



Law Enforcement and Security Equipment From MSA

*AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST
SCHEDULE 539 SOLUTIONS AND MORE (SAM)*



GENERAL SERVICES ADMINISTRATION



FEDERAL SUPPLY SERVICE

AUTHORIZED FEDERAL
SUPPLY SCHEDULE PRICE LIST

SCHEDULE 539
SOLUTIONS AND MORE (SAM)

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!™, a menu-driven database system. The INTERNET address for GSA Advantage!™ is: <http://www.GSAAdvantage.gov>.

For more information on ordering from Federal Supply Schedules, click on the FSS Schedules button at fss.gsa.gov

FSC 84 FOR LAW ENFORCEMENT AND SECURITY EQUIPMENT (SINS 426-1A, 426-1B, 426-1C, 426-1D, 426-4C, 426-4E and 426-4J)

CONTRACT NUMBER:
GS-07F-0099K

CONTRACT PERIOD:
December 14, 2004 through December 13, 2009

SUPPLEMENT AO26 EFFECTIVE
January 4, 2006

Mine Safety Appliances Company
P.O. Box 426, Pittsburgh, PA 15230-0426

CONTRACTOR'S ADMINISTRATION SOURCE:
Mine Safety Appliances Company
P.O. Box 428, Pittsburgh, PA 15230-0428

Customer Service for Government Customers:

1-866-MSA-1001
info@MSAnet.com
Fax: 1-800-967-0398
www.MSA1122.com

BUSINESS SIZE: Large

PRICES SHOWN HEREIN ARE NET (DISCOUNT DEDUCTED)

INFORMATION FOR ORDERING ACTIVITIES

- 1a. TABLE OF AWARDED SPECIAL ITEM NUMBERS (SIN):
426-1A p.2; 426-1B p.3-5; 426-1C p.6-9; 426-1D pp.10-35; 426-4C pp.36-39; 426-4E pp.40-57; and 426-4J p.58-60
- 1b. LOWEST PRICED MODEL NUMBER AND PRICE FOR THIS SIN
(Government price based on a unit of one):
Model/Part Number: Screw, Lens
P/N 60532
GSA Net Price (with discount applied): \$0.26
- 1c. HOURLY RATES: not applicable.
2. MAXIMUM ORDER*: \$200,000.00 for all SINs except for SIN 426-1B which is \$500,000.00
**If the "best value" selection places your order over the maximum order, identified in this catalog/ price list, you have an opportunity to obtain a better schedule contract price. Before placing your order, contact the aforementioned contractor for a better price. The contractor may (1) offer a new price for this requirement (2) offer the lowest price available under this contract or (3) decline the order. A delivery order that exceeds the maximum order may be placed under the Schedule contract in accordance with FAR 8.404.*
3. MINIMUM ORDER: \$100.00
4. GEOGRAPHIC COVERAGE: 50 states, District of Columbia and U.S. Territories
5. POINT OF PRODUCTION:
Mine Safety Appliances Company
3880 Meadowbrook Road
Murrysville, PA 15668-2937 (Westmoreland County)

Mine Safety Appliances Company
352 White Street
Jacksonville, NC 28546-6797 (Onslow County)

Mine Safety Appliances Company
1420 Mars Evans City Road
Evans City, PA 16033-9397 (Butler County)

Mine Safety Appliances Company
Instrument Division
1000 Cranberry Woods Drive
Cranberry Township, PA 16066 (Butler County)

Mine Safety Appliances Company
Rose Manufacturing Company
2250 South Tejon Street
Englewood, CO 80110-1000 (Arapahoe County)

Mine Safety Appliances Company
30 Industrial Drive, Suite 10
Newport, VT 05855 (Orleans County)

Mine Safety Appliances Company
60 Webro Road
Clifton, NJ 07012 (Passaic County)

Mine Safety Appliances Company
62 Corporate Court
Bowling Green, KY 42103 (Warren County)

MSA Auer
Thiemannstrasse 1
D-12059 Berlin GERMANY

MSA-Sordin AB
Rorlaggarvagen 8
SE-33153 Varnamo SWEDEN
6. BASIC DISCOUNT OR NET GOVERNMENT PRICE: The pricing shown in this schedule reflects the GSA net price (discounts have already been applied.)
7. QUANTITY DISCOUNT: SIN 426-1C—MSA offers an additional 5% on orders exceeding \$5,000,000 and 10% on orders exceeding \$10,000,000.
8. PROMPT PAYMENT TERMS: Net 30
9. GOVERNMENT PURCHASE CARD (GPC): GPC is accepted for any purchase
10. FOREIGN ITEMS: All ear muffs produced in Finland. All detector tubes are produced in Germany.
- 11a. TIME OF DELIVERY: 60 days after receipt of order (ARO)
- 11b. EXPEDITED DELIVERY: All items in this price list are available for faster delivery on an order by order basis dependent upon availability of parts. Clause I-FSS-140-B of the contract applies. Agencies can contact contractor's representative to possibly effect faster delivery and to determine rates.
- 11c. OVERNIGHT & 2-DAY DELIVERY: See 11b. Expedited above.
- 11d. URGENT REQUIREMENTS: See 11b. Expedited above.
12. FOB POINT: Destination - Continental US
- 13a. ORDERING ADDRESS, TELEPHONE AND FAX NUMBER:
Mine Safety Appliances Company
P.O. Box 426
Pittsburgh, PA 15230-0426
Phone: 1-866-MSA-1001
Fax: 1-800-967-0398
- 13b. Ordering procedures: For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA's) and a sample BPA can be found at the GSA/FSS Schedule homepage (fss.gsa.gov/schedules).
14. PAYMENT ADDRESS:
Mine Safety Appliances Company
P.O. Box 640348
Pittsburgh, PA 15264-0348
15. WARRANTY PROVISION: Commercial
16. EXPORT PACKING CHARGES: In accordance with clause F-FSS-736-A, Export Traffic Release
17. TERMS AND CONDITIONS OF GPC ACCEPTANCE: Payment by Government Purchase Card (GPC accepted without additional discount).
18. TERMS AND CONDITIONS OF RENTAL, MAINTENANCE, AND REPAIR:
Self-Contained Breathing Apparatus: Certification as an MSA C.A.R.E. Technician is required to perform maintenance and repairs of MSA Self-Contained Breathing Apparatus. Please call the toll-free number to obtain course information.

Air Purifying Respirators/Gas Masks: Not applicable.

Helmets: Not applicable.
19. TERMS AND CONDITIONS OF INSTALLATION: N/A
20. TERMS AND CONDITIONS OF REPAIR PARTS INDICATING DATE OF PARTS PRICE LISTS AND ANY DISCOUNTS FROM LIST PRICES (IF AVAILABLE): MSA Suggested Price List, effective 15 July 2005.
- 20a. TERMS AND CONDITIONS FOR ANY OTHER SERVICES: N/A
21. LIST OF SERVICE AND DISTRIBUTION POINTS: Call 1-866-MSA-1001
22. LIST OF PARTICIPATING DEALERS: N/A
23. PREVENTIVE MAINTENANCE: See data included with product.
- 24a. ENVIRONMENTAL ATTRIBUTES: N/A
- 24b. ELECTRONIC AND INFORMATION TECHNOLOGY (E/T): N/A
25. DATA UNIVERSAL NUMBER SYSTEM (DUNS) NUMBER: 086673175
26. CENTRAL CONTRACTOR REGISTRATION (CCR) DATABASE: CCR registered

TACTICAL™ HARNESS

The Tactical Harness features easy donning and doffing, great comfort, and sub-pelvic support. Available with tongue buckle leg straps, the Tactical Harness has many additional features including waist level rescue loop. Other features include:

- Black webbing to decrease visibility
- Gray stitching for easy inspection
- Black vinyl-coated hardware connection points (back D-ring, chest D-ring, hip D-rings, and tongue buckles on leg strap) for sound deadening
- Wide sub-pelvic straps for improved comfort in suspension
- Rescue loop for controlled upright and inverted descents
- Meets ANSI Z 359.1 and applicable OSHA standards



Description	Size	Part No.	Government Net Price
SWAT Harness	STD	10023109	\$93.52
SWAT Harness	XSM	10023180	\$93.52
SWAT Harness	XL	10023181	\$93.52
SWAT Harness	SXL	10023182	\$93.52

ONYX™ SHOCK-ABSORBING LANYARD

The Onyx lanyard is a sleek, innovative design in shock absorbing lanyards! The lightest weight lanyard available, the Onyx lanyard features a strong, durable sheath. It is also bi-directional, making it even easier to train your personnel. This longer-wearing lanyard is also available in a Twin-Leg configuration. Meets ANSI A10.14 and OSHA regulations.

