

The Instructions of Dental Unit

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1. safety information

1.1 Matters needing attention

- 1.1.1 Dental Unit can not be used near magnetic field. Must ensure that do not have access to items within the travel range during operating the dental unit.
- 1.1.2 Power outlet line should be according to standard configuration, ground wire is firm. The operation should follow all warning and instructions on the instrument.
- 1.1.3 Do not turn on the water heater when there is no water supply.
- 1.1.4 The water in the pressure relief valve should be eliminated in time, and clean or replace the water filter core in time.
- 1.1.5 The pressure switch of the storage tank should be closed before adding water to the storage tank. The water must be distilled water or live pure water. Time for letting water from water storage tank.
- 1.1.6 Must cut off power supply, water source, air source during replace the machine components or maintain and clean machine.
- 1.1.7 The instrument panel shall not be pile up overweight articles.
- 1.1.8 The pressure has been set when the dental unit is out of the factory and non-professional personnel shall not adjust.
- 1.1.9 Must ensure pillow lock can be used after adjusting the position of the pillow.
- 1.1.10 Each hospital is equipped with silver amalgam separator on your own to better use the machine.
- 1.1.11 Should low the chair to the lowest position, cut off power supply, water source and air source when you longtime no use or after work.
- 1.1.12 Notice to keep dry environment to extend the life of the machine (the service life of the machine is 5 years). Should handle it according local laws and regulations and do not throw away during the end of service life.
- 1.1.13 Each model is different in color from side to side , so pay attention to the color of side pods when you choose and buy.

1.2 Warning

- 1.2.1 In order reduce the possibility of fire and electric shock, don not set the equipment in a damp place; don not open the box. If machine repair is needed, please contact professional maintenance personnel.
- 1.2.2 If smoke or other abnormal status occurs to the unit, it may lead to fire. Please immediately disconnect the power, and contact local dealer or after-sales service department.
- 1.2.3 Water entering into the unit may cause electric leakage, please immediately disconnect the power, and contact local dealer or after-sales service department.
- 1.2.4 If any unknown fault occurs to the unit, please immediately disconnect the power, and connect with local dealer.
- 1.2.5 Please do not detach or refitted the unit, otherwise or some parts inside may be damaged or cause electric shock.
- 1.2.6 Keep the power cord from damage. If the power cord is damaged, immediately disconnect the power, and don not directly touch the power supply by hand. Please contact the local seller for replacing the damaged wires.

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- 1.2.7 The product is suitable for AC 230V working power, if it is used in other voltages, risk may occur.
 - 1.2.8 Please be attentive to the weather changes. And disconnect the power in case of lightning weather.
 - 1.2.9 Do not touch power plug with a wet hand, which may cause electric shock.
 - 1.2.10 Please don ' t clean the device with pesticides, alcohol, diluents and chemical liquids, which lead to the surface of the equipment is peeled or decayed.
 - 1.2.11 Please don not restructure the unit. If there is any damage, no repair and warranty will be provided.
- ### 1.3 Using range

For diagnosis and treatment in the department of teratology of the medical department.

2. Structural representations

The Instructions of Dental Unit is made up dental chair, dental patient chair, foot switch and dental lamp.



1	protective shells around
2	Backrest
3	Assistant rack
4	Spittoon
5	Box
6	Dental lamp
7	Balance arm
8	Tool tray
9	Handset hanger

quality	250KG	The maximum height of cushion	750mm
Maximum load	165KG	Backrest adjustment angle	95° ~170°
Input voltage	AV 230V 50Hz	Work pressure	0.55~0.75Mpa,>50L/min,Filter precision:20µm
Rated power	850W	Work water pressure	0.25~0.6Mpa,>10L/min,Filter precision:60µm
Chair drive mode	DC 24V motro	Water supply	2L/m in
Flush phlegm flow	2L/m in	Thermostatic temperature	45°C
Water flow of the spittoon	4. 5L/m in	Strong suction flow rate	1. 8L/m in
Scope of instrument disk activity	490mm	Weak suction flow rate	0. 42L/m in
The minimum height of cushion	500mm	Dental lamp	25000lm

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3. Productions installation

3.1 Installation condition

In order to normally use the device, input the gas, water, electricity and environmental requirements of the device as follows:

Air supply : 0.55~0.75Mpa,>50L/min

Water supply:0.25~0.6Mpa,>10L/min

Power supply: A.C 230V, 50Hz

Environment: temperature 5-40°C

Relative humidity less than 80%

3.2 air source and water quality requirements

Provided air and water must conform to the requirements in the installation instructions. It can only supply water and dry, oil-free medical gases in accordance with medical and national laws.

If water hardness is higher than 12°d H(equal 2.15mmol/l),you must use the softener and adjust the water hardness inputted in dental chair to 8°dh(equal to 2.15 m mol/l).

In order to ensure that the treatment machine water is in compliance with medical and national legal requirements, commands to install disinfection system for the treatment machine and respond to water quality as the owner of the machine; if you don not install disinfection system , other measures are also needed to ensure compliance.

3.3 site layout requirements

3.3.1 When the conditions permit, the ground is reserved for 25cm*25cm and the depth is 10cm.

3.3.2 Power requirements: 220V 10A, with five hole ,two ,three.

3.3.3 Water supply requirements: interface with two-pass ball valve, the interface thread is 4 internal thread.

3.3.4 Air supply requirements: interface with two-pass ball valve, the interface thread is 4 internal threads.

3.3.5 If you use central negative pressure system, you need reserved negative pressure tube, and the negative pressure pipe is 4 points PAC to the water pipe, and purchase selector switch installation by yourself.

3.3.6 Pipeline requirements:

(1)The lower pipe is a 50mm diameter PVC drain pipe.

(2)The lower pipe is 4 points PAC to the water pipe.

(3)central negative pressure tube is 4 points PAC to the water pipe.

(4)The central negative pressure system signal line is 0.75 square 2 core.

(5)The power cord is 2.5 square cores, and the ground wire is 1.5 square.

3.4 Tube layout requirements

3.4.1 Piping shall be lower than ground installation.

3.4.2 The safety of the drainage channels shall comply with specification for outdoor drainage design (GB50014-2006), 1 meter sink 5mm slope.

