



TR-KID-7 Children Dental Chair

Instructions For Use

- Thank you for purchasing the dental therapy unit produced by our company.
- Please read this manual carefully for making best use of all functions of this product.
- Please keep this manual for reference in case of problem occurred to the dental unit.

CE
0 5 9 8

The manufacturing of this product conforms to the 93/42/EEC instruction issued by EU.

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I. Safety Information

Be sure to read through this operating manual to obtain a correct using of this unit. In case of any special requirement, please contact the dealer of our company.

Warning:

1. Please neither put the appliance in moist environment nor open the tank body for the sake of reducing the possibility of fire and electric shock. In case of maintenance, please refer to professional maintenance man.
2. In case of any smoke or other abnormal circumstance which may result in fire or other conditions, please unplug the power connection and contact the local dealer or the after-sale service department.
3. In case water enters into the equipment, which may result in creepage, please unplug the power connection and contact the local dealer or the after-sale service department.
4. In case of any undefined fault of the equipment, please unplug the power connection and contact the local dealer.
5. Please don't disassemble or refit this product, otherwise, some accessories and components may be damaged or result in electric shock.
6. The power line shall not be damaged. In case the power line is damaged, please disconnect the power supply. Don't touch the power supply with hand directly. Please contact the local dealer to change the damaged power line.
7. The product is adaptable to the voltage of a.c.230V/50Hz. In case of work under other voltage, dangers may occur.
8. Please care the weather change. In case of thunder, please disconnect the power supply.
9. Please don't touch the power plug with wet hands, which may result in electric shock.
10. Please don't use insecticide, thinner and chemical liquid to clean the equipment, which may peel or rot its surface.
11. Please don't remanufacture the machine. In case of any damage consequently, it is beyond any maintenance and repair guarantee. No modification of this equipment is allowed.
12. Contraindication: NO
13. Warning: To avoid risk of electric shock, this equipment must only be connected to a supply with protective earth
14. The power supply cord can't be replaced by service personnel.
15. The mains plug is considered as isolation device from supply mains.
16. Do not to position the equipment to make it difficult to operate this disconnection device.

To users:

This product has undergone the test, which conforms to the requirement of EU's 93/42/EEC 2007/47/EEC instruction. No hydrargyrum segregator has been installed within the product; therefore, its drainage system cannot filter solid particles and debris, or amalgam alloy. In order to avoid such pollution to the drainage system, the user shall install a hydrargyrum segregator additionally to avoid the drainage pollution.

Advice to arrange waste amalgam, dentist should be collected waste amalgam monthly, and should be according with environmental regulations, and supply them to the certified waste management company.

If you want to know more related information, please contact us.

Please record the product code of this appliance here for the convenience of inquiry in the future.

1) This product needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile RF communications equipment.

2) Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.

3) Caution: This unit has been thoroughly tested and inspected to assure proper performance and operation!

4) Caution: this machine should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this machine should be observed to verify normal operation in the configuration in which it will be used

Guidance and manufacture's declaration – electromagnetic emission		
The TR-KID-7 is intended for use in the electromagnetic environment specified below. The customer of the user of the TR-KID-7 should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The TR-KID-7 use RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emission CISPR 11	Class A	The TR-KID-7 is suitable for use in all establishments, other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacture's declaration – electromagnetic immunity

The TR-KID-7 is intended for use in the electromagnetic environment specified below. The customer or the user of TR-KID-7 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the TR-KID-7 requires continued operation during power mains interruptions, it is recommended that the TR-KID-7 be powered from an uninterruptible power supply or a battery.
Power frequency (50Hz/60Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE U_T is the a.c. mains voltage prior to application of the test level.

Guidance and manufacture's declaration – electromagnetic immunity

The TR-KID-7 is intended for use in the electromagnetic environment specified below. The customer or the user of the TR-KID-7 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 V _{rms} 150 kHz to 80 MHz	3 V _{rms}	Portable and mobile RF communications equipment should be used no closer to any part of the TR-KID-7, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1,2\sqrt{P}$ $d = 1,2\sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2,3\sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the TR-KID-7 is used exceeds the applicable RF compliance level above, the TR-KID-7 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the TR-KID-7.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

**Recommended separation distances between
portable and mobile RF communications equipment and the TR-KID-7 .**

The TR-KID-7 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the TR-KID-7 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the TR-KID-7 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)		
	150 KHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2.5 GHz $d = 2,3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

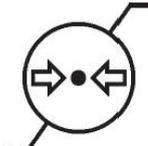
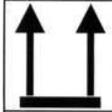
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

II. Figures and Symbols

Figures and symbols	Descriptions	Figures and symbols	Descriptions
	Warning		Set key
	type B applied part		Reset position
	Protective earth (ground)		Dental patient chair, up
	CE marking in conformity with EC directive 93/42/EEC		Dental patient chair, down
	“ON” for part of equipment		Dental patient chair, tilt backward
	“OFF” for part of the equipment		Dental patient chair, tilt forward
	Emergency Stop		Spittoon position
	Dental operating light		Bowl flush
	X-ray Film viewer		Cup-filler
	Move to the limit of two ends pursuant to the line directions		Water heater
	inductive switch		Operating instructions
	Brightness		Caution: hot surface
	Date of manufacture		Variability in steps
	Authorised representative in the European community		manufacturer

Figures and symbols	Descriptions	Figures and symbols	Descriptions
IPX4	Protected against spraying liquid water		No tumbling
	Keep dry from rain		Temperature limit
	Humidity limitation		Atmospheric pressure limitation
	Fragile, handle with care		Keep away from sunlight
	Protect from heat and radioactive sources		Upward
	Prohibited stacking of 2		Stacking limit by mass of 350 kg
	Symbol for the marking of electrical and electronics devices according to Directive 2012/19/EU. The device, accessories and the packaging have to be disposed of waste correctly at the end of the usage. Please follow Local Ordinances or Regulations for disposal.		

III. Matters of Concernment:

- This product can only be used for dental treatment, therapy and operation.
- The children are forbidden to play near the equipment in order to avoid accidents while touching the equipment.
- Only use the fuse and accessories recognized by our company can be used.
- This dental unit should not come into contact with any object in its operational range of movement .
- After using this dental unit r if this dental unit is not os not to be use the patient chair be returned to the lowest position and, water air , and the power supply be cut off.
- Make sure the Headrest is locked before using the patient chair.
- Don't use the product in high-temperature, high-moisture, vibration, flammable or unbalanced environment.
- The patient chair is intermittent operation equipment. ON/2,MIN, OFF/ 18 MIN.
- Read the use instructions before using the handpiece.
- Read the use instructions before using the curing light machine and the scaler
- Connect the water supply before using the water heater in order to avoid short circuit with of dry heating.
- Contact professional Service personnel for unit repairing or maintenance, disconnect the water, air and power supply before the repair.
- Disconnect the water, air and power supply while not using the appliance for long time.
- It is advised that The expected service life of the dental unit is 5 years for this dental unit. The excessive using may result in aging pipes, malfunctions or even accidents. Please contact qualified medical appliance recycle unit to eliminate or change new equipment in time.
- The operating stool doesn't belong to the basic structure of the dental multipurpose therapy unit and the guarantee period of the operating stool is three months. The cold light lamp, PU cushion, real leather cushion, glass parts and ceramic parts within the machine are damageable parts and their guarantee period is all three months. The product's quality problems due to manual reasons are beyond the guarantee area.
- The product is forbidden to be connected with the power supply for more than 24 hours. It is the intermittent equipment. Please disconnect the water, gas and power supply before duty off
- Patient position requirement: :operator regulate the best position during the treatment , patient lie on the dental chair , operator is closed to patient's head to operate
- Safety terminate operation of equipment: Press emergency safety switch at the rear side of the dental chair, all the operating would be stopped
- When replacing the fuse, unplug the power plug. The power cord is welded. If you need to change the power cord and fuses please contact with after sales stuff.
- Attention! Only instruments which include anti-retraction devices are to be used together with the dental unit
- The temperature of the applied part may up to 41 °C due to continuous treatment. Extended skin contact may cause minor burns.

Mechanical safety

- Give adequate attention to patients and this device when it is occupied, with a view to avoiding striking or squeezing the patient. Turn off system power immediately if this device moves accidentally and will not stop moving

IV. Transportation and Storage

1. Transportation and storage conditions: be upright; handle with care; and moisture-proof.
2. Transportation and storage environment: temperature 5-40 °C , relativity≤80%,pressure altitude≤2000m

V. Brief Introduction to the Product

Model specification:	TR-KID-7 Children Dental Chair
Protection class:	Class I
Overtoltage category	II
Pollution degree	2
Altitude	≤2000m
Protection type:	Type B
IP	IPX4 for foot switch
Power supply type:	Single phase, three core, net power supply
Voltage:	a.c. 230V
frequency:	50Hz
power Input:	350VA
Applied part	1:dental chair 2: 3-way syringe (<i>hot</i>) 3: 3-way syringe (<i>cold</i>) 4:Weak saliva pump 5:Strong saliva pump
Software version	DCSUSB13
✘The product has the applied part, no-signal input and signal output part. It is the fixed equipment	

Inte

ended use :

Apply to medical unit to oral cavity inspection and dentistry treatment.

This product, as a kind of dental appliance that can be adopted by qualified person in the course of dental clinic and its related operation process, is composed by a set of related dental equipment and appliance parts for the purpose of dental diagnosis, therapy and operation. And this product mainly include the dental chair, operating lights, instrument tray, Triple hot-water spray gun ,Triple cold-water spray gun, spitting and water supply system, Mouth wash supply device, film viewer and foot switch.

1. Annex I : Accessories list

2 Mode of operation: Motor according to the work for 2 minutes, stop 18 minutes.

VI. Using Conditions

In order to make sure the normal use of the machine, the input water, air, power supply and its work conditions shall meet the following parameters:

1. Air supply: air pressure 0.55MPa-0.80MPa, flux>50L/min, no oil;

The quality of incoming dental air should free from oil, water, bacteria.

