

Operation Manual

E-type Contra Angle

**EC-20L, EC-20ML, EC-30BL, EC-35BL,
EC-30BLP, EG-20L, EG-20ML, EG-30BL**
(ECG- and EG- are the same model of 4 to 1 Contra Angle)

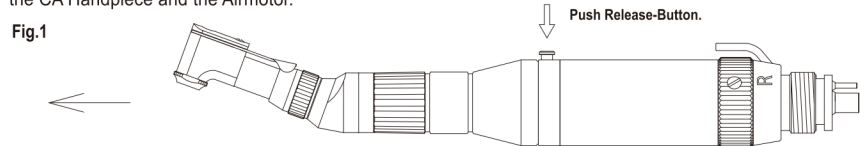
CAUTION This product is designed for dental use. Its operation and maintenance should be done under dentist's supervision.

Thank you for choosing our Contra Angle Handpiece (CA Handpiece). This Handpiece, carefully produced, based on both Japanese advanced technology and ND's experienced craftsmanship since its start in 1956, boasts of its high quality. Please read this manual well before use. We hope that our product with proper use wins your full satisfaction.

1. Maximum Rotation Speed :EC-20L, EC-20ML : 20,000rpm
:EC-30BLP, EC-35BL, EC-30BL : 30,000rpm
:EG-20L, EG-20ML, EG-30BL : 4 to 1 of Motor rotation
2. Applicable Bur :CA type ISO standard (ϕ 2.35)
3. Chuck Ability :Force to Withdraw : more than 5kg
:Rotating Direction : more than 450g·cm
4. Bur Concentricity :EC-20L, EC-20ML, EG-20L, EG-20ML : Less than 0.04
:EC-30BLP, EC-35BL, EC-30BL, EG-30BL : Less than 0.03
5. Coupling with Motor :ISO standard (E-type)
6. Sterilization :135°C autoclave
7. Gear Ratio :EC-20L, EC-20ML, EC-30BL, EC-35BL, EC-30BLP : 1 to 1
:EG-20L, EG-20ML, EG-30BL : 4 to 1

1. Coupling with Motor

• In order to couple with ND made Airmotor, push the motor nose into the sheath of CA Handpiece all the way until the stopper of Airmotor is properly hooked in the inside groove of CA Handpiece. Verify proper coupling by pulling the CA Handpiece and the Airmotor.

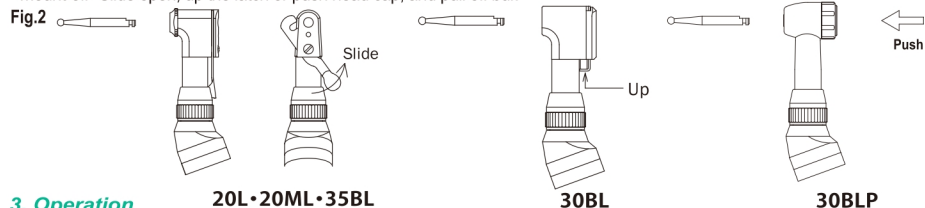


- For coupling with other Air- or Micro-Motor, refer to its operation manual.
- Please make trial run at low speed after coupling.

2. Bur Change

• Mount-on : Slide open (EC-20L, EC-20ML, EC-35BL), up (EC-30BL) the latch or push head cap (EC-30BLP). Insert the bur all the way till the end and make slightly turn. Slide close, down or release where latch fits into the groove of bur. Verify that bur is properly mounted on, by pulling it with hands.

• Mount-off : Slide open, up the latch or push head cap, and pull off bur.



3. Operation

20L·20ML·35BL
EC-20L, EC-20ML : Use with Motor running below 22,000rpm.
EC-30BL, EC-35BL, EC-30BLP, EG-type : Use with Motor running below 30,000rpm.

