

**Portable Dental Unit  
Operation Manual  
TR-SUN207**

Note: Please read this manual carefully before installing, commissioning, operating or maintaining the unit.

**Warning :**

1. Turn off the power switch after the machine stops working. Long-term power on or standby will cause components such as transformers and solenoid valves to burn out due to heat.
2. The water level of the sewage bottle should not be higher than 75%. If it exceeds, please clean the sewer first and continue working. More than 75% will lead to the risk of sewage entering the motor. Once the sewage enters the motor, it will cause the risk of motor leakage, burn out and other risks.

**Safety instructions**

Before use, please read this manual carefully and keep it for future use;

1. Keep the workplace clean: It is easy to cause accidents due to disorder. Pay attention to the workplace environment: The dental unit must not be allowed to rain or rain. Do not work in wet and dark areas. Do not work in places where flammable and explosive liquid gas and dust are stored. Should be properly stored in a dry, ventilated, cool flat surface and in a sterile environment.
2. Beware of electric shock: When using a dental unit, do not allow the machine to touch grounded items (eg, ducts, radiators, refrigerators, etc.).
3. Outsiders / children do not close: Do not let children and non-operation related personnel close to the dental treatment instrument, so as to avoid electric shock and other injuries.
4. Do not force the machine to use: According to the calibrated voltage and frequency on the dental treatment instrument, the effect will be better and safer.
5. Protection cable: Do not pull the cable to pull out the plug from the power supply. Keep the cable away from heat and oil and avoid contact with sharp objects.
6. Maintain the machine properly: Check the accessories and cable lines regularly according to the use conditions, and replace the damage immediately. The machine should be kept clean and dry without oiling in order to fully realize its performance.

7. Cut off the power in time: When not in use, develop the habit of cutting off the power in a timely manner. Mobile dental treatment instrument, the power switch must be cut off.

8. Anti-overpressure start: prohibit the use of over pressure, the factory has been set to use the maximum pressure of the air compressor is 4Bar, safety relief pressure is 6Bar, otherwise there will be a risk of explosion of the gas tank.

9. Tip: The use of non-genuine factory accessories can easily lead to damage to the dental treatment device and even personal injury.

Supply Voltage: the supply voltage should be match it on the nameplate of the dental unit. If the power supply voltage is higher than the applicable voltage, it may cause personal injury and damage the dental unit. If the power supply voltage is lower than the applicable voltage , it may cause poor start-up and even damage the motor.

Thank you very much for choosing to use our company's ultra-professional portable dental treatment machine. It is a multi-purpose and energy-saving electromechanical integration product that our company has introduced to foreign advanced technology. It is truly low noise, small size, beautiful appearance and consuming. Electrical province, simple maintenance, safe and durable, etc. It is applicable to mountainous areas, military schools, institutions, disaster areas, etc. Emergency visits to patients with inconvenient mobility, door-to-door service. All functions are low in failure, easy to operate, durable, weighs only 13 kg. Easy to carry, low power consumption, no oil, low noise and so on. Easy to operate.

### **1. Special reminder!**

When the machine is powered on, it is prohibited to touch the motor and metal parts inside the box. When it is necessary to add water, disconnect the power supply and press the gas switch of the three-way syringe to remove the gas from the bottle and add purified water. Add water level to 75% of the tank capacity. Add water and dry the bottle body and put it back. If any abnormal operation of the machine is found during use, stop the machine immediately. Contact an electrical engineer or manufacturer.

### **2. The main parts and features**

## **2.1 Oil free gas pump**

No need to refuel any part of the motor. In use, if the following appears Please stop the machine immediately.

1 Weng Weng's voice but no air discharge

2 smoke

3 appeared burnt

4 **A: Working condition: Power supply: 410W 110V/60Hz ,220V /50Hz ,**

**B: Packing Dimension: 48\*30\*30(cm)**

**C: Weight: 15kgs**

**D: Pressure: 0.6Mpa**

## **2.2 Air adjust regulating valve**

The counterclockwise rotation increases the air pressure, and the clockwise rotation reduces the air pressure to close.

## **2.3 High and low speed tube water regulator**

The water pressure increases counterclockwise, and the water pressure decreases when it rotates clockwise.

## **2.4 Foot pedal**

The main circuit and the waterway part of the machine are all controlled by this, and you can work when you step on it, but otherwise it stops. During the transition between work and stop, there should be a certain interval time, and it is forbidden to step on the pedal. Otherwise, the machine will not work properly. .

## **2.5 Oilless master ball valve switch**

Located at the bottom right of the oil-free mainframe, it can adjust the pressure of the output gas and the suction of the saliva ejector. The smaller the ball valve is, the smaller the pressure is. When the ball valve is pressed downwards, the pressure is smaller, and vice versa. It can be adjusted according to the use conditions.

