XO 4 AND XO FLEX INSTRUCTIONS FOR PREVENTIVE SERVICE AND SAFETY INSPECTION



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1 INTRODUCTION

Dear XO service provider,

XO units must be serviced as described below.

Please read this manual carefully before you start servicing the XO unit.

Please see instructions for use and other service and repair instructions and schematics at xo-care.com.

Best regards XO CARE A/S

2 MANDATORY PREVENTIVE SERVICE AND SAFETY INSPECTION

To ensure safe operation and high uptime it is necessary to service and inspect the unit every 12 months.



XO 4 and XO FLEX units must be serviced according to the description in this document every 12 months to ensure correct and safe operation!

After 12 months and thereafter every 24 months a "small" A service shall be performed. After 24 months and thereafter every 24 months a "large" B service shall be performed. After 6 years and thereafter every 6 years the additional C kit shall be used along with the "large" B service.

XO provides "kits" with the necessary spare parts and consumables for A, B and C services. The reference numbers in **bold and italics** in the Appendix 1 checklist are included in the service kits.

Type of service	Parts	When	Estimated time consumption
A service	Service kit A	12, 36 months etc. after installation	1.5 hours
B service	Service kit B	24, 48 months etc. after installation	3.5 hours
C service	Service kit C	Every 6 years along with B service.	2 hours

Table 1 – A and B service

In addition to the service kits we recommend that you carry a sufficient stock of other spare parts, consumables and tools – see below.

In Appendix I, we enclose a checklist that can be used both for performing A, B and C service for all XO units.

In Appendix II, we enclose an additional checklist that shall be used for XO 4 units.

Please go through the checklist and add a check mark (circle) as shown below when a checkpoint has been done.

Unit s	tand	
A1	B1	Main water filter/reduction valve - Clean it and replace the filter cartridge and membrane
		UH-044.

When preventive service is done, please fill out the data fields at the end of the checklist, file the checklist in the Instructions for Use binder and mail a copy to XO CARE.



Remember to file a signed copy of the service and inspection checklist to document the service and inspection! Please mail a copy of the checklist to XO CARE at: <u>technicalservice@xo-care.com</u> (.pdf or .jpg file)!

Please remember that in order for the extended 24-month warranty to be valid, it is required that service is performed according to this document and that the correctly filled out service checklists (A service after 12 months) are presented together with the warranty claim.

3 NECESSARY PARTS AND TOOLS

3.1 SERVICE KITS



Only original XO spare parts must be used for servicing XO units!

Spare parts included in the kits are as follows:

Ref.	Description	Service A	Service B	Service C
		(AP-655)	(AP-656)	(AR-119)
		Pcs.	Pcs.	Pcs.
AE-124	Vacuum valve for suction manifold		2	
AP-108	Water regulator fixed pressure, 2,5 bar	1	1	
MG-364	Mixing cup		2	
MG-409	Nozzle cuspidor/cup filler		2	
MG-767	Separation wall, cup		2	
MR-075	Filter for suction hoses	2	2	
MR-150	Gasket, seat valve 2/2		12	
SA-024	O-ring, Bien Air micro motors	6	6	
SD-307	O-ring, Ø 12 X 1,5		1	
UA-093	Rubber pad, foot control		4	
UC-064	O-ring, for filter holder (on suction hoses)	2	2	
UC-152	Tube for filter, 6/4 PA (1meter)		1	
UG-288	Sliding disc Ø32X18		1	
UG-638	Fitting, POM Ø6 female - G1/8 NSF	2	2	
UH-471	O-ring, bottle connector, EPDM10 x 2.2	4	4	
UH-082	Gasket, seat for valve AC-524 Viton	1	1	
UH-236	Water filter, 65 micron, Viton o-ring		1	
UH-246	O-ring, for mixing cup		2	
UH-247	O-ring, for cupfiller and cuspidor nozzle		4	
UH-073	O-ring, for instrument holder (water clean plate)	2	2	
UH-200	XO Water Softener - filter cartridge	1	1	
UH-239	Test strip, Peroxide	2	2	
UH-343	Screw M4 x10 Torx, Nylon	3	3	

