

Maxso® E600B

Electric Micromotor System (Built-in)

Instruction for Use




Beyes[®]
CANADA

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1. Introduction

Maxso E600B is designed to be built into the dentist delivery system and operate as a seamlessly integrated electric motor system. The integrated motor has an intuitive touchpad interface and is engineered to reduce complexity and provide increased efficiency for optimal treatment results.

 For your safety, before operating this product for the first time, please read through this manual thoroughly.

1.1 Package includes

- instruction for use –this manual
- user control panel
- control board
- cable
- o-ring
- mounting rack
- screws, 2-pin terminal and 3-way air connector
- motor with seal blocker and cap
- jumper connector

1.2 Symbol

Following sign may appear in this manual, before or attached files. Some signs stand for this product's standard and conformity.



Conformity to Medical Device Directive 93/42/EEC.



Date of manufacturing



Manufacturer



Serial number



Type B



Do not trash



Consult instruction for use



Classification: Class II, Type B

2. Safety and warning

This product should be used for dental operation and to be operated only by dentist or dental related professional



Warning

- Install this product by authorized third party technician
- Follow the instruction for installation
- Clean and maintain this product following this manual
- Do not drop or crash this product.
- Do not spray oil into this motor.
- Do not use chemical disinfection on motor
- Do not trash this product. Check local available rubbish classified collection for disposal



Safety

- Do not operate this product in environment mix with air, oxygen and nitric oxide, flammable anesthetic.
- Do stop the motor before detaching motor or cable

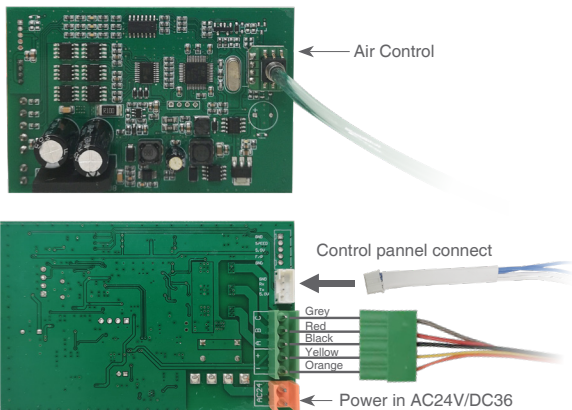
3. Installation requirement

Warning

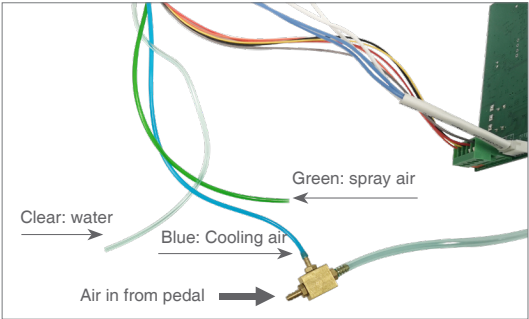
- This module should be installed inside the dental delivery unit by authorized third party technician
- This module requirement AC24V/DC36V power, water and air from the delivery unit

3.1 Connection inside delivery unit

a. Board to air supply, control panel cable, motor cable and power cable

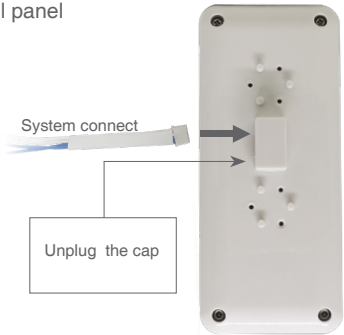


b. Base, air and water tubing connection



3.2 Connection outside delivery unit

a. Control panel



b. Motor

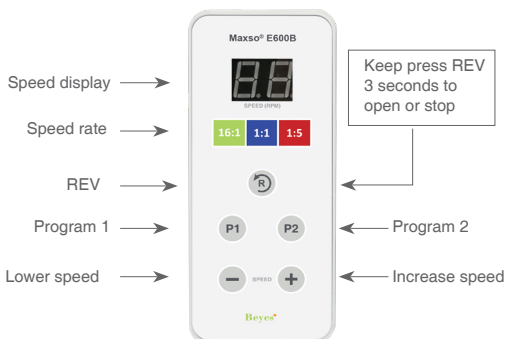


c. Control panel mounting

- Screw panel on the holder
- Install the plastic cap in the left or right side of the delivery unit
- Adjust angle and tighten the holder and cap



4. Operation



4.1 Start Motor

- Select the gear ratio 16:1, 1:1 or 1:5 to match the handpiece

Gear ratio	Speed range
16:1	100-2,500 RPM
1:1	2,000-40,000 RPM
1:5	10,000-200,000 RPM