3.4.3 If no slot is installed, all the joints are installed in a circle of 180mm. (figure 1)

3.4.4 The whole pipeline joint is installed in the 200mm, width 200mm. Depth 100 installation groove. (figure 2)

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3.4.5 Water source, air source switch, negative pressure pipe should be higher than the ground installation, ball valve top the ground height is not higher than 120mm, drain pipe mouth should be higher than pipe diameter 1.5 times.(figure 3)

3.4.6 The spittoon drain pipe, the strong suction drain pipe must be independently connected to the waste water pipe, cannot and pipe thick access.

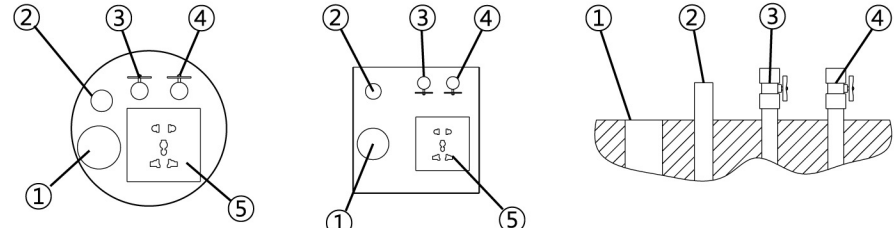


figure 1

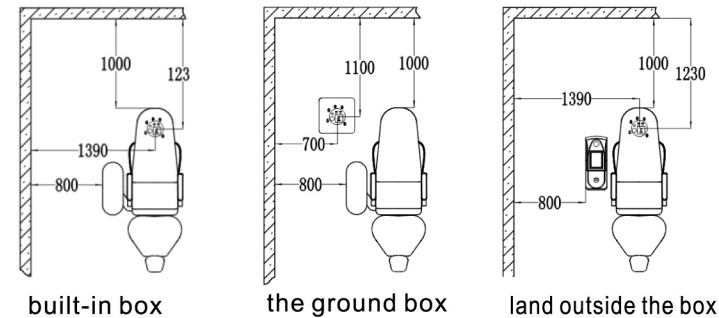
figure 2

figure 3

①	②	③	④	⑤
50mm(PVC) Sewage pipe	½ inch(PVC) Negative pressure tube	Air source ½ inch Internal ball valve	Water source ½ inch Internal ball valve	Five-hole socket

3.5 device installation

According to the overall layout of the diagnosis and treatment room, lighting, convenient use and so on, determine the installation position of the equipment. First of all, the equipment should be kept in a clean, dry, ventilated and cool place, so that it is in a good working environment, and the ground level of the electric dental chair floor is guaranteed to be firm. Then choosing right position which ensure electrical dental chair cannot touch anything throughout the movement. The installation dimension is shown in figure 4.



built-in box

the ground box

land outside the box

figure 4

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3.6 Installation steps

3.6.1 The electric dental chair is installed in the position of the electric dental chair. If the floor of the electric dental chair is in contact with the ground, the four M12*16 screws in the attachment can be rotated into the four M12 spiral holes on the floor of the electric dental chair to make contact with the ground completely. Make sure that the floor and floor of the electric dental chair have as many contact points as possible to ensure the stability of the whole equipment.

3.6.2 ground-box installation

- Turn a tube in the attachment into the inlet pipe and inlet pipe for use. When connecting, pay attention to seal, so as not to leak water and air.
- Install the ground box to the appropriate booking position. This position should ensure that the dental chair is not bent during the upper and lower movement of the tube.

3.6.3 Piping installation

Before connecting the pipeline, the water and gas in the pipeline must be discharged to remove dirt, impurities and prolong the service life of the pipe. Connect the water source and air source, use the pipe strap to chuck and pay attention to seal. In addition, insert the equipment drain pipe into the user drain pipe, connect the drain pipe, and pay attention to steady and unblocked drainage.

3.6.4 Lamp arm and oral cold light installation method

- First, insert the lamp arm and the column in the lamp. Then connect the lamp arm and the cabinet post to the socket, and insert the lamp arm and the middle column into the box. (See figure 5). Be careful not to damage the wire when installing.
- Take out the cold light of the mouth, insert the connection hole of the headlamp arm first, and use the M5*12 inner hexagon screw with the lamp arm to align with the screw hole on the headlamp arm.

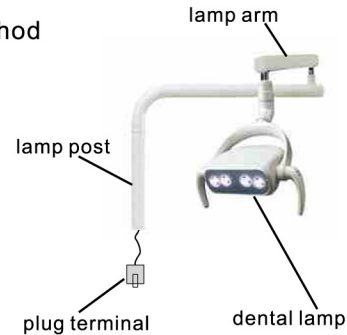


figure 5

3.6.5 Installation of handpiece connector

Before you install your handpiece, read the instructions for your handpiece from your own handpiece provider. Handpiece joint set from the hanging rack, unscrew the corresponding water, gas valve, pneumatic foot of tread down switch, put off some water and air, to clean the pipe, time is 30 seconds, and then close the valve.

3.6.6 Installation of 3-way syringe nozzle

Taking 3-way syringe nozzle from the attachment bag, press the convex ring on the gun body, insert the sprinkler head, and then loosen the convex ring to bring it up and reset. If the convex ring is under pressure, the description is not yet installed, and the nozzle can be inserted again until the convex ring pops up.

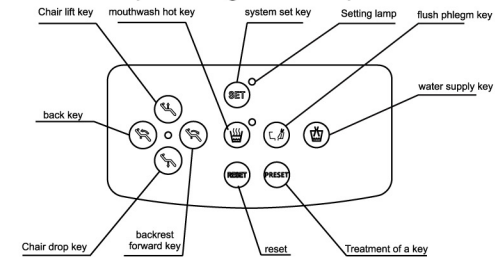
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4. Use and operation instruments

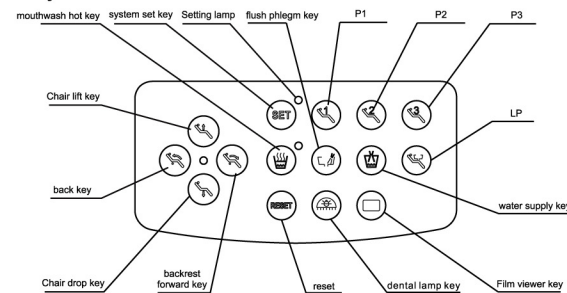
4.1 This equipment uses microcomputer circuit control, has a complete control system, and uses the light touch type key to be listed on the instrument panel control plate in order, easy to use.