Table 2 – Content of XO Service kits

XO 4 & XO FLEX – Preventive service and safety inspection – YB-595 Ver. 3.10

Ref.	Description	Service A	Service B	Service C
		(AP-655)	(AP-656)	(AR-119)
UH-435	Fitting, metal Ø10 - 1/8" NSF	1	1	
UH-436	Fitting, metal female-female Ø10	1	1	
UG-922	Vacuum signal tubing 6mm, for select vac valves			2 x 1 Meter
AP-336	Connector kit Suction Disinfection, for select vac			2
UH-201	XO Water Softener, Filter cartridge head			1
MH-655	Battery 2032, bridge			1
UH-519	Fitting 6mm, Main water valve, stand			2
UG-315	O-ring, bayonet connector on instrument hose			10
UH-149	O-ring, bayonet connector on instrument hose			24
UG-848	O-ring, water valves, stand and bridge			12
MR-202	O-ring, for instrument blocks, bridge			24
UH-076	O-ring, Proportional water valve, bridge			1
FS-078	Tubing green, flowmeter, proportional water valve			60 cm
MG-075	Cover plate, link 1, bridge arm			1
MG-880	Rubber housing, level detector			2
AN-011	Balanced suspension roll			6
UG-323	O-ring, flowmeter, bridge			2
UH-522	O-ring Main water valve			1
MR-227	O-ring Ø3x1. FPM			8
UG-661	Fitting 4-6mm, 90-R1/8 Viton			1
UG-656	Fitting, Reduction, ø6/ø4, POM, EPDM			1
UG-657	Fitting, 90 degree, Ø6/Ø6 POM, EPDM			2
AP-040	Start block with fittings			1

3.2 RECOMMENDED SPARE PARTS AVAILABLE

In addition to the service kits, it is recommended to have the access to the following spare parts as they may need to be replaced:

Ref	Description
UG-800	Solenoid valve, 2-way, water
UG-803	Solenoid valve, 2-way, spray air
AN-298	Sensor PCB to water clean/ suction disinfection systems
AN-374	PCB, level sensor
UG-333	O-ring for operating light, handle friction, 2 pcs.
MV-018	Rubber for joystick, old model, long
MG-743	Rubber for joystick, new model, short
MG-746	Plastic shoe protection for patient chair, standard upholstery
MG-880	Housing, rubber for level detector AN-374
MG-980	Plastic shoe protection for patient chair, XO SCUBA or XO Comfort upholstery
UG-315	O-ring Ø3,3 x 0,6 NBR
UH-149	O-ring Ø1,5 x 0,7 Viton
AN-903	Proportional Valve, Water

Table 3 – Other important spare parts

3.3 CONSUMABLES

Most of the O-rings used in the equipment are made of Nitril, EPDM and Viton. We recommend using YR-032 Paraliq to grease these O-rings, especially those in contact with water. YR-032 is approved for food machinery and contains no dangerous substances.

Table 4 - Consumables

Ref.	Description
YR-026	Darina R2 grease, 100 ml (Spindle Lifting Motors)
YR-032	Paraliq grease, 100 ml (O-rings, Valves)
YR-033	Sunaplex 781 grease 100 ml (Chair Guide)

3.4 SPECIAL TOOLS

Please make sure that you have the following special tools available:

Table 5 – Special tools

Ref	Description
SD-388	Pin spanner to adjust the neck rest
FA-400	Flowmeter, for micro motor cooling air
FA-041	Manometer 4-hole for air instrument (turbine) drive air
UC-600	Antistatic hand strap
AN-900	Firmware updater with latest firmware or PC with XO Toolbox program can also be used)
n/a	Empty container for Water Disinfection/Suction Disinfection test

