FRONT

BACK

Sabra 105- Canadian Patent# 2,222,910 / US Patent # 5,575,647

INSTRUCTION MANUAL

☐ **Sabra 105**

☐ **Sabra 105-FO (Optic)**

☐ **Sabra OMS 45II (Rear Exhaust)**

☐ **Sabra OMS 45-FO (Rear Exhaust, Optic)**

☐ **Sabra 45LS (Rear Exhaust, Optic)**

Sabra OMS and LS series handpieces
For use with standard friction grip surgical length burs (FG-SU 25mm)
Sabra 105 series For use with standard friction grip burs (FG 19mm).
Also for use with friction grip short shank burs (FG-SS 16mm)
Supply requirements: Dry filtered air or nitrogen (N2)

Technical Data / Specifications
Speed range: 380,000 - 420.000 rpm
Operating / Drive air pressure: 40 - 55 psi
Available for use with ISO and ADA standard coupling types:
- ISO A type (2 or 3 hole)
- ISO B type (4 hole or 5 hole optic)
- ISO C type (6 pin lux type)

Putting Into Operation

1. Install quick connect coupling adaptor to tubing end by aligning the tubes at the back end of the coupling with the corresponding holes in the hose connector. Insert the coupling into the hose connector and tighten the hose nut by turning it clockwise as shown in **Fig. 1.**

2. For the Sabra series fiber optic models, in those offices equipped with the Sabra Brite dedicated optic system, the Sabra 360° Quick-Coupler is screwed onto the hose nut. See **Fig. 2.**

3. Insert the handpiece into the 360° Quick-coupling until a click is heard as shown in **Fig. 3.**

4. When the handpiece is to be disconnected from the coupling for autoclaving or changing the handpiece, slide back the connector ring as shown in **Fig. 3**, and the handpiece pops off.

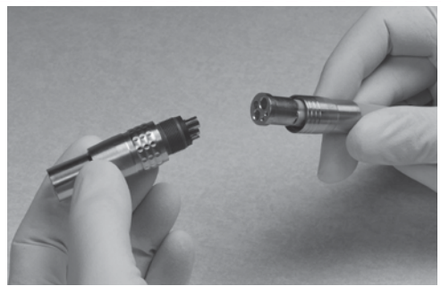

Fig. 1

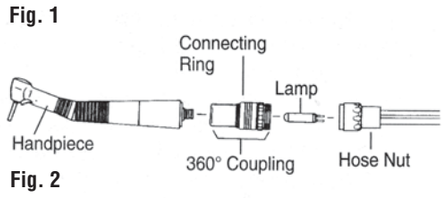

Fig. 2

CAUTION: DO NOT slide the connector ring back while the handpiece is under pressure. The handpiece may be ejected from the coupling as a result of pressurization.

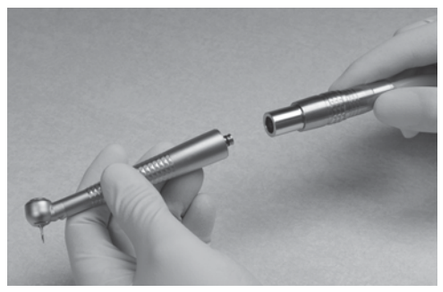

Fig. 3

Drive Air Pressure

Set the drive air pressure at 40 - 55 psi. A supply of dry, clean compressed air or nitrogen (n2) must be provided.

CAUTION: To prevent premature ball bearing failure, DO NOT exceed recommended air pressure.

BURS

1. DO NOT use non-standard burs. The ISO standard shank diameter is Ø 1.59 - 1.60mm.
2. DO NOT use bent, worn, or damaged burs.
3. Always use clean burs. Unclean burs may cause unwanted amount of pressure on the chuck and bearings.
4. DO NOT use short shank burs in OMS series or 105-RE series handpieces.

Changing Burs

CAUTION: To prevent damage to the handpiece and the danger of an ejected, rotating bur, NEVER depress the Push-Button while the handpiece is rotating.

1. Inserting Burs

To install a bur, insert the bur until it stops. Then depress the push button and seat the bur all the way into the chuck until it stops. After releasing the push button, push the bur into the handpiece once, which will increase the locking action of the bur jaws and produce greater holding power.

2. Removing Burs

When removing a bur, be sure to depress the push button all the way down. A click may be felt as the spring is compressed. This is especially important since, under certain heavy cutting situations, the bur may afterwards seem to be "jammed" in the handpiece. This is not a defect in the chuck mechanism but is a result of the increased locking action of the bur jaws under heavy pressure. The chuck is designed to become tighter as greater pressure is applied to prevent bur slippage. If this situation is encountered extra force should be applied to the push button.

