CALIBRATION ACCESSORIES



MSA offers a complete line of calibration equipment to calibrate all of your instruments accurately.

FEATURES

- MSA offers complete calibration equipment to fit your needs.
- MSA provides the most accurate calibration equipment money can buy
- All calibration equipment and accessories are certified and tested for accuracy.
- Most calibration accessories are designed for use with more than one instrument.
- All MSA calibration gas is supplied with an individual Certificate of Analysis and a MSDS sheet.
- MSA provides a recycling program for calibration gas.
- MSA's broad selection of calibration gas and accessories is designed for the most economical calibration.

DESCRIPTION

MSA Calibration Check Kits, when used with the appropriate calibration check gas, offer a quick, convenient and economical method of checking the response of gas detection instruments.

The Model R and RP Check Kits use

a cylinder containing a specific concentration of compressed calibration check gas. These kits are used for combustible gas detectors and certain multigas detectors.

Aerosol-type check kits are used for combustible gas calibration. The convenient 4-liter size cylinder (the same size as a shaving cream can) is easy to transport or store.

RECYCLING

Calibration Cylinders Are Recyclable!

MSA has affiliated with the Association of Retarded Citizens, Butler County—a nonprofit organization that employs mentally retarded citizens—and established a Cylinder Recycling Center. The calibration cylinders will not be refilled, but will be salvaged for scrap. ARC will properly dispose of empty calibration cylinders, and all money generated from scrap cylinders will be placed in the ARC operating fund for salaries and operating costs.

Calibration cylinders are considered hazardous unless the cylinders are deemed empty. MSA has developed special devalving tools that will

ensure the cylinder is empty and render the cylinder non-fillable. For your convenience, MSA also offers a specially pre-addressed shipping box (also recyclable) which will help you pay the lowest shipping costs available.



Why return calibration cylinders?

Save resources
Reduce landfill
Help mentally retarded citizens
Plan for the future
Tax deductible donation

Part No.	Description
711228	Devalving Tool, Model
	"RP" and Econo-Cal
	Cylinders
711229	Devalving Tool, Model
	"R" cylinders
711227	Shipping Box, Special,
	Pre-addressed

The MSA Recycling Center limits the return of calibration cylinders to MSA Logo cylinders only. Non-MSA cylinders will be rejected. Contact the Customer Service Center for additional details. 1-800-MSA-2222.

REGULATORS





Left: Model R Regulator (for Model R cylinders only); Right: Model RP Regulator (for Model RP and Econo-Cal cylinders)

.25/1.5 lpm Fixed Flow Regulators

Available in the Model R and Model RP, each with fixed flow rates of .25 and 1.5 lpm. Fixed design provides for accurate flow to the instrument pump or aspirator. Approved for all MSA calibration gases.

Part No.	Description
459949	Model R Cylinder .25 lpm
459948	Model R Cylinder 1.5 lpm
467895	Model RP Cylinder
	.25 lpm
467896	Model RP Cylinder
	1.5 lpm





Left: Model RP Gas Miser Regulator; Right: Model BD-20 Gas Miser Regulator

Gas Miser™ Demand Regulator Model RP

Commonly referred to as the intelligent regulator. Once attached to the calibration cylinder no additional maintenance is required for accurate calibration. The Gas Miser Regulator supplies the exact gas flow for the instrument pump or aspirator bulb. No ON/OFF valve is required because the regulator automatically turns itself off when not in use. Saves calibration gas.

Shipped complete with calibration tubing and special adapter fitting. Not for use with chlorine or ammonia.

Model BD-20

Same intelligent features as the Gas Miser Regulator, Model RP. The BD-20 is designed for use with BD-20 calibration cylinder. Also can be used with high pressure calibration cylinders that do not exceed 3000 psi. Supplied with a CGA 590 male thread. Shipped complete with calibration tubing and special adapter fitting. Not for use with chlorine or ammonia.

Part No.	Description
710288	Model RP Gas Miser
	Regulator
710289	Model BD-20 Gas Miser
	Regulator



Model RP Combination Regulators

Two regulators in one. Trigger activation allows bump test or calibration check in the SQUEEZE mode or fixed flow calibration in the up or LOCKED position. Designed for use with all Model RP and Econo-Cal calibration cylinders. Supplied with calibration tubing and special adapter fitting. Approved for all MSA calibration gases.