Onyx Shock-Absorbing Lanyards, Strap, 6' Length

Nylon, single piece construction, 6' fixed length, shock-absorbing lanyard

Hardware	Twin-Leg	Part No.	Government Net Price
RL20/RL20		10003021	\$32.99
HL2000/HL64		10003022	\$51.10
HL2000/(2) HL2000	X	10012311	\$51.93
RL20/(2) RL20	X	10012312	\$61.05
HL2000/(2) HL64	X	10012313	\$100.85

Onyx™ Shock-Absorbing Lanyard



Onyx™ Twin-Leg Shock-Absorbing Lanyard

FORCEFIELD™ CONCEALABLE BODY ARMOR **NEW!**

ForceField Alpha Concealable Vest

You can rely on MSA's concealable body armor—the ForceField Alpha Concealable Vest—for maximum comfort without sacrificing ballistic coverage. Our sizing, style, and inventive design features will raise your expectations of what a ballistic vest can—and should—be.

The Armor-Latch™ Closure enhances body coverage and boosts your confidence while contributing significantly to the comfort of your full-wrap body armor.

Your one-handed “forward pull” adjustment easily secures a front-to-back panel overlap, automatically aligning front and back panels for proper side coverage and comfort. The aligned solid closure also permits independent movement of the front and back armor panels, so you have greater mobility.

A T-shirt-style carrier with several remarkable features helps you manage your body heat. MSA's distinctive Tri-T construction integrates three innovations for your comfort and wear-ability.

1. Comfortable Lycra-based material wicks moisture away from your body.
2. The cooling layer draws away heat by changing its physical state.
3. Anti-microbial treatment to reduce odor-causing bacteria.



Armor-Latch Closure



ForceField Alpha Concealable Vest

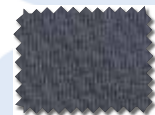
MSA ForceField Alpha Concealable Armor - Male

Part #	Vest Description	Ballistic Package*	Level	Size			Gov't Net Price
				Size	Body Type	Length	
10066742	Alpha (Black)	Kevlar - K129	2	Med	1	13	\$521.83
10066743	Alpha (Black)	Kevlar - K129	2	LG	1	13	\$521.83
10066744	Alpha (Black)	Kevlar - K129	2	XL	1	13	\$521.83
10066745	Alpha (Black)	Kevlar - XLT - XTGII	2	Med	1	13	\$722.88
10066746	Alpha (Black)	Kevlar - XLT - XTGII	2	LG	1	13	\$722.88
10066747	Alpha (Black)	Kevlar - XLT - XTGII	2	XL	1	13	\$722.88
10066748	Alpha (Black)	Kevlar - XLT - XTGIII A	3a	Med	1	13	\$793.41
10066749	Alpha (Black)	Kevlar - XLT - XTGIII A	3a	LG	1	13	\$793.41
10066750	Alpha (Black)	Kevlar - XLT - XTGIII A	3a	XL	1	13	\$793.41

Please refer to our sizing chart and ATO matrix for other configurations.
Available Colors: Black, Blue, White and Olive Green



Black



Blue



White



Olive Green

*See p. 5 for information on ballistic packages.

MSA ForceField Alpha Concealable Body Armor (Male) Ordering Selection Matrix and Price List

All Prices in U.S. Dollars

Ballistic Package*			Vest Size		Flex Panel Body Type		Panel Length		Carrier Quantity		Color	Trauma Plate		Custom Options						
None - Carrier Only	0	\$0.00	1	Small (S)	\$0.00	1	Standard	\$0.00	A	14" - (R)	\$0.00	0	None	\$0.00	0	None	\$0.00			
	NIJ Level II	F XTG-II	\$493.68	2	Med. (M)	\$0.00	2	Athletic	\$0.00	B	13" - (S1)	\$0.00	2	White	1	Soft Ballistic	\$28.21	1	Sleeveless	\$28.21
H		K129-II	\$366.73	3	Large (L)	\$0.00	3	Full	\$0.00	C	12" - (S2)	\$0.00	1	Navy	3	Steel	\$21.16			
NIJ Level IIIA	N	XTG-III A	\$560.67	4	X-Lge (XL)	\$0.00				D	11" - (S3)	\$0.00	2	Olive Green	2	Soft Ballistic	\$49.37			
	P	K129 III A	\$430.20	5	2X-Lge (2XL)	+10%				E	15" - (T1)	\$17.63	3		3	Soft Ballistic & Steel				
Non Ballistic Demo Panel	Z	\$24.68	6	3X-Lge (3XL)	+20%					F	16" - (T2)	\$35.26								
											G	17" - (T3)	\$52.89							
		\$	+		\$	+		\$	+		\$	+		\$	+		\$			\$

Prices are 29.48% discount off List Price.

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Quantity =

Total Alpha Body Armor List Price

\$

All Pricing in U.S. Dollars

*See p. 5 for information on ballistic packages.

ForceField Bravo Concealable Vest

The ForceField Bravo Concealable Carrier Assembly is your choice for traditional styling, low profile comfort and protection. The ForceField Bravo incorporates MSA's unique Flex Panel Sizing for optimal coverage and full panel convertibility with the MSA Alpha Vest.

NEW!

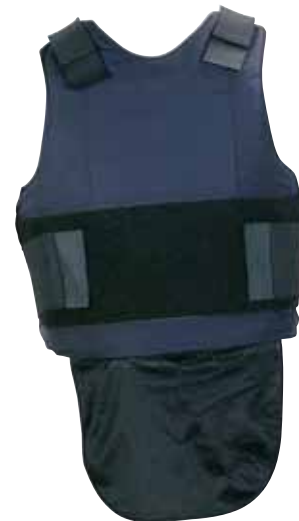
- Poly/cotton outer shell for durability, a low profile and concealability.
- AkwaDyne Nylon, to provide the officer with comfort and moisture management over a wide range of temperatures.
- Four- or six-point flexible adjustment.
- Fully removable straps.
- Flex Panel Sizing.
- Fully hidden hook and loop closure for easy panel removal and insertion.



