VRN

DP–10

Air Master

Operation Manual

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Congratulations on your purchase of DP–10 Air Master from URIT Medical Electronic Co., Ltd. .It will bring you a new experience and convenience.

Note that the Chinese version of this manual is the master from which translations derive. In case of any discrepancy, the binding version is the Chinese text.

The manual is compiled in accordance with the relevant laws and regulations of China and the specific conditions of the DP–10 manufactured by URIT Medical Electronic Co., Ltd.

The manual includes the latest information as of the time of printing. URIT Medical Electronic Co., Ltd. is solely responsible for the revision and explanation of the simplified Chinese version of the manual, and reserves the right to change the relevant content after the manual is printed

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without prior notice.The pictures involved in this manual are schematic diagrams and are for reference only. If the pictures do not match the actual product, the actual product shall prevail.

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The operator must strictly follow this manual to operate.Otherwise, URIT Medical Electronic Co., Ltd. shall not be responsible for any errors and equipment failures caused by illegal operations.

⚠ **NOTICE： URIT Medical Electronic Co., Ltd. does not promise that the device will be used for a certain special purpose and make any implied guarantee for its marketability and applicability.**

If you need after–sales service support, please

contact Guilin Veirun Medical Technology Co., Ltd. or an authorized agent.

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1.Introduction

1.1 Product name：Air Master

1.2 Product model：DP−10

1.3 Product description: It consists of Air Master, polisher nozzle and handpiece, polisher containers and joints.

1.4 Intended use：The product is intended use for removing tartar, plaque on the surface of teeth and in periodontal pockets, polishing the teeth surface.

1.5The product service life is 5 years.

2.Technical parameters

2.1 The A−weighting sound pressure level produced by the Air Master does not exceed 80 dB.

2.2 When the input water pressure is the required minimum value of 0.15 MPa, the water output is not less than 20 mL/min.

2.3 The handpiece can withstand 250 cycles of sterilization without corrosion and damage.

2.4 The polisher nozzle is rotatable.

2.5 Within the normal pressure of water supply of 0.15MPa to 0.4 MPa and the working pressure of 0.25MPa to 0.4 MPa, there is no leakage of water or air.

3.Operation environment

3.1 The recommended working pressure of 0.25 MPa to 0.4 MPa, and use only dry and clean air.

3.2 The recommended pressure of water supply of 0.15 MPa to 0.4 MPa.

3.3 The water and air supply at the rear of the Air Master adopts the B–type connector according to the standard YY / T_0514–2018 dental handpiece hose connector, without optical fiber holes, which is connected by the dental quick connector in the accessory.

3.4 Operation environment

a) Ambient temperature：5 ℃ to 40 ℃

b) Relative humidity：≤80%

c) Atmospheric pressure：70 kPa to 106 kPa

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4. Installation

4.1Schematic diagram of the device

1.nozzle 2.handpiece 3.device body

4.polisher container 5.cap 6. connector

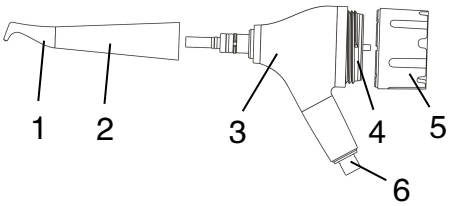


Figure 1

4.2 Handpiece installation

Connect handpiece by arrow direction (See Figure 2)

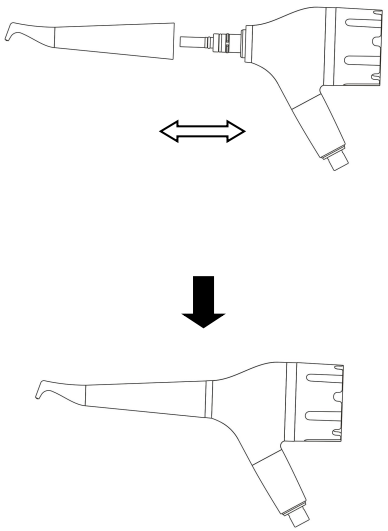


Figure 2

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4.3 Filling the powder

Firstly unscrew the cap of container counterclockwise, fill the powder in the container, and then install the cap clockwise(See Figure 3).