Part No.	Description
711175	Model RP Combination
	Regulator .25 lpm
711174	Model RP Combination
	Regulator 1.5 lpm



Natural Gas Demand Regulator

Low-pressure demand regulator designed for use with 100% natural gas. Demand feature automatically supplies the correct amount of gas required for correct calibration. No ON/OFF valve required; regulator automatically shuts off when not in use. Supplied with barb fitting and ½" NPT female barb-type thread.

Part No.	Description
710545	Natural Gas Demand
	Regulator



Matched Flow Regulator

The Matched Flow Regulator is just that. It allows the user to observe the calibration gas flow being delivered, by use of a flow meter. The flow indicator is color coded to ensure the desired gas delivery. The large adjustment knob allows the user to adjust as needed. Ideal for calibration requirements that require controlled positive pressure. Designed for use with all Model RP and Econo-Cal Cylinders.

Part No. Description 697344 Matched Flow Regulator

ACCESSORIES



Cylinder Holder

Cylinder holder is ideal for keeping the cylinder in a secure place. Ideal for work bench or work shelf. One-piece molded 1/8" styrene, with four non-skid mounting feet, designed to ensure the cylinder will not topple over. Usable with Model RP, Model R, and Econo-Cal cylinders. Size: 13" x 7" x 4".

Part No. Description 710386 Cylinder Holder



Dual Cylinder Holder

Wall or bench mount allows user to house two cylinders, with or without regulators attached. One can be the spare. Molded base locates cylinders in position. Easy to load and unload cylinder. Complete with securing straps and can house Model R, RP and Econo-Cal cylinders. Size: 17" x 10" x 3½".

Part No. Description 710483 Cylinder Holder



Gas Miser Manifold

Same size and unique features as the cylinder holder. The Gas Miser manifold is a real time saver. Supplied with hardware to bump test or calibrate instruments with or without the probe. Allows test or calibration of up to four instruments at the same time with the same calibration gas. Designed with no restrictions of loading or unloading. Must be used in conjunction with Gas Miser Regulator and can be used only with pumped or aspirated instruments. Gas Miser Regulator not included.

Part No. Description 710274 Gas Miser Manifold

CALIBRATION CYLINDERS

MSA offers a complete line of calibration gas cylinders to calibrate all instruments. Each calibration gas cylinder supplied by MSA is accompanied with a MSDS sheet and a Certificate of Analysis. Each cylinder lists the PPM or % gas contained in each cylinder. When calibrating MSA instruments, each calibration cylinder lists the proper instrument response settings. For calibration of non-MSA instruments, each calibration cylinder lists the actual gas fill in the cylinder. (When using MSA calibration gas to calibrate non-MSA instruments you must refer to the manufacturer's instruction manual for proper instrument response.)

MSA calibration cyinders are recyclable. Cylinders can be returned to the MSA Recycling Center c/o ARC-Butler Co. Contact your sales representative or the MSA Customer Service Center at 1-800-MSA-2222 for details

MSA supplies calibration gas in different sizes and fills. The large selection will allow you to choose the finest quality calibration gas at the most economical cost.





Size:
13¾" x 3"
Weight:
1 lb. 11 oz.
Material:
Aluminum
Contents:
58 liters
Pressure:

500 psig



Model RP Non-Reactive Cylinder

Size:
133/4" x 3"
Weight:
2 lb. 13 oz.
Material:
Steel (Beige)
Contents:
100 liters
Pressure:

1000 psig



Econo-Cal RP Reactive Cylinder

 Size:
 Size:

 11" x 23/4"
 103/4

 Weight:
 Weig

 1 lb. 1 oz.
 1 lb

 Material:
 Mate

 Aluminum
 Ster

 Contents:
 Contents:

 34 liters
 19 l

 Pressure:
 Press

 500 psig
 300



Model R Non-Reactive Cylinder

Size:
10¾" x 2¾"
Weight:
1 lb. 7 oz.
Material:
Steel (Red)
Contents:
19 liters
Pressure:
300 psig



Model BD-20 Non-Reactive Cylinder

Size:
25" x 41/4"
Weight:
10 lb.
Material:
Steel
Contents:
552 liters
Pressure:
2200 psig



Model RP Non-Reactive Cylinder—100% Methane

Size: 8½" x 3"
Weight: 1 lb. 13 oz.
Material: Steel (Beige)
Contents: 58 liters
Pressure: 1000 psig

