

Thank you for purchasing the PRESTO AQUA.

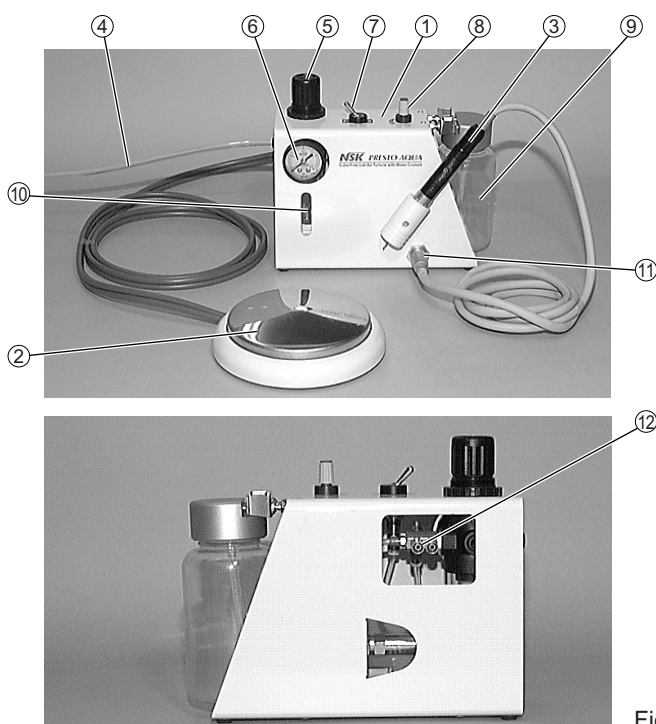
Please read this instruction manual carefully, and file for future reference.



## Precautions

- PRESTO AQUA is a handpiece used in dental laboratory work for cutting while preventing heat when performing fine work on porcelain teeth, porcelains and ceramics. Do not use for other applications.
- When cutting, wear safety glasses, and use a grinding box and vacuum for safety.
- Do not modify or disassemble unnecessarily. Otherwise, performance and safety may be seriously affected. Please ask your PRESTO AQUA dealer if repairs are ever required.
- Do not drop the handpiece and unit. Make sure to put the unit on a horizontal and stable place.
- Observe the permissible speeds the manufacturer or dealer designates for the bur. Otherwise, you may be injured by scattering and breaking up of the bur.
- Do not use burs which are oscillating or bent or damaged and of which shank portions are worn. Otherwise, you may be injured by scattering and breaking up of the bur.
- Do not turn the chuck release ring during rotation of the handpiece. Otherwise, the handpiece will be broken.
- Never supply lubricant to the handpiece. It uses a grease filled bearing and additional lubrication may cause failures.
- Pay careful attention to rattling, vibrations, sounds and temperature (heating), and inspect by rotating in advance before starting use. Immediately ask dealers for repair work if any irregularities are sensed.
- The proper air pressure is 0.25~0.35MPa. Pressure exceeding the value may lead to premature failure of the bearing because of excessive increases in speeds.
- Extract water if water drips or contaminants are found on the filter of the unit.
- Always clean the shank of the bur you are going to mount. Contaminant deposits in the chuck may lead to oscillating of the bur and breakage of the chuck.
- Install the cutting bur or test bur even not in use.
- Operational control, maintenance and inspection is up to each user.

## 1. Name of each portion



- ① PRESTO AQUA Unit
- ② Foot Switch
- ③ PRESTO AQUA Handpiece
- ④ Plumbing Hose
- ⑤ Regulator Knob
- ⑥ Pressure Gauge
- ⑦ Water ON/OFF Switch
- ⑧ Water Adjustment Knob
- ⑨ Water Bottle
- ⑩ Filter Check Window
- ⑪ Handpiece Connector
- ⑫ Foot Switch Connector

Fig.1

## 2. Specifications

Speed	320,000min <sup>-1</sup>
Proper Air Supply Pressure	0.25 ~ 0.35MPa
Handpiece Dimensions	ø16.6(D) x 136.6(H)mm
Handpiece Weight	104g (including coupling joint)
Unit Dimensions	W214 x D110 x H175(mm)
Unit Weight	1.3kg

## 3. Installation procedures of each portion

### (1) Installation of plumbing hose

Press the plumbing hose ④ into the connector in the regulator on the left of the unit, and connect as shown in Fig. 2. Check if the hose is securely installed by tugging it after connection.