Steel Trauma Plate



Soft Ballistic Trauma Plate



MSA ForceField Bravo Concealable Armor - Male

Part #	Vest Description	Ballistic Package*	Level	Size			Gov't Net Price
				Size	Body Type	Length	
10066751	Bravo (Navy Blue), 4-point	Kevlar - K129	2	Med	1	13	\$490.15
10066752	Bravo (Navy Blue), 4-point	Kevlar - K129	2	LG	1	13	\$490.15
10066753	Bravo (Navy Blue), 4-point	Kevlar - K129	2	XL	1	13	\$490.15
10066754	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGII	2	Med	1	13	\$631.20
10066755	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGII	2	LG	1	13	\$631.20
10066756	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGII	2	XL	1	13	\$631.20
10066757	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGIII	3a	Med	1	13	\$560.67
10066758	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGIII	3a	LG	1	13	\$560.67
10066759	Bravo (Navy Blue), 4-point	Kevlar - XLT - XTGIII	3a	XL	1	13	\$560.67

*See p. 5 for information on ballistic packages.

Please refer to our sizing chart and ATO matrix for other configurations.

Available Colors: Black, Blue, White, Olive Green and Tan



Black



Blue



White



Olive Green



Tan

ForceField Bravo Accessories

Part #	Description	Gov't Net Price
10067371	Four-Point Conversion Kit, Two 4" Side Straps, Black	\$17.63
10067373	Six-Point Conversion Kit, Four 2" Side Straps, Black	\$20.45

ForceField Concealable Accessories - Trauma Plates

Part #	Description	Gov't Net Price
10067347	Trauma Plate Steel, 6" x 8"	\$17.63
10067348	Trauma Pack, Soft Ballistic, 6" x 8"	\$20.45

MSA ForceField Bravo Concealable Body Armor (Male) Ordering Selection Matrix

Call MSA Customer Service at 866-MSA-1001 for pricing.

Ballistic Package		Vest Size		Flex Panel Body Type		Panel Length		Carrier Quantity		Color		Trauma Plate		Custom Options	
None - Carrier Only	0	1	Small (S)	1	Standard	A	14"	0	None Panels Only	1	Black	0	None	1	Six-point closure (dual side strap)
		2	Med. (M)	2	Athletic	B	13"	1	One	2	White	1	Soft Ballistic	2	Four-point closure (single 4" side strap)
NIJ Level II	F XTG-II H K129-II	3	Large (L)	3	Full	C	12"	2	Two	3	Navy	2	Steel		
		4	X-Lge (XL)			D	11"	3	Three	4	Olive Green	3	Soft Ballistic & Steel		
NIJ Level IIIA	N XTG-III P K129-III	5	2X-Lge (2XL)			E	15"			5	Tan				
		6	3X-Lge (3XL)			F	16"								
Non Ballistic Demo Panel	Z					G	17"								

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FORCEFIELD™ TANGO TACTICAL ARMOR

ForceField Tango Tactical Armor

Hostage situations ... drug warrants ... homeland security. Your tactical applications demand the same reliability and flexibility that's demanded of you.

You get flexibility and durability and more from MSA's ForceField Tango Tactical Armor. This side-opening modular tactical platform integrates key features to satisfy your needs for protection, versatility, and comfort.

Safety and protection

- Side-opening ballistics panel with a "no-hardware" clamshell-style front closure for fast, easy donning and doffing
- Overlapping ballistic shoulders for better comfort and length flexibility

- Removable ballistic upper arm and collar, removable front yoke throat protection, and pull-down ballistic groin protection

Versatility and comfort

- Rugged Cordura Nylon construction
- A full array of webbed Molle-style pocket-type attachments for ammunition, side arms, protective equipment and supplies to meet the needs of your mission
- Internal cummerbund (belly band) for added comfort and stability
- Integrated routing for communication cables and hydration tubes
- Rubberized textured shoulders for weapon stability
- Optional standard ID patches

NEW!



Pre-Configured ForceField Tango Tactical Armor Vests

Include pull-down groin, removable upper arm, throat protection and removable collar.

Part #	Vest Description	Size	Gov't Net Price
10067790	ForceField Tango, Webbed, K129 IIIA, Black	3XL	\$1688.37
10067791	ForceField Tango, Webbed, K129 IIIA, Black	2XL	\$1547.67
10067792	ForceField Tango, Webbed, K129 IIIA, Black	XLG	\$1406.97
10067793	ForceField Tango, Webbed, K129 IIIA, Black	LG	\$1406.97
10067794	ForceField Tango, Webbed, K129 IIIA, Black	MED	\$1406.97
10067795	ForceField Tango, Webbed, XTGIIIA, Black	3XL	\$2111.52
10067796	ForceField Tango, Webbed, XTGIIIA, Black	XL	\$1759.60
10067797	ForceField Tango, Webbed, XTGIIIA, Black	2XL	\$1935.56
10067798	ForceField Tango, Webbed, XTGIIIA, Black	LG	\$1759.60
10067881	ForceField Tango, Webbed, XTG Series IIIA, Black	MED	\$1759.60

Other colors, styles and configurations are available. Call MSA Customer Service at 866-MSA-1001 for more information.

Rifle Plates - Level 4

Part #	Vest Description	Gov't Net Price
10067349	Level 4 Rifle Plate - Triple Curve	\$271.52
10067372	Level 4 Rifle Plate - Single Curve	\$271.52

Modular Pockets and Pouches to Accommodate Gear

Part #	Vest Description	Gov't Net Price
10066761	Pouch - Webbed, M-16/AR 15 Clip 30 Round	\$43.73
10066762	Pouch - Webbed, Small Radio	\$34.20
10066763	Pouch - Webbed, Large Radio	\$38.44
10066764	Pouch - Webbed, Small Utility	\$30.33
10066765	Pouch - Webbed, Large Utility	\$35.62
10066766	Pouch - Webbed, 45Cal/9MM Mag. SXS	\$27.50
10066767	Pouch - Webbed, Single Handcuff	\$19.22
10066768	Pouch - Webbed, Medium Flashlight	\$27.50
10066769	Pouch - Webbed, MP5-9MM Single Clip 30 RND	\$49.96
10066770	Pouch - Webbed, 12 Round Shotgun Rack	\$41.26
10066771	Pouch - Webbed, Large Gas Mask, Side Opening	\$64.88
10066772	Pouch - Webbed, 6 Round Shotgun Rack	\$37.03
10066773	Pouch - Webbed, Large Holster	\$35.97
10066774	Pouch - Webbed, Small Flashlight	\$23.27
10066775	Pouch - Webbed, Small Canister	\$27.50

BALLISTIC PACKAGES

All Forcefield ballistic packages are certified to NIJ 0101.04. In addition to ballistic certification requirements conducted at independent laboratories, MSA's advanced R&D center conducts our own materials testing, accelerated aging and conditioning as well as ballistics testing at our in-house, state-of-the-art ballistics laboratories.

ForceField XTG Series

Materials: Kevlar XLT and Goldflex

MSA's XTG Series features KEVLAR® Comfort XLT™ Fabric, the latest ballistic technology from DuPont™ Kevlar®. This technology provides lightweight protection and comfort. Honeywell's GoldFlex Aramid laminate provides excellent mobility and stopping power.

ForceField K129 Series

Materials: 100% Woven Kevlar® 129 Fabric

The K129 Ballistic series provides confidence you need on the job. Consisting of 100% woven Kevlar® 129 Aramid Fabric, the ForceField K129 Series fits most budgets with outstanding ballistic performance.

See specifications for details.

NIJ Standard 0101.04 Ballistic Chart

Threat Level	Test Bullet	Bullet Weight	Bullet Velocity
IIA	9mm - FMJ RN	124gr./8.0g	1120 ft/s - 341 m/s
	40 S&W - FMJ	180gr./11.7g	1055 ft/s - 322 m/s
II	9mm - FMJ RN	124gr./8.0g	1205 ft/s - 367 m/s
	357 Mag - JSP	158gr./10.2g	1430 ft/s - 436 m/s
IIIA	9mm - FMJ RN	124gr./8.0g	1430 ft/s - 436 m/s
	44 Mag - SJHP	240gr./15.6g	1430 ft/s - 436 m/s
III	7.62mm NATO - FMJ	148gr./9.6g	2780 ft/s - 847 m/s
IV	.30 caliber M2 AP	166gr./10.8g	2880 ft/s - 878 m/s

At a minimum, officers should select body armor that is rated to stop their own service weapon.

