EVOS[™] Onstage Incubator O₂ Sensor Replacement Kit

Catalog Number AMEP4947

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Note: For safety and biohazard guidelines, see the "Safety" appendix in the EVOS[™] M7000 Imaging System User Guide (Pub. No. MAN0018326) or the EVOS[™] M5000 Imaging System User Guide (Pub. No. MAN0017563). Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Kit contents

- O₂ sensor
- O-ring

- 2-mm Allen wrench
- Instructions

Replace the O₂ sensor

- 1. Power off the EVOS[™] Onstage Incubator, then unplug the power cord, the USB cable, and the 6-pin sensor data cable from the control unit of the incubator.
- 2. Turn off the regulators on the gas tanks, then detach the gas lines from the control unit.
- 3. Use the 2-mm Allen key to remove the 3 button head screws, then slide out the side panel.



4. Unplug the O_2 sensor's connector (1): plugged, (2): unplugged).







5. Unscrew the O_2 sensor.

Note: You might need to use pliers (not included in the kit) to overcome the initial friction. If using pliers, do not apply excessive pressure to prevent damage to the sensor.



6. Verify that the O-ring (1) is installed on the new O_2 sensor. If not, install the O-ring as shown in the image.



7. Screw in the new O_2 sensor until the O-ring is compressed between the clear manifold block and the O_2 sensor.



8. Plug in the O_2 sensor's connector (1).



- 9. Install the side panel and secure it with the 3 button head screws.
- 10. Calibrate the new O_2 sensor.

Calibrate the O₂ sensor (EVOS[™] M7000 Imaging System)

- 1. Plug the power cord into the power input jack on the control unit and the wall outlet.
- 2. Connect the control unit and the computer with the USB cable, then plug the 6-pin sensor data cable from the environmental chamber into the appropriate input jack on the control unit.
- 3. Re-attach the gas lines (Air and Nitrogen or CO₂) via the PTC (push-to-click) connectors to the control unit, then turn on the valves on the gas tanks and regulators.
- 4. First turn on the EVOS[™] Onstage Incubator, then power on the EVOS[™] M7000 Imaging System.
- 5. Start the EVOS[™] M7000 Software, navigate to the Settings tab (1) in the upper right of the screen, then open the Incubator menu (2).



Settings tab

② Incubator menu

6. Open the Oxygen sensor > Calibrate controls (1) from inside the Incubator window.

\	Capture	Automate	Review	Settings
		Incu	bator	
		toff		
(Temperature			
	Static Offset: 0	°C		
	Gas Inputs			
	Port1			
	Premix:	0.00 % CO2 2	0.00 % O2	
	Vort2: Nitro	gen		
1	Vort3: CO2			
	Oxygen sensor			
1				
	This process wil	l take approximately	three minutes	
	Please verify ga proceeding.	s configuration and s	set oxygen content b	efore
2-		5 Reset Def		
	Which purge ga	s source would you lik	te to use for the calibr	ation process?
3	Nitrogen			
4	Begin Calibra			
			Cancel	Done

- ① Calibrate controls
- ② Oxygen %

- ③ Purge gas selection
- ④ Begin Calibration button
- Set the Oxygen % (2) to the oxygen content of the air used by the system.
 Note: The default value for Oxygen % is 20.95% for normal compressed air.
- 8. Select the purge gas to use: Nitrogen or CO_2 (3).
- Press Begin Calibration (4) to start the calibration routine. The calibration process takes approximately three minutes to complete. When complete, the system displays the "Calibration was successful." message next to the Begin Calibration button.
 - If there was an error during calibration, the system displays the "Calibration error, please check if gas is connected." message.
- 10. In case of a calibration error, verify that the gas is connected, the gas valves and regulators are on, and the correct gas was selected as the purge gas, then repeat the calibration routine.

Note: If the calibration error persists, contact Technical Support.

11. Press Done when finished.

Calibrate the O₂ sensor (EVOS[™] M5000 Imaging System)

- 1. Plug the power cord into the power input jack on the control unit and the wall outlet.
- 2. Connect the control unit and the computer with the USB cable, then plug the 6-pin sensor data cable from the environmental chamber into the appropriate input jack on the control unit.
- 3. Re-attach the gas lines (Air and Nitrogen or CO₂) via the PTC (push-to-click) connectors to the control unit, then turn on the valves on the gas tanks and regulators.
- 4. First turn on the EVOS[™] Onstage Incubator, then power on the EVOS[™] M5000 Imaging System.
- 5. Start the EVOS[™] M5000 Software, click the Settings button ① in the upper right of the screen, then click to open the Incubator menu ②.

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			Sett	ings		1
	Objective Selection and Calibration					
	✓ Visuals					
	▲ General					
	• Filt	er Cubes				
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	🔷 Ser	rvice				
2—	- 🕑 Inc	ubator				
	Status: Firmware: Chamber I Serial Nun	Firmware: nber:	Connected App: 1.0.44736 / E App: 1.0.44579 123-fakeSN	3L: 1.0.1234 3		
	N	Main Incu	bator Control	Oxygen Sensor C	alibration	
		Incuba	tor Setup			
			\sim	\sim		

③ Oxygen Sensor Calibration button

- Settings button
 Incubator menu
- 6. Click Oxygen Sensor Calibration (3) in the Incubator menu to open the Incubator Oxygen Sensor Calibration window.

	Incubator Oxygen Sensor Calibration	
1-	Please verify the gas configuration and set oxygen content before pr O ₂ 20.95 % Reset Default	roceeding.
2-	Which purge gas would you like to use for the calibration?	
	Begin Calibration = 3	Cancel Close

- ① Oxygen %
- ② Purge gas selection

- ③ Begin Calibration button
- Set the O₂ % (1) to the oxygen content of the air used by the system.
 Note: The default value for O₂ % is 20.95% for normal compressed air.
- 8. Select the purge gas to use: Nitrogen or CO_2 (2).

9. Click Begin Calibration (3) to start the calibration routine.

The calibration process takes approximately three minutes to complete. When complete, the system displays the "Calibration was successful." message under the Begin Calibration button.

If there was an error during calibration, the system displays the "Calibration error, please check if gas is connected." message.

10. In case of a calibration error, verify that the gas is connected, the gas valves and regulators are on, and the correct gas was selected as the purge gas, then repeat the calibration routine.

Note: If the calibration error persists, contact Technical Support.

11. When finished, click Close to close the calibration window, then click Done to go back to the main instrument screen.

Limited product warranty

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Revision	Date	Description
A.0	02 November 2021	New document

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