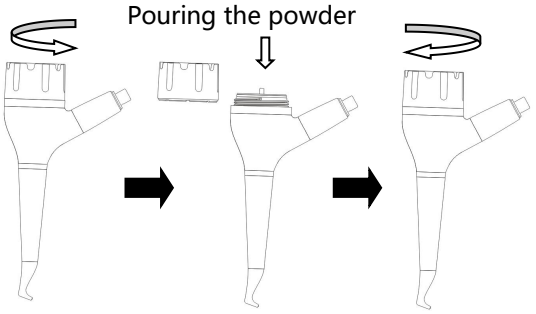


Figure 3

4.4 Subgingival nozzle installation (match the subgingival polisher handpiece)

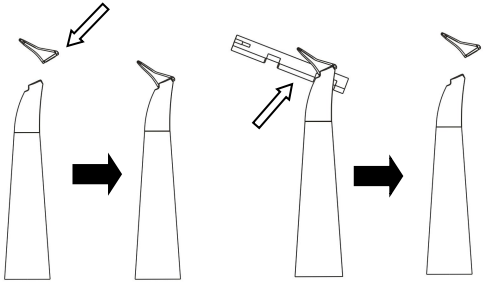
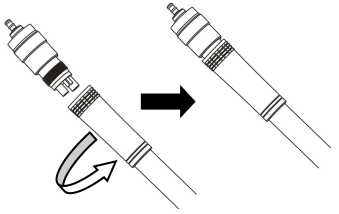


Figure 4

4.5 Connection of polisher handpiece and dental scaler



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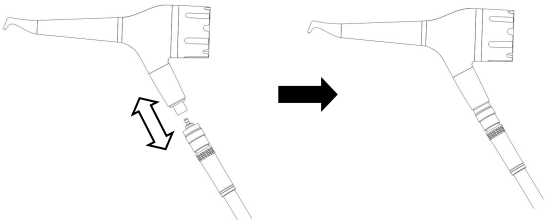


Figure 5

5. Contraindication

Patients suffering from chronic bronchitis or asthma must not, under any circumstances, be treated with Air Master. The jet of air and powder could cause respiratory difficulties.

6. Precautions

6.1 Please read carefully and understand the instructions before operating.

6.2 Follow all the warnings and instructions on the device when operating.

6.3 The product is specially used for oral therapy and is not available for other use.

6.4 The product is limited to professional dentist.

6.5 Before each use, please operate the device

outside the patient's mouth for inspection. If you find any abnormalities such as loosening, noise, air or liquid leakage, please stop using it immediately and contact the original dealer.

6.6 In order to prevent serious damage to Air Master, please avoid it from being hit or accidentally dropped.

6.7 The pressure of the water and air input must meet the requirements of this manual. If the pressure is too high, it will cause the risk of air or water leakage and bursting of Air Master.

6.8 It must use the dry and clean compressed air, and the air compressor, water and air filtration systems must be maintained regularly to ensure the quality of the compressed air and water. Using undried compressed air will cause powder blocking in the container or handpiece.

6.9 After each use, please pour out the remaining powder in the container, and use compressed air to clean the outer surface of the handpiece and the powder in the container. Finally, use Air Master normally without powder for 5 to 8 seconds to clean the internal tube.

6.10 After each use and clean,the cap of

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container should be installed for storage to prevent moisture from entering the container, causing powder blocking when the next use.

6.11The maintenance of the product should be done by professionals.

6.12 It is necessary to comply with the relevant regulations about waste disposal of the local medical and health administration when cleaning, disposing and discharging waste.

7. Cleaning and sterilization

7.1 When using alcohol for sterilization, use 70%~80% (volume ratio) ethanol to soak a piece of clean dry gauze, and then use this gauze to wipe the surface to be sterilized twice for 3 minutes. Dry or wipe the residual alcohol with a clean, dry cloth.

7.2 Sterilization

Sterilize at up to 135 ℃ and 0.22 MPa pressure for 3 to 15 minutes by an autoclave. After sterilization, the handpiece should be naturally cooled before use again to avoid scalding.

NOTICE：

1. The handpiece can be sterilized by high

temperature and high pressure, and the device body and dental quick connector cannot be sterilized by high temperature and pressure.

2. Before sterilization, use compressed air to remove the cleaning fluid remaining in the handpiece.

3. When sterilization, ensure to remove the tip from the handpiece, and avoid mixing it with other instruments for sterilization.

4. Sterilizable parts can be sterilized at least 250 time.

5. It is strictly forbidden to sterilize the handpiece in the following ways：

- **Put the handpiece in the solution and cook.**
- **Soak the handpiece with disinfectant water such as iodine, alcohol, glutaraldehyde, etc.**
- **Put it into the oven or microwave oven to bake at high temperature.**

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8. Maintenance

8.1 There are two waterproof O–rings at the connecting end of the device body and the handpiece. As they need to be plugged and unplugged repeatedly, once they are damaged or excessively worn, the waterproof O–rings should be replaced in time.

8.2 There is a sealing O–ring at the connecting end of the device body and container. As the container cap needs to be removed repeatedly, once it is damaged or excessively worn, the sealing O–ring should be replaced in time.