ADVANCED COMBAT HELMET (ACH)

The MSA Advanced Combat Helmet (ACH) delivers the world's most advanced ballistic and impact head protection, with unsurpassed comfort for long-term use. The helmet's low-profile design reduces the risk of interference in target acquisition and ensures compatibility with NVGs (night-vision goggles), MSA's CBRN (Chemical, Biological, Radiological, & Nuclear) Gas Masks, and MSA's communication devices.

An innovative suspension system of movable comfort pads (which are attached with Velcro disks to the inside of the helmet) provides customized sizing and superior comfort. The sized pads conform to the shape of your head to distribute the helmet's weight evenly and comfortably. Simply adjust and move the absorbent pads for a flexible, personalized fit.

Tested under fire

The MSA ACH was developed for the U.S. Military Special Operations Command, meeting stringent requirements and unprecedented demands, and setting new performance standards. The U.S. Army was so impressed that MSA's ACH was adopted as the standard of issue for all troops deploying to the Iraq/Afghanistan Operations Theatre.

The ACH has been credited with "taking the bullet" and saving several soldiers' lives during combat. It was named one of the 10 Best Inventions of 2002 by the US Army Material Command.

The MSA ACH is designed to exceed the NIJ 0106.01 standard Level IIIa protection and U.S. Military fragmentation specifications as listed below:

- 2 grain RCC @ 4075 fps
- 4 grain RCC @ 3450 fps
- 16 grain RCC @ 2425 fps
- 64 grain RCC @ 1700 fps
- 17 grain FSP @ 2150 fps
- 124 grain, 9mm @ 1400 fps (+50 fps)
- 240 grain, 44 magnum @ 1400 fps (+50 fps)

The helmet shell

- Comes in 2 helmet sizes (Medium, Large) to accommodate most head sizes
- Is available in black or dark green
- Provides Level IIIa ballistic protection
- Is tested for ballistic performance from -40°F (-40°C) to 158°F (70°C)
- Offers unsurpassed impact protection and ballistic-rated hardware

The comfort pads

- Are available in two sizes for optimal comfort and fit
- Provide a customized fit through fully adjustable pads
- Improve weight distribution, thus promoting comfort and balance
- Help dissipate impact energy for protection from head trauma
- Absorb moisture, so you stay drier
- Meet all the chemical-resistant tests required by the U.S. Army
- Are easily cleaned with a damp cloth

The 2-piece replaceable chinstrap

- Has a 4-point attachment system
- Is quickly adjusted to fit your face
- Has a comfortable, supportive neck pad

Like the battle-proven MSA ACH worn by our troops

- You get a firm yet comfortable fit, even during extreme maneuvers
- Stability is maintained, even with helmet attachments such as NVG
- You can attach accessories such as goggle retainers and helmet covers



TC-2000 Helmet GREEN

No. Holes	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300098A	\$345.18	300641A	\$345.18	300099A	\$345.31	300642A	\$345.31
1	300188A	\$343.64	300647A	\$345.53	300189A	\$343.64	300648A	\$345.67
2	300363A	\$345.24	300653A	\$345.89	300371A	\$345.24	300654A	\$346.05
3	300364A	\$346.85	300659A	\$346.25	300372A	\$346.85	300660A	\$346.42
X-Large Size, Pad Set #6 X-Large Size, Pad Set #8								
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price				
0	10050873	\$378.01	10050874	\$380.09				

BLACK

No. Holes	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300134A	\$344.95	300689A	\$344.95	300135A	\$345.07	300690A	\$345.07
1	300368A	\$343.64	300695A	\$345.30	300376A	\$343.64	300696A	\$345.43
2	300369A	\$345.24	300701A	\$345.65	300377A	\$345.24	300702A	\$345.79
3	300370A	\$346.85	300707A	\$346.01	300378A	\$346.85	300708A	\$346.14

TAN

No. Holes	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300132A	\$345.13	300665A	\$344.49	300133A	\$344.63	300666A	\$344.63
1	300365A	\$343.64	300671A	\$344.85	300373A	\$343.64	300672A	\$344.98
2	300366A	\$345.24	300677A	\$344.14	300374A	\$345.24	300678A	\$345.34
3	300367A	\$346.85	300683A	\$345.56	300375A	\$346.85	300684A	\$345.70

TC-2001 Helmet

GREEN	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300136A	\$374.10	300643A	\$376.42	300137A	\$374.10	300644A	\$376.57
1	300379A	\$375.71	300649A	\$377.43	300388A	\$375.71	300650A	\$377.56
2	300380A	\$377.30	300655A	\$378.44	300389A	\$377.30	300656A	\$378.58
3	300381A	\$378.91	300661A	\$379.79	300390A	\$378.91	300662A	\$379.93
BLACK	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300140A	\$374.10	300691A	\$376.18	300141A	\$374.10	300692A	\$376.31
1	300385A	\$375.71	300697A	\$377.17	300394A	\$375.71	300698A	\$377.32
2	300386A	\$377.30	300703A	\$378.19	300395A	\$377.30	300704A	\$378.32
3	300387A	\$378.91	300709A	\$379.55	300396A	\$378.91	300710A	\$379.68
TAN	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300138A	\$374.10	300667A	\$375.69	300139A	\$374.10	300668A	\$375.83
1	300382A	\$375.71	300673A	\$376.69	300391A	\$375.71	300674A	\$376.82
2	300383A	\$377.30	300679A	\$377.70	300392A	\$377.30	300680A	\$384.44
3	300384A	\$378.91	300685A	\$379.06	300393A	\$378.91	300686A	\$397.80

TC-2002 Helmet

GREEN	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300142A	\$374.10	300645A	\$400.76	300143A	\$374.10	300646A	\$377.69
1	300397A	\$375.71	300651A	\$378.56	300406A	\$375.11	300652A	\$378.07
2	300398A	\$377.30	300657A	\$379.58	300407A	\$377.30	300658A	\$379.73
3	300399A	\$378.91	300663A	\$380.60	300408A	\$378.91	300664A	\$399.62
BLACK	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300146A	\$374.10	300693A	\$378.54	300147A	\$374.10	300694A	\$377.43
1	300403A	\$375.71	300699A	\$378.30	300412A	\$375.71	300700A	\$378.45
2	300404A	\$377.30	300705A	\$379.34	300413A	\$377.30	300706A	\$379.47
3	300405A	\$378.91	300711A	\$380.35	300414A	\$378.91	300712A	\$380.49
TAN	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	300144A	\$374.10	300669A	\$378.04	300145A	\$374.10	300670A	\$376.97
1	300400A	\$375.71	300675A	\$377.81	300409A	\$375.71	300676A	\$377.95
2	300401A	\$377.30	300681A	\$385.53	300410A	\$377.30	300682A	\$378.98
3	300402A	\$378.91	300687A	\$379.86	300411A	\$378.91	300688A	\$379.99

ACH ACCESSORIES

Description	Size 4	Size 5	Size 6	Size 7	Size 8	Gov't Net Price
Pad Kit	160005A	160006A	160003A	160007A	160004A	\$100.25
Oblong/Oval Pad	160022A	160023A	160010A	160024A	160011A	\$17.73
Circular Crown Pad	160016A	160017A	160012A	160018A	160013A	\$44.90
Trapezoidal Pad	160019A	160020A	160014A	160021A	160015A	\$18.90

