



LOW SPEED AIR MOTOR

Operation Manual

MODEL: CX235



**Please read this operation Manual
carefully and file for future reference.**

Preface

Thanks for purchasing our dental low speed air motor!

In order to fully exert the function of this equipment, safely and effectively use this equipment, please read this instruction carefully before using , and please kindly keep it to reference in the future.

Under regulations' request, we have been committed to the optimization of our product, this may cause some parts of change, when you find the product appears some difference from description in the manual, please contact the dealers or our after-sales center for details .

Description

air motor, standard connector, the ISO3964 standard, the power resource for all kinds of correspondence handpiece. Rotation speed could reach about 20000rpm, and the direction could be adjustable. air motor was adapted the alloy inner core of structure. It could prolong the useful life and make the performance more excellent.

Technical specifications

Protection type against electrical shock: Class II

Protection against electrical shock: Type B

Continuous operation

Protection of liquids-Normal liquids – protected equipment

Temperatures: -40°C – $+135^{\circ}\text{C}$

Relative humidity: 10% to 80%, non-condensing

Standard

Air pressure (Kpa(kgf/cm ²))	Motor rotate speed(min/rpm)	Air consume (NL/min)	Weight (g)
245(2.5)	22,000	42	90
294(3.0)	25,000	51	
392(4.0)	27,000	72	

According to the air tube and the size of connection-peg, the performance will be changed.

WARNING

- Please read this operation manual carefully before use and file for future reference .
- This product is specialized for stomatology treatment,don' t use it in other ways.
- This product is only for doctors.
- Every time you use it,please check first.If find anything unnormal,stop using immediately, and contact your supplier.
- Before operating low speed handpiece,pull straight head/contra angle handpiece with hand to make sure handpiece connect firmly and safely.
- Ensure working pressure before running,Air pressure for four hole air motor is 0.3Mpa,for two hole air motor is 0.25Mpa.
- Don' t immerse handpiece in any chemical solvent or solution or by dry-heat disinfection.Sterilization by autoclave at $(135\pm 2)^{\circ}\text{C}$ &0.22MPa is suggested.

Product composition

Air motor 1:1 drive

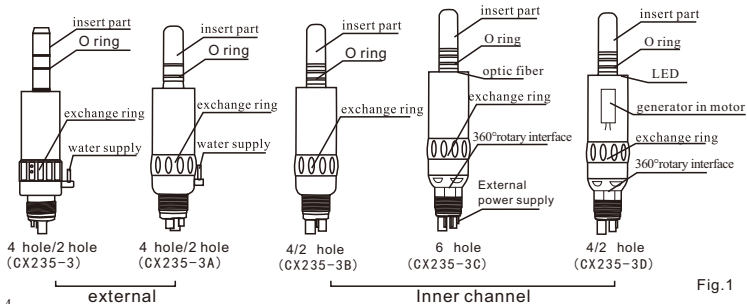


Fig.1

Switch

- (1) Positive rotation: turn the switch ring to the [F] side (Fig.2)
- (2) Negative rotation: turn the switch ring to the [R] side (Fig.3)
- (3) When the switch ring between [F] and [R], the motor will stop rotating.



Fig.2 (1)



Fig.3 (2)



Fig.4 (3)

Water Supply

- Inner channel water spray low speed handpiece

Connect the 2/4/6 hole handpiece tubing according the 2/4/6 hole shape, then can be used after connected colselly, firmly, for example (fig.5-1, fig.5-2)

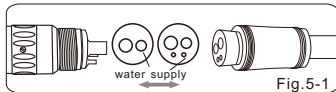


Fig.5-1

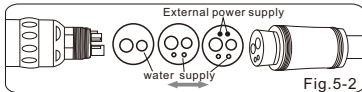


Fig.5-2

Water Supply

- External water spray low speed handpiece

When need the water supply, attach one end of the plastic tube to the water intake on the motor, and the other end to the water inlet on the contra angle or the straight handpiece. Because the length of the plastic tube is a little longer, please cut according to the trim size before using. For example (Fig.5)

Connect the handpiece tubing according the hole shape (2 hole or 4 hole) , then can be used after connected closely, firmly. for example (Fig.6).



Fig.5

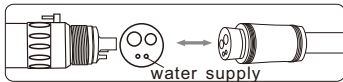


Fig.6

Environment-friendly fiber optic handpiece tube

If the dental unit don't have the optical fiber system, please insert our optical fiber tubing and electricity board in the dental unit, then it can use our optical fiber handpiece, and include the high speed handpiece which compliance with international standards.