- Press REV to select motor direction – green for clockwise, yellow for counter clockwise
- Press +/- to adjust the speed – the higher number indicate higher speed
- Step on foot paddle to start the motor
- During motor running, light is on and speed can be adjusted

4.2 Stop Motor

To stop the motor, release the foot paddle

Warning

- Do not press REV while motor is running.
- To reverse direction, first stop the motor.
- Shut down power before detaching motor

4.3 Program Preset

- Select the gear ratio
- Set the speed
- Press and hold P1 or P2 key 3 seconds or more until a beep
- Press P1 or P2 to restore setting when needed

Note: motor direction is not stored

5. Maintenance

5.1 Control Panel

Wipe control panel with ethyl alcohol

5.2 Motor

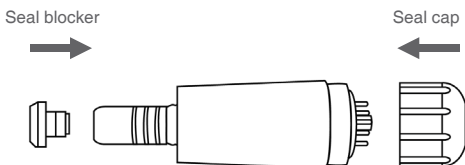
Wipe surface with ethyl alcohol

Caution

- Do not use strong oxidant water or chemical disinfectants to clean motor
- Do not dip or wash motor
- Inspect o-ring – replace if worn or broken

5.3 Sterilization

- Wipe surface with ethyl alcohol
- Put seal blocker and seal cap on the motor



- Put motor in autoclave pouch and seal
- Autoclave 20 min @ 121°C or 15min @ 132°C

Caution

- Must close the seal blocker and seal cap for autoclave
- Must clean the motor surface before autoclave disinfection

6. Technical specification

Control system:	Vector control system
Motor type:	DC brushless motor
Speed:	2,000-40,000rpm
Torque:	3.4Ncm
Power input:	AC 24V/DC36
Motor size:	22 x L71mm
Motor weight:	67g
Noise:	< 60dB
Light source:	LED (white light)
Air supply:	ht) >1.5L/min (0.2MPa)
Water supply:	>65mL/min (0.2MPa)
Control box size:	L130 x W55 x H21mm
Total weight:	632.00g
Environment temperature:	-40°C~+70°C
Humidity:	10%~100%
Air pressure:	177~216KPa (1.8~3.0 kgf/cm2)

7. Beyes limited warranty statement

7.1 Scope of Warranty

BEYES Dental Canada Inc. ('BEYES') warrants to the original retail purchaser that it will be at BEYES option to repair or replace components of the dental products manufactured by BEYES (except for components not warranted under 'Exclusions') that are defective in material or workmanship under normal use and service. BEYES' obligation under this limited warranty is limited to the repair or replacement of the applicable components. This limited warranty shall only apply to defects that are reported to BEYES within the applicable warranty period and which, upon examination by Beyes, prove to be defective. This warranty extends only to the first retail purchaser of a product and is not transferable or assignable. Replacement components or products may be used and/or refurbished components or products, provided they are of like quality and specifications as new components or products.

7.2 Applicable Warranty Period

The applicable warranty period, measured from the date of invoice to the original user, shall be warranted for a period of 25 months.

7.3 Exclusions

This limited warranty does not cover and BEYES shall not be liable for the following;

- 1) Defects, damage or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, negligent storage, tampering or failure to seek and obtain repair or replacement in a timely manner;
- 2) Products which are not installed, used, and properly cleaned and maintained as required or recommended in the BEYES 'Installation' and/or 'Installation/User's Manual' for the applicable product, including the specified structural and operational environment conditions and electrical power requirements;
- 3) Products considered to be of a consumable or sterile nature;
- 4) Accessories or parts not manufactured by BEYES;
- 5) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing in advance by BEYES;
- 6) Costs and expenses of routine maintenance and cleaning;
- 7) Representations and warranties made by any person or entity other than BEYES;

- 8) Matching of color, grain or texture except to commercially acceptable standards;
- 9) Changes in color caused by natural or artificial light;
- 10) Custom manufactured products;
- 11) Alterations or modifications to the product by any person or entity other than BEYES;
- 12) Products that would otherwise be covered under Sections 1 and 2 of this limited warranty, but are acquired: (i) from a person or entity that is not BEYES or one of its authorized dealers; or (ii) from a BEYES dealer that is not authorized to sell the product at issue in the geographic territory where the purchaser is located, or is not authorized to sell the product at issue within the medical, animal health or dental market, as the case may be, in which purchaser intends to use the product.

7.4 Exclusive Remedy; Consequential Damages Disclaimer

BEYES' OBLIGATION UNDER THIS LIMITED WARRANTY IS THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BEYES SHALL NOT BE LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OR DELAYS, INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS OR INCOME, LOSS OF USE, DOWNTIME, COVER AND EMPLOYEE OR INDEPENDENT CONTRACTOR WAGES, PAYMENTS AND BENEFITS.

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