The compressed air provided for the dental unit should contain no oil and relevant requirement for cleanness should be met.

The air compressor should be provided by the user and compressed air must be subject filtration with a filter pore size ≤50 μ m.

2. Water supply: water pressure 0.20MPa-0.40MPa, flux>5L/min.

The quality of incoming water to be supplied to the dental unit should be in compliance with existence of national regulations. The following values are recommendations:

Water hardness limit: less than 2.14 mmol/l(<12` dH)

pH limit: 6.5-8.5

maximum particle size(<100μm)

3. Power supply: a.c. 230V,50Hz, rated power 350VA

4. Operation Environment requirement: temperature 5-40℃, relative moisture ≤80%.pressure altitude ≤2000m

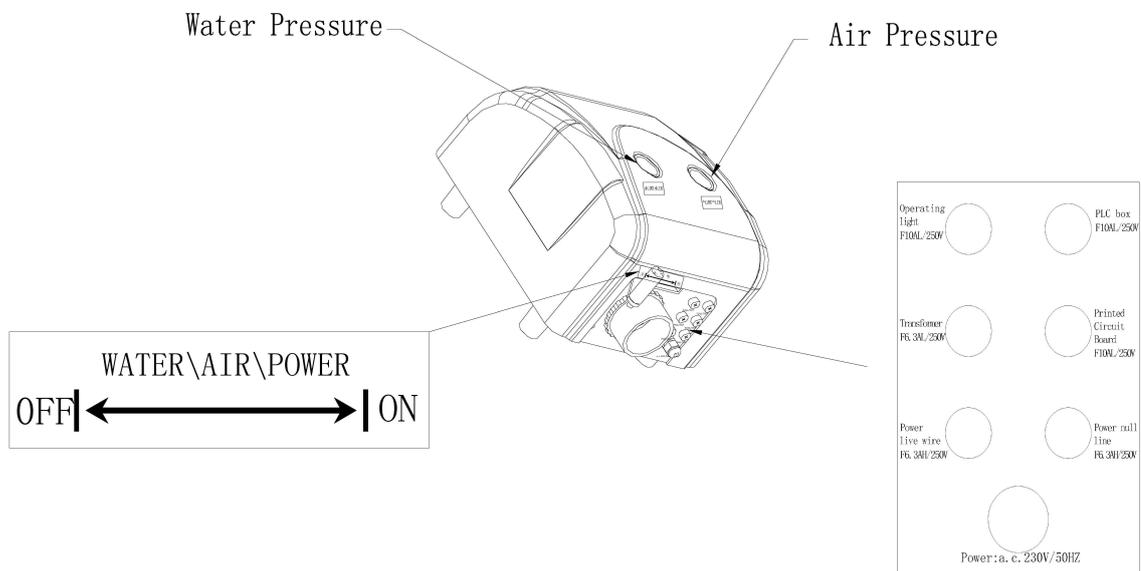
5. duty cycle for chair motor: 2 min ON/18 min OFF

6. expected service life:5 years

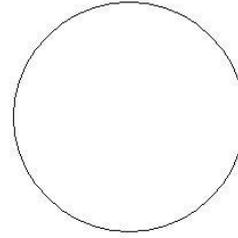
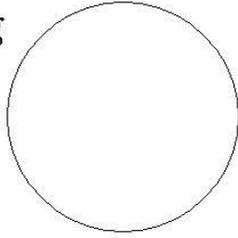
7. headpiece and water heater is running, please make sure there is water.

VII. Basic Parameters

- No load rotating speed of the high-speed turbine hand piece (air pressure 0.22MPa) $\geq 35 \times 10^4$ r/min
- No load rotating speed of the low-speed motor hand piece (air pressure 0.30MPa) $\geq 18 \times 10^3$ r/min
- Illumination for operating light: 8000Ix~20000Ix
- Illumination of the film viewer: ≥ 2000 Ix
- Working load of patient: 135 kg
- Load weight of the instrument tray: 5Kg
- Load weight of Assistant control : 1Kg
- water tank: capacity 800ml, pressure 0.25MPa
- The highest position of the patient chair from the ground: ≥ 700 mm
- The lowest position of the patient chair from the ground: ≤ 500 mm
- Backrest movement range: 105°- 170°
- Head rack extension range: 120mm
- The biggest backward angle of the seat cushion: $\geq 12^\circ$
- Temperature of the constant temperature water heater: (40 \pm 5)°C
- Work space: length ≥ 4000 mm/width ≥ 2600 mm/height ≥ 2000 mm
- Handpiece air output pressure:0.18-0.22MPa, Water Pressure: 0.01-0.4MPa。Scaler water output pressure:0.01-0.4MPa
- Accessories medical products should have the relevant registration certificate, ISO1348, CE certifications.
- Water pipe is import from USA, The raw material is PVC, and have RoHS certifications, PVC will not pollute the water or oral fluid.
- Water filter device equipped with the air filter does not have the function of sterilization.
- The Devices of with disinfectant system (see Page 21) , please choose the disinfectant to local regulations, it's non-hazardous to humans. (alcohol)
- Sketch map of the external junction box

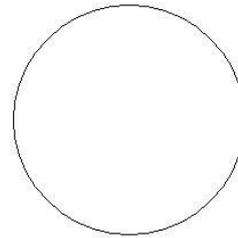
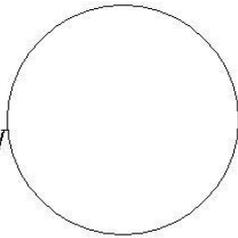


Operating
light
F10AL/250V



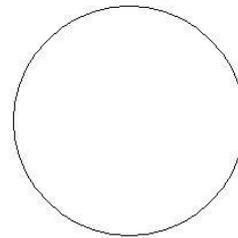
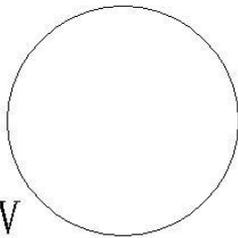
PLC box
F10AL/250V

Transformer
F6.3AL/250V

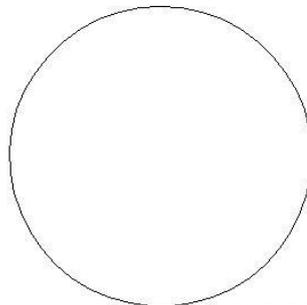


Printed
Circuit
Board
F10AL/250V

Power
live wire
F6.3AH/250V



Power null
line
F6.3AH/250V



Power : a. c. 230V/50HZ

Fuse label

Circuit board in soittoon unit

procedure control box USB

operating light

film viewer-24V

USB

water heater and temperature controller

AC 24V output(1-2,3-4,5-6)

Weak saliva pump
Strong saliva pump

water supply(1-2) water rushing(3-4)
AC 24V output(5-6)

DC 24V output

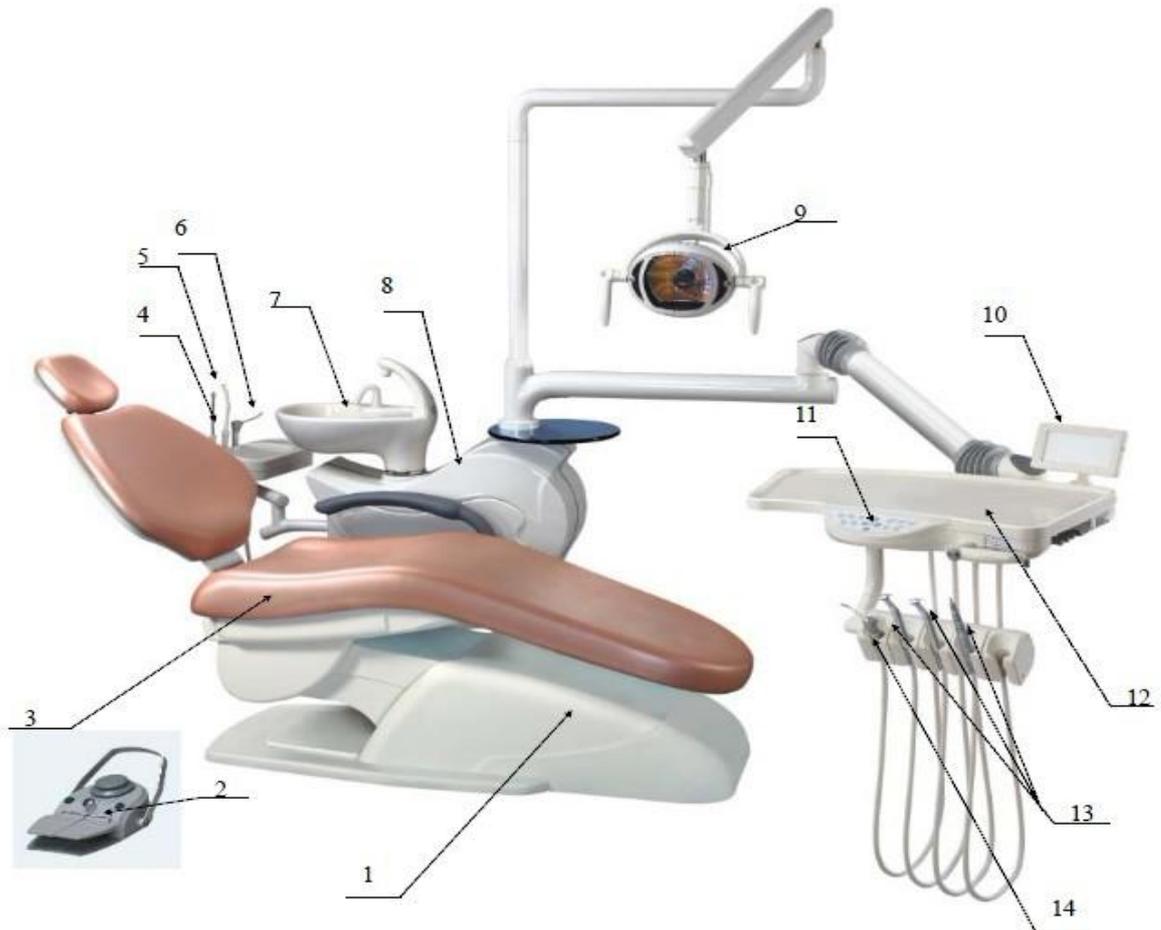
Limited position switch

USB

Input 24V AC

Motor

VIII Sketch Map of the Product's Structure



1. Base box (built-in type)	2. Foot switch	3. Dental chair
4. Weak saliva pump	5. Strong saliva pump	6. 3-way syringe (hot)
7. Mouth wash supply device	8. Side box	9. operating lights
10. Film viewer	11. Control system	12. Instrument tray
13. Dental handpiece	14. 3-way syringe (cold)	

IX Installation

1. Installation space

(1) Environment requirement

In order use the normal for this dental unit, please install it in a clean, dry and ventilate area, and the floor is in level and solid.

