

ECO SENSORS, INC.

OZONE SOURCE CALIBRATOR MODEL OG-2

INSTRUCTIONS FOR USE

GENERAL

The OG-2 Ozone Source Calibrator has been developed to fulfill the need for field calibration of our ozone instruments. It uses a precision UV micro-lamp that emits .1 ppm of ozone for an easily-followed set of calibration conditions. The OG-2 does not substitute for a complete laboratory set-up generally required for primary calibration. The OG-2 is very useful for checking instruments in the field to verify that they are basically still within calibration, and it can be used to recalibrate them at .1 ppm if usable but not standards-traceable calibration is all that is required. Otherwise, the OG-2 is still useful to indicate when an ozone sensing instrument should be returned to the laboratory for recalibration.

OPERATION

The OG-2 and the ozone sensing instrument to be checked should be placed on a table top in a room free of air currents and extraneous gases and chemical vapors. There should be no VOCs (volatile organic compounds) present.

Push the red button down to turn the OG-2 calibrator on. If the lamp does not light in about 20 seconds, there is probably a problem with the battery. The lamp's blue light can be observed through a small hole near the end of the lamp shield. If the lamp is not operating, slide back the battery access cover and test the battery or put in a fresh one.

Allow the calibrator to run for about three minutes after the ozone sensing instrument to be tested has warmed up for 20 minutes. Find the small hole near the end of the lamp shield and orient it so that it is emitting ozone in a horizontal direction when the instrument is lying on a table. The hole on the lamp shield should be oriented so that the sensing instrument under test is pointing towards it on a horizontal plane parallel with the table top. The gas inlet tip of the sensing instrument should be at a calibrated distance from the hole on the lamp shield. The calibrated distance for your lamp, typically 3 mm, is found on the lamp handle. After about a minute the instrument should respond and will climb to a steady value. When the OG-2 ozone calibration source and the sensing instrument under test have stabilized (the ppm reading does not change for about 10 seconds or so) the data should be noted, and the OG-2 should be turned off to save battery power and lamp life.

If the ozone instrument under test does not respond to the OG-2, try holding the instrument sensor right at the OG-2 lamp hole (no spacing), and when the instrument begins to respond, move the instrument slowly away until the sensor and lamp spacing is as indicated on the lamp handle.

SERVICE AND MAINTENANCE

The battery should be replaced immediately if the warm-up to full ozone output takes longer than 3 minutes. When in doubt, put in a fresh battery. The battery should be replaced after 2 hours of operation (10-50 calibrations) and the lamp after 100 hours of operation. The battery should not be used if its output is below 8.5 volts.

Do not attempt board-level repairs yourself. There is very high voltage in the lamp circuit.

BATTERY - Use standard alkaline 9 volt snap-in batteries, preferably top-quality long life. When traveling, you may want to disconnect or remove the battery to prevent the calibrator from inadvertently being turned on. Always carry at least one spare battery.

LAMP - the lamp is replaced as an assembly with its cord, plug, and shield. Specify part number OG-2-L.

WARRANTY

This product is warranted against defects in materials and workmanship for one year following the date of purchase of the original owner. This warranty does not cover damage to the product as result of misuse, accident, damage, modifications or alterations, and does not apply if the instructions in this manual are not followed.

If the product should become defective during the warranty period, it should be returned freight prepaid with proof and date of purchase and a description of the problem to your distributor or to the address indicated by calling Eco Sensors, Inc. customer service at (800) 472-6626 or e-mailing at sales@ecosensors.com.

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