Electricity board

- 1、 power in: 12-24V
- 2、 power out: 2.5-3.5V (adjustable)
- 3、 output delay: 0-12s (adjustable)
- 4、 linkage air pressure: $P > 0.2\text{MPa}$
- 5、 control ways: 2 ways (Fig.11)



(6 hole) Fig.6



Fig.7

Installation External power supply

Optic Fiber Inner Cannel Low Speed Handpiece(6 hole)

- 1.Connect power in line with POWER in 12-24V end.
- 2.Electricity lines from the tube connect with the power out end (L1 or L2) of the electricity board.
- 3.Connect the electricity board and the air in tube with a T-Connrctor.
- 4.Air 1 corresponding to L1, and Air 2 to L2.
- 5.Connect the electricity;step on the foot controller,the indicator light is on, fiber optic illuminated handpiece work see figure 8 for more detail.

Notice:A:work air(air in)
W:water in
D:air return
C:pulverization

It must follow the drawing to insert the optical fiber system.

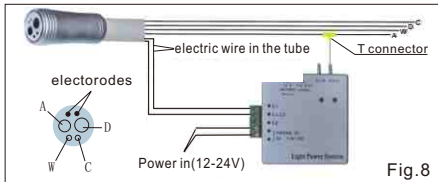


Fig.8

Lubrication

- Keep front inserted turbine down, push and spray the lubricate for 4-5 dorps or aim at air inlet of motor to spray 2-3 seconds.
- Connect the motor with turbine to spin 1-2 minutes till finish lubrucation.
- Wipe the redundant lubrication with tissue to finish lubrication.

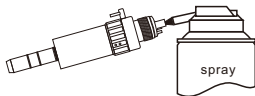


Fig.7

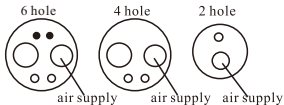


Fig.10



Fig.8

Sterilization and cleaning

- Steam autoclave is recommended.
- Sterilization required after patient as noted below.
- Autoclave Procedure:
- Scrub dirt and debris from the handpiece, and wipe clean with alcoholic cotton swab or cloth. Do not use a wire brush.
- Lubricate with SPRAY or Lubricant oil. refer to Fig.6.
- Insert into an autoclave pouch. Seal the pouch.
- Autoclavable up to a max.135°C(EX.)Autoclave for 20 min. at 121°C or 15 min.at 132°C.

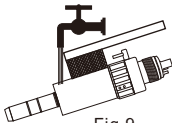


Fig.9

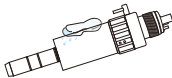


Fig.10



Fig.11

Trouble Shooting

Trouble	Possible cause	Solution
Body of straight head and contra angle rotates during motor running	O-ring on the nose of motor wears	Change o-ring
Handpiece fail to spray water	Spray hole blockage	Clean with probe
Water leakage of handpiece	O-ring and washer aged	Change aged parts and fasten the screw bolt of connecting hose
Handpiece fail to rotate	Motor reversing ring fail to be moved to the proper position	Clean and lubricate,move the pollutants by hand

Our service center can offer technical assistance to you.

Warranty

COXO grants the user a 12 months guarantee for its complete product range, Maintenance over the term of guarantee will be at the customer' s charge.

COXO will not be responsible for damage or injury resulting from:

- excessive use
- improper manipulation of the product, or modification to product carried out by persons not authorizes by COXO.
- fail to follow the instruction to install, operate and maintenance the handpiece.
- damage of chemical, electrical or electrolysis due to improper autoclaving and storing.
- improper working pressure or used beyond dental treatment.
- abnormal water,gas connections.

The technical specifications and dimension in these instruction are given only as a guide. They may not be subject of any claim.

Transportation and deposited condition

Environmental temperature: -40°C — $+50^{\circ}\text{C}$; Relative humidity $\leq 80\%$;
The scope of air pressure: 500hPa—1060hPa.

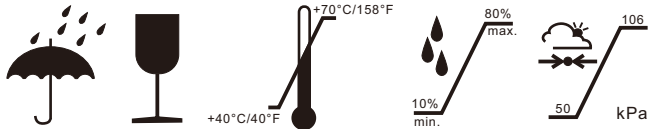


Fig.12

Standard Symbols

On the instrument label appear standard symbols as follows:



Important notice!



Autoclave



Attention, consult accompanying documents



Class II equipment



Type B applied part



Certified to MDD93/42/EEC



Manufacturer



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