

MODEL 1200-26
CALIBRATION GAS DELIVERY SYSTEM

**Sierra Monitor Corporation
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CALIBRATION GAS DELIVERY SYSTEM**



APPLICABILITY & EFFECTIVITY

This manual provides instructions for the following Sierra Monitor products:

<u>Model</u>	<u>Description</u>
1200-26	Model 26 Calibration Gas Delivery System

The instructions are effective for the above models as of October 16, 1996

Instruction Manual Part Number: T15001
IM22/1096

1. FRMC APPROVAL

The Model 26 (1200-26) Calibration Gas Delivery System and Methane calibration gas cylinders are approved for calibration of Factory Mutual Research Corporation (FRMC) Approved Sierra Monitor Combustible Gas sensors.

2. PRODUCT DESCRIPTION

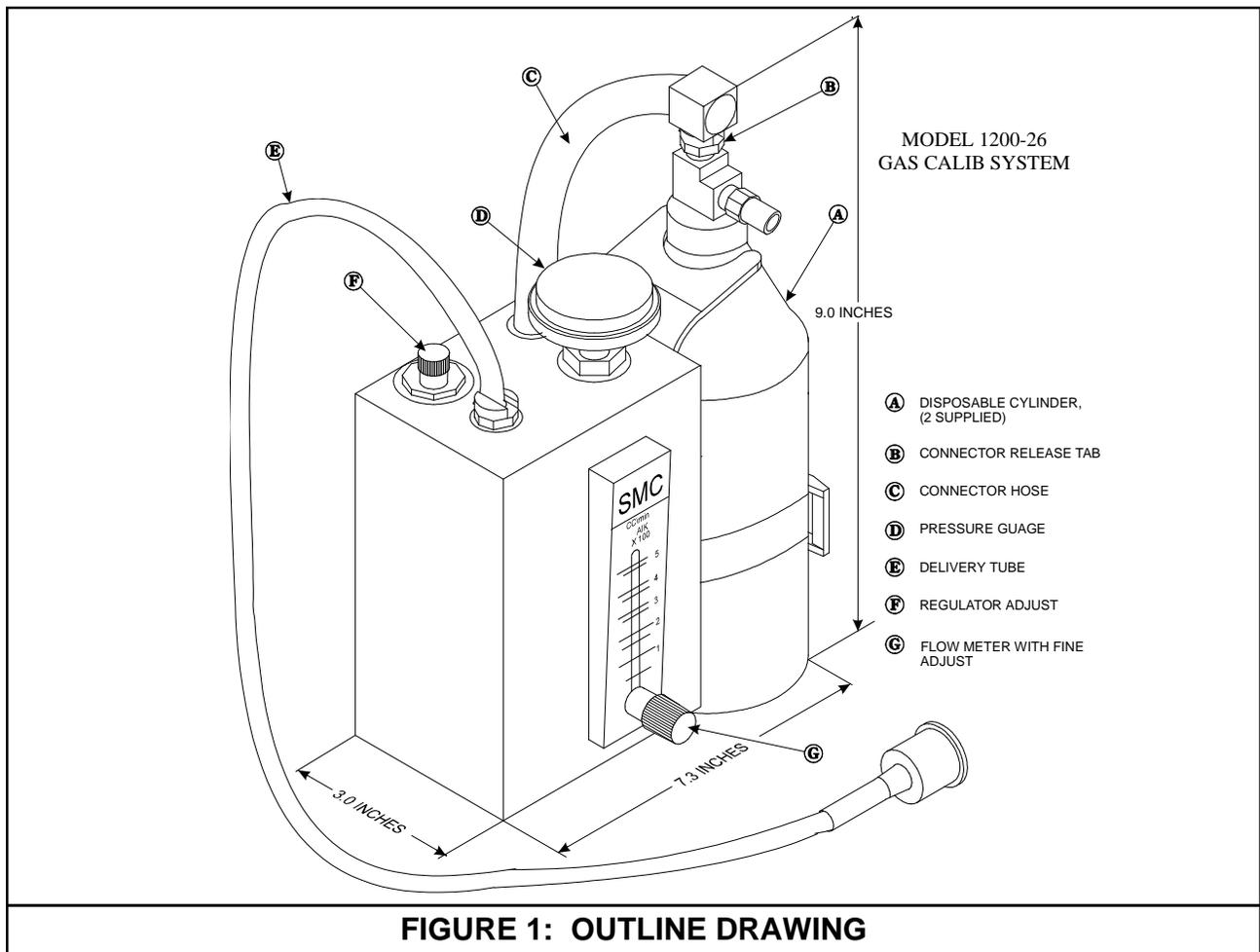
The Calibration Gas Delivery System consists of a disposable pressure vessel containing calibration gas and a non-disposable pressure and flow regulating system. The hardware is designed to maintain a low flow of gas to increase the life of the disposable cylinder.

Calibration gas cylinders can be ordered from Sierra Monitor Corporation in any concentration of combustible gas, carbon monoxide gas or oxygen mixed in air. Each cylinder is labelled with the gas content. A plastic carrying case is also available.