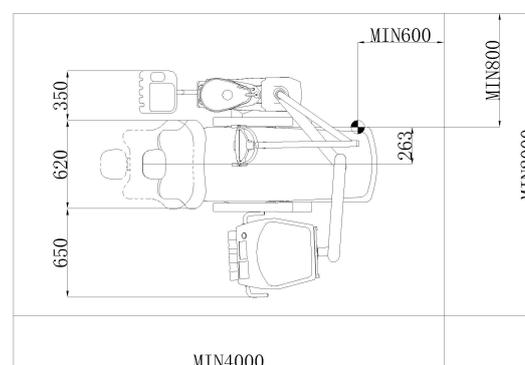
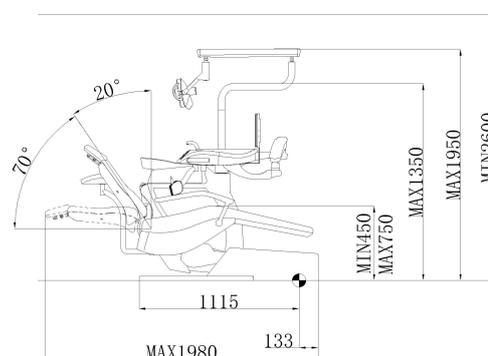
(2) Space requirement

Avoid the touching from any objects during the dental units in the working, the installation space should be required the following items:

- The length no shorter than 4000mm;
- The width no shorter than 2600mm;
- The height no shorter than 2000mm.

(3) Weight

250KG



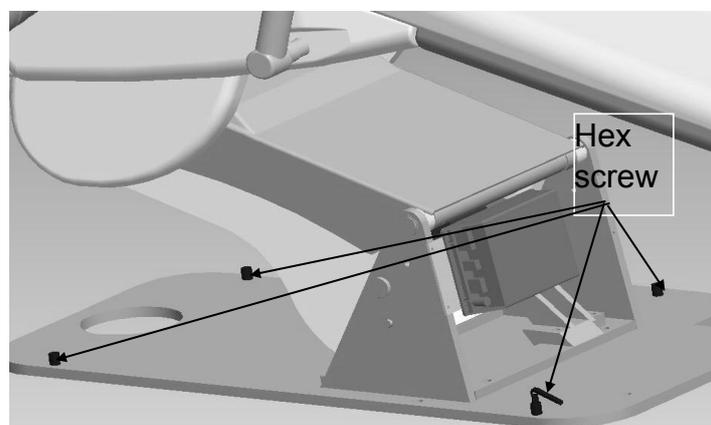
2. Installation of the product

(1) Installation and transportation

Open the package, get the power plug and connect to the power .

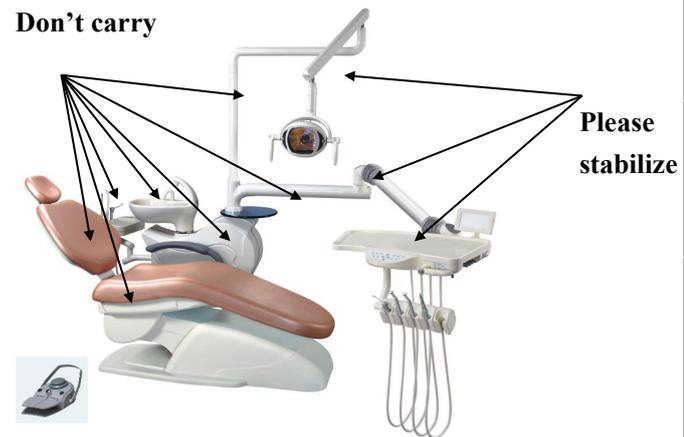
Ascend the patient chair to the highest position; disconnect the power plug line after taking out the front cover and the base cover.

Take out four screws that fix the patient chair on the package's board by using M10 external hexagon wrench; and move the patient chair carefully to the installation position.



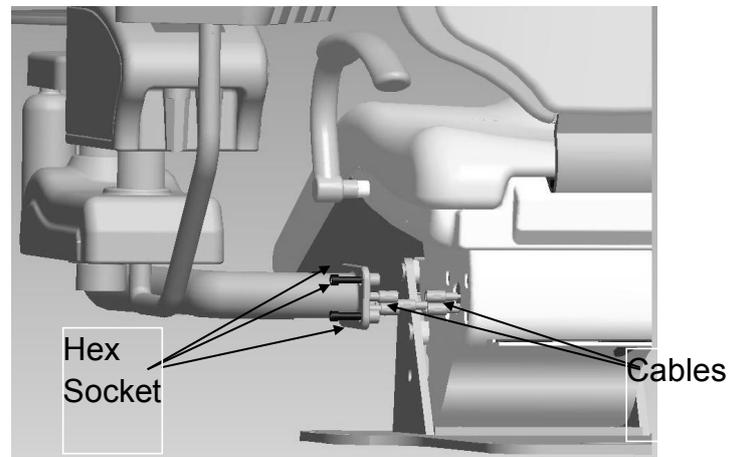
Note:

- ※ **I** During moving, please don't carry the fragile parts as the rotation arm, armrest, assistant tray, spittoon unit and plastic cover so as to avoid damage in the excessive moving force.
- ※ During moving, please stabilize the instrument tray so as to avoid unexpected touching due to its rotation.



(2) Connection between the spittoon unit with the patient chair

Uplift the spittoon therapy unit to make the cables away from the connection point of patient chair in 100mm; then connect the cable plugs from patient chair (please connect them according to correct numbers) to the cables from spittoon unit; fix the spittoon unit to patient chair by 3 pieces M10 hex socket.

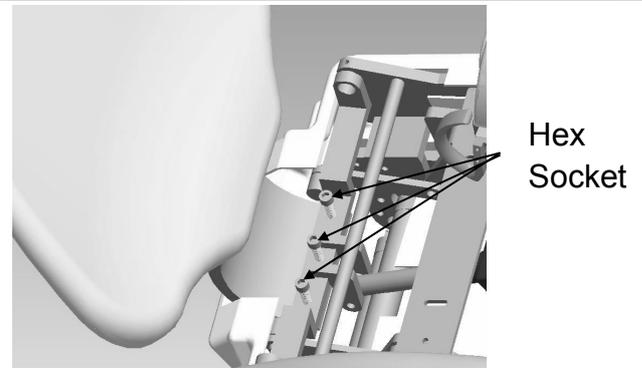


(3) Backrest of the patient chair

By 3 piece M10 hex socket

Note:

 **Avoid sharp articles to lacerate the backrest's surface in the course of installation.**

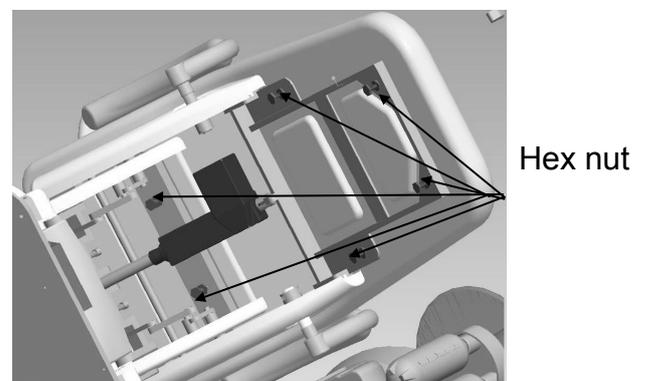


(4) cushion of the patient chair

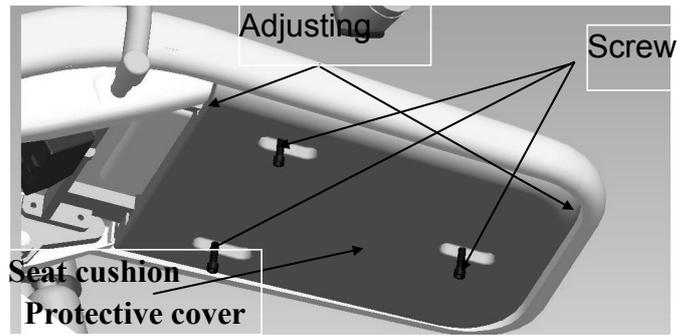
Take out four screws on the cushion's base; re-screw on the cushion through the corresponding four holes, and fix the hexagon nut.

Note:

 **Avoid sharp articles to lacerate the cushion's surface in the course of installation.**



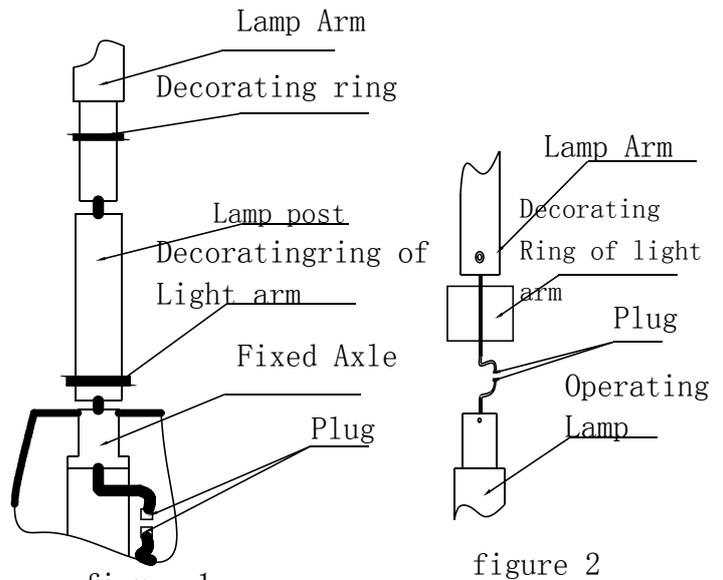
(5) protection cover of cushion
 adjust the protection cover to the cushion , fix the by screws.