Maintenance

A. Infection Control

The FDA, CDC, and ADA strongly recommend that handpieces be sterilized after each patient use. To use an autoclave as an effective means of infection control requires an autoclave cycle after each patient. Although all Sabra handpieces are fully autoclavable, the autoclave environment is hostile to any handpiece and will result in slow physical and operational degradation. Less frequent use of the autoclave to protect the handpiece is generally not recommended since this would surely compromise infection control. If autoclaving is to be the preferred method of infection control, the following directions should be followed to assure maximum longevity.

B. Cleaning, Lubrication and Sterilization

1. After use, run the handpiece for 10 - 15 seconds to flush the water and air line prior to disconnecting for maintenance.
2. Remove the handpiece from the coupler.
3. Screw the Sabra Care Lubricant Spray Nozzle onto the Sabra Care Lubricant Spray can. **Fig. 4.**
   (This may be left in place until the can is empty)
4. Place the handpiece on the Sabra Care Lubricant Spray Nozzle properly. **Fig. 5.**

Fig. 4

CAUTION: HOLD THE HANDPIECE FIRMLY WHILE ACTIVATING SPRAY, OTHERWISE THE HANDPIECE MAY BE EJECTED.

5. With a bur inserted, and while holding the handpiece in a downward position, spray cleaner/lubricant with 3-4 short bursts, until lubricant is seen escaping from the back of the handpiece head.
6. Reconnect handpiece and run approximately 10 to 20 seconds to purge any contaminants from the turbine housing, and eliminate excess lubricant from the turbine.
7. Any excess lubricant should be clear and clean.
8. If you observe dark lubricant, add more lubricant and flush again to remove any remaining contaminants from the turbine. This may also revitalize the turbine.

Fig. 5

9. Remove from connector, remove bur. With any Sabra Series optic models, it is advisable to clean both ends of the fiber optic bundle with an alcohol soaked cotton tipped swab.
10. Clean the outer sheath of the handpiece with water or isopropyl alcohol ONLY. Never fully immerse the handpiece in any liquid. Never use disinfectants or chemical cleaners on handpieces.
11. Place the handpiece in autoclaving pouch and seal.
12. Autoclave at: 121 degrees Celsius for 20 minutes or 132 degrees Celsius for 15 minutes.
13. After autoclaving, allow to cool gradually to room temperature (cold spray lubricant or running of the handpiece may fracture the bearing separators). After handpiece has cooled for a minimum of 30 minutes, lubricate with a small amount of lubricant before running the handpiece.
14. Run 5 seconds before placing in patient's mouth to run any excess lubricant out of the handpiece.
15. Our premium dental handpiece lubricant, Sabra Care Plus, is physiologically neutral, so it is NOT harmful to the patient or dental professionals.
16. If pre and post autoclave contamination is of concern, use one can of Sabra Care Plus for pre autoclave, and another can for post.

CAUTION: NEVER immerse handpiece. Complete immersion in any solution may damage the handpiece permanently. NEVER attempt to clean the handpiece with liquid disinfectants. They will cause damage to the instrument. NEVER clean in an ultrasonic cleaner. Ultrasonic cleaning may render the instrument inoperative. It is not recommended to use dry heat sterilizers, nor a chemiclave. Autoclave heating elements may be located at the bottom of the chamber, and the temperature there may exceed the set value. Place the handpiece on the central or upper tray.

Clean Slit After Each Patient

It is important to clean the slit in the head as follows after each patient and before each autoclaving to take advantage of the CLEAN-HEAD benefit.

A. Brush off the debris at the slits as shown in **Fig. 6.**
B. With a bur in place, run the handpiece.
C. Immerse half of the head in clean water while the handpiece is running.
D. Run the handpiece in water 4 - 5 seconds **Fig. 7.**
E. Remove the handpiece, while running, from the water. Stop and wipe the handpiece dry.
F. Lubricate before autoclaving.
G. Clogging of the clean head slits will potentially cause loss of torque in all models, and air to escape from the front of the handpiece in the rear exhaust models..

***NOTE:** Change water each time.

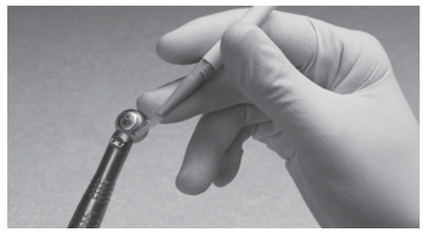

Fig. 6

Fig. 7

Replacing The Cartridge

A. Removing The Cartridge

1. Mount a dummy bur in the chuck.
2. Insert the wrench on the head cap and turn wrench counter-clockwise until the cap is removed. **Fig. 8.**
3. Push up dummy bur and the cartridge is easily removed from the head.
4. Clean the head interior with Sabra-Care Spray Lubricant.