4.2 We supply two control systems

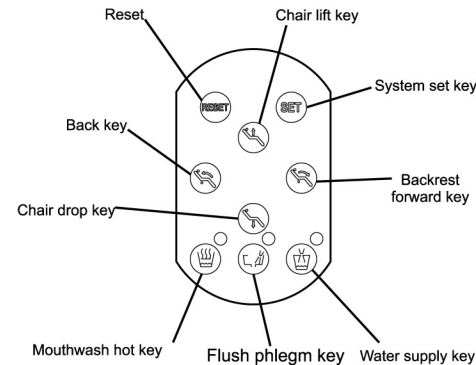
4.2.1 common model: use pressing button operation without memory location



4.2.2 intelligent model: use pressing button operation to bring multiple memory bits.



4.2.3 secondary control key parts








	mouthwash hot key	raise the chair height
	chair drop key	Falling the chair height
	back key	backside the backrest
	backrest forward key	backrest forward
	P1	preset patients treated memory position
	P2	preset patients treated memory position
	P3	preset patients treated memory position
	LP	patients spit location
	treatment of a key	the doctor presets operation position
	reset	seat automatic reset to initial state
	system set key	for each function setting of the system
	mouthwash hot key	used for heating mouthwash
	flush phlegm key	flush the spittoon and flush time setting
	water supply key	Use the mouthwash cup to add water and set the amount of water added.
	dental lamp key	switch for oral lights
	Film viewer key	switch for film viewer


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4.4 Function description and settings




4.4.1 Mouthwash water supply setting

- (1) Long press  three seconds, set the indicator light up, the system enters the setting state.
- (2) Long press , the water supply begin to feed; when the water in the cup reaches the water requirement, release the key and stop the water supply.
- (3) Press  key once, setting the indicator to go out, the system state, and the setting is finished. When used, just click on  key, the system will automatically supply water to the set of water in the cup. If you press  key in the process of water supply, the system automatically interrupts water supply.
- (4) Adjusting the water supply according to the above steps if the tap water pressure hanges significantly or when the cup size is charged.


4.4.2 Reset key

When a patient is going to see a doctor or after the treatment, as long as gently press the  key, electric dental chair immediately run to the initial state, chair frame fell to the lowest limit position, back of a chair forward to limit position, reduction process, click on the arbitrary direction key, the system stop this action immediately.


4.4.3 Flush time setting

- ① Long press  three seconds, set the indicator light up, the system enters the setting state. Press , the spittoon begins to flush, and the time is set to 5 minutes; press two times in a row, and the flushing time is set to 15 minutes. Press three times in a row, and the flushing time is set to 15 minutes. Press four times in a row, and the flushing time is set to unlimited time.
- ② In the process of flushing, press the  key system to stop flushing automatically.


4.4.4 Preset key

Pressing the  key, the chair frame automatically runs to the highest position, the back of the back automatically runs to the lowest, press any direction key, immediately stop the action.

4.4.5 The function of mouthwash heating


The device does not have an automatic thermostatic water heater device. If use warm water, press the  key gently, the indicator light is on, the water heater enters the working state. (Indicating that the light is on, indicating that it is heating; after the water temperature reaches the reservation value, the indicator lights go out automatically. When the temperature drops, the water heater will start working automatically and the light will be on.)

4.4.6 Rise of dental chair


Press  key, the chair frame runs up; when you reach the desired position, release the button and the chair frame will stop running (If you hold down the key, the chair will stop automatically when it reaches the limit position).

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4.4.7 Decline of dental chair

Press  key, the chair frame runs downward; when you reach the desired position, release the button and the chair frame will stop running (If you hold down the key, the chair will stop automatically when it reaches the limit position).










4.4.8 Backrest back

Press  key, the chair frame runs back; when you reach the desired position, release the button and the chair frame will stop running (If you hold down the key, the chair will stop automatically when it reaches the limit position).

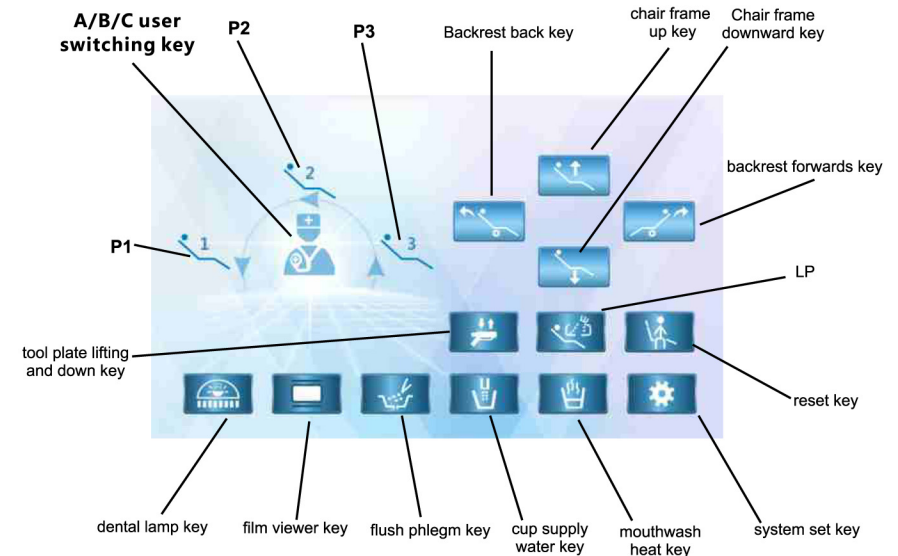
4.4.9 Backrest forward

Press  key, the chair frame runs forward; when you reach the desired position, release the button and the chair frame will stop running (If you hold down the key, the chair will stop automatically when it reaches the limit position).

