

Calibration Kits

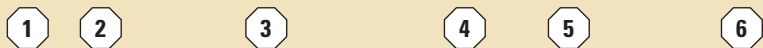
For Calibrating Instruments and Sensors



MSA Calibration Kits, when used with the appropriate calibration gas, offer a quick, convenient, and economical method of checking the response of MSA gas sensors and gas detection instrumentation. There are fourteen types of calibration kits available, and one is made to calibrate your particular MSA

sensor or instrument. These calibration kits contain all the necessary calibration components to calibrate your MSA equipment. They are housed in a lightweight carrying case so that they can be easily carried to the job site or sensor location.

A-CAL



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Calibration Kit Number

- 40 - Diffusion Ultima, Ultima X & Toxgard II sensor for:
 - Carbon monoxide Hydrogen
 - Oxygen IR Combustible & CO₂
 - Hydrogen sulfide Nitric oxide
 - Sulfur dioxide Ammonia
 - ~Ethylene oxide Combustible gas
- 41 - Diffusion Ultima, Ultima X & Toxgard II sensors for:
 - Chlorine * Arsine
 - Chlorine dioxide Phosphine
 - Nitrogen dioxide * Germane
 - Hydrogen chloride ^ Diborane
 - Hydrogen cyanide + Bromine
 - Silane + Flourine
- 42 - Pumped Ultima, Ultima X & Toxgard II or RSS sensors for:
 - Carbon monoxide Oxygen
 - Hydrogen sulfide Sulfur dioxide
 - Nitric oxide Combustible gas
- 43 - Pumped Ultima, Ultima X & Toxgard II or RSS sensors for:
 - Chlorine Chlorine dioxide
 - Nitrogen dioxide Hydrogen chloride
 - Hydrogen cyanide
- 44 - Ultima, Auto-calibration, MultiGard Cylinder holder provided instead of suitcase p/n 710483
- 45 - Diffusion sensors for:
 - Carbon monoxide Oxygen
 - Hydrogen sulfide Nitrogen dioxide
 - Nitric oxide
- 46 - Diffusion combustible (non Ultima sensors)
- 47 - Diffusion sensors for:
 - Chlorine Sulfur dioxide
 - Hydrogen chloride Nitrogen dioxide
- 48- Pumped Toxgard for:
 - Chlorine Sulfur dioxide
 - Hydrogen cyanide
- 49 - Z Gard for:
 - Carbon monoxide R11
 - R12 R-22
 - R-134A Ammonia
 - Nitrogen dioxide
- 50 - Chillgard RT, Chillgard L Series or Chemgard
- 51 - Model 3600 for:
 - Carbon dioxide and all remote sensor models (F - Regulator)
- 52 - Model 3630
- 53 - SAFESITE

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Regulator

- Kit 40 - F
- Kit 41 - E
- Kit 42 - H
- Kit 43 - H
- Kit 44 - I
- Kit 45 - E
- Kit 46 - E
- Kit 47 - E
- Kit 48 - H
- Kit 49 - E
- Kit 50 - F
- Kit 51 - F or G or H
- Kit 52 - E
- Kit 53 - E, F, or H

Regulator types:

- E - 0.25 LPM, p/n 467895
- F - 1.50 LPM, p/n 467896
- G - Demand regulator, p/n 710288
- H - Matched flow, p/n 697344
- I - Constant pressure, p/n 710315

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Calibration Gas Cylinder

- 00000000 - None required or see Calibration Gases, RP Type Table

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2nd Calibration Kit Number

- 00 - None required or choose number from Item 1

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2nd Regulator

- 0 - None required or choose number from Item 2

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2nd Calibration Gas Cylinder

- 00000000 - None required or see Calibration Gases, RP Type Table



Typical Calibration Kit: Contains instruction sheet, zero and span cylinders, regulators, tubing and accessories all contained in a convenient carrying case.