4 FIGURES

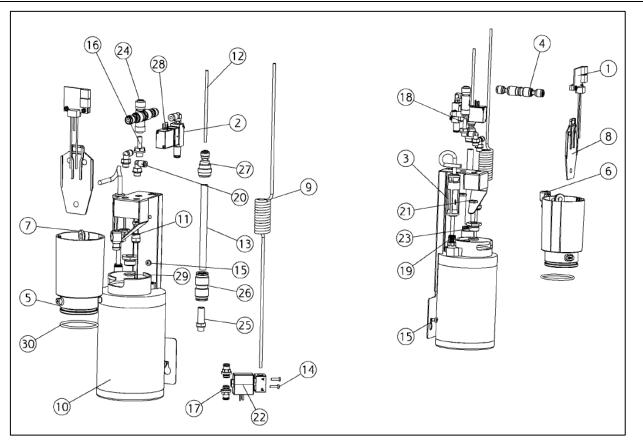


Figure 1

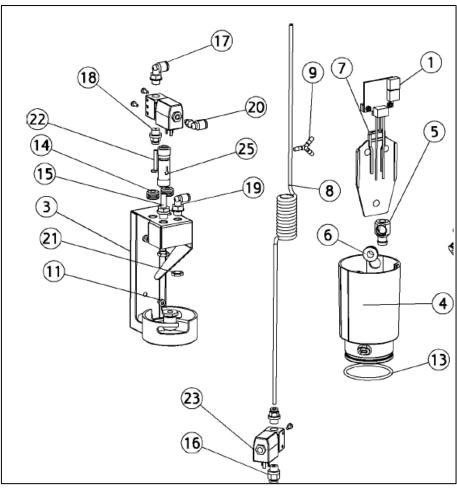


Figure 2

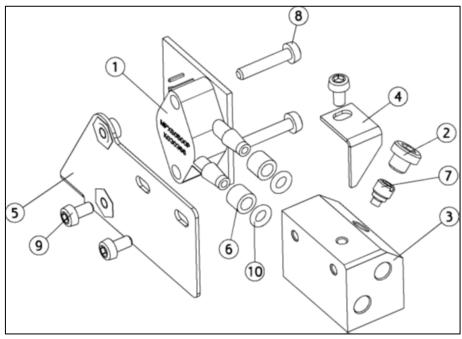


Figure 3

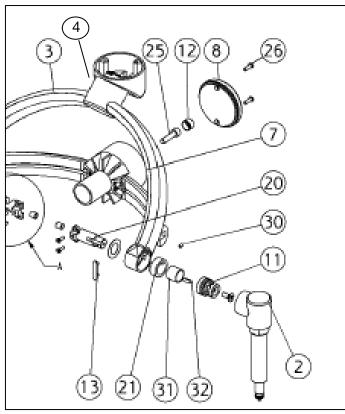


Figure 4

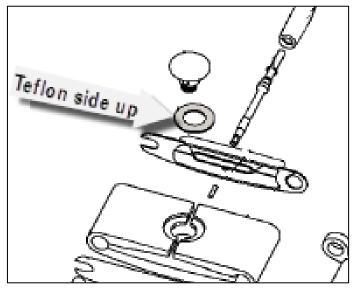


Figure 5

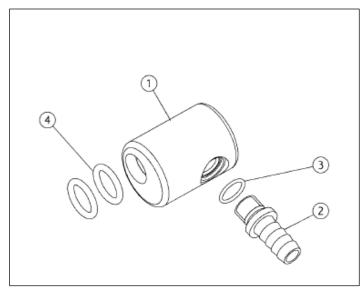


Figure 6

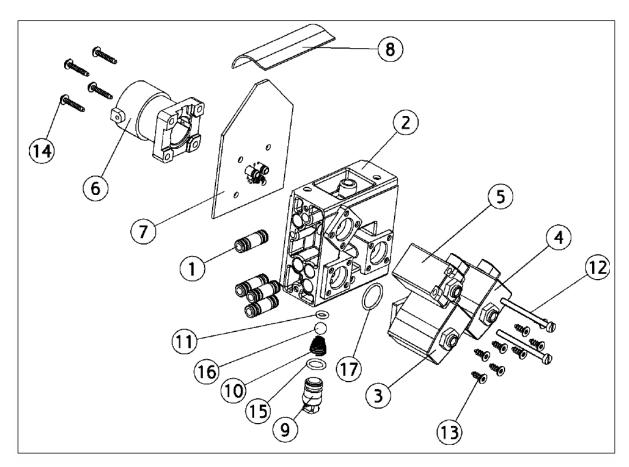


Figure 7

XO 4 & XO FLEX – Preventive service and safety inspection – YB-595 Ver. 3.10

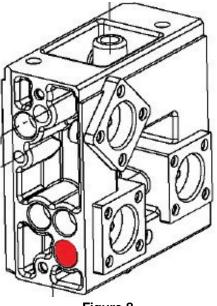


Figure 8



Figure 9

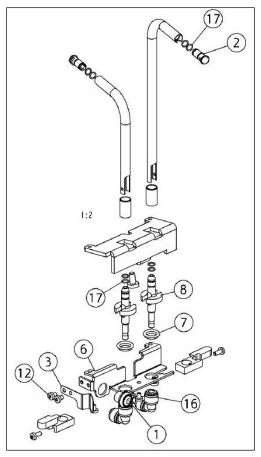


Figure 10

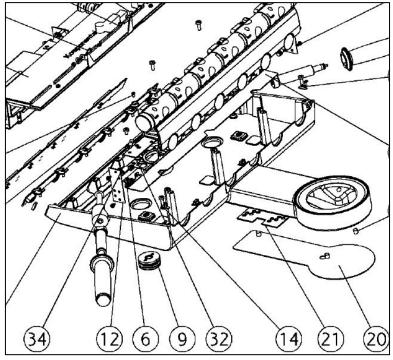
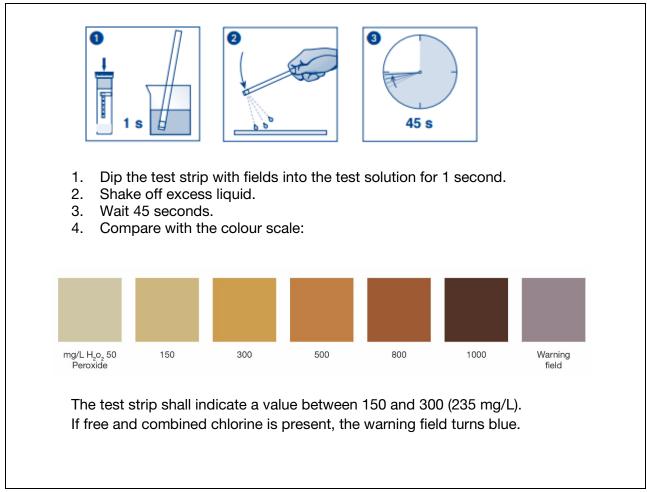


Figure 11





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4.1 SYMBOLS

	Table 6 – List of symbols						
	Warning Used to emphasize important safety related information about the use of the device.						
4	Warning: dangerous voltage						
0	Mandatory action						
	Static electricity. The equipment must be turned off and you need to be electrically connected to the framework of equipment (earthed) when touching sensitive electronics components or installing cables and plugs. We recommend the use of a wrist band which can be supplied to you by XO.						