## **2.6 Sewage bottles, water bottles**

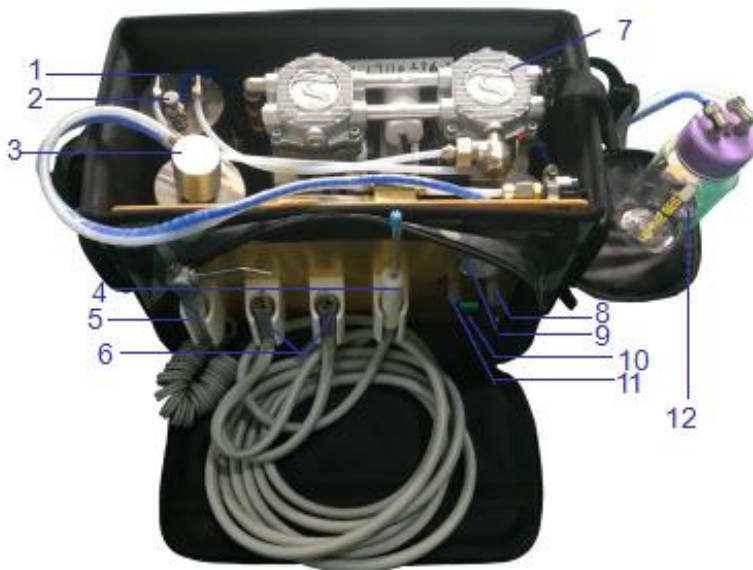
Sewage bottles and water purification bottles must not be inverted. Sewage bottles and clean water bottles must be placed standing. Inverting the sewer and the water bottle causes the water to flow back into the nose, causing the head to be damaged and unable to work properly. Sewage bottle water level should not exceed 75%, if exceeded, please clean the sewer, and then continue to work, the water level of the water bottle should not exceed 75%.

## 2.7 3-way syringe

Take the handle of the 3-way syringe , press the water and steam at the same time to work on the atomization, press the water and the steam independently to work with the water and steam separately.

## 3. The organization diagram

1. Gas Storage	8. Water Switch
2. The Exhaust Valve	9. Pressure gauge
3. Water bottle	10. Power switch
4. Suction	11. Air Switch
5. 3 - way syringe	12. Sewage bottle
6. High & low speed handpieces pipe	13. Foot pedal socket
7. Oil-free compressor	14. Power cord socket



## 4 Packing list

The whole machine 1

Foot switch 1

Power cord 1

Operation manual 1

## 5. Self fault

No.	Problem	Cause	Check	Solution
1	The air compressor does not start	Not connected to power supply	To check the power connected properly or not	Connect power supply properly
		The power cord is disengaged or a motor assembly is loose	Check the wiring board and air compressor assembly	Connect the circuit according to the circuit diagram
		Air compressor temperature is too high	Feel the surface temperature of the compressor by hand	Cool the air compressor, wait for cooling before use
		The circuit does not work	Check if the fuse is damaged	Replace the spare fuse
2	The air compressor continues to work and can not stop	Solenoid valve is clogged	Check if the solenoid spool is dusty	Clean the solenoid spool
		The suction unit don't hang in correct place	Check if the suction is no hang in place	Hang up again
		Pipe leaks	Observe or listen to airflow, or check with soapy water	Avoid leakage
3	The air compressor stops working, the air pressure drops immediately, and the air compressor is working again	A lot of leakage from the pipe	Observe or listen to airflow, or check with soapy water	Avoid leakage
		Check valve leaks	There is no other place to leak, and the pressure switch continues to work	Remove the relief valve, replace the O-ring, clean the cartridge
4	Shell conductive	The ground wire is not connected properly	Check the machine surface with a pen	Connect the ground wire correctly
		The machine is damp	<5M Q Multimeter Insulation Resistance <5M Q	After drying, and use
5	Air compressor vibration, noise, can not start	The voltage is too low	<198V with a multimeter to detect voltage <198V	Use a regulator
6	Do not spray water when the hand piece is spinning	The water in the water bottle has run out	Check the amount of water in the bottle	Fill the water
		The water vapor distribution valve is clogged	Check whether the three way syringe is sprayed	Adjust the water vapor distribution valve or clean the cartridge
7	Leakage of hand piece in idle state	The water distribution valve does not work	Remove the side of the valve inside the hand piece, take out the cock, spring and cartridge	Change the cartridge
		The foot switch can not be restored	When the foot switch is released, the pressure gauge does not drop	Release the lid of the foot switch and let it work freely
8	Water vapor control valve leakage	The valve heart is too far	Remove the control valve and check	Install the valve core properly
		O-ring is damaged	Remove the valve core and check	Change the O ring
		The connector is loose	Check the connector for leaks	Tighten the joint

# ! ! Attention ! !

**Attention: Please put the saliva ejector , hand piece pipe , three way syringe pipe , scaler pipe into the correct position as following pictures . To keep the machine working normally and Prevent leakage, the clean water bottle , waste bottle and the air tank must be tightened . Please read the instruction manual for details.**

(1) (saliva ejector、handpiece pipe、 three way syringe)

Correct position (√)

Incorrect position (×)



(2) The water level of the water bottle should not exceed 75%.

(3) Sewage bottle water level not higher than 75%, if exceeded, please clean the sewer, and then continue to work.