PART NUMBER	CHEMICAL NAME	CONCENTRATION	DESCRIPTION
10044014*	NH3	300 ppm	Ammonia in Nitrogen
10028076*	NH3	25 ppm	Ammonia in Nitrogen
479265	CO2	2.50%	Carbon Dioxide in Air
479266	CO2	2000 ppm	Carbon Dioxide in Air
806735	CO2	100 ppm	Carbon Dioxide in Nitrogen
807386	CO2	1.50%	Carbon Dioxide in Nitrogen
807387	CO2	15%	Carbon Dioxide in Nitrogen
801041	CO2, CH4	1300 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801042	CO2, CH4	2000 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801043	CO2, CH4	3300 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801044	CO2, CH4	6600 ppm, 2.5%	Carbon Dioxide, Methane in Nitrogen
801045	CO2, CH4	1.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801046	CO2, CH4	3.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801047	CO2, CH4	6.6%, 2.5%	Carbon Dioxide, Methane in Nitrogen
801048	CO2, CH4	33.3%, 2.5%	Carbon Dioxide, Methane in Nitrogen
10028050	CO	50 ppm	Carbon Monoxide in Air
710882	CO	60 ppm	Carbon Monoxide in Air
10028052	CO	100 ppm	Carbon Monoxide in Air
10028054	CO	200 ppm	Carbon Monoxide in Air
10027938	CO	300 ppm	Carbon Monoxide in Air
10028048	CO	400 ppm	Carbon Monoxide in Air
10028056	CO, CH4	60 ppm CO, 2.5% CH4	Carbon Monoxide, Methane, 15% O2 in Nitrogen
10010162	CO CH4, O2	300 ppm CO, 1.45% CH4, 15% O2	Carbon Monoxide, Methane, Oxygen in Nitrogen
804770*	CO, CH4 O2, H2S	300 ppm, 1.45%, 15%, 10ppm	Carbon Monoxide, Methane, Oxygen, H2S in N2
710331*	CL2	2 ppm	Chlorine in Nitrogen (used for ClO2 Cal too)
10028066*+	CL2	10 ppm	Chlorine in Nitrogen
10028046	H2	0.80%	Hydrogen in Air
10022386	H2	500 ppm	Hydrogen in Nitrogen
10028078*	HCL	40 ppm	Hydrogen Chloride in Nitrogen
10053747*	HCL	10 ppm	Hydrogen Chloride in Nitrogen
10028072*	HCN	10 ppm	Hydrogen in Cyanide in Nitrogen
710414*	H2S	5 ppm	Hydrogen Sulfide in Nitrogen
10028060*+	H2S	10 ppm	Hydrogen Sulfide in Nitrogen
10028064*	H2S	15 ppm	Hydrogen Sulfide in Nitrogen
10028062*	H2S	40 ppm	Hydrogen Sulfide in Nitrogen
10089547	H2S	250 ppm	Hydrogen Sulfide in Nitrogen
10028038*+	Isobutylene	100 ppm	Isobutylene in Air
10028032	CH4	2.50%	Methane in Air
801049	CH4	6.60%	Methane in Nitrogen
10028022	CH4, O2	1.45%, 15%	Methane, Oxygen in Nitrogen
10028020	CH4, O2, CO	1.45%, 15%, 60 ppm	Methane, Oxygen, Carbon Monoxide in Nitrogen
10028058*	CH4, O2, H2S	1.45%, 15%, 10 ppm	Methane, Oxygen, Hydrogen Sulfide in Nitrogen
10028074*	NO	50 ppm	Nitric Oxide in Nitrogen
481317#	N2	99.90%	Nitrogen (O2 Zero)
710332*	NO2	5 ppm	Nitrogen Dioxide in Air
10028068*	NO2	10 ppm	Nitrogen Dioxide in Air
493580	O2	5%	Oxygen in Nitrogen
10028028	O2	20.80% in Nitrogen	Oxygen in Nitrogen, Zero Air except for 3600
804532@	Pentane	0.75%	Pentane in Air, Substitute for Ammonia
10014894	Pentane	1000 ppm	Pentane in Air
710533*	Phosphine	0.5 ppm	Phosphine in Nitrogen
711054	C3H8	0.10%	Propane in Air
10028034	C3H8	0.60%	Propane in Air (Ultima Span)
10028044	C3H8, O2, CO	0.6%, 15%, 60 ppm	Propane, Oxygen, Carbon Monoxide in Nitrogen
806905	R-11	10 ppm	R-11 in Air
803499	R-11	100 ppm	R-11 in Nitrogen
812785	R-11	30 ppm	R-11 in Nitrogen
710880>	R-11	990 ppm	R-11 in Air
804866	R-12	100 ppm	R-12 in N2
812823	R-12	30 ppm	R-12 in Nitrogen
710878>	R-12	990 ppm	R-12 in Air
813368	R-113	30 ppm	R-113 in Nitrogen
804870	R-113	100 ppm	R-113 in N2
813369	R-114	30 ppm	R-114 in Nitrogen
806904	R-123	10 ppm	R-123 in Nitrogen
812784	R-123	30 ppm	R-123 in Nitrogen
711474	R-123	50 ppm	R-123 in Nitrogen
803498	R-123	100 ppm	R-123 in N2
806907	R-134A	10 ppm	R-134A in N2
803500	R-134A	100 ppm	R-134A in N2
812787	R-134A	30 ppm	R-134A in Nitrogen
710874>	R-134A	990 ppm	R-134A in Air5
806906	R-22	10 ppm	R-22 in Nitrogen
804868	R-22	100 ppm	R-22 in Nitrogen
812786	R-22	30 ppm	R-22 in Nitrogen
710876>	R-22	990 ppm	R-22 in Air
813370	R-500	30 ppm	R-500 in Nitrogen
813371	R-502	30 ppm	R-502 in Nitrogen
10014897*	Silane	5 ppm	Silane in Nitrogen
10028070*	SO2	10 ppm	Sulfur Dioxide in Air
10028042	Zero Air	20.8% Oxygen in Nitrogen	Zero Air

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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Calibration kits available for all MSA's gas detection products.

***Note:** All cylinders contain 98 liters at 1000 psi except those indicated by an *. They have 58 liters. 98 liters gives approximately 20 calibrations per cylinder.

+ Not to be used for Ultima sensors
@ Used only for Chillgard RT, substitute for ammonia.

Used as zero air for O2 Ultima sensors and all infrared instruments.

> Used for Z Gard only.