Appendix I – Service and inspection checklist

Preparation				1. Conduct a functional test of the unit.
				2. Ask the dental operator if he/she have experienced any issues
				with the equipment. Repair of any lack/defect before the service is
				not necessarily a part of the service.
				3. Shut off the water supply to the unit.
				4. Remove the unit stand panels.
				5. Empty the two mixing cups inside the unit using the saliva suction.
				6. If B1 service (only relevant if XO 4 unit), please start with B78.
Unit stand	A1	B1		Retrofit the fixed water regulator (AP-108).
			C1	Water valve group: Replace the O-ring (UG-848) on all water valves.
		B2		Water valve group: Open and clean all water valves. Add a thin layer
				of Paraliq grease (YR-032) to the plungers and replace the gaskets
				(MR-150). Follow the instructions in "Maintenance of water valves"
				(YB-790) available at xo-care.com.
			C2	
	A2	B 3		Main water valve: Open and clean the valve inside and add a thin
				layer of Paralig grease (YR-032) to the plunger and replace the
				gasket (UH-082). Follow the instructions in "Maintenance of water
				valves" (YB-790) available at xo-care.com.
			C3	
		B 4	00	Main air valve: Check if air is leaking from the top when unit is in
			normal operation.	
			C4	
		Dr	64	Replace the water softener filter head (UH-201) .
	A 3	B5		Replace the water softener filter cartridge (UH-200).
XO Water		B6		Replace the mixing cup ($MG-364$) – see (5) in Figure 1.
Clean and				Re-use the overflow nozzle – see (6) and (7) in Figure 1.
backflow		B 7		Replace the separation wall (MG-767) – see (8) in Figure 1.
prevention		B 8		Replace the O-ring (UH-246) and grease it with Paraliq (YR-032) –
				see (30) in Figure 1.
	A 4	B 9		Replace the 6mm fitting (UG-638) on top of the backflow prevention
				tank – see (19) in Figure 1.
			C5	
				regulator.
	 			Replace the water filter (UH-236) – see (3) in Figure 1.
		B10		Use the UC-152 6mm water tubing to connect the filter and cut the
				tubing to fit.
		B11		Disassemble and clean the valve (UG-809) – see (29) in Figure 1.
	A5	B12		Replace the Ø10 fittings on top of the backflow prevention tank (UH -
	~~	012		435) & (UH-436) – see (25) & (26) in Figure 1.
	A6	B13		Clean the metal sensor pins carefully and mount the new mixing
		515		cup.
				If Service A, clean the mixing cup before remounting it.
	A7	B14		
	A7	D14		Replace the O-rings (UH-471) for the Water Clean fluid container
				located on the service hatch. Add a thin layer of Paraliq grease (YR-
	<u> </u>		000	032) on the O-rings
			C 6	Replace the rubber housing (MG-880) on the level sensor PCB for
	1			the Water disinfection fluid container located on the service hatch.

