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HATCH
COXO

CE 0197

STRAIGHT HANDPIECE

Operation Manual

CX235-2
CX235-2A/CX235-2B
CX235-2F/CX235-2G
CX235-2C
CX235-2S2

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

Product Description

CX235-2



CX235-2C



CX235-2A



CX235-2F



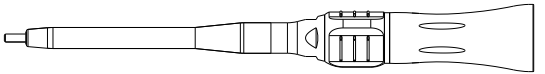
CX235-2B



CX235-2G



CX235-2S2



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 handpiece with hand to make sure handpiece connect firmly and safely.
- Head cannot running without insert bur,otherwise head or motor would be damaged.
- Don't immerse handpiece in any chemical solvent or solution or by dry-heat disinfection.Sterilization by autoclave at(134±2)°C&0.22MPa is sugguested.
- Run the test before use. If you find that the Straight is damaged,parts are loose, vibration, noise, fever, etc., please stop using it immediately.

1. User and Intended Use

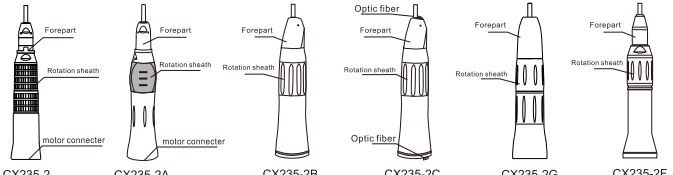
User : Qualified Professionals

Indication For Use : This medical device is intended for transmitting rotation of the power source at the direct drive ratio or at a different gear ratio, thereby running the instrument such as a bur or a reamer to cut and polish natural or artificial teeth during dental treatment.

2. Contraindications

1. Hemophilia patients should be used with caution.
2. The patient or doctor with a pacemaker is careful to use an electric motor to drive the handpiece.
3. Heart disease patients, pregnant women and children with caution.

3. Structure Composition and Packing List



Parts List		Optional accessories	
Name	Quantity	Name	Purchase code
Straight handpiece	1	Tubing(S-2S)	245-45
wrench	1	Handpiece oil	244-1
Cleaning Wire	1		
spray nozzle	1		
User manual	1		

4. Technical Date

Type	CX235-2	CX235-2A	CX235-2F	CX235-2C	CX235-2B	CX235-2G	CX235-2S2
Gear Ratio	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Speed	<40000 rpm	<40000 rpm	<40000 rpm	<40000 rpm	<40000 rpm	<40000 rpm	<40000 rpm
Spray type	External Spray	External Spray	Inner Spray	Inner Spray	External Spray	External Spray	External Spray
Bulb	—	—	—	Glass rod optic	—	—	—
Light	—	—	—	＞7000Lux	—	—	—
Air cooling	—			>1. 5L/min at 200Kpa			
Water cooling	—				>50 ml/min at 200 kPa		—
Coupling dimensions	Comply with ISO 3964						
Bur Type	ISO 1797-1 Type 1, diameter: 2.35mm, fitting length: min. 11mm, overall length: max. 23mm, working diameter: max. 2mm. ISO 1797-1 Type 2, diameter: 2.35mm, fitting length: min. 33mm, overall length: max. 50mm, working diameter: max. 2mm.						

Note:The maximum temperature of the handpiece does not exceed 60 ℃

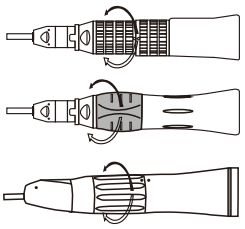
5. Mounting/Removing the bur

1. External Spray

When removing the bur, turn the lance's open/close snap-ring switch in the direction of ⟸ until you hear a click; when mounting, turn the open-loop switch in the direction of ⟹ to hear a click.

2. Inner Spray

When removing the bur, turn the lance's open/close snap-ring switch in the direction of ⟸ until you hear a click; when mounting, turn the open-loop switch in the direction of ⟹ to hear a click.