Model RP Calibration Cylinder—Non-Reactive Gases, Steel Cylinder, 58 liters, 1000 psig

This calibration cylinder contains 100% methane. It is similar to the Model RP Non-Reactive Cylinder, except that it is shorter—only 8" tall. It will accept all Model RP calibration regulators. An odorant has been added so that the methane smells like the natural gas in all commercial gas lines. *This cylinder does not have a shelf life.*

Gas Fill	Gas Mixture	Background	Part No.
Methane	100% methane with odorant	_	711014

Model RP Cali	bration Cylinders—Reactive Gases, Aluminum Cylinder, 58	liters, 500 psig	<u> </u>
These cylinders have a	shelf life. Accuracy ± 5%.		
Gas Fill	Gas Mixture	Background	Part No.
Ammonia	25 ppm ammonia	air	814866
Chlorine	10 ppm chlorine	nitrogen	806740
	2 ppm chlorine	nitrogen	710331
Hydrogen Chloride	40 ppm hydrogen chloride	nitrogen	710210
Hydrogen Cyanide	10 ppm hydrogen cyanide	nitrogen	809351
Hydrogen Sulfide	40 ppm hydrogen sulfide	nitrogen	467897
	15 ppm hydrogen sulfide	nitrogen	806253
	10 ppm hydrogen sulfide	nitrogen	467898
	5 ppm hydrogen sulfide	nitrogen	710414
Nitric Oxide	50 ppm nitric oxide	nitrogen	812144
Nitrogen Dioxide	10 ppm nitrogen dioxide	air	808977
	5 ppm nitrogen dioxide	air	710332
Sulfur Dioxide	10 ppm sulfur dioxide	air	808978
Combination	2.5% methane, 300 ppm carbon monoxide, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	813720
	1.45% methane, 300 ppm carbon monoxide, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	804770
	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	804769
Phosphine	0.5 ppm phosphine	nitrogen	710533

Model RP Cal	ibration Cylinders—Non-Reactive Gases, Steel	Cylinder, 100 liters, 1000 ps	ig
These cylinders do no	ot have a shelf life. Accuracy ± 5%.		
Gas Fill	Gas Mixture	Background	Part No.
Air	air zero (THC < 1 ppm)	_	801050
Carbon Dioxide	2.5% carbon dioxide	air	479265
	2000 ppm carbon dioxide	air	479266
	33.3% carbon dioxide, 2.5% methane	nitrogen	801048
	6.6% carbon dioxide, 2.5% methane	nitrogen	801047
	3.3% carbon dioxide, 2.5% methane	nitrogen	801046
	1.3% carbon dioxide, 2.5% methane	nitrogen	801045
	6600 ppm carbon dioxide, 2.5% methane	nitrogen	801044
	3300 ppm carbon dioxide, 2.5% methane	nitrogen	801043
	2000 ppm carbon dioxide, 2.5% methane	nitrogen	801042
	1300 ppm carbon dioxide, 2.5% methane	nitrogen	801041
	100 ppm carbon dioxide	nitrogen	806735
	15% carbon dioxide	nitrogen	807387
	1.5% carbon dioxide	nitrogen	807386
Carbon Monoxide	400 ppm carbon monoxide	air	806255
	300 ppm carbon monoxide	air	473180
	200 ppm carbon monoxide	air	809243
	100 ppm carbon monoxide	air	809242
	50 ppm carbon monoxide	air	809241
	100 ppm carbon monoxide	nitrogen	806734

Model RP Calibration Cylinders—Non-Reactive Gases, Steel Cylinder, 100 liters, 1000 psig (cont.)

These cylinders do not have a shelf life. Accuracy \pm 5%.