4.4.10 P1, P2, P3 preset treatment memory location settings

- ① Set: press  three seconds, set the indicator light up, enter the setting state, adjust the chair frame to the desired position, press  once, storage, press  key once, and exit.
- ② Set: press  three seconds, set the indicator light up, enter the setting state, adjust the chair frame to the desired position, press  once, storage, press  key once, exit.
- ③ Set: press  three seconds, set the indicator light up, enter the setting state, adjust the chair frame to the desired position, press  once, storage, press  key once, exit.

4.4.11 Touch screen system settings (suitable for 7-inch touch screen system)



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(1) Function introduction

① Instrument panel lifting key

The function key is to control the upper and lower height of the trolley type tool plate and the slide trolley tool tray. Click this icon to enter adjustment interface, press the key of “↑” instrument panel rise up, press the key of “↓” instrument panel falling.

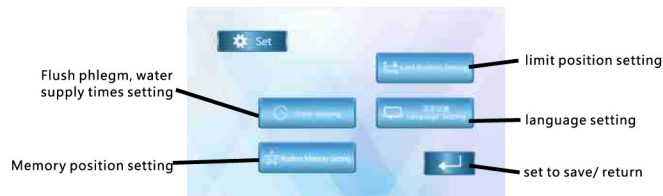
② Set key

Click this icon to enter system setting interface, setting the function of dental unit.

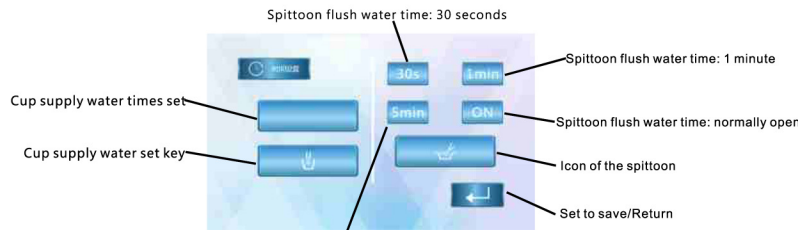
③ The rest of the function keys refer to general system operations. (four:4 function description and setting)

(2) System setting

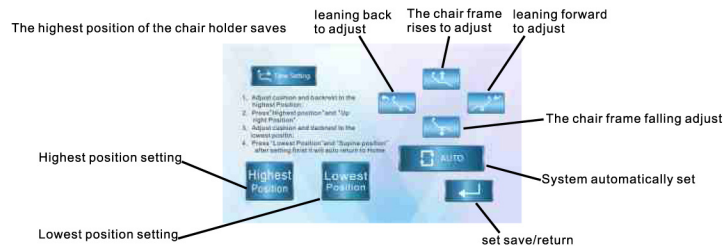
① Set the interface



Set main interface

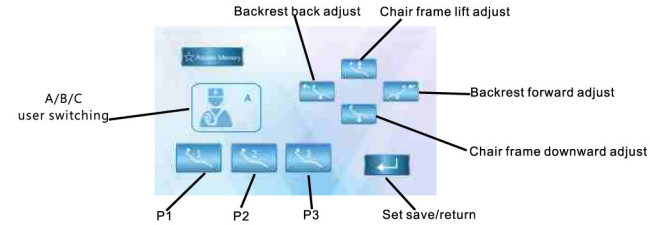


Flush phlegm, water supply times setting interface

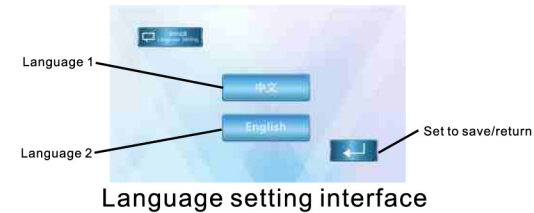


limited position set interface

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Memory position setting interface



Language setting interface

② limited position setting



The limit setting must be set by the manufacturer's designated personnel. If the customer sets up the equipment and causes the damage of the equipment, the manufacturer will not guarantee the equipment.




- Click enter set interface, click enter limited position set interface, the remote control makes regular “drip” “drip” “drip”.
- Click , the system enters the automatic setting state, the system automatically detects the seat frame and the limit position. After the system is set up, the remote control will send the “drop-drop-drop” prompt, the system will exit the main operation interface automatically, and the system will be automatically set up.
- Highest position manual setting
 - ※ Click , lift the chair to the highest, click , lift the back to the top; click to save the setting.
 - ※ Click , lift the chair to the lowest, click , lift the back to the low; click to save the setting.
- Click , save the exit limit position.

③ memory position setting




- The system has three user interface (A, B, C). Each user can set three memory locations and click the icon in the setting screen to switch.

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● P1 setting

Click the  key to enter the main interface, then click  to enter the memory location setting interface, and click the adjustment icon on the right side of the interface, adjust the height of the chair frame and the pitching angle of the back, adjust it to the appropriate position, and click  to save. At this time, the program controller sends out a “drop” sound, and the position is saved successfully.

● P2 setting



Click the  key to enter the main interface, then click  to enter the memory location setting interface, and click the adjustment icon on the right side of the interface, adjust the height of the chair frame and the pitching angle of the back, adjust it to the appropriate position, and click  to save. At this time, the program controller sends out a “drop” sound, and the position is saved successfully.

● P3 setting









Click the  key to enter the main interface, then click  to enter the memory location setting interface, and click the adjustment icon on the right side of the interface, adjust the height of the chair frame and the pitching angle of the back, adjust it to the appropriate position, and click  to save. At this time, the program controller sends out a “drop” sound, and the position is saved successfully.

 **The user A/B/C memory location setting method is operated by referring to the above method.**

④ Flush times setting

- Click the  key to enter the setting interface, and then click the  key to enter the time setting interface.
- Click the time selection icon “30s” “1 min” “5 min” “usually open” on the right side of the interface, choosing the time you need.
- Click to select the required flush time, the program controller sends out the corresponding prompt tone, the sputum setting takes effect.