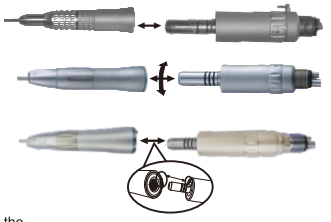


⚠ Attention

1) Do not use burs that are bent, deformed, damaged, and do not meet specifications.
2) Please keep the bur clamp clean. If there is any dirt, the movement will oscillate and the clamping force will drop.
3) Please install the bur securely, otherwise it will cause bearing damage.
4) Do not turn the motor when the chuck opening and closing snap ring is open or when no bur is installed.
5) When the handpiece is not in use, please install the bur or standard rod to store.

6. Connecting/Disconnecting Handpiece and motor

1. Installation, the end of the straight handpiece can be connected with the coupling section of the motor, as shown in the figure.
2. Disassemble, pull the straight handpiece forward by grasping the motor with your hand.



⚠ Attention

1) The structure, dimensions and tolerances of low speed handpiece couplings should meet the requirements of ISO 3964-2016.
2) The handpiece with the card position should be aligned with the positioning pin on the motor as shown in the figure.
3) No more than 10 minutes of contact with the patient.
4) Our products can only be used in conjunction with equipment that complies with IEC 60601-1.

7. Cleaning, Disinfection and Sterilization

Device:	Straight Handpieces
Advice:	Reprocessing procedures have only limited implication to this dental instrument. The limitation of the numbers of reprocessing procedures is therefore determined by the function / wear of the device. From the processing side there is no maximum number of allowable reprocessing. The device should no longer be reused in case of signs of material degradation. In case of damage the device should be reprocessed before sending back to the manufacturer for repair.
Reprocessing Instructions	
Preparation at the Point of Use:	Disconnect the handpiece from tube. Remove gross soiling of the instrument with cold water (<40°C) immediately after use. Don't use a fixating detergent or hot water (>40°C) as this can cause the fixation

	of residuals which may influence the result of the reprocessing process. Store the instruments in a humid surrounding.
Transportation:	Safe storage and transportation to the reprocessing area to avoid any damage and contamination to the environment.
Preparation for Decontamination:	The devices must be reprocessed in a disassembled state, as far as possible.
Pre-Cleaning:	Do a manual pre-cleaning, until the instrument are visually clean. Submerge the instruments in a cleaning solution and flush the lumens with a water jet pistol with cold tap water for at least 10 seconds. Clean the surface with a soft bristol brush.
Cleaning:	Regarding cleaning/disinfection, rinsing and drying, it is to distinguish between manual and automated reprocessing methods. Preference is to be given to automated reprocessing methods, especially due to the better standardizing potential and industrial safety.

	Automated Cleaning: Use a washer-disinfector meeting the requirements of the ISO 15883 series. Put the instrument into the machine on a tray. Connect the instrument with the WD by using suitable adapter and start the program: • 4 min pre-washing with cold water (<40°C) • emptying • 5 min washing with a mild alkaline cleaner at 55°C • emptying • 3 min neutralising with warm water (>40°C) • emptying • 5 min intermediate rinsing with warm water (>40°C) • emptying The automated cleaning processes have been validated by using 0.5% neodisher MediClean forte (Dr. Weight). Note Acc. to EN ISO 17664 no manual reprocessing methods are

	required for these device. If a manual reprocessing method has to be used, please validate it prior to use.
Disinfection:	Automated Thermal Disinfection in washer/disinfector under consideration of national requirements in regards to A0 value (see EN 15883). A disinfection cycle of 5 min disinfection at 93℃ has been validated for the device to achieve an A0 value of 3000.
Drying:	Automated Drying: Drying of outside of instrument through drying cycle of washer/ disinfector. If needed, additional manual drying can be performed through lint free towel. Insufflate cavities of instruments by using sterile compressed air.
Functional Testing, Maintenance:	Visual inspection for cleanliness of the instruments and reassembling, if required. Functional testing according to instructions of use. If necessary, perform reprocessing process again until instrument is visibly clean.