(6) Operating light

Open the package box of the lamp arm, and connect them in turns according to the figure

Take out the operating light, and screw off the M5 hex socket from the connecting spindle. As in the figure 2, the decorating ring is covered the connecting spindle, connect those plugs from the operating light connecting spindle to the light arm connecting spindle (Note: make sure connecting the correct color wires , and put the insulated cover on them.) insert the wires and plugs in the light arm, finally, insert the operating light connecting spindle to the operating light arm



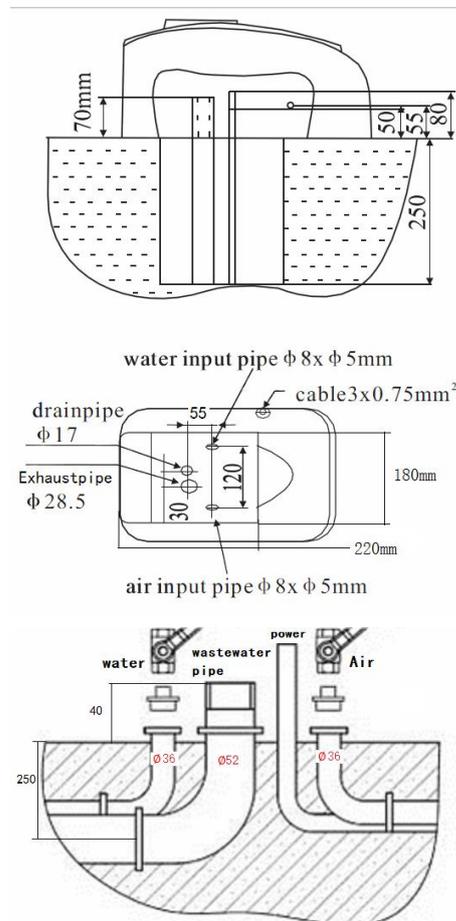
(7) Power unit

Connect the water supply tubing , air supply tubing and drainage tubing to water source , air source and drainage respectively. During the connecting, make sure that the seals of the connecting joints for water supply tubing and air supply tubing keep in good condition to avoid the leak of water and air. Connect the ground wires to the earth.

According to the position where the unit is installed, air tubing , water tubing should reach the designated position. Water tubing and air tubing should be adopt water pipe in 8x5 PVC(ZG1/2”)external diameter, being connected by elbows. wastewater pipe with inner diameter greater than 52 mm. As the diagram on the right.

Note:

- 1.The drainage tubing should be under the ground at least in 10MM, otherwise, the back current will be caused in the drainage tubing.
2. The outfall shall be declined for the fluent current.
3. The outfall shall not be twisted, raised or undulant, or put in the water.



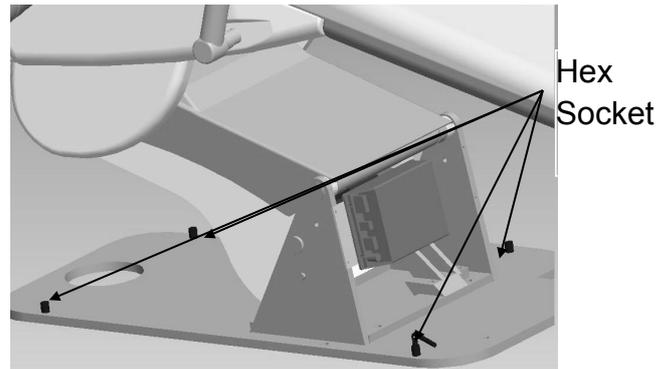
(8) Horizontal adjustment and fixed dental unit

①Screw six M12 hexagonal bolts into the M12 screw thread holes in the bottom cover of the chair to the level of chair balancing.

②Fixed the board by screws with the ground , avoiding the dental unit rollover during misoperation.

Note:

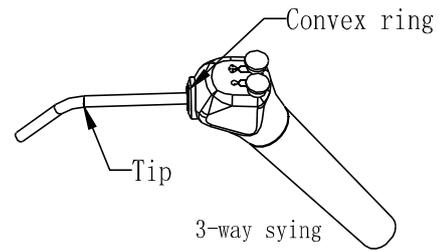
In the process of adjusting, make sure that bottom cover touches the floor as much as possible to ensure the stability of the whole set.



(9) instruments installation of tray

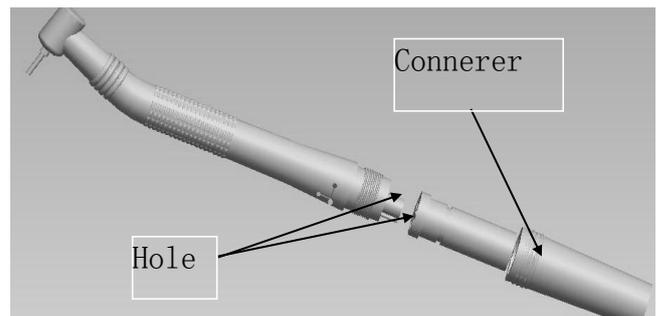
a. 3-way syringe

Take out the nozzle of the 3-way syringe, press the meter ring and insert the nozzle, and then release the meter ring to make it back to the original position. If the meter ring cannot recoil to the origin, the insert of the nozzle is not finished. The meter ring should be pressed again to make the nozzle inserted till the meter ring recoils.



b. hand piece

turn on the water source and air source before installing the hand piece, pull out every hand piece tubing and push on the footswitch, blow off the remained water and air in the tubing, install the hand piece to the tubing connector.



Note:

Please refer to the hand piece user manual as hand piece using, disinfection and maintenance

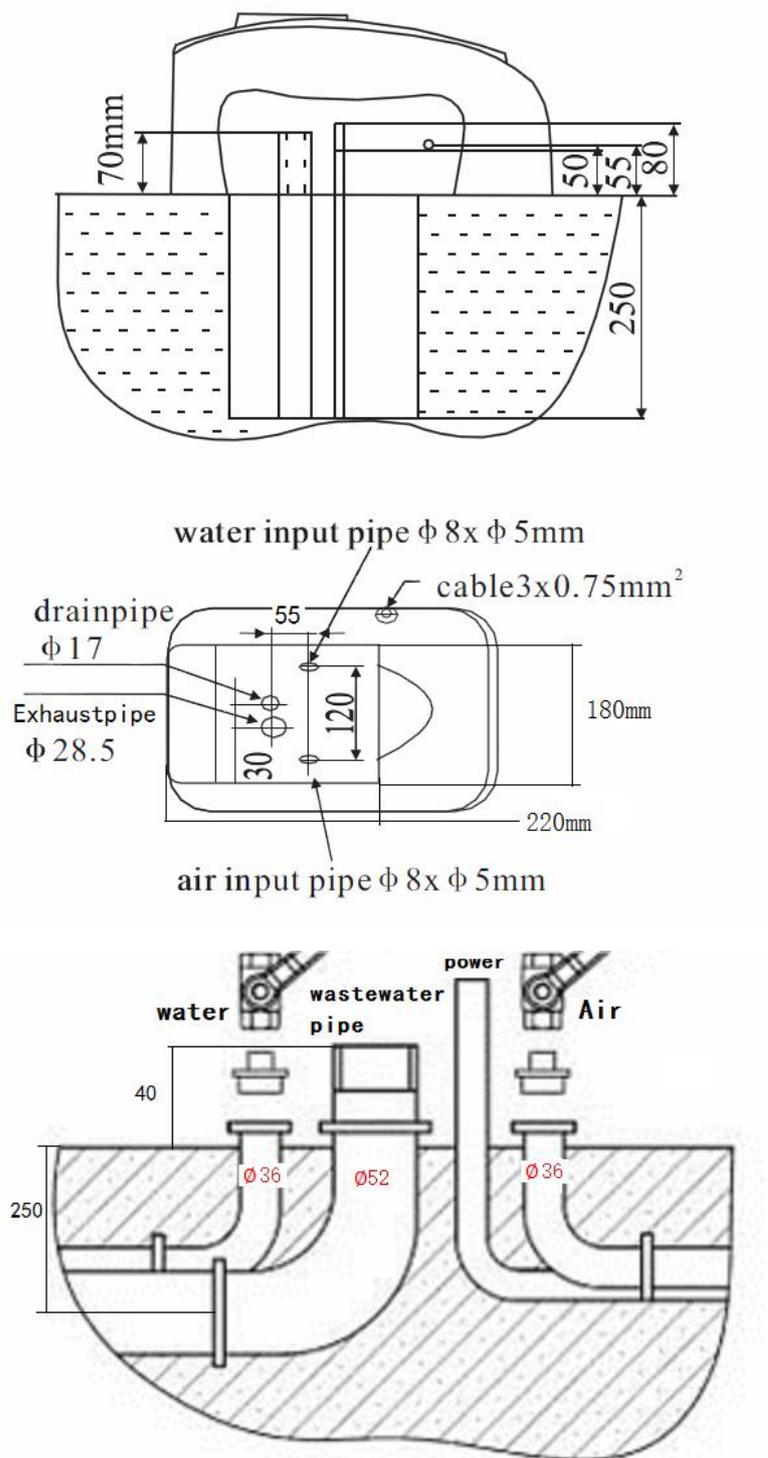
(10) On side installation must be performed by the qualified distributor authorized by ANYE.

