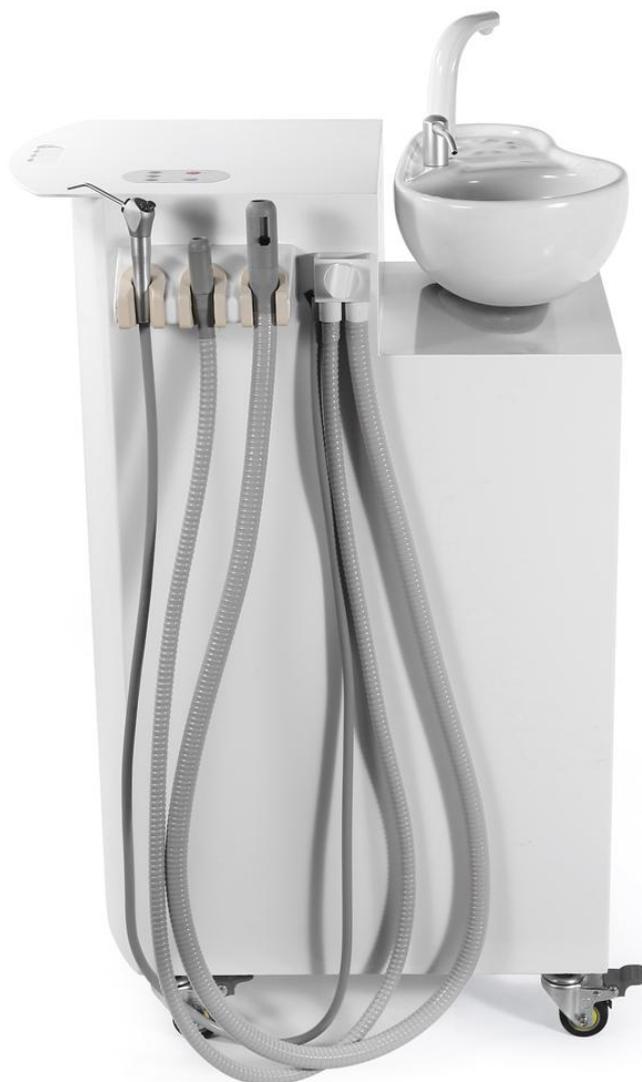


Mobility Dental Suction Unit

TR-YP606D2

User Manual



Thank you for selecting our company's dental suction machine. Please carefully read all the information in the user manual, especially information about the operation and other notes, which will help you better use the product.

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1. General Information

1.1 Overview

The user manual includes operating instructions, maintenance and notes about the dental suction machine. You can look for the information you need in the manual and get help.

1.2 Product Information

Name: Mobility Dental Suction Unit

Model: TR-YP606D2

1.3 Structure & Components

The dental electric suction machine consists of the suction part, filter, valve and pipes.

1.4 Application Range

The mobility dental suction unit provides negative pressure source for dental treatment apparatus. It can be used for sucking saliva in the dental surgeries.