⑤ cup supply water times setting

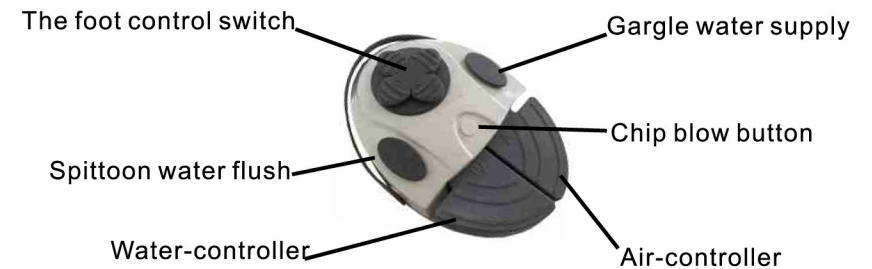
- Click the  key to enter the setting interface, and then click the  key to enter the time setting interface.
 - Keep hold of the water supply setting icon , the program controller emits a “drop” of a warning sound, the water cup water supply nozzle starts water supply, at the same time in the water supply icon the time counting icon  to start the time.
 - The water supply time is set freely between 0 seconds and 62 seconds. When the required time is reached, release the button and the system will automatically save.
 - Click  exit setting.
- ### ⑥ Language setting
- Hit  enter to setting interface, hit  enter the language setting interface.
 - Hit the corresponding language.
 - Hit the  to keep and quit.

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4.4.12 The function of foot controller

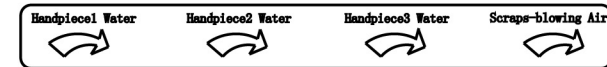
(1) Button function

- ① The foot control switch: to control the chair's and backrest's up and down.
- ② Chip blow button: push the button, handpiece will spray put of air to clean impurity making during operation (this function only for 4 holes handpiece)
- ③ Spittoon water flush: flush the spittoon
- ④ Gargle water supply: water the cup
- ⑤ Push air-controller pedal (A) handpiece start to work; push water-controller (W), handpiece will spray water; push two button together, handpiece start work and spray mist.

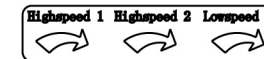


4.4.13 Tool tray adjust function

- (1) There are “handpiece 1” “handpiece 2” “handpiece 3” blowing” icons on the tool tray, corresponding valve rotate button use to adjust the size of water from handpiece spraying. (blowing only for 4 holes handpiece)

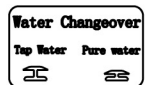


- (2) There are “high speed handpiece 1” “high speed handpiece 2” “low speed handpiece 3” icons on the tool tray, corresponding valve rotate button use to adjust the rotate speed.



4.4.14 Air switch and water changeover function

- (1) Open the air button then water storage bottle can work
- (2) Water changeover switch is to change water source for 3-way syringe in assistant system
- (3) After turn on the machine, keep purity water in water tank (3/4 appropriate), then push air button; when water changeover switch is drew back during operating, water for 3-way syringe working is from tap water, when it depressed, water for 3-way syringe working is from water tank.



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5. Function adjust

5.1 Turn on electrical source, check the numerical value indicated on the pressure gauge of the air pressure relief numerical value in ground box, and the normal working pressure is 0.55Mpa~0.65Mpa. If the air pressure not right, need to adjust the air pressure of air filter pressure reducing valve to reach that numerical value (specific method: pull up the knob of the air-filter relief reducing valve, then rotate button, clockwise increase air pressure, anticlockwise decrease air pressure); then inunction subs in air line passim to check if air leakage.

5.2 Dental lamp debugging

- (1) On the power switch and turn on the dental lamp.
- (2) The test of strong and weak two-file light conversion is normal.
- (3) If the mouth light with induction switch function (each model switch position is different), hand in close proximity to the induction switch, you can control the switch state of the mouth lamp and adjust brightness.



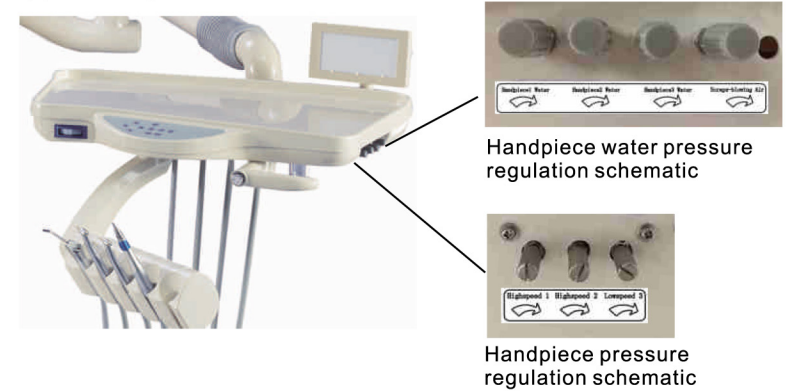
STRUCTURE schematic



Position adjustment schematic

The Instructions of Dental Unit

5.3 Taking off high speed handpiece and low speed handpiece tie-in from rotary arm, push air-controller pedal, then carefully turn on air adjust valve, slowly adjust small to big, at the same time, observe the barometer in tool tray, adjust high handpiece air pressure to 0.22Mpa~0.25Mpa and low speed handpiece air pressure to 0.3Mpa~0.35Mpa. Then adjust handpiece water output to ideal state by water regulating valve. Release air-controller pedal switch, put handpiece tie-in back.

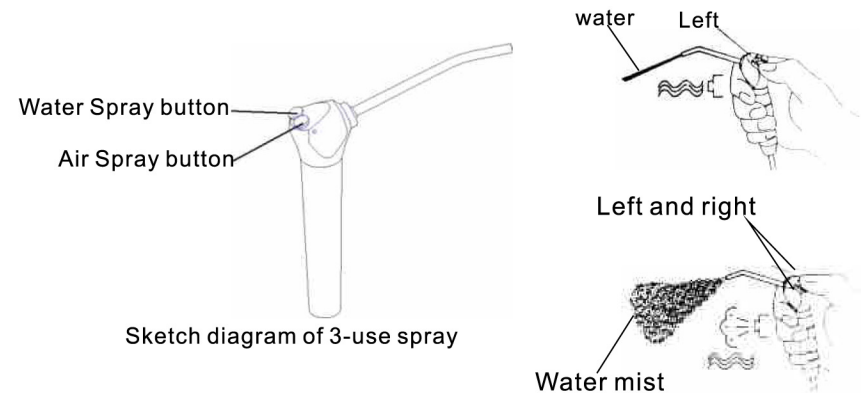


Handpiece water pressure regulation schematic

Handpiece pressure regulation schematic

5.4 3-use spray Debugging

- (1) The 3-use spray should be cleaned before use, let off the residual water and gas.
- (2) Press the water button of the three-use gun to make the effluent into a line-like injection, and the length of the waterline should be 1 meters. and simultaneously presses the three uses the spray gun the water vapor two buttons, until the effluent becomes the ideal fog shape.
- (3) If you want to spray hot water can open the water heater switch, a few minutes after pressing the water spray button that can spray hot water.