(11) Installation for detachable parts :Fuse (see Page 11) , water tank (capacity 800ml, pressure 0.25MPa) , strong suction, weak suction , saliva ejector, 3-way syringe tip, suction filter ,spittoon



3. Installation of the air and water supply and waste system

Incoming and wastewater interfaces for water, air and power supply must be made available within an area of 220mmX180mm where the base is located. The incoming water and air pipe for the unit must be Φ 36 mm pipes, and wastewater pipe must be Φ 52 mm PVC pipe. The pipe interfaces should be about 40mm from ground. Connection area for electricity should be properly grounded and within the installation area.



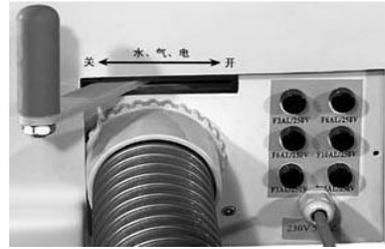
4. Pipeline installation

Before linking pipeline, water and air inside this machine must be exhausted so that the dirt inside pipes is removed for prolonged service life. Use pipe fixtures and pay attention to sealing. Besides, connect the drain pipe of the machine with house drain system. Do it reliably and guarantee smooth drainage.

X Adjustment

Turn off the main (water, air and power) switch (as in the figure 1)

Note: after using the dental unit, it is better to turn off the main switch, it can be protected the spare parts, lengthends service life, reduce troubleshooting.



When buzzer gives out a sound “du”, the power lights on the tool tray and the aid frame turn on. And the equipment carries on the self-check. (as shown in Figure)



— indicating light

check the connection of water source, make sure there isn't any leakage.

check the connection of air source, make sure there isn't any leakage.

open air source to examine the indicated number of air pressure meter in the air reducer in the front cover. The normal operating air pressure of the dental unit is 0.55Mpa. If any error occurs, please adjust the knob in the air filtrating and reducing valve to keep the above-mentioned number.



Other information see Page 24

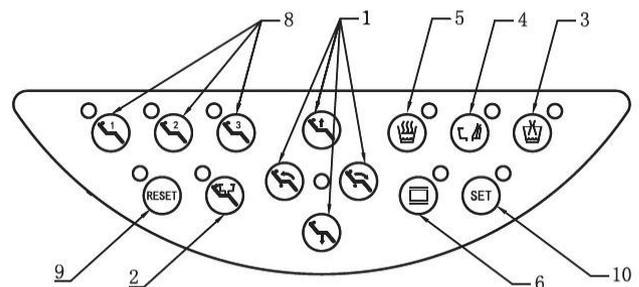
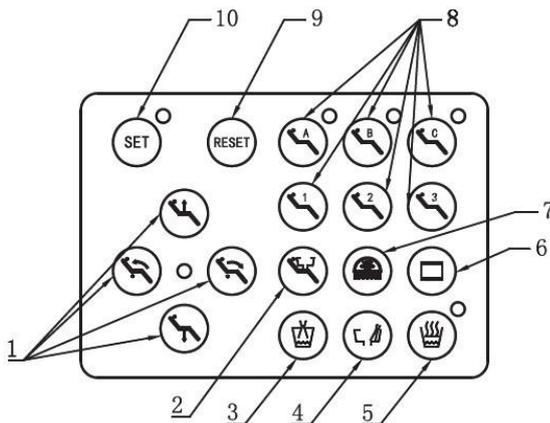
X I Using instructions

Please make sure the water, air and power supply have been open while using the product.

All the functions set can be saved automatically in case of power off.

When the power supply resumes after the power off, there isn't any safety issue, except the going operation should be shutted temperartly. If to continue the operation, please restart the unit

1. Instructions tray panel controlling



① Position of the patient chair

Press each key for long time, then the patient chair shall move according to the identifiers' direction. Release the key, then the move stops.

——“”: the patient chair upward;

——“”：the patient chair downward;

——“”：backrest backward of the patient chair;

——“”：backrest forward of the patient chair.

② Spittoon chair position

Press “”, the backrest of the patient chair shall move shortly to the forefront position so that patient may spit and gargle; and press the key again, the backrest will return to the original position.

Note:

In case of pressing other function keys while the backrest of the patient chair is moving, this key's function will stop automatically.

③ water supply

Press “”, supply the gargling water until the pre-set time; during the water supply pressing the key again in the course of water supply, the water supply shall stop. Please refer to “ set key” for the instructions of time set.

④ Cuspidor water rushing

Press “”, the water will rush the cuspidor for three minutes and stop automatically; in the course of rushing, press the key again, it stops.

⑤ Constant temperature hot water

Press “”, the constant temperature heater will start working to heat the water to 40 °C ; in case of water temperature decrease, the heater will work automatically (the indicator light flashes in the course of heating and keeps on when the hot water reaches the pre-set value); press the key again, the heater stops immediately (the indicator light is off).

Note:

The hot water is only for the purpose of gargling and 3-way syngs. (Must connect to the water supply first before using the water heater in order to prevent the water heater from short circuit due to dry heating).

⑥ Film viewer

Press “”, close the power supply of the film viewer; press the key again, turn on the power supply of the film viewer.

Note:

 There's another power switch on the film viewer.

⑦ operating light

Press “”, turn off the operating light, press the key again, turn on the power supply of the cold light lamp.

Note:

 There's another power switch on the cold operating light

⑧ Memory position

The patient chair can define nine memory positions into three groups such as A, B and C with each group having three chair position memory.

Press the key of each group, the indicator light turns on and enter into the memory procedures of this group; press one of such three memory keys again, the patient chair may move to the corresponding memory position. Please refer to “⑩ set key” for the instructions of self-defining the chair position.

Note:

☞ In case of pressing other function keys while the patient chair is moving, this key’s function will stop automatically.

⑨ Reset position

Press “RESET” key, the patient chair declines to the lowest position and the backrest fore rakes to the foremost position.

Press continues button. The dental chair will go up/down/tilt forward/backward, when reaching required position

Note:

☞ Press any button duuing its moving , the movement will stop.

⑩ Set key

a) Time setting of water supply

Step 1: press “SET” key, the indicator light turns on.

Step 2: press “” key until the water supply to the demanded amount.

Step 3: press “SET” key again, the indicator light turns off, setting fisish.

Note:

☞ This procedure is only setting the time of water supply , if tap water changes , please reset the time .

a) Memory position set of the patient chair

Step 1: press “SET” key, the indicator light turns on.

Step 2: press “”key or “” key (press one of them or neither key) to adjust the chair’s height, and release the key until to the required position.

Step 3: press “” or “” key (press one of them or neither key) to adjust the backrest’s angle, and release the key until to the pre-set position.

Step 4: press any key of A, B, C group, and press any key of such three memory chair positions.

Step 5: press “SET” key, the indicator light turns off, and the set is completed. The required chair position has been memorized in the corresponding memory group keys.

2. Emergency stop switch

To make an emergency stop caused by an accident during the movement process, one-push the “emergency button” .

After pressing the emergency switch, all the mains power will be interrupt. If continuous movement is needed, turn this switch clockwise. The machine will start to work again if the switcher leases automatically.

3. Assistant tray controlling panel

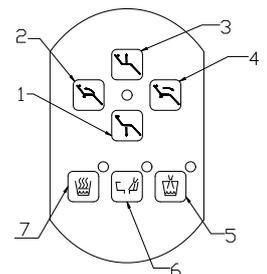
1.2.3.4 patient chair position

5. water supply

6. Cuspidor water rushing

7. Constant temperature hot water

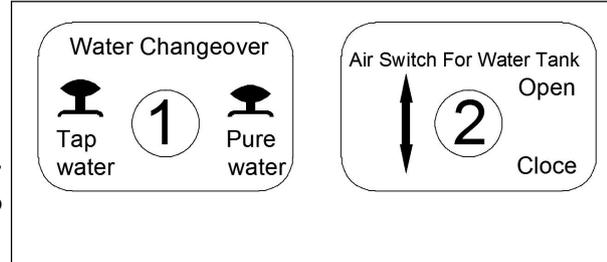
Please refer to the “instructions of the key panel” on Page 9



4. water tank

The water stored in the water tank is only used for the instruments on the instrument tray; when selecting and using the water tank to supply water, the following procedures must be followed:

water tank of disinfectant can be installed on the headpiece line for disinfection, because the disinfectant may remain in the pipeline, please choose the disinfectant to local regulations, it's non-hazardous to humans(alcohol).



Step 1: Press the “①” switch to disconnect the water supply;

Step2: Flip the switch “②” to “open”, the water source for the instruments on the instrument tray shall be changed into the water tank.

Notes:

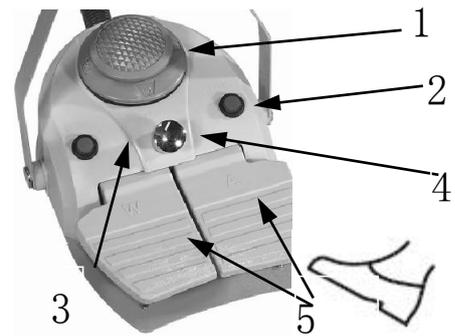
- ☞ If the tap water is used for the instruments on the instrument tray, please make sure the switch “①” is flipped to the “open” position.
- ☞ When the switch “②” is flipped to the “Closed” position from the "open" position, air may come out; this is a normal phenomenon.
- ☞ the max negative pressure is 0.25 MPa

5. Foot controller

① Position of the patient chair

Pull the switch to the indicated four positions and the patient chair will move according to the identifiers' direction; release the switch which will then return to its original position automatically, and then the patient chair will stop.

- “UP”: the patient chair upward;
- “DO”: the patient chair downward;
- “BD”: backrest backward of the patient chair;
- “BU”: backrest forward of the patient chair.



② Gargling water supply (SUPPLY)

Step on the key lightly to supply the gargling water until to the pre-set time; step on the key again to stop water supply in the course of water supply.

③ Cuspidor water rush (RUSH)

Step on the key lightly to rush the cuspidor for three minutes until its stop; step on the key again to stop water rushing immediately in the course of rushing.