Gas Fill	Gas Mixture	Background	Part No.
HCFC	100 ppm HCFC-123	nitrogen	803498
Hydrogen	0.8% hydrogen	air	803102
Isobutylene	100 ppm isobutylene	air	494450
Methane	2.5% methane	air	491041
	6.6% methane	nitrogen	801049
Nitrogen	100% nitrogen	-	481317
Nitrous Oxide	100 ppm nitrous oxide	nitrogen	806736
Oxygen	20.8% oxygen	nitrogen	479857
	5.0% oxygen	nitrogen	493580
Pentane	0.75% pentane (50% LEL)	air	804532
Propane	0.6% propane	air	493579
R-11	100 ppm R-11	nitrogen	803499
	30 ppm R-11	nitrogen	812785
	10 ppm R-11	nitrogen	806905
R-12	100 ppm R-12	nitrogen	804866
	30 ppm R-12	nitrogen	812823
R-22	100 ppm R-22	nitrogen	804868
	30 ppm R-22	nitrogen	812786
	10 ppm R-22	nitrogen	806906
R-113	100 ppm R-113	nitrogen	804870
	30 ppm R-113	nitrogen	813368
R-114	30 ppm R-114	nitrogen	813369
R-123	30 ppm R-123	nitrogen	812784
	10 ppm R-123	nitrogen	806904
R-134A	30 ppm R-134A	nitrogen	812787
	10 ppm R-134A	nitrogen	806907
HFC	100 ppm HFC-134A	nitrogen	803500
R-500	30 ppm R-500	nitrogen	813370
R-502	30 ppm R-502	nitrogen	813371
Combination	0.6% propane, 15% oxygen, 60 ppm carbon monoxide	nitrogen	801051
Gas	2.5% methane, 60 ppm carbon monoxide, 15% oxygen	nitrogen	813718
Cylinders	1.45% methane, 15% oxygen	nitrogen	478192
	60 ppm carbon monoxide, 1.45% methane, 15% oxygen	nitrogen	478191

Model Econo-Cal® Calibration Cylinders—Reactive Gases, Aluminum Cylinder, 34 liters, 500 psig

These cylinders have a shelf life. Accuracy \pm 5%.

Gas Fill	Gas Mixture	Background	Part No.
Ammonia	25 ppm ammonia	air	711078
Chlorine	10 ppm chlorine	nitrogen	711066
	2 ppm chlorine	nitrogen	711082
Hydrogen Chloride	40 ppm hydrogen chloride	nitrogen	711080
Hydrogen Cyanide	10 ppm hydrogen cyanide	nitrogen	711072
Hydrogen Sulfide	40 ppm hydrogen sulfide	nitrogen	711062
	15 ppm hydrogen sulfide	nitrogen	711064
	10 ppm hydrogen sulfide	nitrogen	711060
	5 ppm hydrogen sulfide	nitrogen	711086
Nitric Oxide	50 ppm nitric oxide	air	711074
Nitrogen Dioxide	10 ppm nitrogen dioxide	air	711068
	5 ppm nitrogen dioxide	air	711084
Phosphine	0.5 ppm phosphine	nitrogen	711088
Sulfur Dioxide	10 ppm sulfur dioxide	air	711070
Combination	2.5% methane, 300 ppm carbon monoxide, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	711076
Gas Cylinders	1.45% methane, 1300 ppm carbon monoxide, 5% oxygen, 10 ppm hydrogen sulfide	nitrogen	711058
	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	711056

Model R Calil	oration Cylinders—Non-Reactive Gases, Steel	Cylinder, 19 liters, 300 psig	
These cylinders do no	ot have a shelf life.		
Gas Fill	Gas Mixture	Background	Part No.
Butane	8% Butane, 13.8% Carbon Dioxide	Nitrogen	460345
Carbon Monoxide	300 ppm Carbon Monoxide	Air	461769
	150 ppm Carbon Monoxide	Air	459944
	60 ppm Carbon Monoxide	Air	461768
	20 ppm Carbon Monoxide	Air	477888
Hydrogen	0.8% Hydrogen	Air	459946
Methane	2.5% Methane	Air	459942
	2.0% Methane	Air	459945
	1.25% Methane	Air	461047
Oxygen	20.8% Oxygen	Nitrogen	468248
• •	5.0% Oxygen	Nitrogen	476302
Pentane	1000 ppm Pentane	Air	476303
	0.75% Pentane	Air	466193
	0.75% Pentane/15.0% Oxygen	Nitrogen	476304
Propane	0.6% Propane	Air	459943
Nitrogen	100% Nitrogen	_	468249

Model BD-20 Calibration Cylinders—Non-Reactive Gases, Steel Cylinder, 552 liters, 2200 psig					
These cylinders	These cylinders do not have a shelf life.				
Gas Fill	Gas Mixture	Background	Part No.		
Methane	2.5% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	710566		
	1.45% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	710565		
Air, zero	Air, zero, THC<1 ppm	_	710776		

Squirt® Gas Bump Tester

Provides a lightweight, convenient and inexpensive way to check the sensor response of MSA instruments. The bump tests supplement regular calibration at a service center or maintenance department. It uses a disposable cylinder with 11 liters of gas, works without a regulator and gives

you a reading as fast as 15 seconds. Its ease of use promotes tests in the field, on the shop floor, or in the truck.