			1		
	A 8	B15		Replace O-rings (UH-073) in the cup filler connector on the	
				instrument holder – see (4) in Figure 6.	
XO Suction		B16		Replace the mixing cup (MG-364) see (5) in Figure 2	
Disinfection				Re-use the overflow nozzle – see (5) and (6) in Figure 2	
		B17		Replace the separation wall (MG-767) – see (7) in Figure 2.	
B18 Replace th Figure 2.			Replace the O-ring (UH-246) and grease it with Paraliq – see (13) in Figure 2.		
A9 B19 Replace the 6mm fitting (UG-638) located mixing cup.		Replace the 6mm fitting (UG-638) located in the bottom of the mixing cup.			
	A10	B20		Clean the metal sensor pins carefully and mount the new mixing cup.	
				If Service A, clean the mixing cup before remounting it.	
	A11	B21		Replace the two O-rings (UH-471) for the Suction Clean fluid container located on the service hatch. Add a thin layer of Paraliq grease (YR-032) on the O-rings.	
			C7	Replace the rubber housing (MG-880) on the level sensor PCB for the Suction disinfection fluid container located on the service hatch.	
Suction and drain system				Note: Wear protective gloves!	
	A12	B22		Disassemble the suction manifolds and clean the housing and the	
				vacuum valves carefully. If B-service replace the two vacuum valves	
				(AE-124) and apply a thin layer of Sunaplex grease (YR-033) on the	
rubber part.		rubber part.			
			C 8	Replace the connectors (AP-336) for the yellow 6mm tubing on the	
	suction manifolds.		suction manifolds.		
	A13	B23		Replace the filters <i>MR-075</i> in the suction hoses, and the O-ring <i>UC-</i> <i>064</i> at the filter housing.	
	A14	B24		Cuspidor valve, Combi-Sepamatic and Combi-separator from Dürr	
				Dental, please follow manufacturer's maintenance instructions.	
				See http://www.duerrdental.com/en/services/download-centre/ . In search function type "Spittoon valve", "CS 1" & "CAS 1"	
				Cuspidor valve : Clean the yellow filter and check rinsing function by pressing the button at the switch module for 3 seconds. The suction	
				unit must operate, and the cuspidor valve must open (sounds of	
				suction from cuspidor bowl and waste connection).	
				Check function of Reed contact and clean the float contact and	
				storage container (housing).	
				Combi-Sepamatic CS 1: Clean the yellow filter and follow the	
				maintenance instructions from Dürr.	
				Combi-separator CAS 1: Clean the yellow filters and follow the	
				maintenance instructions from Dürr.	
			C9	Retrofit 2 x 1 meter (UG-922) blue transparent 6mm vacuum tubing	
				between the suction valves V16 and V17 and the separation system.	
				See Figure 9 for routing instructions.	
Cuspidor and cup	CuspidorB25Check the drainage system from cup filler and cuspidor is n leaking or clogged.		Check the drainage system from cup filler and cuspidor is not		
-		220		leaking or clogged.	
filler		B26		leaking or clogged. Replace nozzles and O-rings in flushing pipe and cup filler pipe, (<i>MG-409</i>) and (<i>UH-247</i>). Add a little Paraliq grease (YR-032) to the	

			010	Contace the fittings (IIC 667) 8 (IIC 66	G) under the ten plate on the	
			C10	Replace the fittings (UG-657) & (UG-656) under the top plate on the connectors for cup filler and cuspidor – see (16) in Figure 10.		
Foot control	A15	B27		Check the cable for visible damages and replace if necessary. (Part		
		521		no. CA-009).		
A16 B28				Check the rubber feet on the foot cont	rol (UA-093) for wear and tear,	
				eplace if B-service. If A-service, please		
				control is sliding on the floor.		
Instrument			C11		rvice C, please use surface	
bridge				protection (towel, mat, etc	c) to protect the working	
				area / table surface. Risk	of colored water!	
			C12	Remove the entire instrument block as	sembly from the bridge and	
				eplace the O-rings (MR-202) – See (1)	in Figure 7 - in the water-	
				a rrying channels (marked with red in	Figure 8) between the	
				instrument blocks. Add a thin layer of YR-032 Paraliq grease to the		
				O-rings.		
			C13	Replace the start block/syringe block (AP-040).		
			C14	Check the end-stop bracket is located		
				nstrument – see (12) in Figure 11. If no	-	
			_	o the last water carrying instrument to		
			C15	Vater valves - Replace the O-ring (UG	-	
		B29		Vater valves, - Open and clean the wa		
				ayer of Paraliq grease (YR-032) to the		
				askets (MR-150). Follow the instruction		
			040	alves" (YB-790) available at xo-care.c		
			C16	Replace the O-ring (UH-076) located b	• •	
				alve and the brass bottom of the prop		
		B30		roportional water valve is located on t		
		D 30		Replace the O-ring (SD-307) on the pro- petween the white block and brass bot	-	
				alve).		
		B31		Check nozzle in flowmeter – see (7) in I	Figure 3. The hole of 0.5mm	
				hall be clean.		
			C17	Replace the O-rings (UG-323) inside th	ne flowmeter. See (10) in	
				igure 3.		
		-	C18	Replace the O-rings (MR-227) on the g	reen tubing connectors for	
				he flowmeter and on the green tubing	connectors on the start block.	
				dd a thin layer of YR-032 Paraliq grea	se to the O-rings.	
			C19	Replace the green tubing (FS-078) rout	ted between the flowmeter	
				nd instrument block for the syringe ar	nd replace the green tubing	
				etween the proportional water valve a		
		B32		Inplug suspension hoses one by one a		
				orrosion and signs of leaking water. If		
				heck O-rings at the connectors and re	eplace if necessary. Part no.	
				JG-315 & UH-149.		
				Be sure the connectors are dry when	-	
			C20	Replace O-rings (UG-315) on all suspe		
				hin layer of YR-032 Paraliq grease to t		
			C21	Replace O-rings (UH-149) on all suspe		
			000	hin layer of YR-032 Paraliq grease to t	ne U-rings.	
			C22	Replace all suspension rolls (AN-011).		

