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'09.03.03 

OPERATION MANUAL

**NSK**

 0197

# LED Coupling

## **PTL-CL-LED/PTL-CL-LED III**

## **KCL-LED**

Please read this Operation Manual carefully  
before use, and file for future reference.

**MADE IN JAPAN**

**OM-T0341E**



Powerful Partners®

**CAUTION**

- When operating the Product **always** consider the safety of the patient.
- The product is designed **only** for **clinical dental** use by qualified personnel.
- Do not attempt to **disassemble** the product or tamper with the mechanism.
- Should the Product function **abnormally**, cease operation **immediately** and return the Product to an **authorised dealer** for repair.
- Do not **allow** any impact on to the Product. Do not drop the Product.
- Do not connect or disconnect the hose or handpiece **until** the drive motor has **completely** stopped.
- Do not wipe with, or **clean** or immerse in, high acid water or sterilizing solutions.
- Confirming the operation manual of the hose to connect and handpiece.
- Do not attempt **hydrothermal cleaning** or rinse it in water. It may cause **malfunction** or **electric shock**.
- **Follow** the instrument manufacturer's instructions.
- Ensure **clean, dry air supply**. Moisture and debris in air supply may cause the motor to **malfunction**.

## 1. Fetures

- There is no generation of heat in the light source, power saving and long life LED.
- It can adjust the amount of water by water adjusting ring.
- Power supply for illumination is regardless of polarity. You can use variety of unit. (PTL-CL-LED-III, KCL-LED)
- Non-Retraction Valve which prevents the water flow back of water is built in.

## 2.Setting

### CAUTION

- Do not connect or disconnect the hose or handpiece until air pressure has completely stopped.
- Follow the instrument manufacturer's instructions.
- This coupling can connect with a hose with light and ISO Standard 4 hole.(Fig.1) If it connects with a hose without light function, the light terminal will deform and it will become a cause of failure.

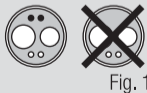


Fig. 1

### (1) Connecting

- 1) To connect, align and insert carefully and firmly the pin of the coupling into the pin holes of the hose, and fasten the hose nut securely.(Fig.2)

\* Coupling cup as attached.(PTL-CL-LED/PTL-CL-LED-III)

\* Wrench (KCL-LED)

- 2) Insert handpiece into coupling straight until it click.

### **Attenzione**

Ensure the handpiece is attached tightly to the coupling.

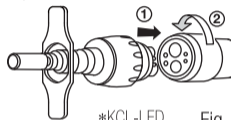
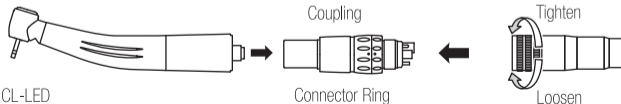


Fig. 2



\*PTL-CL-LED

Connector Ring

Loosen

Fig. 3

(2) Disconnecting

- 1) To disconnect, pull back the connector ring and gently pull out.
- 2) Loosen the hose nut and gently pull out the hose.

**CAUTION**

- Ensure the handpiece is attached tightly and properly to the coupling. DO not pull the connector ring during air pressure supply. If the connector ring pulled during air pressure supply, handpiece may fly away.
- Do not pull the connector ring, when the air pressure is applied. Handpiece fly away with the air pressure.

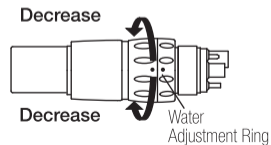
### 3. Controlling Water Supply (PTC-CL-LED III, KCL-LED)

Water supply is controlled by turning the Water Adjustment Ring.

PTL-CL-LED-III Water Adjuster Ring can rotate both sides. Flooding decreases when it turns to back side or front side start to mark keep the mark. When the Water Adjustment Ring is turned 180 degree, water supply stop. (Refer to Fig.3 PTL-CL-LED-III)

KCL-LED Water Adjuster Ring can rotate back side to decrease the water supply. (Refer to Fig.3 KCL-LED)

PTL-CL-LED-III



KCL-LED

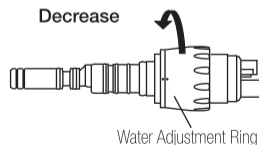



Fig. 4

## 4. Maintenance

After each use, clean the surface of the coupling with brush etc. (Do not use metal brush), and wipe it with the cotton moustened with disinfecting alcohol.