2. Technical Parameters

1. Model Number: TR-YP606D2

3. Rated Power: 480W

5. Maximum Flow: 60m³/h

7. Maximum Negative Pressure: -110mbar

9. Noise: ≤50dB

11. Pressure: 120kpa

2. Nominal Voltage: 220V

4. Rated Frequency: 50Hz

6. Rated Speed: 2900r/min

8. Maximum Vacuum: -110mbar

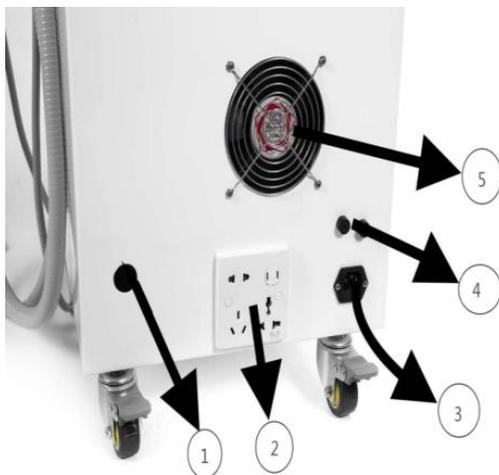
10. Ambient Temperature: 5°C ~ 40°C

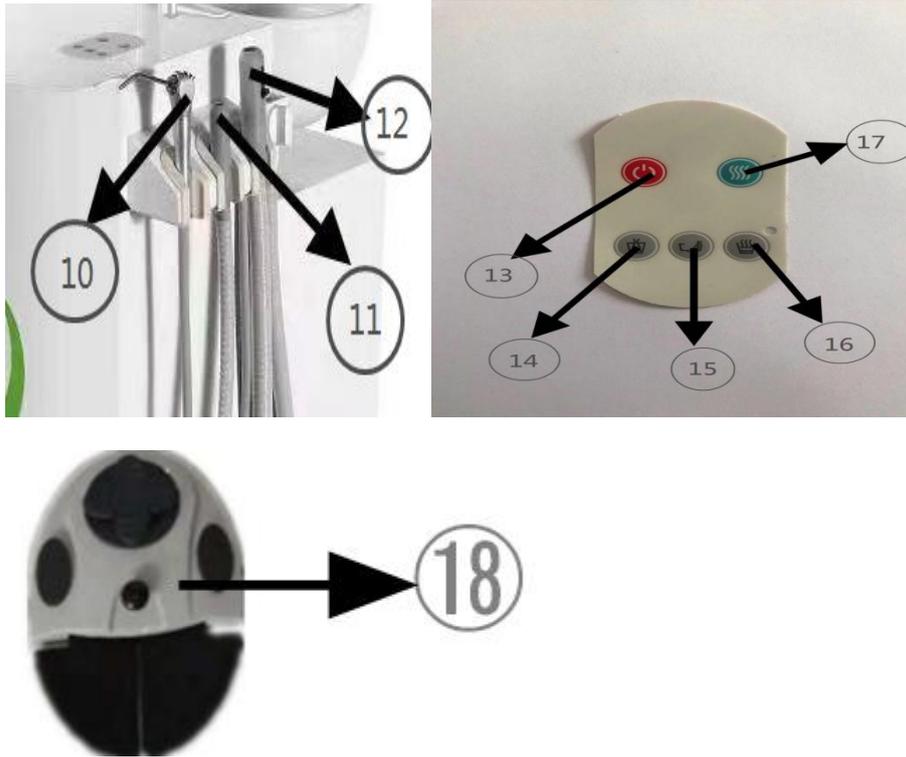
12. Package Weight: 65kg

Note: Please operate the machine according to the specified voltage, because unstable voltage can cause damage to the suction machine.

3. Structure & Working Principle

3.1 Structure Diagram





1. Drainage Orifice	2. 220V output Socket	3. 220V Input Interface	4. 220V protective tube	5. Exhaust Fan
6. Power Switch	7. Spittoon	8. Phlegm Flushing	9. Water Supply	10. Spray Gun for Three Use
11. Weak Suction Hand Grip	12. Strong Suction Hand Grip	13. Switch for Suction	14. Switch for Water Supply	15. Switch for Flushing Phlegm
16. Switch for Water Heater	17. Switch for Sewage Outlet	18. Foot Pedal(DS-S6 has, but DS-S5 not)		

3.2 Keys Operation

The electronic system has memory function.

Once you press the switch for suction(Picture 13), the suction machine will work immediately.

Long-press the switch for water supply(Picture 14) for 10 seconds, release it and then press, water will be let out for 10 seconds.

Long-press the switch for flushing phlegm(Picture 15) for 10 seconds, release it and then press, water will be let out for 10 seconds.

Press the switch for water heater(Picture 16). When it flashes, it means in the heating state.

When the sewage tank is full, the suction machine will stop working automatically. Press the switch for sewage(Picture 17), sewage will be let out from the pipe.

3.3 Overview of the Working Principle

3.3.1 Working Principle of the Air Pump:

The impeller of a scroll pump consists of dozens of blades, which resemble the impeller of a huge turbine. When the impeller of the scroll air pump rotates, the air in the middle of the impeller blade is acted by centrifugal force and moves towards the edge of the impeller. There the air enters the annular cavity of the pump body again, then returns to the impeller and circulates in the same way from the beginning of the blade. As the air is accelerated by multiple cycles, the air leaves the pump at a very high speed, thus generating suction.

3.3.2 Working Principle of the Whole Machine:

When the power supply is switched on, lift the salivary device of the dental electric suction machine from the shelf. At this time, the suction machine starts to generate suction. The foreign body and secretion of the patient's mouth are inhaled into the filter through the suction device. The solid extracted from the cavity is separated from the visceral blood and secretion, and stored (the solid particles in the filter need to be periodically separated). After separation, the visceral blood and secretions enter the contamination tank. The visceral blood and secretions are separated from the air through the gas-liquid separator. The visceral blood and secretions are kept in the contamination tank to ensure that clean air enters the vortex air pump and that the impeller of the air pump is not corroded. When the sewage in the sewage storage tank reaches a certain height, the suction machine stops automatically and no longer generates suction. The sewage in the sewage storage tank needs to be emptied by the sewage discharge switch so that the suction machine can start again.