Sketch diagram of 3-use spray

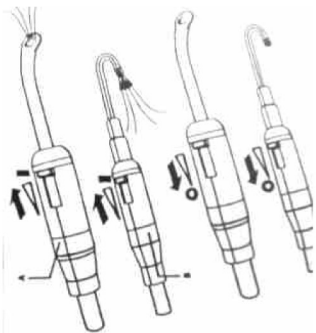
The Instructions of Dental Unit

5.5 Adjust water

- (1)Tightly push “Gargle water supply” (☰) and “Spittoon flush” (☷) to check whether water come out normal.
- (2)According to “Use and Operating Instructions” to set the water of mouth wash. Then tightly “hot water” to check constant-temp function.

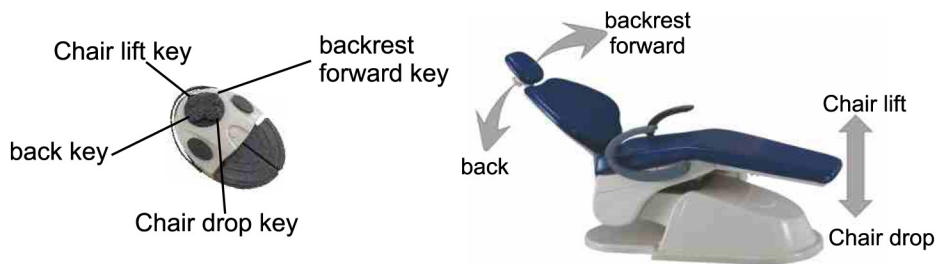
5.6 Suction device Debugging

- (1)Take a cup of water, remove the suction saliva from the treatment machine hanging frame, put the suction saliva head into the water, and observe whether the water is unobstructed. (2) suction device handle with switch adjustment knob, up and down toggle knob can adjust suction size.



Sketch diagram of Suction device

- 5.7 Electric dental chair action adjust. (According “Use and Operating Instructions” to set dental chair) Attention : Due to there are removable parts in this electric dental chair, and treatment machine connect with these removable parts, during the operation, treatment machine will move with the electric dental chair, thus prevent to happening accident, please make sure no subjection in the extent that the whole machine can reach.



Sketch diagram of Position adjustment

The Instructions of Dental Unit

6. Maintenance

- 6.1 Daily maintenance, keep machine clean, pipe unblocked, exclude leak, oiling in rotatable parts to keep machine work under well condition.
- 6.2 For the machine work well, there is a water-filter in ground box's infall, to stop impurity enter into machine, but time last, impurity may stop filter core to affecting water cross, then should to clean or change filter core to recover that function. Under normal circumstances, should clean or change filter core if appear to these conditions below list:
 - (1)Use more than 1 year;
 - (2)Filter core pressure loss more than 0.1Mpa
 - (3)Filter core infected
 - (4)Water become turbid
- 6.3 Method to clean or change filter core
 - (1)Cut off electric power
 - (2)Lean ground box, clockwise rotate transfer under water filter
 - (3)Unscrew bolt located in the mid of filter which is to attaching filter, the filter core can be ripped off to clean or replace.
 - (4)Done above, set up water filter in reverse order.



when install filter core, do not too overexert to crash filter core. When install water filter cover, attention to seal.

- 6.4 During the machine working, to keep air input stable, clean and dry, there has air filter pressure reducing valve in ground box to stabilize air pressure, avoid over the set numerical value, also has an effect to filtrate impurity and water in air. Water be filtrated would aggregation and settle into filter cup, as time last, water becomes too much, for better filter effective, please to drain the water. Under normal circumstances, should drain water if appear one of these conditions below list:
 - (1)Use time over 1 week.
 - (2)Water accounts for 3/4 of the volume of the cup.
 - (3)Water's color change(not colorless and transparent)
 - (4)Specific method to drain the water of filter regulator:

Specific method to drain the water of filter regulator:

- (1)Cut off electric power
 - (2)Lean ground box, unscrew drain valve in filter regulator bottom, water would discharged. After discharge water, screw up drain valve.
 - (3)To keep clean environment, can put absorbent in outlet to absorb water, such as cotton, tissue and sponge and so on.
- 6.5 Oral cold lamp slice should keep in normal temperature, use soft cloth tightly clean, back of lamp slice(the above side) can not be clean, only blow it clean by compressed air.

The Instructions of Dental Unit

- 6.6 X-ray film viewer is for observe X-ray, using time too long may damage it, on this condition, the X-ray lamp slice should be replaced. Specific method: cut off electric power, open up X-ray film viewer, then can see the bulb. Check the bulb whether fastened or damaged, after repair fix as it is.
- 6.7 When suction, sometimes solid objects discharged with spittle, store in suction filter, should timing (better one time each week) to clean suction filter.
- 6.8 Saliva often has solid dirt discharged with saliva, accumulated in the saliva filter, so should be regular (preferably every) Clean the suction filter once a week

7. Troubleshooting

Phenomenon	Cause analysis	Troubleshooting	Note column
Dental lamp is not on	(1)Burn out the light bulb (2)Bad contact of plug (3)Fuses burn out (4)The power cord inside the joint is broken	(1)Replace the same type of light bulb (2)Plug the plug with a tool (3)Replacement fuse (4)Replace the power line	AC12V 50W
Water supply water can not be closed	The interior of the solenoid valve to the foreign object card owner	Disassemble the spool	
The spittoon can't come out of water	(1)Pipe distortion (2)Solenoid valve burnout	(1)Tidy water pipe (2)Replacement of the solenoid valve	
Suction system has no suction	(1)Water pressure and air pressure do not meet the requirements of use (2)The inside of the suction tube is blocked (3)Failure of negative pressure generator	(1)Check water pressure and pressure (2)Cleaning the inside of the suction tube (3)Replacement negative pressure generator	

The Instructions of Dental Unit

8. Transport and store method

Packed dental unit should be stored -10°C~40°C , relative humidity under 80%. Well and without corrosive air, clean indoor. During transport, keep up, frangibility, anti-moisture and no stacking.