8.3 After each use, please pour out the remaining powder in the container, and use compressed air or a clean, dry cloth to clean the outer surface of the handpiece, container or threads of container cap, O–ring and the residual powder in the container, and finally use Air Master for 5 to 8 seconds without powder to clean the internal tube.

9. Storage and transportation

9.1 Store temperature from –20 ℃ to 55 ℃,relative humidity ⩽80%，atmospheric pressure from 70 kPa to 106 kPa.

9.2 The device should be handled with care, and should be installed or stored in a cool, dry and ventilated place.

9.3 Do not mix with toxic, corrosive, flammable and explosive materials during storage.

9.4 The device should be far away from the earthquake source.

9.5 Transport should not be mixed with dangerous goods.

9.6 Avoid excessive shock and vibration during transportation.

9.7Keep away from rain, sunlight or snow during transportation.

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10. Accessories list

No.	Name	PCS
1	Air Master	1
2	AH–3 handpiece	1
3	Dental quick connector	1
4	O–ring 6*1.5 mm	2
5	O–ring 11*1.5 mm	2
6	O–ring 33*1.5 mm	2

NOTICE：The manual does not exhaustively list the accessories and specifications of the DP–10. Please refer to the random delivery materials and packing list for details.

11. Troubleshooting

Error	Possible causes	Solutions
Air leakage of container	O–ring is aging	Replace the O–ring
Liquid leakage of handpiece	O–ring is aging	Replace the O–ring

Air or liquid leakage of	O–ring or seals are aging	Replace the O–ring or seals
When operating, powder,air or water do not escape from the polisher nozzle	There are no air or water	Check if there is air or water in dental quick connector.
	Handpiece is blocked by powder	Pull out the handpiece and check if air or powder is sprayed out from the device,if powder, air and water can be sprayed out, please use a steel wire to dredge

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		the handpiece, and then clean the handpiece with compressed air.
No powder, with air supply	There is too little powder in container	Check if there is too little powder in the container
	The supply of air is wet and the powder is caking in container	Empty and dry the container, refill the powder,and ensure a dry and clean air source.

12. After–sale service

This device is guaranteed by the warranty card from the date of sale, and is responsible for lifetime maintenance. Irreparable device damage caused by non–designated dedicated maintenance personnel is not covered by the free warranty.

13. Symbols

Symbol	Description	Symbol	Description
VRN	Trademark		Caution
	Refer to instruction manual/ booklet		Serial number
	Manufacturer		Date of manufacture

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Symbol	Description	Symbol	Description
	Sterilization at 135℃ in an autoclave		Use by date
	Atmospheric pressure limitation		Humidity limitation
	Temperature Limit		This way up
	Fragile, handle with care		Keep away from rain
MD	Medical device		

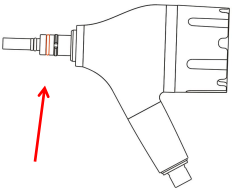
14. Manufacturer's rights

The company reserves the right to modify the design, technology, accessories, user manual content and packing list content of the product at any time without notice. In case of discrepancies, the actual product shall prevail.

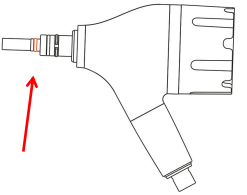
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15. Specification sheet of the seals

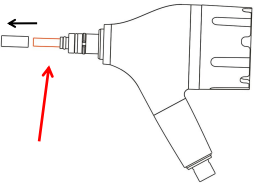
Specification: Φ 11x Φ 1.5
Place:handpiece connector



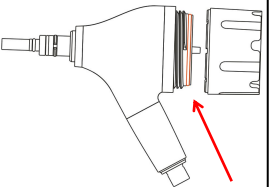
Specification: Φ 6x Φ 1.5
Place:handpiece connector



Specification:rubber seals
Place:handpiece connector



Specification: Φ 33x Φ 1.5
Place:container



16. Information about powders

1. Patients on a low salt diet must not be treated with the powder containing sodium bicarbonate. For patients on a law salt diet use the powder without sodium bicarbonate provided by VRN.
2. The aromatic powder provided by VRN can lead, in specific cases, to allergic reactions to the flavor. For patients known to suffer such reactions, use the powder without flavor provided by VRN.
3. The powder containing sodium bicarbonate provided by VRN can be used only for supra–gingival application. For sub–gingival application, please use the specific powder provided by VRN and refer to its operation instructions.
4. Never use an abrasive powder i.e. alumina based. This would damage the unit.
5. Do not direct the jet of powder toward fillings, crowns or bridgework as this could damage these restorations.

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