Description	Part No.	Gov't Net Price	Description	Part No.	Gov't Net Price
Helmet Cover, Woodland Camo, MD/LG	300023A	\$23.97	Reversible Helmet Communication Cover, MD/LG	300236A	\$30.51
Helmet Cover, Desert Camo, MD/LG	300024A	\$23.97	Reversible Helmet Communication Cover, Woodland Camo, MD/LG	300715A	\$35.79
Helmet Cover, Arctic Camo, MD/LG	300130A	\$23.97	Reversible Helmet Communication Cover, Desert Camo, MD/LG	300714A	\$35.83
Reversible Helmet Cover Assembly, Woodland/Desert Camo, MD/LG	300025A	\$28.48	Reversible Helmet Communication Cover, Arctic Camo, MD/LG	300713A	\$35.15
Reversible Helmet Cover, XL, with pocket	10055698	\$33.56			
Reversible Helmet Cover, XL, without pocket	10051003	\$31.34			

ACH ACCESSORIES (CONTINUED)

Description	Part No.	Government Net Price
Retrofit Kit, one-hole, PSGT/MICH Helmet	162040A	\$60.17
Chinstrap Assembly, 4-point, TC-2000	300021A	\$14.95
Chinstrap Assembly, 3-point, PSGT Helmet	300171A	\$30.79
Chinstrap, 4-point, XL	10054157	\$14.95
Retention Straps, set of 2, TC-2000	300031A	\$13.39
Spare Parts Kit for 20 TC-2000 Helmets	300106A	\$348.68
Spare Parts Kit for 100 TC-2000 Helmets	301059A	\$1,525.46
Supplemental Spare Parts Kit, TC-2000	300131A	\$1,125.83
Mounting Hardware Kit, TC-2000	300107A	\$16.35

Description	Part No.	Government Net Price
Fastener Tape, Hook (use inside shell), ea.	101014A	\$0.70
Fastener Tape, Hook (use inside shell), 400/roll	101014A-400	\$362.70
Screw (attach mounting hardware to ACH), ea.	150005A	\$0.91
Screw (attach mounting hardware to ACH), 50/box	150005A-050	\$42.32
Nut (attach mounting hardware to ACH), ea.	150006A	\$0.91
Nut (attach mounting hardware to ACH), 50/box	150006A-050	\$42.32
Ladder-lock (mount chinstrap to p-clamp), ea.	153006A	\$0.37
Ladder-lock (mount chinstrap to p-clamp), 50/box	153006A-050	\$18.14
MICH Pad Oblong #6	160010A	\$17.73
P-Clamp (mount ladder-lock to shell), ea.	161009A	\$0.45
P-Clamp (mount ladder-lock to shell), 50/box	161009A-050	\$25.18

COMMERCIAL HELMETS

GREEN	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	10060487	\$335.77	10060499	\$335.77	10060493	\$335.77	10060505	\$335.77
1	10060488	\$344.84	10060500	\$344.84	10060494	\$344.84	10060506	\$344.84
BLACK	Medium Size, Pad Set #6		Medium Size, Pad Set #8		Large Size, Pad Set #6		Large Size, Pad Set #8	
No. Holes	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
0	10060484	\$335.77	10060496	\$335.77	10060490	\$335.77	10060502	\$335.77
1	10060485	\$344.84	10060497	\$344.84	10060491	\$344.84	10060503	\$344.84

ACH PAD KITS

Description	Part No.	Government Net Price
Pad Kit for Commercial ACH, size 6	10060678	\$37.73
Pad Kit for Commercial ACH, size 8	10060679	\$37.73
Pad Kit, Combat Helmet, MD/LG, 10 sets, size 6	10060735	\$365.95
Pad Kit, Combat Helmet, MD/LG, 10 sets, size 8	10060736	\$365.95



ACH COMMUNICATIONS

Description	Part No.	Gov't Net Price
Dual Communications System, complete	340003A	\$1,297.83
Single Communications System: ICOM	340004A	\$1022.85
Single Communications System: SABER	340005A	\$707.19
Single Communications System: MBITR Land	340006A	\$1,052.14
Single Communications System: MBITR Land with LN headset	10047104	\$744.91
Single Communications System: MBITR Maritime	340007A	\$1,361.86
Spare Parts Kit for Dual Communications System	340008A	\$2,856.69
Complete Impedance Matching Box to include cable assembly w/Lemo Plug & remote ring finger PTT w/cable	340009A	\$556.79
Right hand Impedance Matching Box Pocket	340010A	\$14.24
Left hand Impedance Matching Box Pocket	340011A	\$14.24
Headband Cover with high-noise mic flap	340012A	\$13.70
LVIS Extension Box, NSN: 5895-01-485-2552	340013A	\$187.77
LVIS connector to 6-pin military connector w/cable, NSN: 5995-01-495-2553	340014A	\$118.37
Impedance Matching Metal Box	590028A	\$307.15
Sordin Headband	340015A	\$14.89
Retention Clip Assembly for Dual Communications System	340016A	\$10.29
Retention Pocket for Single Communications System	340018A	\$22.20
Single Communications System: ICOM	10043356	\$210.41
Single Communications System: MBITR Land	10043358	\$238.86
Single Communications System: MBITR Maritime	10043357	\$579.47
Single Communications System: Motorola XTS	10047078	\$1,388.09
Coil Cable (7" coiled to 21" extended) w/Motorola connector for Motorola XTS family radios	10047582	\$310.08
Coil Cable (15" coiled to 36" extended) w/standard military 6-pin connector to Nexus AP-107 connector for VIC 1, 2, or intercom	10050092	\$121.77
High-Noise Headset, Maritime, with boom microphone, MCN: 5895-01-F98-1891	10049078	\$998.87
High-Noise Headset, Maritime, with boom microphone and quick-disconnect, MCN: 5895-01-F98-1890	10049079	\$1,240.14
High-Noise Headset, with boom microphone and quick-disconnect, MCN: 5895-01-F98-1891	10049802	\$629.36
Stand-alone (no radio connector) Hearing Protection Headset	10050545	\$347.59
Headset with aviation-style boom microphone with Lemo breakaway connector and headband, Air Force	10050642	\$678.98
Headset with aviation-style boom microphone with U-93 connector and headband, Air Force	10050643	\$720.20
Single Communications System: ICOM MCN:5895-01-F95-1606	10050786	\$210.42
Single Communications System: MBITR MCN:5895-01-F95-1605	10050787	\$238.86
Single Communications System: MBITR MCN:5895-01-F95-1611	10050788	\$578.88
High-Noise Headset, NSN 5895-01-4776-6122	154002A	\$369.89
Low-Noise Headset to include headband, NSN 5895-01-47-6124	154003A	\$324.57
Cable Assembly with Lemo Plug for connection of headsets to impedance box NSN:5995-01-476-1607	154004A	\$131.92