Fig.2

### (2) Installation of foot switch

Install the hose of the foot pedal to the foot switch connector ⑫ at the back of the unit. At this time, insert the end of the hose with a seal 1 into the portion as the indication (at the back of the unit). After inserting both hoses, pull the inner ring toward you to lock. (Fig. 3)

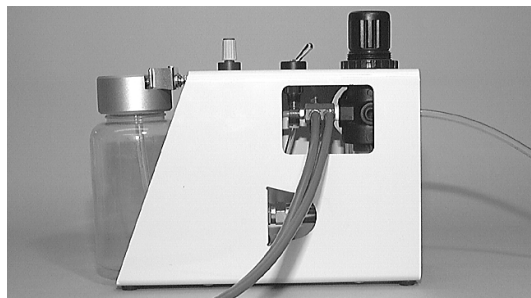


Fig.3

### (3) Installation of handpiece

Install the handpiece hose to the handpiece connector ⑪ on the front face of the unit. (Fig. 4)

Install the handpiece hose to the coupling joint. (Fig.5)

And then, install the handpiece by pulling the ring of the coupling joint. (Fig.6)



Fig.4

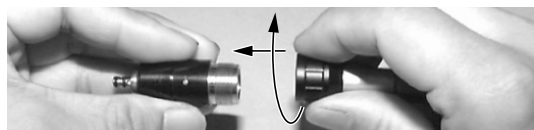


Fig.5

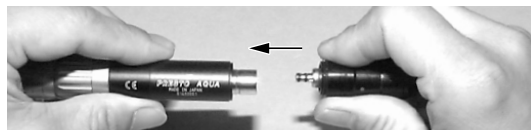


Fig.6

### (4) Installation and removal of water supply tank

The water tank can be removed by pulling the metal fitting to mount the water supply tank in the right and left direction uniformly.

Open the lid of the tank, supply water, and insert the tank into the original position, then the water tank is locked.

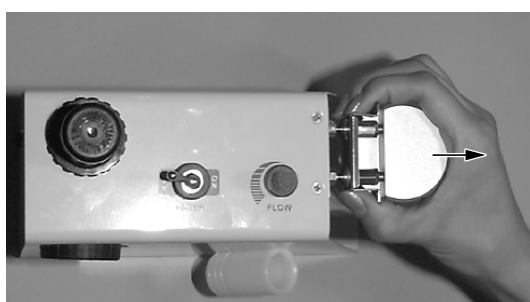


Fig.7

4. Operational procedures of unit

- (1) Supply air, and adjust to 0.25~0.35MPa by pulling the regulator knob ⑤ upward and turning. When adjustment is made, push down the knob to lock.
- (2) To supply water, turn the water ON/OFF switch ⑦ to ON.
- (3) Stepping on the foot switch starts rotation and then starts the supply of water. While observing the water supply quantity, adjust the water supply quantity with the water adjustment knob.

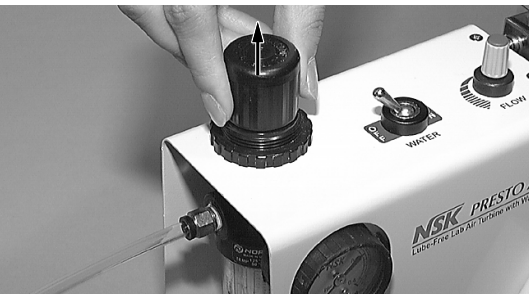


Fig.8

5. Operational procedures of handpiece

- (1) Name of each portion of handpiece

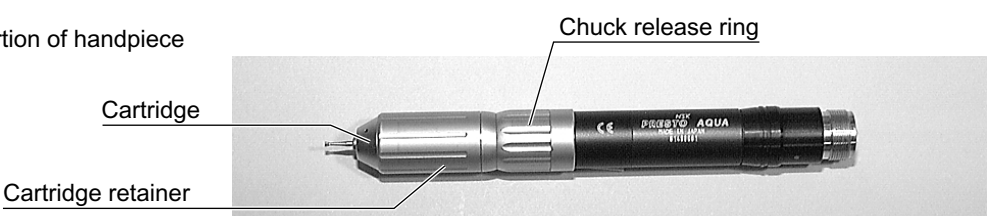


Fig.9

- (2) As the chuck of the PRESTO AQUA handpiece is a push-in type, set the FG burs of ø1.6mm and push in as shown in Fig.10. Push in the bur of which the end is tapered by using the designated bur-inserting wrench as shown in Fig.11.

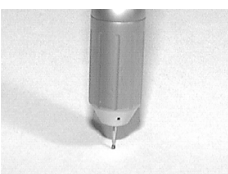


Fig.10

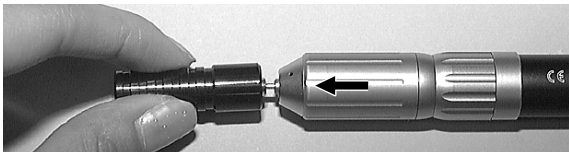


Fig.11

- (3) When removing the bur, it can be removed by turning the chuck release ring in the direction of the arrow in Fig.12.



Fig.12

6. Replacement procedures of cartridge

- (1) Loosen the cartridge retainer to remove. (Fig.13)

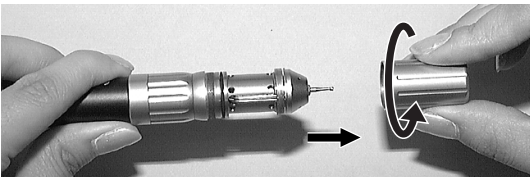


Fig.13

- (2) Hold the bur and pull out the cartridge toward the front. (Fig.14) At this time, the O-ring placed on the rear bearing may remain in the body. Make sure to remove the O-ring.