Maintenance

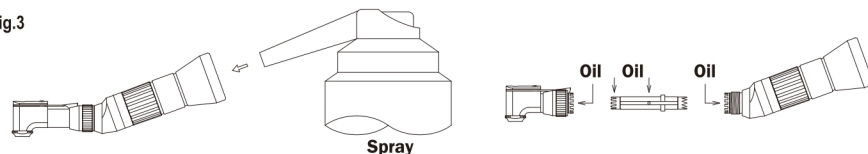
CAUTION To keep a good condition, lubrication should be made for dental handpiece as indicated by arrow in the figure below. Regarding assemble and dis-assemble, refer to the section following, 3. Spare Head Replacement.)

1. Lubrication

Lubrication should be done every-time before autoclave, as well as in time that water and /or dust gets inside. Spray lubrication could also make inside cleaning. It should be done twice each time. Spray lubricate oil at the back of Sheath of CA Handpiece. (It has the same effect with spray lubrication that lubricate oil is placed on gears, as indicated by arrow in the figure below. Regarding assemble and dis-assemble, refer to the section following, 3. Spare Head Replacement.)

CAUTION Without being held firm by hand, CA Handpiece could be pushed away by air-pressure of spray. Accidental drop of the equipment could cause damage on it.

Fig.3



2. Surface Cleaning

Wipe off dirt with tool such as tooth brush, and scrub the surface by clean cloth. Lubrication should be done every time after surface cleaning. Although it has effect to apply a little alcohol on the cloth, excessive amount, by seeping inside CA Handpiece, could take off the lubricate oil on ball-bearing. In that case, lubricate again.

3. Inside Cleaning

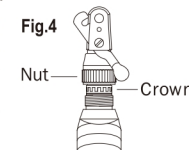
Take the same steps with the process of spraying lubricate oil. Operate trial run at low speed every after lubrication. In order to drive dirt out of head, repeat the process at least twice. Do the cleaning once a day.

4. Spare Head Replacement

Spare Head should be replaced with new one every 8 months. Slide open the latch. Pull off the head by loosening the nut and take out gear shaft. Check wear-condition of gear monthly. If the wear-degree is about 25%, replace it with new spare head, EH-20L, EH-20ML, EH-30BL, EH-35BL, EH-30BLP. If it's crowns are 12 tooth, Spare Head should be EHN****.

How to install new spare head:

Slide open the latch, and push up the nut. Fix correct position by matching crowns of head and sheath, each. Screw the nut tight.



Sterilization

CAUTION Do not put CA Handpiece through ultrasonic disinfection solution cleaning procedure. Do not use cold sterilization nor dry heat.

1. Clean the surface. Refer to the section, "MAINTENANCE, 2. Surface Cleaning".
2. Lubricate with Spray. Refer to the section, "MAINTENANCE, 1. Lubrication".
3. Autoclave at the temperature 130 – 135°C (2Mpa) for about 20min.
4. Take the CA Handpiece out of the Autoclave and dry it in room temperature.

CAUTION Do not operate Autoclave dry cycle at the temperature higher than 135°C.)

5. After the CA Handpiece is completely dried, lubricate it twice. Refer to the section, "MAINTENANCE, 1. Lubrication".

Warning

1. Do not drop CA Handpiece nor apply excessive force or impact on the bur connected. Warranty is invalid for the trouble caused by those acts. (Prevent the bur on CA Handpiece from hitting others in time of autoclave.)
2. When water gets inside CA Handpiece, lubricate more than three times.
3. In using the bur with its working diameter more than 5mm, increase the speed slowly in order to check vibration and operation safety.

CAUTION In high speed use, the bur with large operating diameter could fly off and cause serious damage on human body.

Warranty

Trouble, which occurs due to material defect or despite with correct use as the instruction manual states, during the period specified below, is covered under warranty by the manufacturer. Quality deterioration caused by drop of CA Handpiece will be excluded from warranty coverage.

CA Handpiece : 6 months
Head of Contra Angle : 3 months

NAKAMURA DENTAL INDIA PVT. LTD. F-91, Sector 8, Noida-201301, U.P, India
Ph. No: +91 120 4122761
Website: www.ndindia.in

Specification

How to use