Description	Part No.	Gov't Net Price
Remote ring finger push-to-talk with cable, NSN 5895-01-495-1608	154005A	\$134.66
Printed circuits for impedancematching box, NSN 5895-01-495-1608	154006A	\$37.97
Hygiene kit (ea. kit includes full set of spare ear cups & foam inserts (both rings and disks), NSN 5895-01-495-1616	154008A	\$13.05
Coil cable (7" coiled to 21" extended) with std military 6-pin connector for the ICOM army soldier intercom system, NSN 5995-01-476-6127	154009A	\$70.78
Coil cable (7" coiled to 21" extended) with std military 6-pin connector for the MBITR (land) PRC family, PSC-5, LST-5, MST-20 and std GMV & ATSOV vehicle intercom/radios, NSN 5995-01-476-6128	154010A	\$164.21
Coil cable (7" coiled to 21" extended) with std military 6-pin connector for the SABER radio system, NSN 5995-01-476-6134	154011A	\$206.12
Coil cable (7" coiled to 21" extended) with std military 6-pin connector for the impulse wt-mateable 6-pin connector for the MK-V, NSW rib boat intercom systems, NSN 5995-01-476-6136	154012A	\$246.88
Coil cable (7" coiled to 21" extended) with std military 6-pin connector for the impulse 10-pin waterproof connector (MBITR maritime cable), NSN 5995-01-487-1609	154014A	\$409.72
Coil cable (15" coiled to 36" extended) with std military 6-pin connector to a connector for the MH/AH-6, MH-60K/L, MH47D/E, MH-53 & MC-130 aircraft radios/intercoms [aircraft intercom types are Palomar Aircraft Intercom Series (AIC): 18, 25, 30(V)2, 33, 38, 40, & the C-11746(V)4] (i.e., TP-106), NSN 5995-01-476-6137	154015A	\$130.68
Coil cable (15" coiled to 36" extended) with std military 6-pin connector to a connector for the MH/AH-6, MH-60K/L, MH-53 & MC-130 aircraft radios/intercoms [Aircraft Intercom Series (AIC): 18, 25, 30(V)2, 33, 38, 40, & the C-11746(V)4] (i.e., NEXUS U-93), NSN 5995-01-476-6142	154016A	\$99.66
Headband, NSN: 5895-01-495-1612	160008A	\$38.69
Headset with cover, boom mic high noise	10049802	\$629.36
MICH Cable, Icom Straight 14-inch	10053280	\$159.12
MICH Cable, PRC Straight 14-inch	10053291	\$139.02
MICH Ranger Single Comm High-Noise Headset-Left	10053550	\$609.44
MICH Ranger Single Comm High-Noise Headset-Right	10053611	\$609.44
MICH Ranger Dual Comm High-Noise Headset-Left	10053612	\$692.86
MICH Ranger Dual Comm High-Noise Headset-Right	10053613	\$692.86
MICH Cable PRC Coiled 8-foot	10054233	\$168.03
MICH Carrying Pouch	10054739	\$52.30
MICH Ranger Dual Comm Kit - Right	10056619	\$1,360.46
MICH Ranger Dual Comm Kit - Left	10056620	\$1,360.46
MICH Ranger Single Comm Kit - Right	10056622	\$1,140.43
MICH Ranger Single Comm Kit - Right	10056623	\$1,140.43

ADVANTAGE® RIOT CONTROL AGENT GAS MASK and ADVANTAGE® 1000 RESPIRATORS

(see Data Sheet 05-00-03)

The Advantage Riot Control Gas Mask and the Advantage 1000 Full-Face Respirator feature a wraparound flexible lens that offers excellent fit and comfort with increased vision. They weigh 40% less than conventional full-face respirators.

The Advantage Riot Control Gas Mask and the Advantage 1000 Respirator are constructed of super-soft Hycar™ rubber that provides the feel and comfort of silicone but has better permeation resistance. The facepiece provides an exceptional seal against a wide range of facial contours. The Advantage 1000 facepiece also features a distinctive, flexible urethane lens that is integrally bonded to the facepiece, eliminating the need for rigid lens retainers that cause unwanted pressure points. The Advantage Riot Control Gas Mask offers a flexible, 1-piece polyurethane lens with a wide field of vision.

The Advantage Riot Control Gas Mask also features:

- Dual-canister mount (bayonet mount)—allows weapon sighting from either shoulder
- Fully elastic, 6-point head harness—promotes easy on-off, easy adjustment, no hair pulling
- NIOSH-approval (No. TC-14G-0235) for protection against chloroacetophenone (CN), chlorobenzylidene (CS), P100 particulate efficiency level, and particulates

Standard equipment includes a nose cup, to reduce lens fogging in low temperatures or high-humidity conditions, and a speaking diaphragm, for clear, short-range communications.



Advantage 1000 Riot Control with ESP Voice Amplifier



Advantage 1000 Respirator with GME P100 Cartridges



Cover Lenses



Lens Shields

Advantage 1000 Riot Control Respirator

Description	Small	Medium	Large	Gov't Net Price
Full Facepiece, Black, with Riot Control Canister	813860	813859	813861	\$144.26

Advantage 1000 Riot Control Respirator Accessories

Description	Part No.	Gov't Net Price
Riot Control Advantage Canister, box of 6	817590	\$152.65
Inlet Cap, Replacement for Advantage 1000 Riot Control Gas Mask	813341	\$5.00

Advantage 1000 Respirator

Description	Small	Medium	Large	Gov't Net Price
Advantage 1000 Full Facepiece, Black	805414	805408	805420	\$102.99
GME P-100 Advantage Cartridge, one pair (one size fits all)		815366		\$11.47

Advantage 1000 Respirator Accessories

Description	Part No.	Gov't Net Price
Spectacle Kit, Advantage 1000	816137	\$43.59
Cover Lens, Advantage 1000, Box of 25	813832	\$31.81
Lens Shield, Advantage 1000, Clear		\$16.08
small	806463	
medium/large	806462	
Lens Shield, Advantage 1000, Tinted		\$23.04
small	806465	
medium/large	806464	
Nosecup, Advantage 1000		\$23.67
small	806468	
medium	806466	
large	806470	
Voice Amplifier, ESP II, Advantage 1000	10026265	\$186.32
Carrier	817040	\$21.05
Storage Case for Advantage 1000	10017571	\$9.21
Videotape, Advantage 1000	697179	\$13.06

ADVANTAGE® 3000 AIR PURIFYING RESPIRATOR

(see Data Sheets 10-00-05, 1012-06)

The new Advantage 3000 Full-Face Respirator enhances worker performance through a new design that allows even lower breathing resistance. Includes a standard nosecup that reduces fogging in low temperatures or high humidity conditions. The facepiece lens has a scratch resistant coating and has been engineered to be optically correct, giving you superior visibility and peripheral vision, eliminating distortion. In addition, the respirator features a wraparound lens combined with a soft, pliable silicone facepiece that provides a total solution to your air-purifying respirator needs. MSA's new pre-adjustable straps make donning the mask easy. Wearers also can choose the new European-style Advantage harness, which dons like a catcher's mask.



Description	Small	Medium	Large	Gov't Net Price
Adv 3000 Single Port, Classic Harness	10028999	10028998	10029000	\$84.03
Adv 3000 Single Port, Advantage Harness	10031343	10031342	10031344	\$84.03
Adv 3000 Twin Port, Advantage Harness	10031340	10031309	10031341	\$72.81
Adv 3200 Twin Port, Classic Harness	10028996	10028995	10028997	\$72.81

Accessories

Description	Part No.	Gov't Net Price
Spectacle Kit for Advantage 3000	10029298	\$42.75
Cover Lens, Clear, package of 25	10031542	\$18.70
Cover Lens, Smoke, package of 25	10031543	\$49.43

ADVANTAGE® 3200 CBA-RCA GAS MASK

The Advantage 3200 CBA-RCA (Chemical Biological Agent-Riot Control Agent) Gas Mask is based on MSA's already very popular industrial Advantage 3200 Respirator. It features a soft, pliable silicone facepiece, yet serves as an economical, cost-effective alternative to more expensive Gas Masks for this application.