4. Installation & Debugging

4.1 Environment requirements

Ambient Temperature: 5°C-40°C

Relative Humidity: $\leq 80\%$

Power Supply: 220V, 50Hz

Atmospheric Pressure: 50.0kPa~106.0kPa

4.2 Installation of the batteries

4.2.1 Plug the dental electric suction machine into the socket with ground connection.(The power voltage should be consistent with the voltage in the instructions.)

4.2.2 Turn on the power supply and press the power switch. When the light is on, it means the equipment can work.

4.3 Debugging

4.3.1 Switch for Suction: Turn on the power supply and press the power switch. The suction machine will work immediately if you press the switch for suction. It will stop working 3 seconds later after you press it another time.(Since there are blood and excreta in the suction tube, in 2-3 seconds, they will be sucked out to the tank and the suction machine will stop working until all this happens.)

4.3.2 Stop Working Automatically:

Turn on the power supply and press the power switch. Press the switch for suction, it will suck up 6L clean water. When the tank is full, it will stop working automatically.

4.3.3 Sewage Outlet:

When the tank is full, the suction machine will stop working automatically. Press the switch for sewage outlet and the sewage will be let out from the tank.

4.3.4 Water supply:

Connect the water supply. When you press the switch for water supply, it will automatically let out the water.

4.3.5 Phlegm Flushing:

After connecting the water supply, you can press the switch to flush phlegm.(Note: The sewage will be flushed out to the drainage orifice instead of the tank.)

5. Operating Instructions

5.1 Plug in the power supply.

5.2 Pull out any duct for sucking saliva(Picture 11/12).

5.3 The equipment has a sewage tank. It is suggested that the tank should be cleaned out after each surgery(in case of bad effect on the next surgery). Every day before getting off work, you had better clean out the sewage tank. The switch for sewage outlet is on the equipment(Picture 17). When the sewage is full, the machine will stop working automatically. It will start working until the tank is empty.

6. Maintenance

Maintaining the equipment regularly can effectively reduce the faults, keep it in good state and extend its service life. The operating staff must wear mask and water-proof gloves when cleaning and maintaining the equipment.

6.1 To avoid the unpleasant odor and possibilities of infection, the equipment should suck a cup of clean water after each use.

6.2 To avoid the unpleasant odor and possibilities of infection, the pipe of the equipment should be cleaned by non-foaming detergent and disinfectant.

6.3 To prevent the suction power from reducing, you should out the particles and debris in the filter twice a month.

6.4 To avoid the unpleasant odor and possibilities of infection, the spittoon should be cleaned by non-foaming detergent and disinfectant.

7. Storage

7.1 Ambient Temperature: 4°C-40°C.

7.2 Relative Humidity: ≤80% .

7.3 Keep out of rain; avoid heavy vibration; place it gently.

7.4 Keep away from the corrosive gas.

7.5 In a well-ventilated room.

8. Fault Removal

Number	Fault	Reason	Solution
1	It doesn't work.	Fail to connect the power supply; wrong connection to the power supply; power problem	Check the main power source; check the fuse
2	Loud noise	Solid particles or debris enter the host	Open the host, and clean the impeller
3	Heavy vibration	Motor impeller damaged or dirty	Open the host, and clean the impeller
4	Machine overheating	Low voltage, inlet blockage	Clean the filter, check all pipes, hoses and interfaces
5	Lower suction	Inlet blockage, pipeline Leakage	Clean the filter, check all pipes, hoses and interfaces
6	Motor overload	Low voltage	Check the specifications of power supply voltage and power cord
7	No water supply	Damage of solenoid valve, water shortage and folding of hose	Check whether the water hose, solenoid valve and circuit board react.
8	No water for flushing phlegm	Damage of solenoid valve, water shortage and folding of hose	Check whether the water hose, solenoid valve and circuit board react.

9. List of Accessories

Power cord	1
Disposable pipette	3
Plastic switching nozzle	2
6A Safety Pipe	2
Simple No.8 Tee	2

10. Notes

10.1 Electric Safety

- The power supply in the service environment of the product must have a good grounding device and ensure the good grounding of the product.
- Before electrifying this product, please make sure that the power supply you provide can meet the input power information identified near the power input port of this product.
- When maintaining or cleaning the product, please make sure that you cut the power supply and then operate it.

- Check if the power cord is damaged regularly and ensure that it is not pressed by other objects.

