

GAZ-CAL

Calibration Gas Generator

OPERATOR'S MANUAL



gas detection | designed for support | gastech.com

Contents

Introduction	1
Specification	1
Maintenance	2
Instrument Packing List/Layout	3
Operation	4
Warnings	5
Troubleshooting	5

INTRODUCTION

The GazCal™ is a gas generator that produces concentrations of Chlorine (CL₂) for testing and calibrating gas detectors. The unit is battery operated and is designed for field applications.

The GazCal™ uses an electrochemical cell to produce the gas. A cloudy controlled airflow, provided by an internal pump, then dilutes the gas to the required concentration.

SPECIFICATION

Concentration range:	Adjustable between 0.5 and 20ppm ±10% or 0.25ppm whichever is greater
Calibration:	0.5 - 5ppm or 5 - 20ppm
Flow rate:	0.5 l/min or 1 l/min
Cell Life:	500ppm hours
Power Supply:	Internal rechargeable battery
Battery Life:	Typically 12 hours between charges
Dimensions (mm):	260 W x 110 D x 210 H
Weight:	2 Kg
Operating Temperature:	0 – 50°C
Cleaning:	Use moist cloth only – do not immerse in water
Delivery tube material:	PTFE and/or polyurethane recommended

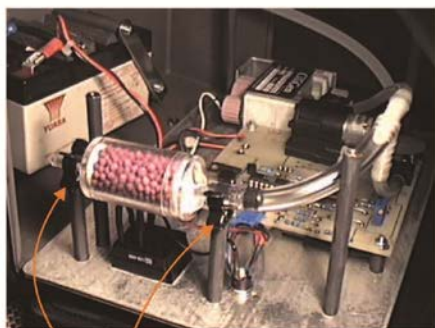
MAINTENANCE

Replacing Internal Air Filter



1. Remove 4 off front panel retaining screws

2. Carefully swing front panel clear of casing



3. Lift filter from spring clip holders

4. Replace with new filter



INSTRUMENT PACKING LIST/LAYOUT

Pack Contents List

1. GazCal™
2. Shoulder Strap
3. 1m of Polyurethane tubing
4. Charger
5. Operating Manual

Instrument Layout

1. On/Off Switch
2. Cell Life Indicator
3. Blockage LED
4. PPM Adjust Knob
5. PPM Display
6. Battery Charging Socket
7. Gas Outlet Connector



OPERATION

Ensure adequate ventilation during operation, Chlorine (even at low concentration) can be harmful. See MSDS for further product safety information.

1. Open front cover to expose control panel.
2. Check 'CELL LIFE REMAINING' indicator has not reached 0. If indicator has reached 0, do not attempt to use as the generating cell needs to be replaced. The generating cell can be replaced by either:-
 - a. returning the GazCal™ to Gastech (or local representative) or,
 - b. fitting a new cell yourself – new cells from Gastech come with full instructions.
3. Push outlet pipe firmly into gas outlet connector.
4. Toggle ON/OFF switch to 'ON' position. If low battery symbol appears on the display, switch instrument 'OFF' and connect 'GazCal™ CHARGER' via charge socket and charge instrument for eight hours. Alternatively the instrument can be run from the charger.
5. Ensure 'BLOCKAGE' LED is not illuminated. If the 'BLOCKAGE' LED is illuminated, check outlet pipe for blockages. If the 'BLOCKAGE' LED remains illuminated the internal air filter may need replacing. The life of the air filter depends upon the atmosphere which the instrument is used in, but should always be replaced every 3 MONTHS.
6. Rotate 'PPM ADJUST' knob until the desired concentration is displayed. Allow 3 minutes for the generating concentration to stabilise. The instrument is now ready for use. Note the GazCal™ has been designed to work in the upright position, but can be used with the front cover either open or closed.
7. Before switching the GazCal™ 'OFF', the instrument must be purged. To purge the instrument, simply rotate the 'PPM ADJUST' knob until 0.0 PPM Cl₂ is displayed, and allow instrument to run for one minute before switching instrument 'OFF'.
8. Remove gas outlet pipe by pressing release ring of outlet connector towards the case, and pull gas outlet pipe out of outlet.

WARNINGS

- Do not inhale output gas
- Do not immerse in water
- Ensure dry, compatible materials in delivery system
- Allow sufficient time for gas concentration to stabilise after switch on
- Always purge the instrument after use
- Under extreme fault conditions the unit could generate up to 100ppm Chlorine

TROUBLESHOOTING

Q The 'CELL LIFE REMAINING' indicator shows 0?

A The generating cell can be replaced by either:

- a. returning the GazCal™ to Gastech (or local representative) or
- b. fitting a new cell yourself – new cells from Gastech come with full instructions.

Q Low battery symbol appears on the display?

A Charge instrument with 'GazCal™ CHARGER' for eight hours

Q The 'BLOCKAGE' LED is illuminated?

- A**
1. Check that the gas outlet pipe is no longer than 1m in length, as supplied by Gastech.
 2. Ensure that any adaptors on calibration cups fitted to the outlet do not cause restrictions to the gas flow.
 3. Check gas outlet pipe for blockage.
 4. Replace internal air filter (as detailed on page 4).

Q Your GazCal™ is dropped or immersed in liquid?

A Return the instrument to Gastech or the local representative for checking.



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