

MONITEX

Turboson

SP-500

Ultrasonic Scaler



USER MANUAL

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Thank you for purchasing **Turboson** piezomatic ultrasonic scaler.

Turboson is designed for high efficiency for perio debridement - with its easy charging capability, **Turboson** can remove the stubborn old calculus from coronal, as well as the sulcular and pocket epithelium in root epithelial or debris scaling with maximum frequency.

Prior to using this equipment, please read this USER MANUAL carefully and follow the maintenance to enable the function to be fully implemented.

Please store this USER MANUAL in a safe place after reading. No further advice will be issued shall any of the further modifications be made in the future.

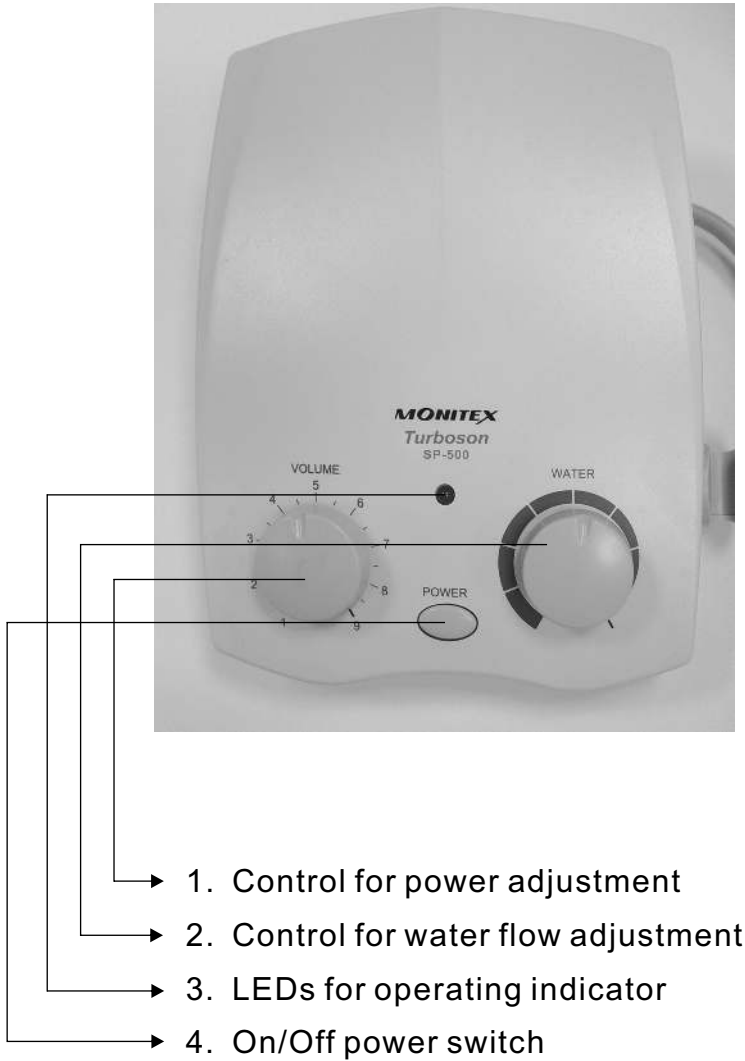
The **Turboson** is for dental use only! **Turboson** may only be used by licenced doctor/Dentist with proper awareness of the standard operating procedure in accordance to this manual.

Please Contact your local agent / distributor for furthur assist of trouble shooting when problems occured. Any attempt of repairing this product by unauthorized people is not allowed.

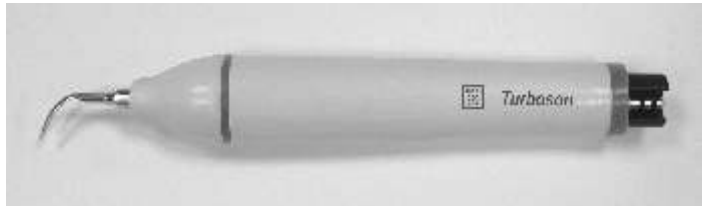
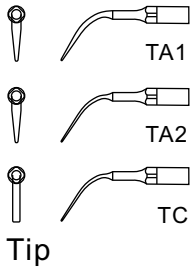
Disclaimer

1. We shall not assume any responsibility if any malfunction, damage, or accident of personal body injury is caused by the improper removal, maintenance, modification, or repair conducted by unauthorized dealer.
2. We shall not assume any responsibility if any malfunction, damage, or accident of personal body injury is caused by the use of the product not provided by us.
3. We shall not assume any responsibility if any malfunction, damage, or accident of personal body injury is caused by the improper removal, modification, maintenance, or repair using the parts not provided by us.
4. We shall not assume any responsibility if any malfunction, damage, or accident of personal body injury is caused by the improper operation incompliant with this manual.
5. We shall not assume any responsibility if any malfunction, damage, or accident of personal injure is caused by the surrounding environment incompliant with the installation environment and operating conditions specified on this manual.
6. We shall not assume any responsibility if any malfunction, damage, or accident of personal injure is caused by fire disaster, earthquake, flood, struck by lightning or any unpredictable natural calamity.

Components and Accessories



Components and Accessories



Handpiece



Torque Wrench



Tip Holder



Handpiece Cord



Water supply hose coupling

Power adapter connection

Footswitch cord connection



Footswitch



Power Adapter



Water Hose



T - Connector

In order to install Turboson, the following connection is needed.