④ Chip blow (BLOW)

Step on the key to dry the residual water in the handpiece pipe when the handpiece completes its work.

Note:

Please adjust by yourself as to the air amount for chip blowing. (Please refer to “the instructions of handpiece water and air amount adjustment”)

⑤ Handpiece pedal

“W” on the left pedal indicates the water supply control switch of the handpiece; “A” on the right pedal indicates the air supply control switch of the handpiece. The methods are shown as bellow:

- In case of stepping on the left pedal only, only the water supply;
- In case of stepping on the right pedal only, only the air supply;

—In case of stepping on both the right and the left pedals, the water supply and the gas supply work at the same time.

Note:  please don't use two or three handpieces at the same time.

 It is a auto-lock in the handpiece holder ,In case of using the handpiece ,plesse take the handpiece

6. valve of handpiece

See "Figure 1" for identifiers of the handpiece air adjustment, and see "Figure 2" for identifiers of the handpiece water adjustment.

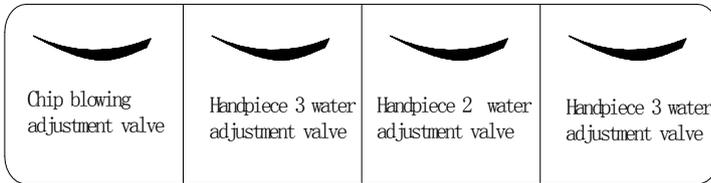


Figure 1



Figure 2



Figure 3

a) ①, ②, ③ in "Figure 1" and "Figure 2" correspond to the handpiece water and air amount of ①, ②, ③ in "Figure 3". The adjustment method: connect three handpiece as shown in the picture, then pull out one handpiece and step on the two pedals of the pedal controller at the same time, and then rotate the knob indication to adjust the water and air amount according to "Figure 1" and "Figure 2".

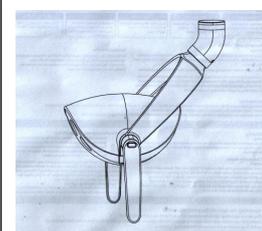


b) "Figure 1" ④ is to adjust the handpiece's air amount for chip blowing. Rotate the knob according to the identifiers' indication to adjust the air.

Note:  Please don't pull out two or three handpieces to make adjustment.

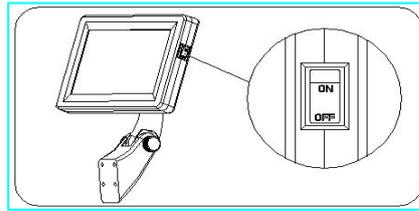
7. operating light

Operating methods please refer the operating light instructions



8. x-ray film view

As shown in the right picture, if move the switch to “ON”, the light turns on; if move to “OFF”, the light turns off.



Note:  the power supply of the film viewer can be controlled by keys on the instrument tray.

9 . 3-way syringe and suction

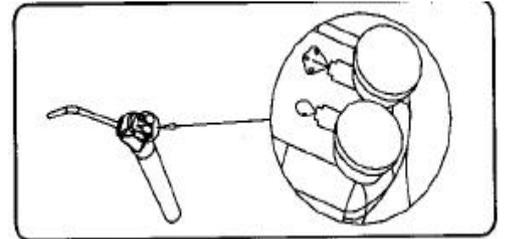
1.

3-way syringe

— Press the identifier “”, spray air only;

— Press the identifier “”, spray water only;

— Press both the “” and “”, spray mist.



2. suction

Take out the strong and weak suction from the assistant tray, they work automatically. Adjust the switch on the suction head to adjust the amount, as shown in the right picture.

NOTE:

Strong and weak suction replacement instructions

To avoid the risk of biocompatibility, please use the saliva ejector conform with ISO 10993.

Suction (low) is water suction. Connection through water source is required, and minimum water level is required to be ensured; suction (strong) is air suction. Connection through air source is required, and minimum air level is required to be kept

The device is not connected with the negative pressure pump

Other information see Page 25

10. Parts of connected with patient:

High suction tip, saliva ejector tip, 3-way syringe tip



XII Cleaning and Maintenance

1、Cleaning /disinfecting surfaces

The surfaces can be spray and wipe disinfected with surface disinfecting.

NOTE

① Clean any medicament residues off the unit immediately with a moist cloth. (Example: the iodine)

Disinfecting by medical alcohol



figure 1

②To clean near openings , first spray the liquid onto a cleaning cloth .Then wipe over the unit with the cleaning cloth.

Do not spray any liquids into the unit ,It can destroy the electrical components.

③In order to make clearly for the dental unit, please disinfect its surface by medical alcohol daily. (as in figure 1)

④After operation disinfection system to disinfect each time the headpiece tubing each time

2. Rotational position maintenance:

Inject lubricating oil regularly into the rotating parts to maintain the acting parts in good status, at least once a year. (as shown in Figure 2)

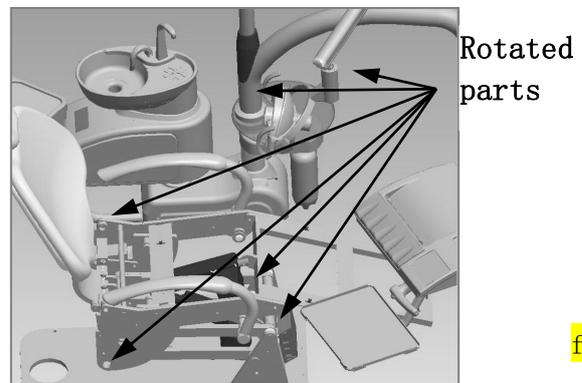


figure 2

3. In order to guarantee the using water cleanly, please clear the filter element of water filter by mild detergent at least every 6 months (the specification of filter core is less than $50\mu\text{m}$). if there is cracking or breakage in the water filter or filter cover, please change it at once. (as figure 3)

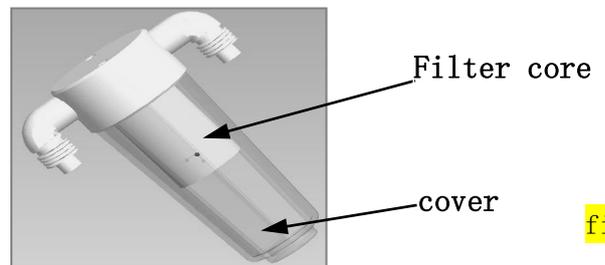


figure 3

4. In order to guarantee the water clearly in the water tank, please clear the water tank inside by mild detergent at least once a week. Disconnect the air from water tank firstly before take off the water tank(as figure 4)



figure 4

5. In order to guarantee the dry air using, please discharge the seeperte in the air pressure regulators which is in the junction box at lease once a week(the filter core is less than $20\mu\text{m}$). In case of there is air leakage in the air pressure regulators, please change it immediately. (as figure

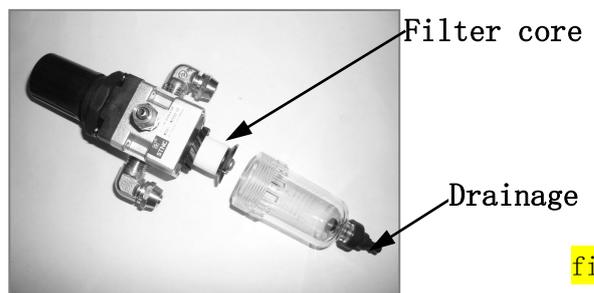


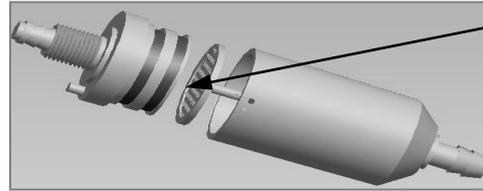
figure 5

6. Please clear the suction fliter by water every day after using the dental unit. (the filter core is less than 2 mm) (as figure 6)

Please refer to the Saliva ejectors tags in the removal process. (as figure 7)

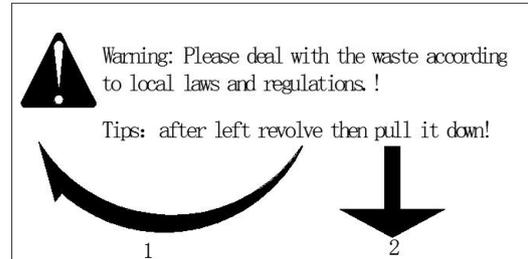
(Warning: Please deal with the waste according to local laws and regulations!)

Accessories such as the need to replace the contact with the sales staff



Saliva ejectors

figure 6



as figure 7

7. please read the handpiece user' s manual about its maintenance and disinfecting before using.

8. Maintenance staff qualifications: ANYE qualify authorized dealer taking charge the after sale service.

The MANUFACTURER will make available on request circuit diagrams, component part lists, descriptions, calibration instructions, or other information that will assist SERVICE PERSONNEL to repair those parts of ME EQUIPMENT that are designated by the MANUFACTURER as repairable by SERVICE PERSONNEL

9. Annex II Spare parts list for repairing by Maintenance staff

10. Dental handpiece and 3-way syringe tip need to be sterilized before use, It is recommended to use 135 °C high temperature sterilization,15min.

11. The seat surface and the outer surface of the dental chair should be cleaned regularly. The surface can be used for cleaning and disinfection of medical alcohol.

12. If cleaning and disinfection as required for the dental tubing, please loaded harmless neutral disinfectant in the water tank to using the disinfectant system cleaned and disinfected. If you need turnover the dental tubing, Please contact our after sales service.