3. OPERATION INSTRUCTIONS

3.1. CYLINDER INSTALLATION AND FLOW ADJUSTMENT

- Turn the regulator adjust (brass knob on top of calibrator) counter clock-wise two turns to be sure valve is "off" before gas cylinder is installed.
- Turn flow meter off clock-wise.
- Press the connector release tab on the cylinder valve to position it to receive the connector to the calibrator unit. Press the male connector on the blue gas tube firmly into the cylinder valve until the click indicates that the fitting has seated. (Moistening the O-ring may facilitate insertion).



- Install the cylinder into the bracket on the side of the monitor.
- At this time the cylinder pressure can be read on the gauge on the top of the calibrator. New cylinders are shipped packed at a maximum of 150 psi.
- Turn the pressure regulator adjust clockwise to provide pressure to the flow meter.
- Adjust the flow meter flow fine adjust to provide a flow rate as specified below and in the specific gas sensor module instruction manual. (If the float is not stable, turn the regulator adjust clockwise to provide more back pressure to the flow meter.
- Remember to turn the flow meter “off” to save gas at any time calibration is interrupted.
- When calibration is complete, disconnect the cylinder from the blue tube by pressing the quick release tab.

SAFETY NOTE: Removal of the blue tube from the cylinder while the cylinder is pressurized will cause the tube to “pop” out with a loud noise. Point the cylinder away from personnel prior to pressing the release tab.

3.2. CALIBRATION

- The fitting on the end of the delivery tube is different for each sensor package. Follow the calibration instruction for the specific device as outlined in the respective monitor instruction manual.

Model/Product	Recommended Calib. Filter	Recommended Rate	Flow Time
20X/200X	22048	50	0.5 min.
2400	22048	50	0.5 min.
4101-02	5358-00/01	100	2-3 min.
4101-04	5358-00/01	150	2-3 min.
4101-07	5358-00/01	300	2-3 min.
4101-16	5358-00/01	300	2-3 min.
5100-02	5358-00	100	2-3 min.
5100-04	5358-00	150	2-3 min.
5100-07	5358-00	300	2-3 min.

TABLE 1: CALIBRATION ADAPTERS

3. SPECIFICATIONS

CALIBRATOR

DIMENSIONS:	4 X 7 X 3 Inches (10.2 x 17.8 x 7.6 cm) (excluding cylinder)
WEIGHT:	2.0 pounds (1.2 Kg) (excluding cylinder)
STORAGE TEMPERATURE:	-40°F to +131°F (-40°C to +55°C)
OPERATION TEMPERATURE:	+37°F to +110°F (+3°C to +44°C)

CYLINDER

MATERIAL:	Aluminum
USE:	Non-Refillable
BURST:	Minimum burst 600 psi
TEST:	Leak Test 225 psi
PRESSURE:	Shipping Pressure: Max 150 psi
REGULATIONS:	Cylinders prepared and labeled in accordance with Federal (DOT) Regulation 39, and Title 49 CFR (DOT Registration No. M-1083)

SPARE PARTS

Calibration Gas Cylinders

1290-01	Gas Cylinder - Air (20.9% Oxygen)
1290-02	Gas Cylinder - Methane 50% L.E.L.
1290-03	Gas Cylinder - Methane 5,000 PPM
1290-04	Gas Cylinder - Methane 1,000 PPM
1290-05	Gas Cylinder - Carbon Monoxide 100 PPM
1290-06	Gas Cylinder - Hydrogen 50% L.E.L.
1290-07	Gas Cylinder - Hydrogen 500 PPM
1290-08	Gas Cylinder - Carbon Monoxide 25 PPM
1290-98	Gas Cylinder - Non Standard Mixture
1290-99	Gas Cylinder - Non Standard Gas Type

Calibration Options & Accessories

5358-00	Calibration Adapter - Direct, Magnetic
5358-01	Calibration Adapter - Direct, Standard
5360-00	Calibration Gas Delivery Fitting - Fixed
SPB32064	Plastic Carry Case for 1200-26
SPB33048	Delivery Tube/Fitting for 1200-26
SPB64011	Delivery Tube, 3 foot
SPB69036	O-Ring for 1200-26 (5 pack)

Note: Only 1290-02 (Methane 50% L.E.L.) is FMRC Approved

LIMITED WARRANTY

SIERRA MONITOR CORPORATION warrants its products to be free from defects in workmanship or material under normal use and service for one year after date of shipment. SMC will repair or replace without charge any equipment found to be defective during the warranty period. Final determination of the nature and responsibility for defective or damaged equipment will be made by SMC personnel.

All warranties hereunder are contingent upon proper use in the application for which the product was intended and do not cover products which have been modified or repaired without SMC approval or which have been subjected to accident, improper maintenance, installation or application, or on which original identification marks have been removed or altered. This Limited Warranty also will not apply to interconnecting cables or wires, consumables (ie. calibration gases, batteries), nor to any damage resulting from battery leakage.

In all cases SMC's responsibility and liability under this warranty shall be limited to the cost of the equipment. The purchaser must obtain shipping instructions for the prepaid return of any item under this warranty provision and compliance with such instruction shall be a condition of this warranty.

Except for the express warranty stated above, SMC disclaims all warranties with regard to the products sold hereunder including all implied warranties of merchantability and fitness and the express warranties stated herein are in lieu of all obligations or liabilities on the part of SMC for damages including but not limited to consequential damages arising out of/or in connection with the use or performance of the product.