9. Disposal

- 9.1 There has the following figure in product nameplate. In European economic area, our product fit requirement that 2002/96/EG . Can not disposal as living garbage. Please comply with the national regulations on disposal.
- 9.2 Method
According to rule 2002/96 about electric and electric equipment, we prompting, this production should comply with rules, follow special disposal process during EU extent. Before dismantle or disposal, must full disinfection to product(clean/disinfect/sterilization).

10. The explanation of tag figure, sign and acronym



Attention to access to relevant documents



Class B application section



During transport, should keep straight up



Indicate package is frangibility, carefully handling when transport



Main waterproofing in the process of transportation and storage



Transport box can not be pile up over 2



Air pressure should be keep to 50kPa-106kPa during transport



Transport box weigh can not be pile up over 350KG



Storage environment humidity should be keep to 5%-95% during transport



Storage environment temperature should be keep to -40°C~70°C

The Instructions of Dental Unit

11. Attention

- 11.1 Carefully read and understand whole specification.
- 11.2 Follow the warning and explanation when use it.
- 11.3 Power outlet line should collocated according to standard, the ground wire must be secure.
- 11.4 Without water supply, do not use water heater, heat up without water may damage water heater.
- 11.5 Objections pile up over tool plate should not over 3kg, when push, pull or push down tool plate, should be gentle, do not sharp pull it.
- 11.6 Air pressure has set when factory product it, do not adjust unless professional.
- 11.7 Dental chair action limit has fixed, do not adjust unless professional.
- 11.8 Turn off main switch of air and water when off duty.
- 11.9 Only on condition connect with water source that push pedal switch the handpiece would spray out water.
- 11.10 No matter unit or individual using our equipment, please equip or connect with amalgam separation device in dental unit waste discharge system.
- 11.11 Empty air and water before cut off water and electric source, connect with water, electric and air resource before use it.
- 11.12 Hand shank and nozzle of 3-way syringe should be set in disinfection bag before disinfection, then 135°C (2bar) high pressure steam sterilization more than 15 min.
- 11.13 Please read manufacturer's manual before clean and disinfection of high speed handpiece and low speed handpiece. 135°C (2bar) high pressure steam sterilization more than 15 min.
- 11.14 Use wet cloth and neutral cleaner to clean chassis, to keep surface smooth elasticity and anti-corrosion; use subs with cloth to clean PU parts and ABS parts; use subs with cloth or car spray wax to clean metal baking finish parts.
- 11.15 Carefully to hold fiber handpiece, avoid to damage the top of light, ensure can not reach treated mixture, keep a certain distance or use a transparent sheet within 5 s before treat.
- 11.16 Should quickly wipe any mixture leaved by tools, strike fiber handpiece and clean with cloth soaked by alcohol.
- 11.17 Do not use light of fiber handpiece aim at patient's eyes. The light may damage some patients, such as cataract patient. Generally fiber do not cause constant hurt, but may cause temporary blindness.
- 11.18 The rated load of dental chair is 165KG, can not normally work if load over that weight.
- 11.19 If having dental implant treatment with external equipment, should cut off electric supply every time. To prevent damaging human injury caused by bug or incaution touch control switch.
- 11.20 Only when high handpiece or low speed handpiece absolutely stop rotation can take of the needle, otherwise would damage collet, needle drop out and cause human injury.

The Instructions of Dental Unit

- 11.21 Only use high quality needle and fit size bolt.
- 11.22 Everyday before using it, should check collet damage condition to make sure whether needle can stable suck in handpiece.
- 11.23 After changed high speed handpiece needle, should pull out to make sure whether install.
- 11.24 Needle diameter is 1.59-1.60mm(ISO 1797 third standard), the maximum length is 25mm(ISO6360-1 standard)
- 11.25 Only in condition that equipped with needle or repair tool can high handpiece be used.
- 11.26 When using tools do not push unfix switch of needle, the heat caused by push button and electric motor impeller's friction may damage tool.
- 11.27 Patient mouth tissue(tongue, face, lips) should protect by right way, to avoid touching button.
- 11.28 To avoid get empyrosis do not touch oral light bulb direct by hand, after turn cold, put protect glove and change.
- 11.29 Must not use hand or metal instrument touch PC board and manufacturer electronic components.
- 11.30 Air pressure should keep in 0.6~0.8Mpa, water pressure should keep in 0.2~0.4Mpa, use clean water source.
- 11.31 Regularly examine equipment, check unit box and inner water or air pipe of tool plate whether leak.
- 11.32 Portable and mobile high-frequency communication tools have influence to dental electric equipment. If use external high-frequency equipment, please do not put on frame.

12. Electromagnetic compatibility

Attention!

- (1) Integral dental unit meets the requirement about YY0505 standard electromagnetic compatibility.
- (2) User install and use according to electromagnetic compatibility information in documents provide with dental unit.
- (3) Portable and mobile high-frequency communication tools have influence to dental electric equipment, when using it, please avoid disturb of strong electromagnetic, such as mobile phone, micro wave oven.
- (4) Attach is guide and manufacturer's announce.

Warning!

- (1) Integral dental unit can not pile up or get close with other equipment, if necessary, please beforehand examine whether equipment could work normally in that condition.
- (2) Expect the cable sold by integral dental unit manufacturer as internal components, use not stipulated element or cable may increase the beam of integral dental unit or reduce anti-interference ability.

The Instructions of Dental Unit

13. Warranty

Dear customers:

Thank you for buy the products from TREE . When you use our products in future, excellent after-sales service will provide for you, please keep this card carefully.

