

Calibration Test System Model RP Check Kit Using Flow Control Part No. 467895

For use with Mini H₂S Hydrogen Sulfide Indicator

PARTS REQUIRED	PART NO.
Flow Control	467895
Tubing	449482
Calibration Adapter	465898
Calibration Gas, Hydrogen Sulfide, 10 ppm in Nitrogen	467898

Instructions

The instrument must be turned ON for at least 1/2-hour to stabilize the zero reading after replacing the instrument sensor or battery.

1. Install the sensor plug to keep any H₂S in the atmosphere from entering the sensor.
2. Press the display switch once to turn ON the display. Wait 30 seconds for the display to stabilize.
3. If display does not read zero or 1, remove the back of the case. Locate the ZERO potentiometer, and adjust it to obtain zero.

Span Calibration

Guidelines for Reactive Calibration Gases

As more unstable gases are used to calibrate the instrument, the following gases require special handling by the user to maintain their stability:

- Chlorine (Cl₂)
- Hydrogen sulfide (H₂S)
- Nitric Oxide (NO)
- Nitrogen Dioxide (NO₂)
- Sulfur Dioxide (SO₂)
- Hydrogen cyanide (HCN)

These calibration gas cylinders containing these reactive gas mixtures are subject to contamination from the sampling system, atmospheric moisture, and oxygen. The following general instructions will aid in eliminating common operator errors when using the gas mixtures and supplied-pressure regulators.

- a. Before attaching the regulator to the RP cylinder, make sure the regulator's ON/OFF knob is turned ON. Once the regulator is fully engaged in the cylinder, turn the regulator knob OFF until ready to use. This procedure will help prevent trapped atmospheric air in the regulator from being injected into the cylinder.

- b. Do not store your cylinders with the regulator engaged in the cylinder valve. Use the cylinder's primary sealing mechanism, the built-in valve, to ensure product quality. The regulator is not designed to be a primary sealing mechanism against product contamination.
 - c. Do not over-tighten the regulator ON/OFF knob when turning the regulator OFF. After the regulator is turned OFF, it takes a few seconds for the flow to stop because the pressure in the regulator body is being relieved.
 - d. Always store cylinders in a clean, cool, and dry area.
 - e. Unused cylinders are less subject to degradation over time than used cylinders. Whenever possible, finish a used cylinder before using a new cylinder.
4. Remove sensor plug.
 5. Install the calibration adapter to the sensor.
 6. Install the flow control on the calibration gas tank.
 7. Connect the tubing to the adapter and to the flow control.
 8. Open the valve on the flow control to expose the sensor to H₂S; wait 3 to 5 minutes.
 9. Adjust the SPAN potentiometer to obtain the proper reading.
 10. Shut off the flow control.
 11. Remove the tubing from the adapter and from the flow control.
 12. Remove the flow control from the calibration gas tank.
 13. Remove the calibration adapter from the sensor.

▲ WARNING

The sensor plug and the calibration adapter must be removed from the sensor to sample atmospheres for hydrogen sulfide.

Calibration Test System Model RP Check Kit Using Flow Control Part No. 467895

For use with Hydrogen Sulfide Detector, Model 580 and Model 516 Series 500 Remote Sensing Systems

PARTS REQUIRED	PART NO.
Flow Control	467895
Calibration Plug	456673
Tubing	449482
Zero Plug	69217
Calibration Gas, Hydrogen Sulfide, 40 ppm in Nitrogen	467897
Instruction Manual	468220

Instructions

1. Screw the plastic zero plug into the end of the sensor inlet fitting and wait 5 minutes for the sensor to "use up" any trapped H₂S.
2. Observe the meter indication and, if necessary, adjust the ZERO control to obtain a reading of zero.

Guidelines for Reactive Calibration Gases

As more unstable gases are used to calibrate the instrument, the following gases require special handling by the user to maintain their stability:

- Chlorine (CL₂)
- Hydrogen sulfide (H₂S)
- Nitric Oxide (NO)
- Nitrogen Dioxide (NO₂)
- Sulfur Dioxide (SO₂)
- Hydrogen cyanide (HCN)

These calibration gas cylinders containing these reactive gas mixtures are subject to contamination from the sampling system, atmospheric moisture, and oxygen. The following general instructions will aid in eliminating common operator errors when using the gas mixtures and supplied-pressure regulators.

- a. Before attaching the regulator to the RP cylinder, make sure the regulator's ON/OFF knob is turned ON. Once the regulator is fully engaged in the cylinder, turn the regulator knob OFF until ready to use. This procedure will help prevent trapped atmospheric air in the regulator from being injected into the cylinder.
- b. Do not store your cylinders with the regulator engaged in the cylinder valve. Use the cylinder's primary sealing mechanism, the built-in valve, to ensure product quality. The regulator is not designed to be a primary sealing

mechanism against product contamination.

- c. Do not over-tighten the regulator ON/OFF knob when turning the regulator OFF. After the regulator is turned OFF, it takes a few seconds for the flow to stop because the pressure in the regulator body is being relieved.
 - d. Always store cylinders in a clean, cool, and dry area.
 - e. Unused cylinders are less subject to degradation over time than used cylinders. Whenever possible, finish a used cylinder before using a new cylinder.
3. Remove the zero plug from the inlet fitting.
 4. Attach the flow control to the calibration gas tank.
 5. Screw the calibration plug to the inlet fitting.
 6. Attach the tubing to the plug and flow control.
 7. Open the flow control valve.
 8. After approximately 3 minutes, the meter should be stable and indicating within the acceptable range for the calibration gas used. Adjust the SPAN control at the Control Unit, if necessary, to obtain 40 on the meter. See the instrument Instruction Manual for complete calibration details.
 9. Close the flow control valve.
 10. Disconnect the tubing from the flow control and plug.
 11. Remove the calibration plug from the inlet fitting.
 12. Remove the flow control from the calibration gas tank.

▲ WARNING

Make sure the zero and calibration plugs are not left on the sensor inlet fitting at the end of the calibration procedure; otherwise the sensor cannot sample the atmosphere for hydrogen sulfide.