 This coupling can not be Autoclave sterilization.

 This product can not be cleaned and disinfected with a Thermo-Disinfector.

### CAUTION

- Do not wipe with, or clean or immerse in, high acid water or sterilizing solutions.
- Do not connect or disconnect the hose or handpiece until the drive motor has completely stopped.

## 5. Non-Retraction Valve

When the valve does not seem functioning, use the syringe and inject air into the water tube of the back-end. Most dirt may be blown out of the seat.

To replace the valve, remove the back-end gasket. Pull and remove the water tube, and replace the Non-Retraction Valve. (Fig. 5)

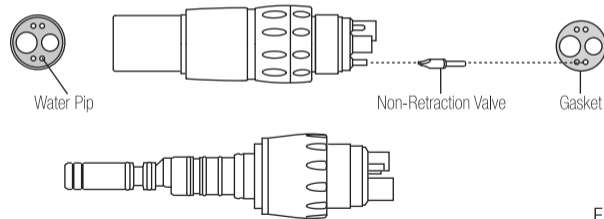


Fig. 5

## 6. Changing O-Ring (KCL-LED)

### CAUTION

- Maintenance the coupling after the air supply is stopped completely.
- Do not pull the O-ring with excessive power.

#### (1) Changing O-Ring

- 1) Remove the worn O-rings.
- 2) Insert new O-rings the O-ring grooves.

Optional O-rings (2 pcs.)

: Order No. 0318-040100

Optional O-rings (3 pcs.)

: Order No. 0318-068080

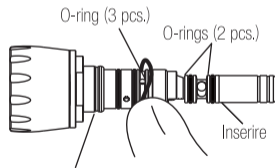


Fig. 6 8

## 7. Coupling Cap (PTL-CL-LED/PTL-CL-LED-III)

#### (1) Connecting

To connect, align and insert carefully and firmly the pin of the coupling into the pin holes of the coupling cap, and turn the ring until you hear the noise "Click".

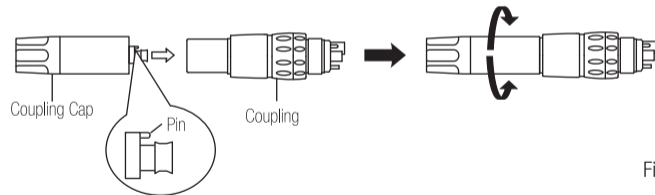


Fig. 7

2) Approach in the use of coupling cap

As instruction wrench

When coupling is connecting to a hose, use it as safeguard use of the coupling.

As for protection against dust

During the sterilization, when coupling is removed from handpiece, the inside of coupling be exposed and garbage, various germs, should enter, It is not sanitarily good, therefore use it as a protection-against-dust cap.

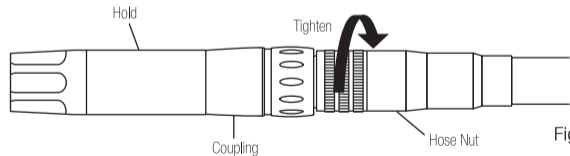


Fig. 8

**ENGLISH** Spcdification

Model	PTL-CL-LED	PTL-CL-LED III	KCL-LED
Cupling Type	Raccord Phatelus NSK		KaVo®MULTiflex®
Hose Type	ISO9168 Type C		
Water Adjustment	Non	YES	
Optic Type	DEL blanche		
Voltage	CA/CD 3.3V±0.05V		
Voltage actif	2.5~4.0V		
Consommation courant	Moins de 0.2A (3.3 V)		

For Liting power, follow the EN60601-1, Voltage have to be match SELV (Safety Extra Low Voltage)

\*KaVo® MULTiflex® is copyright for Kaltenbach & Voigt GmbH & Co.(Germany).