	Before packaging and autoclaving, make sure that the handpiece has been maintained acc. to manufacturer's instruction.
Packaging:	Pack the instruments in an appropriate packaging material for sterilization. The packaging material and system refer to EN ISO 11607.
Sterilization:	Sterilization of instruments by applying a fractionated pre-vacuum steam sterilization process (according to EN 285 /EN 13060 /EN ISO 17665) under consideration of the respective country requirements. Minimum requirements: 3 min at 134℃ (in EU: 5 min at 134℃) Maximum sterilization temperature: 137℃. Drying time: For steam sterilization, we recommend a drying time of 15 to 40 minutes. Choose a suitable drying time, depending on the autoclave and load. Refer to the autoclave's instructions for use. After sterilization: a. Remove the product from the autoclave. b. Let the product cool down at room temperature for at least 30

	minutes. Do not use additional cooling. Check that the sterilization wraps or pouches are not damaged. Flash sterilization is not allowed on lumen instruments!
Storage:	Storage of sterilized instruments in a dry, clean and dust free environment at modest temperatures, refer to label and instructions for use.
Reprocessing validation study information:	The above-mentioned reprocessing process (cleaning, disinfection, sterilization) has been successfully validated. Refer to test reports: - FOSHAN COXO_Cleaning Disinfection Validation Report - FOSHAN COXO_Sterilization Validation Report_Straight Handpiece, Air Motors - FOSHAN COXO_Sterilization Validation Report_High-speed air turbine handpiece
Additional Instructions: None	
It is the duty of the user to ensure that the reprocessing processes including resources, materials and personnel are capable to reach the required results. State of the art and often national law requiring these processes and included resources to be validated and maintained properly.	

Lubrication

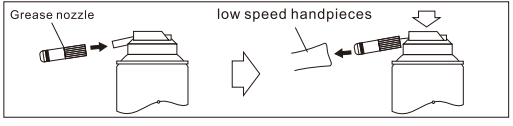
1. Handle oil lubrication

1) Align the grease fitting with the air inlet of the mobile phone, and press it after pressing; the fuel injection pipe must be upright when injecting;
2) Place the handset head down;
3) Spray the cleaned lubricant to the machine head.

⚠ Note: Once you see any dirt on the machine head, repeat the entire hygiene and maintenance procedures!

2. Movement of the movement: The movement should pay attention to oil maintenance to prevent impurities and rust.

⚠ Note: The recommended period of lubrication is before and after each sterilization! Before sterilizing, please clean, disinfect and lubricate the Straight!



8. Environment Conditions

Operating environment:

Ambient temperature:	+5 ℃-+40 ℃
Relative humidity:	20% - 80%RH
Air pressure :	860hPa-1060hPa

Transportation and storage conditions:

Ambient temperature:	-10℃ - +55℃
Relative humidity:	≤93%RH
Air pressure:	500hPa-1060hPa

9. Recycling and disposal

Recycling

COXO places special emphasis on environmental responsibility, the handpieces and packaging are designed to be as environmentally friendly as possible.

Disposal of the handpieces

- Dispose of old equipment according to the laws, regulations and standards of your country (region).
- Ensure that all parts are free from contamination during disposal.

10. Standard Symbols

Warning

Caution

CE Certified to MDD93/42/EEC

134°C Autoclave

Thermo-Disinfector

LOT Batch code

SN Serial number

Manufacturer

Refer to Instruction Manual/Booklet

Do not dispose of with domestic waste

EC REP Authorized representative in the European Community

11. Life Expectancy

Expected service life is 5 years. (see the label for production date)

12. Troubleshooting

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 rotate	Contra angle chucking with bur but latch place fail to be fixed in the proper position. Dirt get into handpiece.	Clean and lubricate, move it by hand

This product can be repaired by professional maintenance personnel on site, and accessories required for maintenance are purchased from COXO ordistributors. Our service center can offer technical assistance to you.

13. Warranty

COXO grants the user a 12 months guarantee for its complete product range, except ball bearing (3 months guarantee) from the date of invoice issued. 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 instuction to install, operate and maintenance the handpiece.
– damage of chemical, electrical or electrolysis due to improper autoclaving and storing.
– improper working pressure.