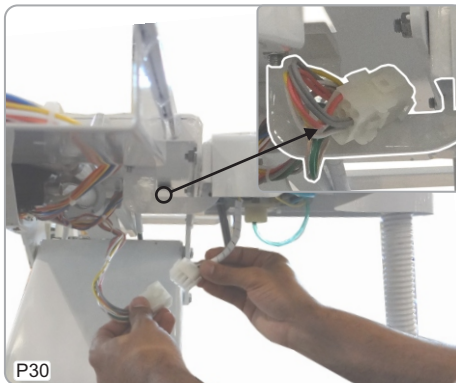
P27  
27-Adjust Delivery Unit level parallel to the chair and tighten the nuts as indicated above using two 13mm wrenches.



P28  
28-Turn the magnetic level to adjust the delivery unit perpendicular level to the chair.



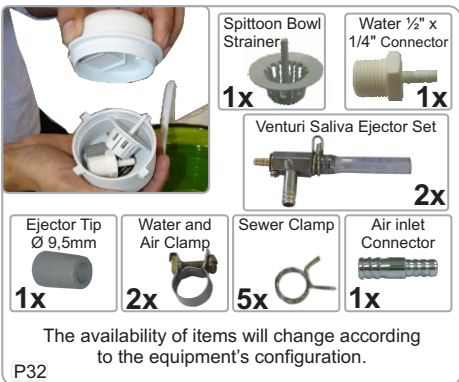
P29  
29-Adjust the right level and tighten the nuts on the delivery unit metal bracket using two 13mm wrenches.



P30  
30-Plug in electrical connectors and place on the Delivery Unit metal bracket.



P31  
31-Unpack the water unit, unroll the hoses and place the instruments on its right holders.



The availability of items will change according to the equipment's configuration.

P32

32-Check if all above items are available.



P33  
33-Install the Spittoon Bowl Strainer.



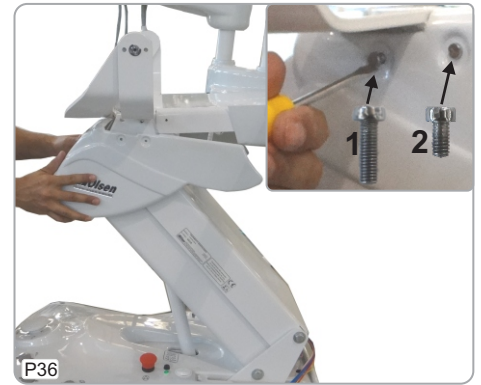
P34  
34-Place handpieces tubings in the right holders and couple the syringe tip.



# Assembly Instructions



35-Install the seat lower covering watching the holder on the chair frame. Tighten the handle screw.



36-Fix the rear pantograph cover tightening the four screws, watching sizes and right places to insert them (detail).



37-Replace the seat upholstery on the chair, watching the specific fit (1) and watching the screw (2) to avoid damaging the chair's PC Board. Tighten the handle screw (3).



38-Raise up the backrest frame and remove the finishing cover.



39-Remove the screws from the backrest using a 5mm Hex Wrench, place backrest on its frame and handtighten the center screw. Tighten screws carefully to avoid upholstery damages. Replace finishing cover.



40-Place the headrest on the backrest.



41-Fix armrests on the chair using 13mm wrench, and place the finishing covers using 3mm Hex Wrench.



42-Plug in the Operating Light electrical connector and move it up into the arm. Fix the Operating Light.



43-After install the anchors on the ground, use 11mm L wrench to fix the chair to the ground. Replace finishing covers.



# Assembly Instructions



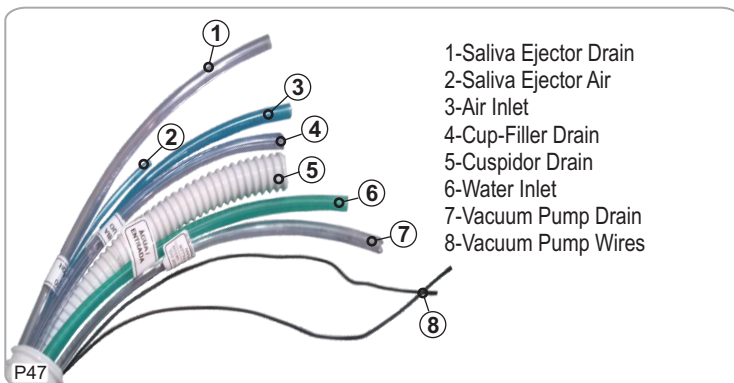
44-Remove carefully all remaining packaging.



45-Remove the front plastic cover of the pantograph using a Philips screwdriver.



46-Place Junction Box over all connections and pass the hoses through the connector (detail).