				Adjust the balance of the suspension rolls. The suspensions must
				not "pull" on the instrument, it should only have just enough tension
				to carry the weight of the instrument hose while the instrument in
				pulled forward.
	A17	B 33		Suction hose holder on instrument bridge – check function and
				inspect plastic part for cracks etc. Replace plastic part if necessary -
				Auto return version for XO4 has part no. MG-986, and for XO FLEX
				the part no. is AP-278.
	A18	B34		Check function of tray holder and adjust if necessary.
			C23	Replace the 2032 coin cell battery (MH-655) on bridge pcb AN-368.
Instruments			C24	Adjust the water and air on the mechanical valves on the top of the
				syringe block.
	A19	B 35		Syringe, check function. For 3F syringe check air, water and spray.
				For 6F syringe check same as for 3F syringe and heated air, heated
				water and heated spray.
	A20	B36		Air instrument (turbine) – connect manometer and check (Adjust in
				technician menu if necessary):
				Drive air max, should be approx. 3 Bar.
				Drive air min. should be approx. 1.5 Bar.
				 A/R Air (Anti-Retraction Air): should be adjusted to have very
				small amount of airflow without the turbine burr spinning.
	A21	B 37		Micromotor Bien Air MC3 and MX2 – check light function and adjust
	AZI	D 37		cooling air to 10l/min if necessary. If abnormal noise, please
				consider repair of micromotor.
	A 00	D 20		
	A22	B38		Replace O-rings (SA-024) on micromotors.
	A23	B 39		Ultrasonic scaler: Check function of power, irrigation and light (if
		B 40		relevant).
	A24	B40		Composite curing light: Check function.
	A25	B41		Video camera; Check function.
	A26	B42		XO OSSEO surgery motor: Check function.
Operating	A27	B43		Check the reflector for cracks. If reflector is broken,
light				please replace with:
				AO-472 KIT, REFLECTOR (LED TYPE)
				KT-032 KIT, REFLECTOR (HALOGEN TYPE)
	A28	B44		Check the focus (distance 70 cm). Light field shall be a well-defined
				square. Focus can be adjusted with the adjustment screw - see (25)
				figure 4.
	A29	B45		Check the friction in the light head by moving the head up/down -
				left/right with the handles. The movement shall be "smooth", without
				being too easy or too difficult to move. Adjust the friction by means
				of the small Allen screw – see (30) and (4) in Figure 4.
	A30	B46		Check function of operating light sensor. Switch between ON/OFF
				and toggle between three intensity levels by holding you hand under
				the sensor.
XO HD	A31	B47		Check function of the display. ON/OFF and clear picture with no
Display		571		discoloring.
		D40		-
Patient chair		B48		Neck rest friction brake, replace (UG-288) with Teflon side up - see
				Figure 5.