B. Installing The New Cartridge

1. Insert the new cartridge, with its pin aligned in the slot of the handpiece head. **Fig. 9.**
2. Hand tighten the cap until finger tight and secure with wrench, until cap sets in place.

***NOTES:** The head cap screw thread is very fine. To prevent stripping of the threads, do not use the wrench from the first thread.

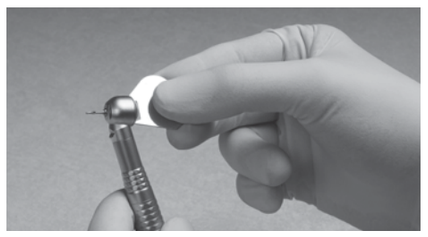

Fig. 8

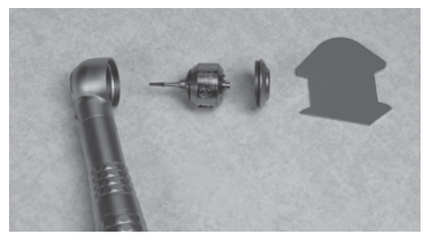

Fig. 9

Replacing O-Rings In The Handpiece

If it is suspected the swivel O-rings have worn (usually detected by a water leak at coupler/handpiece connection point), replace all five O-rings as follows: disconnect the hand piece from the 360°Quick Coupling. Unscrew the taper ring sleeve (the portion of the handpiece identified with the name and serial number printing) from the back of the handpiece. Lift and remove the worn O-rings with an explorer or cotton pliers. Replace with new O-rings sliding them into position with gentle finger pressure. Lightly lubricate O-rings with handpiece oil. Replace the taper ring on the handpiece and hand tighten to prevent air or water leaks.

IMPORTANT! Use only Sabra O-rings. Other O-rings may interfere with the operation of the handpiece.

Replacing the Non-Retraction Valve In The 360° Swivel Coupling

(Not Available In Models Utilizing The Sabra Fiber Optic System)

A non-retraction valve is equipped in the C-4, C-5, and C-6 swivel couplers. The valve eliminates the water retraction at the coupling and prevents oral fluid from being drawn back into the handpiece water line. The valve, however, is not a filter and cannot prevent bacteria already in the water supply line from flowing into the patient's mouth. Periodically, use an injection syringe and inject air into the water tube of the coupler to clean the valve seat. Draw air and see if the valve functions normally. If the valve does not seem to be functioning, draw air into the syringe all the way and inject air into the water tube of the coupler. Most contaminants should be blown out of the seal, and will function normally. **REPLACE THE NON-RETRACTION VALVE AFTER 1000 AUTOCLAVES.**
It is recommended that you return the swivel coupling to Sabra Dental Products to replace the non-retraction valve.

2. Warranty Manufacturer warrants its products to the original purchaser against defects in material and workmanship under normal practices of installation, use and maintenance. In case the product fails within 1 year from the date of installation, immediately report with the proof of your purchase to: Sabra Dental Products

⚠ WARNINGS: ⚠

1. Prior to each use, The Handpiece must be inspected for proper operation.
2. The operators and all others in the area must always wear eye protection when operating the handpiece. Eye injury, or accident can result from dislodged burs, blades or bone fragments.
3. Before each use, be sure accessories are correctly attached to the instrument because they could be thrown from instrument with great force, possibly causing serious injury.
4. Always inspect for bent or otherwise damaged burs before each use. Gradually accelerate the drill with the bur in place and visually observe if bur does not appear straight or if it tends to vibrate. A bent bur may whip severely and could be propelled with great force causing injury. Do not use excessive force on any bur. Do not attempt to straighten a bent bur.
5. Follow sterilization recommendations.
6. When using the handpiece, protect surrounding patient tissue at all times.
7. Before each use, be sure that burs are completely seated and locked in the instrument. If the instrument is activated without the bur completely seated and locked, the bur may be thrown from the instrument with great force. Also, unless the bur is completely locked into place, severe overheating may occur.
8. Only use burs and cutters of reputable manufacturers with a shaft diameter of 1.59/1.60mm, and a total head diameter of up to 2mm. Burs which deviate from the stated measurements must not be used.
9. After extended use the handpiece may become noisy. In such a case, replace its cartridge with a new one from Sabra Dental Products. It may cause accidents or impairment of operator's hearing.
10. Do not push the head cap button during rotation. Do not use the handpiece head as a tool to push the cheek when rotating.
11. If any malfunction of the handpiece is apparent, DISCONTINUE USE IMMEDIATELY, and send it in for inspection.
12. For Sabra OMS series and Sabra105-RE series handpiece: If air is escaping from the front of the handpiece, DISCONTINUE USE IMMEDIATELY, and send it in for inspection

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