47-Identify each hose and connections. All hoses are identified by labels. The availability of the hoses will change according to the equipment configuration.



48-Install the Sewer Connector (1), the water connector (2) and vacuum pump drain connector (3). Use proper sealing tape or similar.



49-Connect the hose from cuspidor drain.



50-Connect the hose from cup-filler drain.



51-Connect the hose from air to the venturi saliva ejector.



52-Connect the venturi saliva ejector set to Sewer Connector.



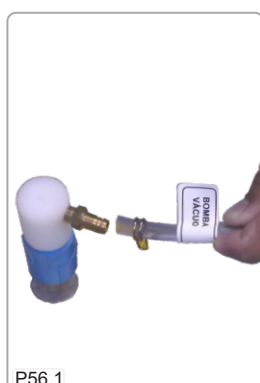
53-Connect the hose from Saliva Ejector drain.



54-Install water inlet hose.

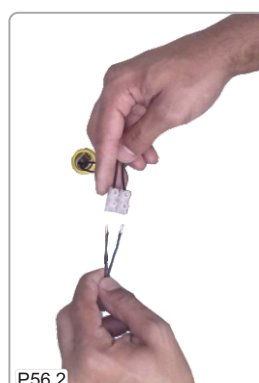


55-Install air inlet hose.

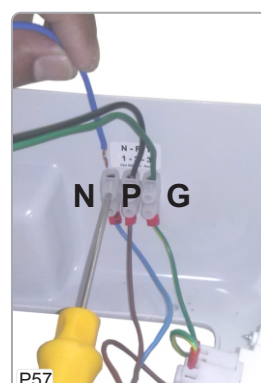


P56.1

56-Connect the vacuum pump drain hose and wires. This is an optional item.



P56.2



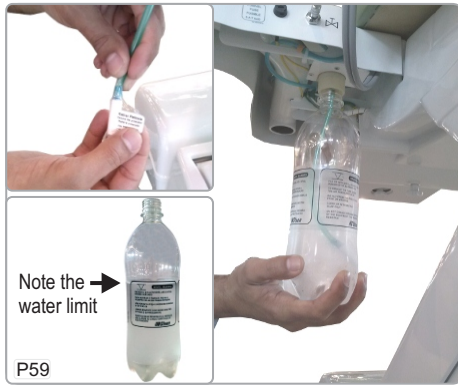
P57

57-Install the electrical wires as indicated.

# Assembly Instructions



P58  
58-Check all the connections to avoid leakages, then close Junction Box using plastic rivets.



P59  
59-Fill in the water tank with filtered water, remove protection plastic from water tank filter. Install the water tank by turning it counterclockwise.



P60  
60-Fit the stool seat over stool structure. Seat yourself on the stool and check the e check its up and down adjustment.



F61

61-Check if all items of equipment have been properly installed, make sure all are functioning properly, such as the controls of the chair and pneumatic devices. Remove all leftover packages remaining before presenting the installed equipment to the customer.

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## Final Instructions

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After finishing the installation, check operation of all instruments, chair movements' switches and Operating Light. Double check all air/water connections to ensure there is no leakage.

After checking all the equipment operations, instruct the user about its correct managing. Check all handpieces to be used in the equipment and pressure compatibility. If necessary make duly adjustments.

Show to the customer each main valve (air inlet, water for spittoon bowl and cup-filler). Also explain about zero and working positions, how to record working positions as well as correct managing of Operating Light.

Explain about the water replacement, using filtered drinking water, the correct way to install and remove water tank, as well as its water level.

Fill in the warranty form with the customer, guiding him on each item. Give him the owner's manual and instruct about its reading.

### General Instructions:

**Able Professional Operation:** This equipment must be operated by professional who have the ability to work on dental procedures.

**Storage:** Before the first operation or after long stop periods (weekends, holidays, vacations), the user must eliminate all air and water stuck inside the hoses, shut off the water-cocks, depressurize and empty the water tank, turn the general switch and the general circuit breaker off. For reactivation of the unit, verify the functioning of the entire set before starting operation.

**Direct exposure to Sunlight:** The equipment must not be exposed directly to solar light to prevent from the plastic covers and/or the upholstery to wear out precociously.

**Environmental awareness:** The organic residues, the contaminated materials and disposable items must be properly eliminated according to the rules of the local law.

### Daily Cares:

- Replace the bottle water;
- Clean the unit as per instructions on the Owner's Manual for Quality Equipment;
- Shut the water and compressed air valves and turn the circuit breaker off after work;
- Check the compressor before start using the dental set;
- Drain the humidity filter of the compressor before starting using the dental set.

***'Equipment properly installed + well oriented user = well satisfied customer!'***





The Brand of Innovation

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