10.2 Cleaning

Please the environment clean. Please cut the power supply first before cleaning the machine, then use the soft with the neutral detergent to clean the surface of the product and finally clean it with a mid-wet soft cloth.

Note: Do not use liquids or detergents containing flammable substances

Warning: Be careful not to damage the power cord when moving this product.

10.3 Other Safety Information

10.3.1 The information in the Note and Warning are important for safe use of the product. Don't operate the machine before reading and understanding the user manual. If you don't understand the danger of operation, notes, warnings and operating instructions, please contact the manufacturers or the franchises to prevent any damage in the use of the product.

When using the product, you must comply with the safety rules including:

10.3.1.1 The power switch is not a safe power off switch. The power plug is the only safe power off device, which is a deliberate means of isolation. Therefore, it is necessary to ensure that the operation of the power plug (pulled out from the wall socket) is convenient.

Note: To avoid the electric shock, the equipment should only connect a power cord with grounding and wrong plug for grounding will lead to electric shock.

10.3.1.2 Only experienced medical staff with training can operate the machine because wrong use can lead to serious personal damage.

10.3.1.3 The equipment should not be used with flammable and explosive materials.

10.3.1.4 Don't use the equipment under these situations:

- The wire of the power plug is damaged.
- The equipment can't work.
- The equipment is damaged.
- Water enters the equipment.
- The equipment operates loudly or with a sharp and harsh sound, the output air is overheated, and the equipment emits unpleasant odor.

When asking for maintenance, you should provide the circuit diagram, list of accessories, product information, operating instructions, technical instructions and other safety information.

10.3.1.5 Unplug the power supply when leaving out.

10.3.1.6 Don't place and use the equipment in the unqualified environment.

10.3.1.7 Keep the accessories from falling to avoid the damage of the machine.

10.3.1.8 Ensure of the safety of the power cord and make sure the power cord is firmly fixed to avoid its dropping off.

10.3.1.9 Please use the accessories the instructions recommends.

10.3.1.10 Please place the equipment in a dry and well-ventilated room.

10.3.2 Periodic safety inspection

Clean the power cord at least once a year, because too much dust on the power supply plug can possibly cause fire disaster.

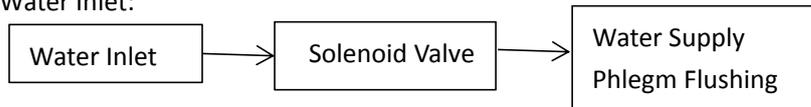
These events should check at least once a year by the trained staff:

- Check the mechanical and functional status of equipment and accessories.
- Check for clarity of safety-related labels.
- Check whether the fused wire meets the rated current and fused wire's characteristics.
- Check whether the performance of the equipment conforms to the description in the instruction.

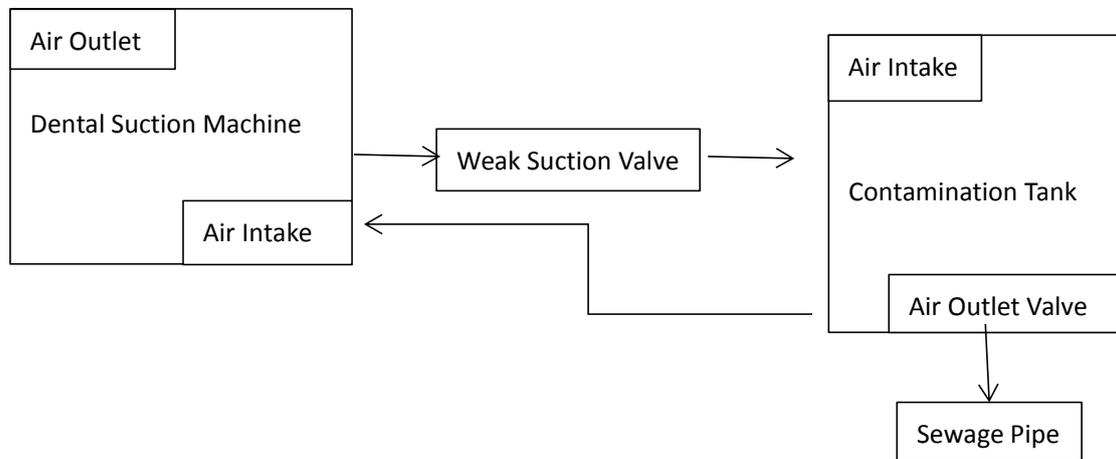
Fill the measured data in the equipment operation diary. If the above experiment fails or the equipment does not work properly, the equipment must be maintained.

11. Electric Schematic Diagram

Water Inlet:



Air Intake:



12. Circuit Diagram