Part No.	Description
813411	Squirt Gas Bump Test Kit,
	with 3 balloons, required
	fittings and adapters,
	vinyl carrying case, and
	instructions; less cylinder



Squirt Gas Calibration Cylinders—11 liters, 155 psig			
These cylinders do not have a shelf life.			
Gas Fill	Gas Mixture	Background	Part No.
Methane	2.5% Methane	Air	815307
	2.5% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	814350
	1.3% Methane, 15% Oxygen	Nitrogen	815308
	1.3% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	814497
Carbon Monoxide	60 ppm Carbon Monoxide	Air	814978
Isobutylene	100 ppm Isobutylene	Air	815704

Squirt Gas Calibration Cylinders—11 liters, 155 psig These cylinders have a shelf life.			
Gas Fill	Gas Mixture	Background	Part No.
Methane	2.5% Methane, 15% Oxygen, 300 ppm Carbon Monoxide, 35 ppm Hydrogen Sulfide 1.3% Methane, 15% Oxygen, 300 ppm Carbon Monoxide, 35 ppm Hydrogen Sulfide	Nitrogen Nitrogen	814349 814559
Hydrogen Sulfide	35 ppm Hydrogen Sulfide	Nitrogen	814979

Aerosol—4 liters, 120 psig These cylinders do not have a shelf life.			
Gas Fill	Gas Mixture	Background	Part No.
Hydrogen	0.8% Hydrogen	Air	455130
Methane	2% Methane	Air	096329
Propane	0.6% Propane	Air	455129

CALIBRATION KITS

Model RP Calibration Check Kits

Model RP Check Kits consist of a regulating valve which includes a gauge to measure container pressure, an adapter hose, sensor adapter (where applicable), instructions, and a case fitted with room for two RP cylinders of calibration check gas.

The cylinders of calibration check gas for use with Model RP Kits are lightweight steel containers approximately 14¼ inches high and 3½ inches in diameter or aluminum container 13¼ inches high and 3 inches in diamter, and, depending upon the individual pressure requirements, contain 60 to 100 liters of a specified gas mixture.

Part No.	Description
477150	Calibration Check Kit,
	Model RP, with 1.5 lpm
	regulator—complete
	Includes:
467896	Regulator (1.5 lpm)
449401	Adapter hose (with
	sampling line connection)
449482	Adapter hose (without
110102	sampling line connection)
	sampling fine connection)
477149	Calibration Check Kit,
	Model RP, with 0.25 lpm
	regulator—complete
	Includes:
467895	Regulator (0.25 lpm)
24194	Tubing, 30' (without
	sampling line connection)
473150	Calibration plug for MSA
170100	continuous electrochemi-
	cal sensors
631570	Zero plug for MSA
031370	continuous electrochem-
000474	cial sensors
628474	Zero plug for MSA
	portable electrochemical
	sensors
465898	Calibration plug for MSA
	portable electrochemical
	sensors

Model R Calibration Check Kits

Model R Check Kits consist of a regulating valve which includes a gauge to measure container pressure, an adapter hose with sampling line connection, an adapter hose with a sampling line connection, sensor adapters (where applicable), instructions, and a case fitted with room for two cylinders of calibration check gas.

The cylinders of calibration check gas for use with Model R Kits are small, lightweight steel containers approximately 105% inches high and 25% inches in diameter and, depending upon the individual pressure requirements, contain 16 to 20 liters of a specified gas mixture.