				Adjust the friction by means of our special tool (SD-388) and check
				that the neck rest can be positioned in all working positions and
				locked safely with the handle.
	A32	B49		Check and grease (if necessary) motor spindle in both unit stand and
				chair. Use Darina R2 grease (YR-026).
	A33	B50		Check and grease (if necessary) the sliding surfaces of the chair guide.
				Use Sunaplex grease (YR-033). If adjustment is needed, please refer
				to "Patient Chair carriage adjustment" (YB-782) available at
				xo.care.com.
	A3 4	B51		Check function of backrest motor. Operate it up and down with the
				foot control and check for abnormal noise.
	A35	B52		If patient chair is not moving normally, a synchronization "SYNC" of
				the chair might be necessary.
	A36	B53		Check that the patient chair can be operated to the pre-programmed
				positions with the chair program joystick.
	A37	B54		Check upholstery parts, - if visible damages please inform the
				clinic/dentist. Instruct the clinic regarding maintenance of upholstery
				if necessary.
	A38	B55		XO Suction hose holder on patient chair – check function and
	1.00	200		inspect plastic part for cracks etc. Replace if necessary, MG-989
				(Auto return version XO 4) or AP-735 (Auto return version XO FLEX).
Arm systems	A39	B56		Please carefully inspect all arm systems for
Ann Systems	700	000		abnormal noise when moved vertically/horizontally.
				Check that all joints look normal without abnormal
				gap between upper and lower part. If the inspection
				reveals any abnormalities, please follow the
				instructions in "Inspection and adjustment of arms
				<i>instructions in "Inspection and adjustment of arms (YB-772) available at xo-care.com.</i>
	A40	B57		<i>instructions in "Inspection and adjustment of arms</i> <i>(YB-772) available at xo-care.com.</i> Check and adjust if necessary the balance and friction brakes of the
	A40	B57		<i>instructions in "Inspection and adjustment of arms (YB-772) available at xo-care.com.</i>
	A40	B57		<i>instructions in "Inspection and adjustment of arms</i> <i>(YB-772) available at xo-care.com.</i> Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light.
	A40	B57		<i>instructions in "Inspection and adjustment of arms</i> <i>(YB-772) available at xo-care.com.</i> Check and adjust if necessary the balance and friction brakes of the
	A40	B57		 <i>instructions in "Inspection and adjustment of arms</i> (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. <u>Adjustment of the balance/vertical lift mechanism:</u> Should be adjusted so that the arm requires an equal amount of force
	A40	B57		 <i>instructions in "Inspection and adjustment of arms</i> (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. <u>Adjustment of the balance/vertical lift mechanism:</u> Should be
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	A40	B57		 <i>instructions in "Inspection and adjustment of arms</i> (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. Adjustment of the balance/vertical lift mechanism: Should be adjusted so that the arm requires an equal amount of force to move up and down/feel weightless. Note: Friction brake for the vertical lift should be loose before adjusting the balance. Instrument bridge arm: The balance should be adjusted with handpieces/contra-angles fitted on the instruments and with the average weight on the tray (if fitted) Adjustment of friction brakes: Should be adjusted to be as loose as possible to allow the dentist to move the arms effortlessly, but not so loose that the arms move when a patient is getting in/out of the patient chair, or when the patient tray is removed from/fitted onto the instrument
	A40	B57	C25	 <i>instructions in "Inspection and adjustment of arms</i> (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. Adjustment of the balance/vertical lift mechanism: Should be adjusted so that the arm requires an equal amount of force to move up and down/feel weightless. Note: Friction brake for the vertical lift should be loose before adjusting the balance. Instrument bridge arm: The balance should be adjusted with handpieces/contra-angles fitted on the instruments and with the average weight on the tray (if fitted) Adjustment of friction brakes: Should be adjusted to be as loose as possible to allow the dentist to move the arms effortlessly, but not so loose that the arms move when a patient is getting in/out of the patient chair, or when the patient tray is removed from/fitted onto the instrument bridge.
	A40	B57	C25	instructions in "Inspection and adjustment of arms (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. • Adjustment of the balance/vertical lift mechanism: Should be adjusted so that the arm requires an equal amount of force to move up and down/feel weightless. Note: Friction brake for the vertical lift should be loose before adjusting the balance. Instrument bridge arm: The balance should be adjusted with handpieces/contra-angles fitted on the instruments and with the average weight on the tray (if fitted) • Adjustment of friction brakes: Should be adjusted to be as loose as possible to allow the dentist to move the arms effortlessly, but not so loose that the arms move when a patient is getting in/out of the patient chair, or when the patient tray is removed from/fitted onto the instrument bridge. Replace the white cover plate (MG-075) located under the rear
	A40	B57	C25	 <i>instructions in "Inspection and adjustment of arms</i> (YB-772) available at xo-care.com. Check and adjust if necessary the balance and friction brakes of the arm systems for the instrument bridge, screen and OP light. Adjustment of the balance/vertical lift mechanism: Should be adjusted so that the arm requires an equal amount of force to move up and down/feel weightless. Note: Friction brake for the vertical lift should be loose before adjusting the balance. Instrument bridge arm: The balance should be adjusted with handpieces/contra-angles fitted on the instruments and with the average weight on the tray (if fitted) Adjustment of friction brakes: Should be adjusted to be as loose as possible to allow the dentist to move the arms effortlessly, but not so loose that the arms move when a patient is getting in/out of the patient chair, or when the patient tray is removed from/fitted onto the instrument bridge.