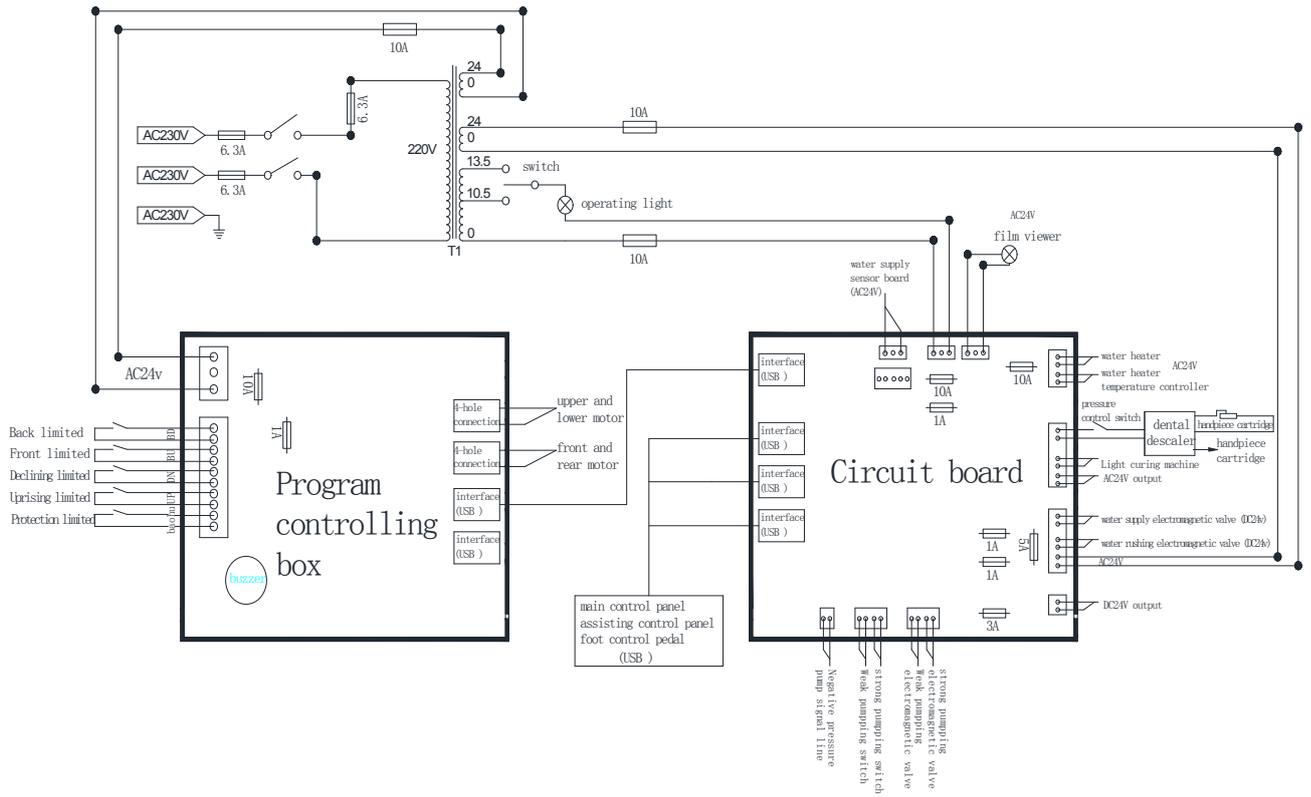
XIII. Guide Troubleshooting

Trouble	Reason analysis	Troubleshooting	Remark
The equipment doesn't work	<ol style="list-style-type: none"> 1. The power supply switch is not connected. 2. The fuse of the power supply switch is burned. 3. The fuse of the equipment is broken. 4. The general switch of the equipment is not open. 	<ol style="list-style-type: none"> 1. Connect the power supply switch. 2. Change the fuse. 3. Change the fuse within the equipment. 4. Open the general switch. 	

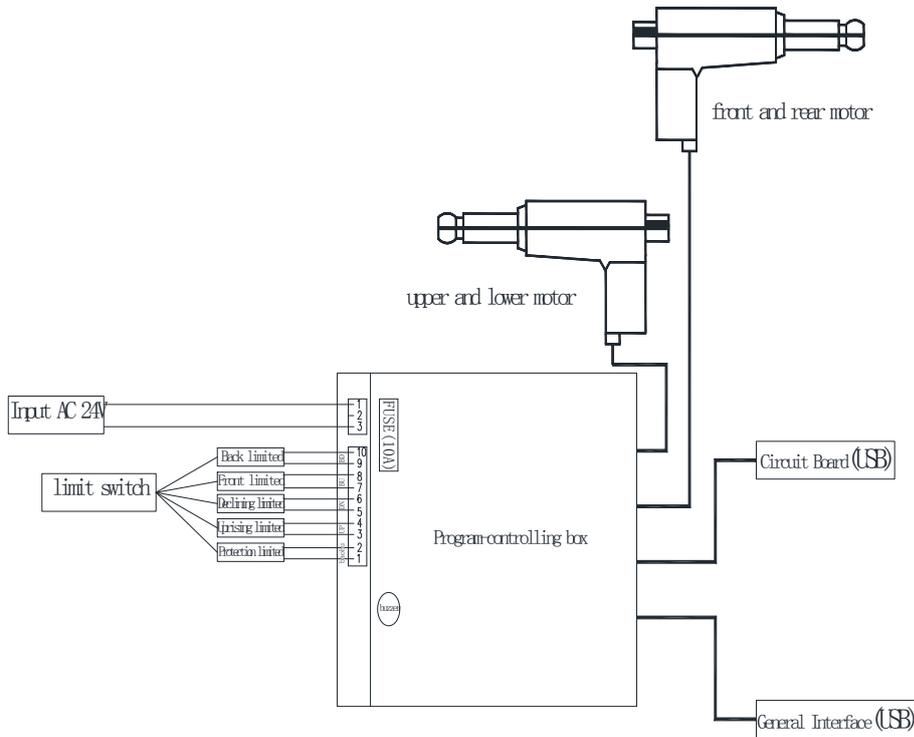
The dental lamp doesn't work	<ol style="list-style-type: none"> 1. The bulb is burned. 2. The glower isn't well connected. 3. The plug isn't well connected. 4. The fuse on the sub-terminal of the power supply transformer is burned. 5. The internal line within the moving parts is twisted off. 	<ol style="list-style-type: none"> 1. Change another bulb of the same type. 2. Revise with tools. 3. Revise with tools and then plug in. 4. Change the fuse of the same type. 5. Change a new line. 	
The sputum rushing and gargling water cannot be closed up.	<ol style="list-style-type: none"> 1. The valve element of the electromagnetic valve is blocked by foreign articles. 2. The therapy board is damaged. 	<ol style="list-style-type: none"> 1. Remove and clean the vale element 2. Change the therapy board. 	
No water comes from the sputum rushing and gargling water supply.	<ol style="list-style-type: none"> 1. The water pipe is contorted and staved. 2. The electromagnetic valve is burned. 3. The therapy board is damaged. 	<ol style="list-style-type: none"> 1. Settle or change a new pipe. 2. Change a new electromagnetic valve. 3. Change a new therapy board. 	
Temperature of the gargling water is too high.	<ol style="list-style-type: none"> 1. Thermostat within the cover of the water heater fails to work. 2. Temperature on the temperature controller is too high. 	<ol style="list-style-type: none"> 1. Change a new water heater. 	
The cuspidor rushing drainage doesn't work well	<ol style="list-style-type: none"> 1. The pipe is blocked by filth. 2. The plastic pipe is staved. 	<ol style="list-style-type: none"> 1. Clean the filth. 2. Disassemble the pipe and dip it in hot water until it returns to the original state; or change a new pipe 	
The handpiece drips water even not under use.	<ol style="list-style-type: none"> 1. Malfunction of the air distribution valve. 2. The air controller foot switch doesn't return to the original position. 	<ol style="list-style-type: none"> 1. Settle or change a new pipe. 2. Change a new electromagnetic valve 	
No water comes out when using the handpiece	<ol style="list-style-type: none"> 1. The water pressure is too slow. 2. The water adjustment valve is not open. 3. The water supply switch is not open. 4. The adjustment of the change-over switch between the tap water and pure water is improper. 5. There's no pressure within the pure water cup. 	<ol style="list-style-type: none"> 1. Adjust the water pressure. 2. Open the water adjustment valve. 3. Open the water supply switch. 4. Adjustment the change-over switch. 5. Open the water cup controller. 	
No water comes out when using the handpiece or water with air when using the handpiece.	<ol style="list-style-type: none"> 1. The single-joint diaphragm is fractured. 2. The handpiece control valve diaphragm is fractured. 	<ol style="list-style-type: none"> 3. Change the diaphragm of the same type. 4. Change the diaphragm of the same type 	
The sputum aspirator doesn't work well or doesn't work	<ol style="list-style-type: none"> 1. The internal part is blocked by filth. 2. The strong and soft aspirating filter is blocked by filth. 3. Piston of the double-joint air control valve is not in the right position. 4. Whether there's air passing through the rack hanging valve. 5. The water pressure and the air pressure are too slow. 	<ol style="list-style-type: none"> 1. Absorb clean water to wash the sputum aspirator or disassemble it to wash it with clean water. 2. Disassemble the filter to wash and then recover it. 3. Disassemble the piston to wash it with alcohol; then recover it after wiping silicone grease on the round loop. 	

		<ul style="list-style-type: none"> 4. Readjust the position of the rack hanging valve. 5. Adjust the water and air pressure. 	
The motor doesn't work	<ul style="list-style-type: none"> 1. Check whether the thrum is not well connected. 2. The malfunction of the keys on the main control panel. 3. The control box is burned, such as the fuse is burned. 4. The motor is broken, 5. The limit switch is blocked. 	<ul style="list-style-type: none"> 1. Re-plug the thrum. 2. Change the keystroke. 3. Change a new main control box. 4. Change the motor of the same type. 5. Adjust or change the limit switch. 	