- An electrical supply of DC 24V.
- Water supply with a source pressure between 0.1 ~ 0.2 Mpa.

◆ Connect to water supply

- Connect the water hose to a cold water supply using T shape connector.
- Connect the coupler of the hose to the socket at the back of the unit.

Important:

If the unit is connect to the public water directly, please check the public pressure of water supply before installation. The internal device of this unit might be damaged if the water pressure exceed the required specification of water supply pressure. Please see page 9.

◆ Connect to foot switch

- Connect the round plug of the foot switch to the socket at the back of the unit.

◆ Connection of the handpiece

- Screw the tip onto the handpiece.
- Tighten the tip by using the torque wrench.
- Connect the handpiece on its cord and place it on its holder.

◆ Connection to the electricity supply

- **WARRING : Always use the correct voltage of power supply.**
- A supply of DC 24V is available.

Cleaning & Maintenance

◆ Handpiece Cord

The cord can be cleaned with a cloth soaked in the common non-abrasive mild cleaning liquids containing alcohol.
Dry the handpiece connector with compressed air blow before connecting the handpiece.

◆ Tip & Handpiece

Tip & Handpiece can be sterilized in autoclave at 135 °C for 3 minutes without protective package or for 30 minutes in a protective package.

***Caution** - Tip & handpiece can be damaged by dropping on the floor.

- Do not clean the handpiece in an ultrasonic cleaner.
- Do not use chemical solvents, abrasive cleaner.
- Tips must be sterilized in autoclave before using.

◆ Tip Holder

The torque wrench can be cleaned with a cloth soaked in any of the common non-abrasive mild cleaning liquids containing alcohol.

◆ Torque Wrench

The torque wrench can be cleaned with a cloth soaked in the common non-abrasive mild cleaning liquids containing alcohol.

◆ Transformer

The casing of transformer can be cleaned with a cloth soaked in any of the common non-abrasive mild cleaning liquids containing alcohol.

External Casing

The casing of the Turboson can be cleaned with a cloth soaked in any of the common non-abrasive mild cleaning liquids containing alcohol.

Instruction for Use

When the connections are completed as indicated in “Installation”, you may use the device adhering to the following instruction.

1. Tip shall be sterilized before use or reuse after autoclave.
2. Use to prevent infection or injured especially transporting the tips.
3. Select the suitable tip for using
***Caution - Hand and finger can be injured by the sharp edge of the tip.**
4. By pressing the “POWER” button on the unit, it will switch the unit ON/OFF as needed.
5. Select the level of power which is suitable to the desired treatment by turning the “VOLUME” knob located on the unit.
6. Regulate the flow of water which is suitable to the desired treatment by turning the “WATER” knob located on the unit with the footswitch pressing.
***Caution - In case of using without water supply, handpiece and tip will get overheated.**
- To preventing bio-contamination, Tips & Handpiece must be sterilized in autoclave before using.
7. The handpiece does not have heating effect. A fine spray is sufficient to cool the point of friction between the tip and the tooth.

Troubleshooting Guide

The unit does not switch ON when the “POWER” switch is pressed.

1. The power cord is not completely connected to power source or wall electric socket, or else to the socket at the rear of the main unit.
Answer: Connect the power cord securely.
2. Apparatus is supplied with a different voltage power to the one prescribed.
Answer: Check the value of the applied voltage power supply corresponds to that indicated on the identification label on the bottom of the unit.

The unit is switch ON but does not work.

1. The plug of footswitch cord is not connected or not completely connected to its socket at the rear of the unit.
Answer: Connect the footswitch cord securely.

Insufficient power/vibration.

1. Tip is not properly fastened onto handpiece.
Answer: Unscrew the tip and screw again completely.
2. Tip is distorted.
Answer: Replace with a new one.
3. Tip is worn out.
Answer: Replace with a new one.

The handpiece whistle.

1. Tip is not properly fastened onto handpiece.
Answer: Unscrew the tip and screw again completely.

Water is not coming out of the tip.

1. Water control situated in front of the unit is closed.
Answer: Turn the "WATER" knob located on the unit.
2. The water supply hose is not connected or not completely connected to the coupling at the back of the unit.
Answer: Connect the water supply hose securely.
3. Tip has not been fastened correctly onto handpiece.
Answer: Unscrew the tip and screw again completely.
4. Tip is distorted.
Answer: Replace with a new one.

5. Tip is worn out.

Answer: Replace with a new one.

6. Handpiece is not connected to its cord.

Answer: Connect the handpiece to the cord securely.

7. Break in handpiece wire and current leakage through patient.

Answer: Switch OFF the power switch and disconnect transformer from the AC power source wall outlet. Contact the local dealer or our company for service.

8. Breakage of handpiece.

Answer: Replace with a new one.

Technical specifications

Dimension: 18 (L) x 14.5 (W) x 6.5 (H) cm

Weight: 607 g

Water supply pressure: 1~5 kg/cm² (1~5 bar, 15~72 psi)

Frequency: 28 k Hz ± 3 k Hz

SWITCHING POWER ADAPTER

Input: AC 100~240V, 50/60Hz, 0.5A

Output: DC 24V, 1A

Weight: 175g

COMPLY SAFETY STANDARDS: UL / CUL / PSE / E241618
JQE10968 / GS / EN60950
EMI / CE / FCC

Conditions for use: 10°C ~ 40°C, 30% ~ 75% relative humidity

Storage and transport conditions: -10°C ~ 40°C

10% ~ 95% relative humidity

500 hpa ~ 1060 hpa

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