		DEC	
Firmware	A41	B5 8	Check the firmware version by switching the unit off and back on.
			Firmware version will be shown in display. Please update firmware if
			newer version is available. Use Firmware updater part no. AN-900 or
			your lap top with XO Unit Toolbox installed. Latest firmware version
		DEO	available from xo-care.com.
	A42	B59	Check the version of XO Smart Link if applicable and update if
			necessary. Please note, that the version of XO Smart Link is
			depending on the version of unit firmware. Before updating the
			version, you can save the configuration and user settings/profiles.
			How to instructions can be found in the "YB-670 XO Smart Link
		Boo	howto's" available on XO-care.com
	A43	B60	Set up the next date for preventive service in the technician menu – normally one year ahead.
Final	A44	B61	Check the function of level sensor (AN-374) for water clean on the
Inspections		DUT	service hatch using an empty test container.
inspections			Please note that it might be necessary to fit the service panel to
			prevent "false" light to interfere with the sensor.
	A45	B62	Check the dosing pump for water clean works correct by emptying
			the mixing cup with the saliva suction hose. The dosing pump
			should be activated for a couple of seconds each time the mixing
			cup is emptied if the sensor PCB works correct.
	A46	B63	Check function of XO Water Clean system:
			Instrument holder is placed on the cuspidor bowl and all
			water-carrying instruments are pulled forward and placed in
			holder. Activate FLUSH process by pressing the cup filler
			button at the top plate.
			When process is finished, and the instrument holder is
			removed, the cup filler-button is activated to get water in the
			cup. Test the water with the test strip as described in Figure
			12.
			If the water quality is not ok, please refer to the trouble shooting
			guide YB-907 and execute a new test . (Use a new strip every time
			you perform a test)
			If the water quality is OK, please leave the extra test strip at the clinic
			and instruct the dental operator on how to perform the test again in
			6 months.
	r		
	A47	B64	Check that no water bubbles occur in the mixing cup when the
	A47	B64	Check that no water bubbles occur in the mixing cup when the backflow prevention tank is pressurized.
	A47 A48	B64 B65	
			backflow prevention tank is pressurized.
			backflow prevention tank is pressurized.Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger.Test cuspidor flush and cup filler by pressing the buttons on top
	A48	B65	backflow prevention tank is pressurized.Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger.
	A48 A49	B65 B66	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary.
	A48	B65	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the
	A48 A49	B65 B66	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container.
	A48 A49	B65 B66	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container. Please note that it might be necessary to fit the service panel to
	A48 A49	B65 B66	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container. Please note that it might be necessary to fit the service panel to prevent "false" light to interfere with the sensor.
	A48 A49	B65 B66	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container. Please note that it might be necessary to fit the service panel to prevent "false" light to interfere with the sensor. Check that the flushing system for suction clean is working (water is
	A48 A49 A50	B65 B66 B67	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container. Please note that it might be necessary to fit the service panel to prevent "false" light to interfere with the sensor. Check that the flushing system for suction clean is working (water is being pulled from the mixing cup to the two suction filters via the
	A48 A49 A50	B65 B66 B67	 backflow prevention tank is pressurized. Water leak sensor - Functional test. Check the main water valve is closing if the sensor pins are "shorted" with a wet finger. Test cuspidor flush and cup filler by pressing the buttons on top plate. Adjust water amount at the knobs in the unit stand if necessary. Check the function of level sensor (AN-374) for Suction Clean on the service hatch using an empty test container. Please note that it might be necessary to fit the service panel to prevent "false" light to interfere with the sensor. Check that the flushing system for suction clean is working (water is

			 Check that the flushing system is NOT in function during the suction clean sequence. Meaning that no water is flushing the two suction filters.
			 Check that the dosing pump for suction clean works, the
			dosing pump should run for a couple of seconds between each time the cup is emptied during the sequence.
	A53	B70	Calibrate the foot control as described in "XO 4 and XO FLEX, Calibration of foot control" – please see xo-care.com.
	A54	B71	Functional test of patient chair - Check for abnormal noise and check that chair can move upwards with load.
	A55	B72	XO Peristaltic Pump: Check function and rotation.
Germany only!		B73	A safety test must be completed every second year according to German legislation. Please see "Medizinproduktebuch" (YB-021) available at xo-care.com.
Finish	A56	B74	Check for leaking water inside the unit stand before fitting the panels.
	A57	B75	Fit panels and clean the unit and patient chair
	A58	B76	Check that all unit functions are OK
Instruct user and document the service and safety inspection	A59	B77	Review the service and findings with the dental operators. Explain about the available Infection Control Kits incl. new suction hoses etc. Check that the operatory has a sufficient stock of consumables: XO Water Disinfection, XO Suction Disinfection cartridges & hygiene kits (suction hoses, etc.)
	A60	B78	Fill out the table below, file Appendix 1 in the Instructions for Use and email a copy to <u>technicalservice@xo-care.com</u> for future documentation purposes.

Dental operatory (stamp):
Date:
Unit serial No.:
Service Type: A B B1 C
Notes:
Date of next service:
XO authorized service provider – company & signature:
Date of next service:

Appendix II – Additional checklist for XO 4 only

Unit without Water softener (B1 kit, AP- 657)	B79	Retrofit the XO Water softener. Please follow the separate instruction "YB-981" delivered with AP-657. Proceed with the B-service from B1.
Instrument bridge	B80	 Unplug suspension hoses one by one and inspect connector for corrosion and signs of leaking water. If signs of leaking water, please check O-rings at the connectors and replace if necessary. Part no. UG-315 & UH-149. If O-rings are OK, then it might be necessary to replace suspension PCB to avoid further leaking and possible destruction of suspension tubing! Please refer to our website and repair kits: KT-045 - 2pcs AN-510 and 3pcs AO-328 KT-046 - 2pcs AN-510, 1pcs AO-328 and 2pcs AO-318
Arm systems - Inspection	B81	Please follow the separate inspection procedure described in document YB-772. See XO web: <u>http://xo-care.com/distributor/SignIn.aspx</u>

Products XO 4 XO FLEX

2021-07-01 Ref. YB-595 Ver. 3.10

Subject to change.

C€2460



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