13.1 Warranty is good for one year(years) of our products, we will provide free repair if is quality issue.

13.2 In case of the following circumstances, we would charge material and service cost:

- (1) Damaged by improper use or not following using requirements and maintenance
- (2) Damaged by install with other brand elements
- (3) Breakdown by not belong to our company's maintenance staff to repair or dismantle
- (4) Breakdown after warranty

13.3 The following conditions occur, the cost is borne by the customer

- (1). Breakdown or damage by natural disaster or irresistible factors
- (2). Breakdown by wrong way using or privately modified
- (3). After install, breakdown by transfer or man-made destruction

The Instructions of Dental Unit



Model		SN		Date	
customer profile	Name :			contact number	
	ADD :				
dealer information	Name :			contact number	
	ADD :				

※ The above information is filled in by installer

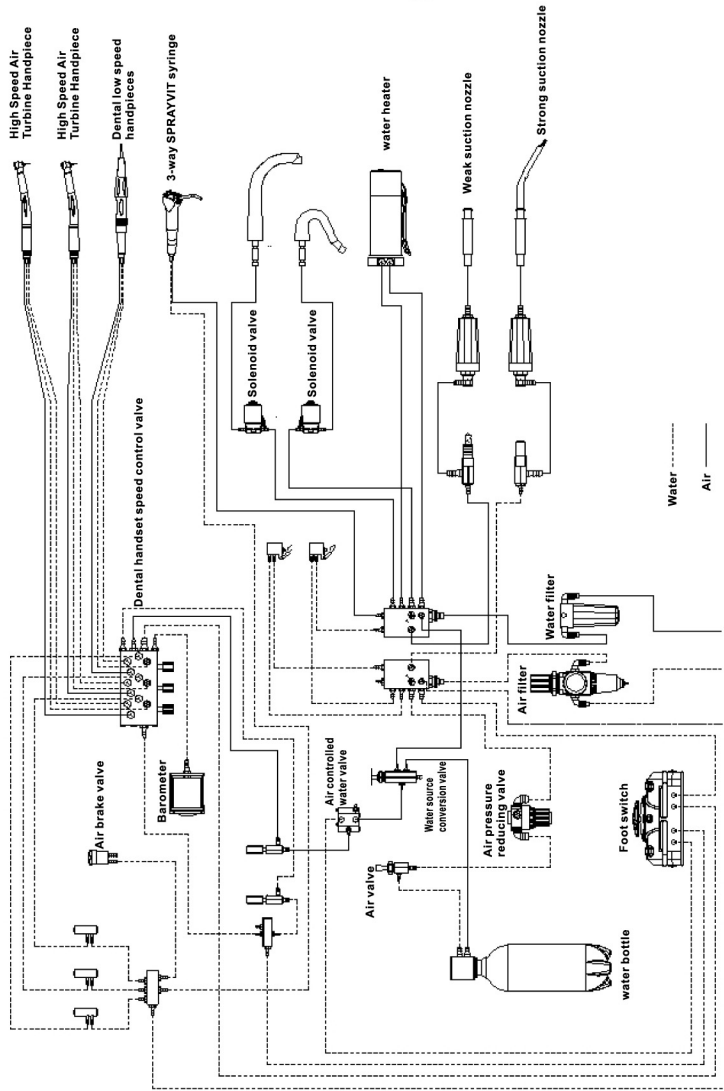
Warranty record

Date	fault description	maintenance proposal	repair date	maintenance staff

※ The maintenance records are filled in by the maintenance personnel

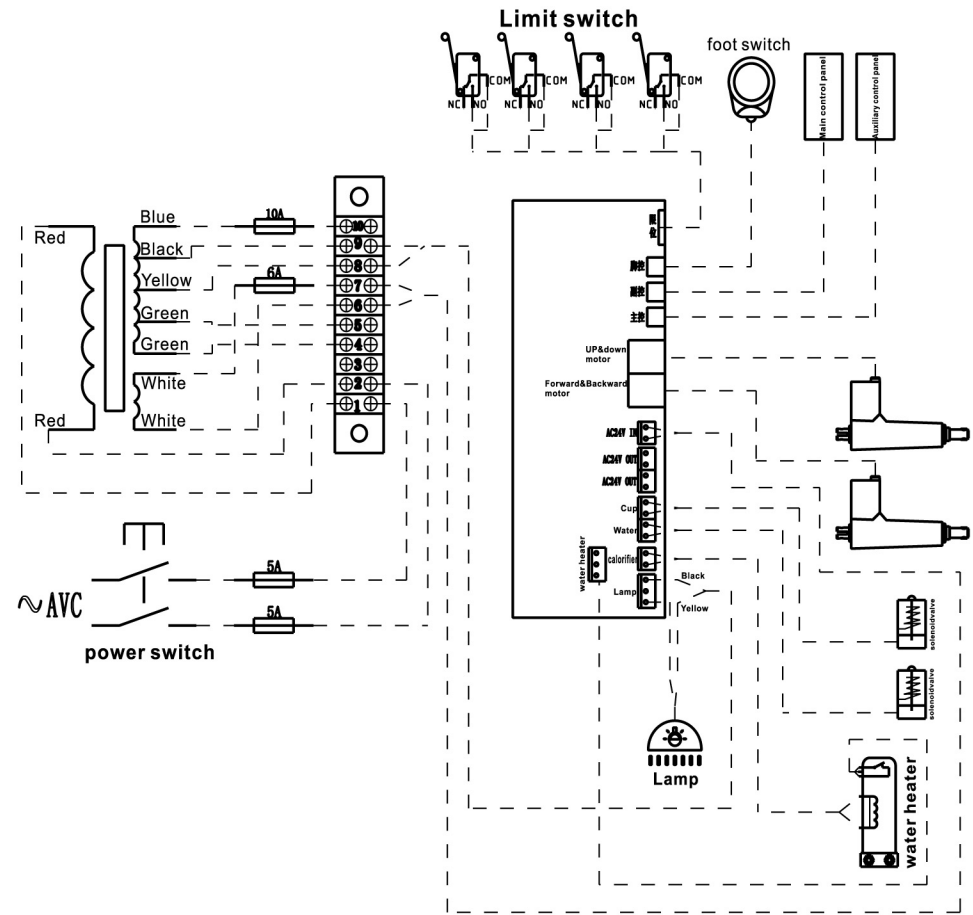
The Instructions of Dental Unit

14. Schematic diagram



Schematic diagram of water and gas pipeline connection

The Instructions of Dental Unit



Circuit schematic diagram