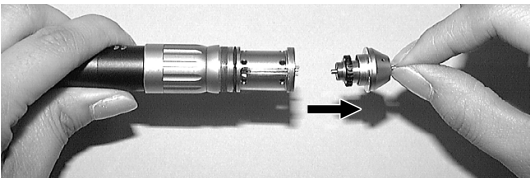


Fig.14

- (3) When mounting a new cartridge, align the position of the pipe for water and chips, and the positioning pin with the hole of the nose hood of the cartridge and push in straight. (Fig.15)

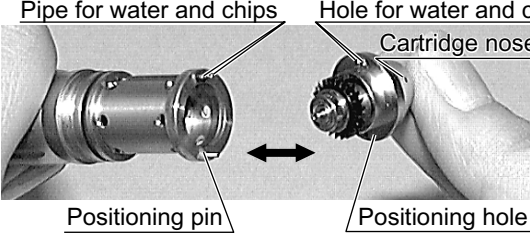


Fig.15

- (4) Finally, tighten the cartridge retainer securely.

7. Replacement or cleaning procedures of chuck

- (1) Remove the cartridge.
- (2) Hold down the rotor, mount the attached wrench provided on the wrench-mounting at the end of the rotor shaft and turn in the direction of arrow in Fig.16. Either a wrench having a square hole or U-shaped hole can be used.
- (3) After removing the rotor shaft nut, carefully push out the chuck with the test bur or shank of the bur from the back. The guide bush as well as the chuck can be removed. (Fig. 17)

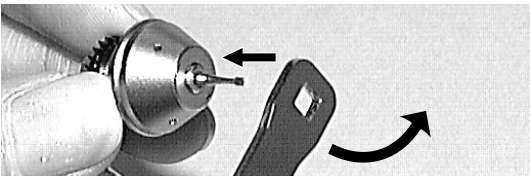


Fig.16

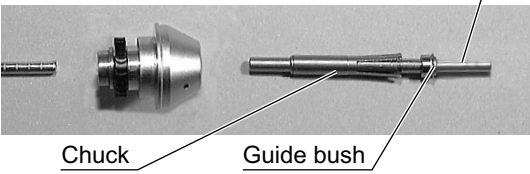




Fig.17



**NOTE**

As the guide bush is a very small part, be careful not to lose it.

- (4) When cleaning the chuck, clean it sufficiently with ultrasonic cleaner etc. Blow oil spray to the inside of the rotor shaft and clean thoroughly.



**Suggestion**

Remove the chuck and clean once a week.

- (5) Apply oil thinly on the surface of the new chuck or the chuck after cleaning, insert the test bur and push into the rotor shaft. (Fig.18)
- (6) Set the longer one of the guides of the guide bush on the end of the rotor shaft first along the test bur. (Fig.19)
- (7) Finally insert the rotor shaft nut along the test bur, and firmly tighten it with a wrench while holding the rotor. (Fig. 20)

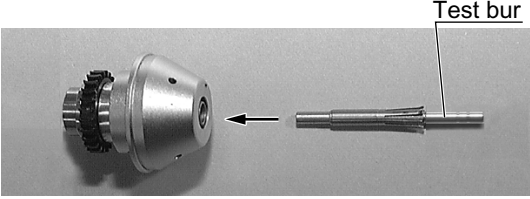


Fig.18

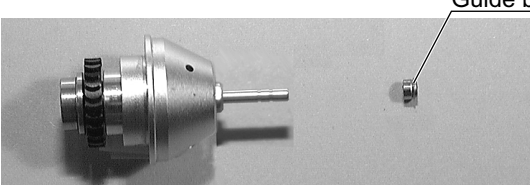


Fig.19

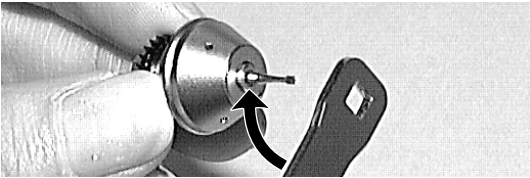


Fig.20

8. Maintenance of unit

Observe the filter bowl through the filter inspection window ⑩, insert a finger from base plate to extract water in the filter if water is retained.

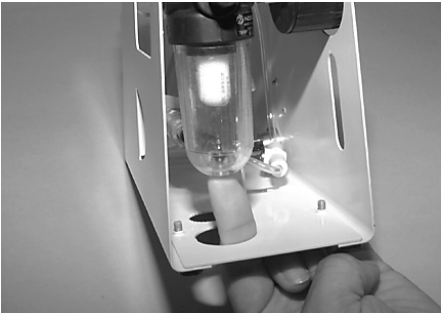


Fig.21

※ Specifications may be changed without notice.