- New 1-piece polycarbonate wraparound lens, engineered to be optically correct to eliminate distortion, promote superior visibility and peripheral vision
- Soft, pliable silicone facepiece with proven Advantage respirator seal that instantly conforms to wearer's face.
- Choice of head harness:
 - New European-style Advantage head harness with easy on/off pre-adjustable straps, dons like a catcher's mask, or
 - More traditional Hycar rubber head harness
- Dual-canister mount (bayonet mount) allows weapon sighting from either shoulder
- Proven exceptionally comfortable, lightweight, stable, and low maintenance
- Very low breathing resistance
- Standard nosecup to help eliminate lens fogging
- NIOSH-approved (No.TC-14G-0235) for protection against chloroacetophenone (CN), chlorobenzylidene (CS), P100 particulate efficiency level, and particulates



Advantage 3200 CBA/RCA Gas Mask

Advantage 3200 CBA-RCA Gas Mask (complete with canister, nosecup, and identification tag)

Description	Small	Medium	Large	Government Net Price
with Advantage Head Harness	10036324	10036325	10036326	\$103.54
with Rubber Head Harness	10038695	10038696	10038697	\$103.54

Advantage 3200 CBA-RCA Gas Mask Accessories

Description	Part No.	Government Net Price
Advantage 3000 CBA/RCA Canisters, Box of 6	817590	\$152.65
Spectacle Kit for Advantage Respirators	10029298	\$42.75

ADVANTAGE® 200LS AIR PURIFYING RESPIRATOR

(see Data Sheets 10-00-05, 1012-06)

The Advantage 200LS Respirator's new Lighter and Softer facepiece subtracts 25% of the weight and adds noticeable softness to MSA's popular Advantage 200 Half-Mask Respirator. The Advantage 200LS Respirator features the AnthroCurve™ Sealing Surface, which instantly conforms to each wearer's unique facial characteristics, and the patented MultiFlex® System, which equalizes pressure on the face-seal area and delivers exceptional stability so that the respirator will not collapse during wear.



Advantage 200 LS Respirator

Advantage 200LS Half-Mask Respirator Ordering Information

Description	Part No.	Government Net Price
Advantage 200LS Respirator, Blue, Small	815448	\$6.63
Advantage 200LS Respirator, Blue, Medium	815444	\$6.63
Advantage 200LS Respirator, Blue, Large	815452	\$6.63

Online Response® Respirator Selector

Available on the World Wide Web at www.MSAnet.com/response



Respirator recommendations for over 700 substances

- Helps identify the proper respirator you need
- Has broadest range of respiratory protective devices available
- Recommends respirators for more than 700 chemical hazards
- Has nearly 3,000 chemical synonyms
- Lists up to 27 categories of respirators, with MUCs
- Is generic in nature

Cartridge Life Expectancy Calculator

Available on the World Wide Web at www.MSAnet.com/safetyproducts/cartlife



MSA's interactive web pages help users determine the life expectancy of specific respirator cartridges in various hazardous situations. This information provides guidance for how long a cartridge should be used before it must be replaced.

ADVANTAGE CARTRIDGES



GMA Cartridge for Advantage Respirators



GME-P100 Cartridge for Advantage Respirators



Low Profile Cartridge for Advantage Respirators



R95 Prefilter for Advantage Respirators



Flexi-Filter Pads for Advantage Respirators

Description	Packaging	Re-Order Part No.	Government Net Price
GMA	1 pair	815355	\$5.91
GMA P100	1 pair	815362	\$11.25
GMB	1 pair	815356	\$6.07
GMB P100	1 pair	815363	\$11.25
GMC	1 pair	815357	\$6.07
GMC P100	1 pair	815364	\$11.25
GMD	1 pair	815358	\$6.66
GMD P100	1 pair	815365	\$11.77
GME	1 pair	815359	\$6.57
GME P100	1 pair	815366	\$11.47
Mersorb	1 pair	815361	\$12.20
Mersorb P100	1 pair	815368	\$17.74
Low-Profile P100	1 pair	815369	\$4.41

Definitions

N95-Particulate Filter (95% filter efficiency level) effective against particulate aerosols free of oil; time use restrictions may apply.

R95-Particulate Filter (95% filter efficiency level) effective against *all* particulate aerosols; time use restrictions may apply.

P100-Particulate Filter (99.97% filter efficiency level) effective against *all* particulate aerosols.

Description	Packaging	Re-Order Part No.	Government Net Price
Flexi-Filter P100	2/pkg	818342	\$3.69
Flexi-Filter P100/OV	2/pkg	818343	\$5.04
Flexi-Filter P100/AG/HF	2/pkg	818344	\$5.04
Flexi-Filter P100/HG/CL	2/pkg	818345	\$5.54
Flexi-Filter P95	2/pkg	818354	\$2.33
Flexi-Filter P95/OV	2/pkg	818355	\$3.91
Flexi-Filter P95/AG/HF	2/pkg	818356	\$3.91
Flexi-Filter P95/HG/CL	2/pkg	818357	\$3.91
Flexi-Filter N95	2/pkg	818346	\$2.17
Flexi-Filter N95/OV	2/pkg	818347	\$3.63
Flexi-Filter N95/HG/CL	2/pkg	818349	\$3.63

⚠ WARNING

An appropriate cartridge change-out schedule must be developed by a qualified professional, unless the cartridge/canister utilizes an end-of-service-life indicator. The change-out schedule must take into account all factors that may influence respiratory protection including specific work practices and other conditions unique to the worker's environment. If using against substances having poor warning properties, there is no secondary means of knowing when to replace the cartridges/canister. In such cases, take appropriate additional precautions to prevent overexposure, which may include a more conservative change-out schedule or using an air-supplied respirator or SCBA. Failure to follow this warning can result in serious personal injury or death. As a reference, below is a partial list of substances having poor warning properties:

Acrolein	Hydrogen cyanide	Nitric acid	Phosphorus trichloride
Aniline	Hydrogen selenide	Nitro compounds	Stibine
Arsine	Methanol	Nitrogen oxides	Sulfur chloride
Bromine	Methyl bromide	Nitroglycerin	Urethane or other diisocyanate-containing paints
Carbon monoxide	Methyl chloride	Nitromethane	Vinyl chloride
Diisocyanates	Methylene chloride	Phosgene	
Dimethyl sulfate	Nickel carbonyl	Phosphine	

RESPIRATORS FOR RIOT CONTROL

The Millennium Riot Control Mask and the Advantage 1000 Riot Control Masks are NIOSH-approved for protection against CN and CS Riot Control Agents, and P100 particulate efficiency level. See Bulletin 5555-160-MC for more specific information on chemical warfare agents.

Millennium® Riot Control Gas Mask

A Hycar version of the reliable military-style gas mask (MCU-2/P Mask, used by the U.S. Air Force in Desert Storm) that combines high performance, customized fit, comfort, and cost efficiency.

- Flexible, 1-piece polyurethane lens with wide field of vision is bonded to durable Hycar rubber facepiece
- Dual-canister mount (NATO 40mm thread) allows weapon sighting from either shoulder
- Drinking tube provides connection for fluid ingestion in contaminated atmospheres
- Fully elastic, 6-point head harness promotes easy on/off, easy adjustment, no hair pulling
- Internal nosecup with 2 check valves deflects air from the lens, reduces fogging
- Standard mechanical speaking diaphragm included, or add MSA's optional ESP® II Communications System
- NIOSH -approved (No. TC-14G-0254) for protection against chloroacetophenone (CN), chlorobenzylidene (CS), P100 particulate efficiency level, and particulates

Description	Part No.	Government Net Price
Millennium Riot Control Mask—with nose cup, drinking tube, and clear polycarbonate outsert. Order canisters separately.		\$209.38
Small	10051286	
Medium	10051287	
Large	10051288	
Millennium Riot Control Canisters, box of 6	818264	\$163.40
CBA/RCA Millennium OptiFilter Cartridges, box of six	10011890	\$171.90
GME-P100 Millennium OptiFilter, box of 6	10024847	\$170.27



Advantage® 1000 Riot Control Gas Mask

A clean, simplified respirator with Hycar facepiece (based on a proven facepiece design developed for the U.S. Armed Forces) that's up to 40% lighter than conventional full-face respirators and gives high performance, customized fit, comfort, economy, and user acceptance.