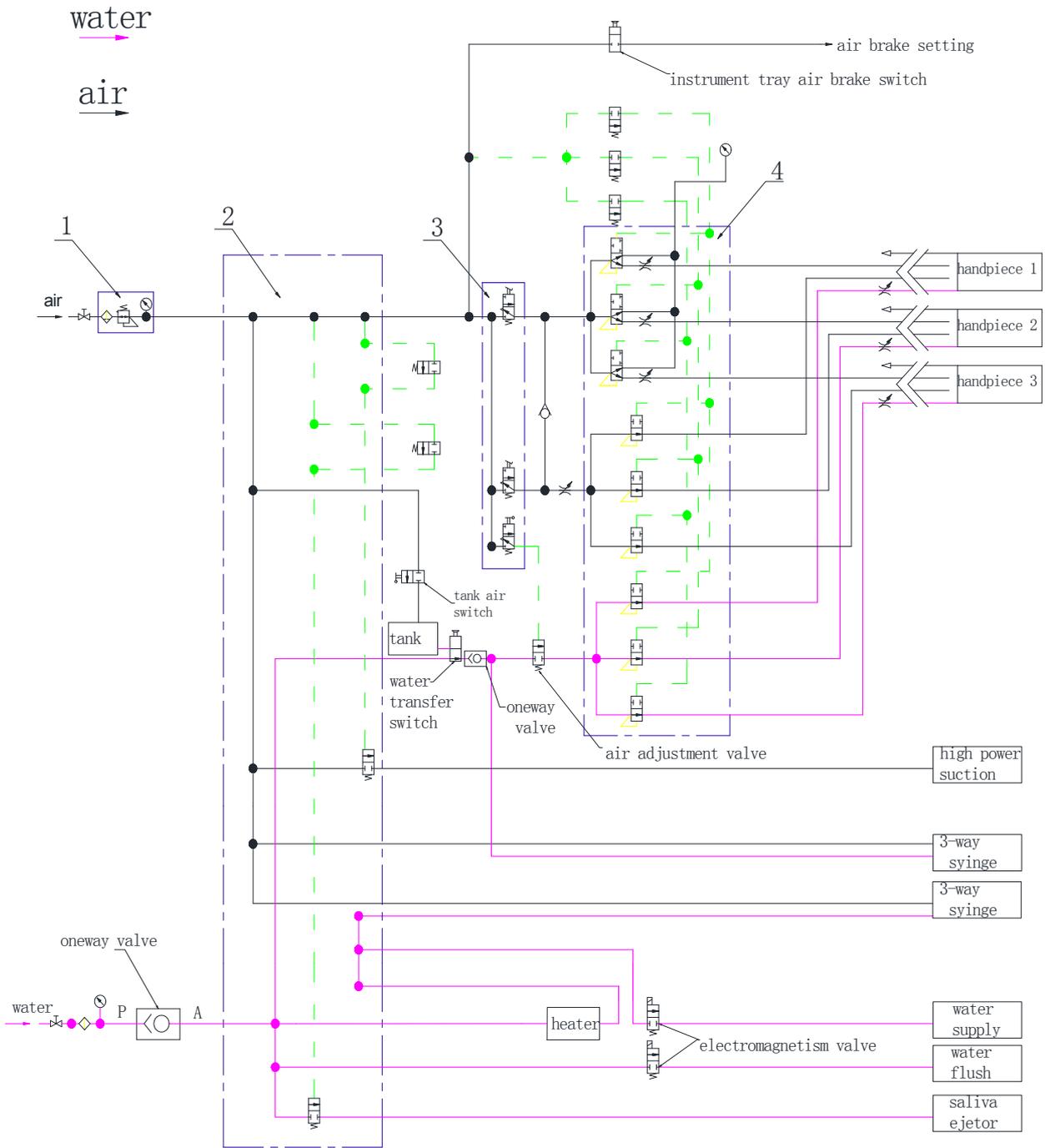
XIV Circuit Sketch Map



XV Circuit Diagram of the Patient Chair



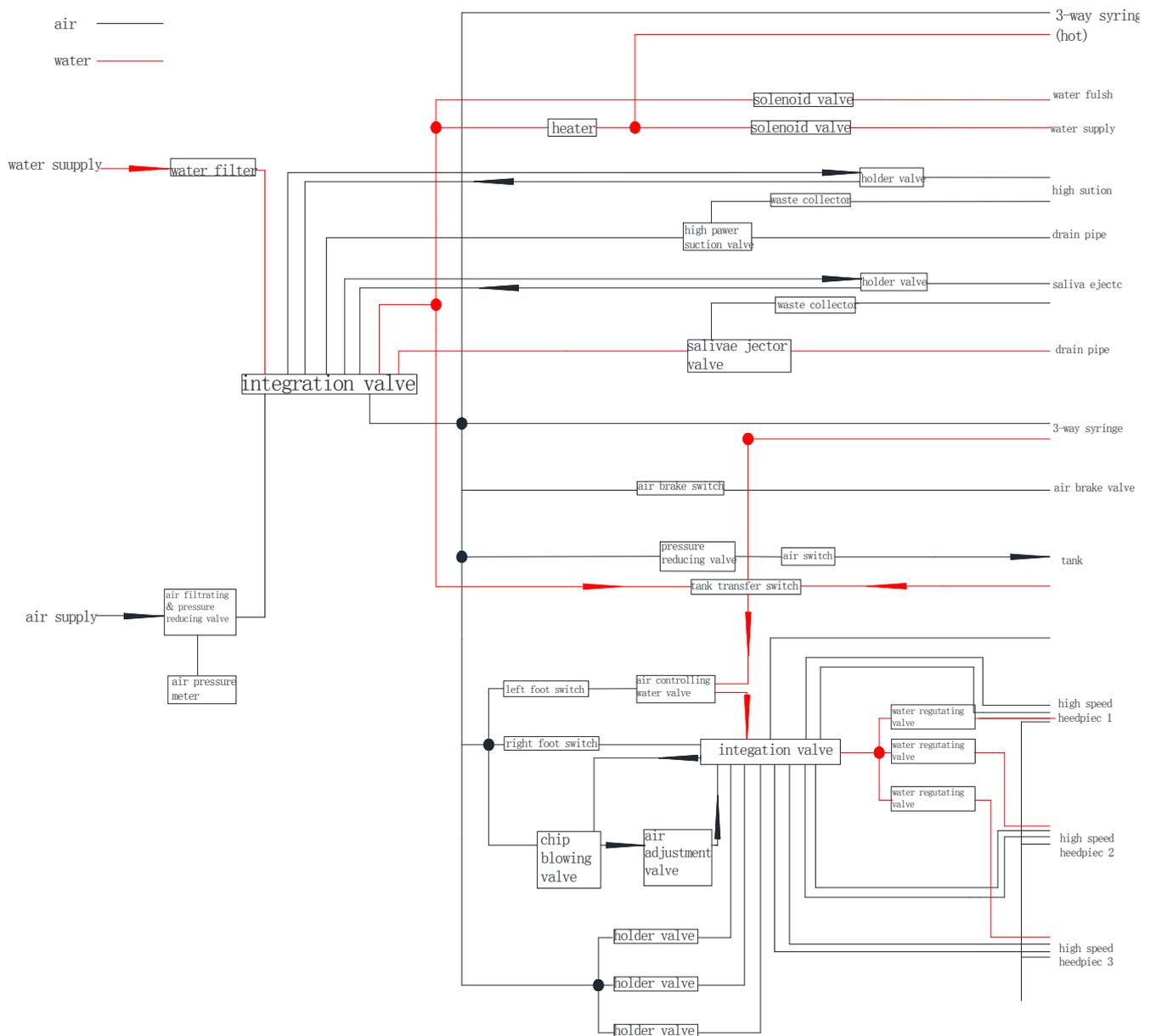
XVI Water and Air Principle



1. Air filtering pressure reducing valve
 4. Integration valve in instrument tray

2. Integration valve 3. foot controller

X VII. Water and air Line Sketch Map



Mark: above water and element's water pressure can't exceed 0.4Mpa air pressure can't exceed 0.8Mpa .

Annex 1:Accessories list

NO.	Name of spare parts	Q'ty	Remark
1	operating stool	1	
2	qualify certificate	1	
3	user's manual	1	
4	Warranty card	1	
5	M10x15 screw	4	
6	6MM L Type hex wrench	1	
7	10MM L Type hex wrench	1	
8	saliva ejector tip	2	
9	6.3A fuse	3	
10	10A fuse	3	

Annex 2: Spare parts list for repairing by Maintenance staff

NO.	Name of spare parts	Qualified person	remark	NO.	Name of spare parts	Qualified person	remark
1	controlling system	Professional maintenance staff		13	air reducer	Professional maintenance staff	
2	electric motor	Professional maintenance staff		14	air meter	Professional maintenance staff	
3	tubing	Professional maintenance staff		15	valves	Professional maintenance staff	
4	main control keyboard	Professional maintenance staff		16	Heater	Professional maintenance staff	
5	assistant control keyboard	Professional maintenance staff		17	Fuse	Professional maintenance staff	
6	foot switch	Professional maintenance staff		18	Power cord	Professional maintenance staff	
7	PCB	Professional maintenance staff		19	handpiece tubing	Professional maintenance staff	
8	sensor PCB	Professional maintenance staff		20	3-way syringe	Not requested	
9	transformer	Professional maintenance staff		21	spittoon	Not requested	
10	electromagnetism valve	Professional maintenance staff		22	water tank	Not requested	
11	operating light	Professional maintenance staff			plastic cover	Not requested	
12	water fliter	Professional maintenance staff			suction tips	Not requested	

NOTE:1. Maintenance staff qualifications: ANYE qualify authorized dealer taking charge the after sale service.

2. The spare parts have been not mentioned in the list, should be repair or replace by professional maintenance staff.

The company reserves the right of refining the design of the product without notice in advance.

Transportation and Storage

1. Transportation and storage conditions: be upright; handle with care; and moisture-proof.
2. Transportation and storage environment: temperature 5-40°C, relativity ≤ 80%, pressure altitude ≤ 2000m

<p>Installed by: _____</p> <p>_____</p> <p>Telephone: _____</p> <p>_____</p>
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※ Our company reserves the right to change product design without prior notice.

This Instrument responds to every function of the product as much as possible; its power of interpretation is vested in our company

(Printing date in 2015-12).