Part No.	Description
476609	Calibration Check Kit,
	Model R, with 1.5 lpm
	regulator—complete
	Includes:
459948	Regulator (1.5 lpm)
449401	Adapter hose (with
	sampling line connection)
449482	Adapter hose (without
	sampling line connection)
476610	Calibration Check Kit,
170010	Model R, with 0.25 lpm
	regulator—complete
	Includes:
450040	2210244001
459949	Regulator (0.25 lpm)
449401	Adapter hose (with sam-
	pling line connection)
449482	Adapter hose (without
	sampling line connection)
457364	Sensor Adapter for
	Spotter® Methane
	Detector
456673	Sensor Adapter for all
	MSA continuous com-
	bustible gas detectors
458302	Sensor Adapter for
	Explosilarm® Combust.
	Gas Alarm, Model 100

473150	Calibration plug for MSA
	continuous electrochemi-
	cal sensors
69217	Zero Cap for MSA
	continuous combustible
	gas detectors
631570	Zero Cap for MSA contin-
	uous electrochemical
	sensors

TIM® SYSTEM – THE TOTAL INSTRUMENT MANAGER

Calibrate Four Instruments Simultaneously

The TIM System software is designed to calibrate up to four instruments at the same time—with only one computer and four TIM Control Centers. Whether one, two, three or four instruments are being calibrated at the same time, the TIM System will ensure that each instrument is fully calibrated and ready to go!

Immediate Calibration Results

After an instrument has been bump-tested or calibrated, the TIM System will immediately display and print the results of the bump test or calibration. The user can set up the system for a bump test or a full calibration. The display on the TCC (TIM Control Center) unit will not only show whether an instrument passed or failed the bump test or calibration, but will also display the results for each sensor.

Password Availability

The TIM System allows password identification, if desired. The password identification will maintain identification of individual users, maintain identification of instrument serial numbers, and record the user



date, time and type of calibration (bump test or full calibration) performed. Password assignments are maintained and assigned by system manager.

Stores All Calibration Records

The TIM System electronically stores all bump test and calibration records. With a click of the mouse, a drop-down screen will display all recorded calibrations of any particular instrument. Each record is stored individually by date, time and results of each instrument calibration. Each calibration record will include the test results of each instrument test or calibration.

Instrument Records:

- Instrument and pump type
- Model number (sensors installed)
- · Owner and owner information
- Instrument location
- User comments

Computer Requirements

To be sure that the TIM System can be easily enhanced for years to come, it is designed to operate on a standard IBM-compatible personal computer. Minimum requirements are a Pentium processor, 16b MB RAM, and a 30 MB hard drive. The software is compatible with Windows 98, Windows 95, and

Windows NT. A computer is required to operate the system at each local site, but a single computer can run up to four TCCs.

Report Capability

The TIM System's data software includes a user-friendly archive with both view and print capability-of all calibrations of all instruments that were bump-tested or calibrated on the TIM System. This easy-to-use and easy-to-read report menu is designed with the user in mind. Whether you need a quick reference to any particular instrument and its calibration results, or a complete detailed master report of all instruments, categorized and printed in hard-copy form, the TIM System offers you this capability at your fingertips.

Ergonomic Design; Loaded with Features

Designed for use where space is limited, the completely portable TCC (TIM Control Center) measures only 11" x 9" x 6" and weighs less than 7 pounds. The housing is .090" aluminum, painted with rugged wear-resistant epoxy paint. The unit features a sloped face panel, four non-skid mounting feet, and an easy-to-read lighted display which facilitates operation in low- light areas. In addition, a membrane-activated, alpha/numeric, panel-mounted keyboard provides easy touch-button data entry.

Setup is a snap! In less than 15 minutes your TIM System is completely operational. All necessary connectors and power connectors are supplied. And don't worry... we have designed the software to be just as easy to install.

The TIM System is designed for use with the Passport®, Gasport®, Watchman®, and Passport FiveStar instruments.





Top: Integral Pump Model; Bottom: Add-On Pump Model

Holster Assembly

Perfect for the TIM System. The holster has a built-in data docking module, which is used in the TIM System and the MSA Link (data downloading). When you install the instrument in the holster, the calibration gas feed and the IR communication are automatically connected. The Integral Pump Model is for Gasport and Passport instruments with an integral pump. The Add-On Model works with Passport Instruments with Add-On Pump only.

Part No.	Description
710658	Integral Pump Module
711391	Add-on Pump Type
10010164	Pump Module for
	Passport FiveStar

For more complete information see Bulletin 0818-02.



Offices and representatives in principal cities worldwide.
In U.S. call the Customer Service Center toll-free at 1-800-MSA-2222.
To reach MSA International, call (412) 967-3354 or fax (412) 967-3451.
www.MSAnet.com

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