- Flexible, 1-piece polyurethane lens with wide field of vision is bonded to durable Hycar rubber facepiece
- Dual-canister mount (bayonet mount) allows weapon sighting from either shoulder
- Fully elastic, 6-point head harness promotes easy on/off, easy adjustment, no hair pulling
- Standard nose cup helps eliminate lens fogging
- Standard mechanical speaking diaphragm included, or add MSA's optional ESP II Communications System
- NIOSH-approved (No. TC-14G-0235) for protection against chloroacetophenone (CN), chlorobenzylidene (CS), P100 particulate efficiency level, and particulates

Description	Part No.	Government Net Price
Advantage 1000 Riot Control Gas Mask - Complete with canister, nose cup, and identification tag		\$144.26
Small	813860	
Medium	813859	
Large	813861	
Advantage 1000 Riot Control Canisters, box of 6	817590	\$152.65



Millennium and Advantage 1000 Accessories

Description	Part No.	Government Net Price
ESP® II Communications System for Millennium and Advantage 1000 Facepieces (less battery)—a 1-piece, self-contained, electronic speech projection device, allows wearers to speak normally, yet be heard loud and clear	10026265	\$186.32
Gas Mask Pouch, Military Style	10034184	\$42.74
Storage Case for Millennium	10017571	\$9.21
Black Nylon Bag	817040	\$21.05
Advantage 1000/Millennium Spectacle Kit	816137	\$43.59
Butyl-Coated Nylon Hood	305022	\$44.31
Lens Shield, Millennium, Clear		\$15.50
Small	10008907	
Medium/large	10008906	
Lens Shield, Millennium, Tinted		\$22.71
Small	10008909	
Medium/large	10008908	
Nosecup, Millennium		\$30.37
Small	10006823	
Medium	10006824	
Large	10006825	
Videotape	10063443	\$13.06

RESPIRATORS FOR HOMELAND SECURITY

Millennium® CBRN Gas Mask **NEW!**

The new NIOSH government CBRN standard for full-facepiece gas masks was issued on March 7, 2003. After extensive testing to that standard, MSA's Millennium CBRN Gas Mask was first to receive NIOSH certification as "compliant against CBRN".

A Hycar version of the reliable military-style gas mask (MCU-2/P Mask, used by U.S. Air Force in Desert Storm) that combines high performance, customized fit, comfort and cost efficiency.

- Flexible, 1-piece polyurethane lens with wide field of vision is bonded to durable Hycar rubber facepiece.
- Dual-canister mount allows weapon sighting from either shoulder
- Drinking tube provides connection for fluid ingestion in contaminated atmospheres
- Fully elastic, 6-point head harness promotes easy on/off and adjustment, with no hair pulling
- Internal nose cup with 2 check valves, deflects air from the lens, reduces fogging
- CBRN canister containing chemical sorbents and a P100 filter to attract, retain and neutralize contaminants
- Standard mechanical speaking diaphragm included, or add MSA's optional ESP® II Communications System
- Optional butyl-coated nylon hood for total head protection
- NIOSH-approved (No. TC-14G-0270) for protection at a CBRN Cap 1 rating



Description	Part No.	Government Net Price
Millennium CBRN Gas Mask – with nose cup, drinking tube, and clear polycarbonate outsert. Order canister separately.		\$209.38
Small	10051286	
Medium	10051287	
Large	10051288	
Millennium CBRN Canister	10046570	\$30.65

For Millennium Gas Mask accessories, see p. 13.

Ultra Elite® CBRN Gas Mask **NEW!**

Safety

- Super-soft black Hycar rubber exceeds the CBRN permeation requirements
- Large lens with 83% unimpeded vision
- Centrally located inlet port for secure, comfortable fit and feel
- Centrally located mechanical speaking diaphragm for clear communications
- Optional ClearCommand® Amplifier for increased communication capabilities

Simplicity

- Available with a 5-point rubber or Speed-ON® head harness

- Identical sealing surfaces for both SCBA and Gas Mask facepieces—eliminating the need for redundant fit testing
- Simplified respiratory protection training program

Reliability

- The Ultra Elite facepiece is fire-service proven, with over a decade of trusted use
- MSA has been making gas masks since World War I
- Largest supplier of gas masks to the law enforcement market



Description	Part No.	Government Net Price
Ultra Elite Hycar Gas Mask with rubber Head Harness		\$162.28
Small	10052776	
Medium	10052781	
Large	10052778	
Ultra Elite Hycar Gas Mask with Speed-ON Head Harness		\$189.78
Small	10052780	
Medium	10052779	
Large	10052777	
MSA CBRN Canister	10046570	\$30.65

TOTAL SOLUTIONS FOR YOUR RESPIRATORY PROTECTION PROGRAM

Pulmonary Function Testing

- Meets OSHA requirements efficiently and cost-effectively
- All technicians are NIOSH-certified
- Physicians review PFT and issue clearance letter
- All tests are kept confidential

Quantitative Fit Testing

- On-site/high volume
- Probed facepieces available
- TSI PORTACOUNT® 8020 used
- Test subjects receive immediate feedback

Medical Clearance

- On-line or on-site
- OSHA mandated questionnaire
- Clearance certificate provided on the spot
- Can take less than 10 minutes

Technical Support

- Our specialized customer service support center is waiting to take your call
- Multi-lingual technical support CD offered FREE
- MSA field sales managers available on request
- Cartridge calculator available on-line or on CD

Training

- On-line training with web access 24/7
- Train-the-Trainer programs available
- User test (Multi-lingual)
- Videotape and CD training available for select respirators



<i>Description</i>	<i>Part No.</i>	<i>Government Net Price</i>
Respiratory Medical Screening Program, on-line	10056263	\$9.82
Millennium Gas Mask training, on-line	10056264	\$7.86
Respiratory Medical Training, on-line quest.	10056323	\$10.12
Respirator Training, on-line, Millennium CBRN	10056324	\$8.09

LAW ENFORCEMENT

PHALANX™ CHEM-BIO/RIOT CONTROL AGENT GAS MASK

(see Data Sheet 05-01-03)

Phalanx CBA-RCA (Chemical/Biological Agent-Riot Control Agent) Gas Masks from MSA are specifically designed for use by law enforcement and emergency response personnel.

Phalanx CBA-RCA Gas Masks are molded from black Hycar rubber, which resists chemical attack and temperature extremes and is able to withstand rugged daily use. Hycar is particularly resistant to permeation against chemical warfare agents. The facepiece is soft and pliable for a snug, comfortable fit.

- The Phalanx CBA-RCA Gas Mask is NIOSH-approved for protection against CN and CS tear gas.
- This mask is also effective against, but does not have NIOSH approval for, OC tear gas.

- The Phalanx Gas Mask is also effective against biological agents and chemical warfare agents.
- Low-profile mask reduces interference with other personal protective equipment.
- Dual-canister mount allows weapon firing from either shoulder.
- Standard speaking diaphragm for clear, close-range communication. The facepiece adapts to optional ESP Communications System.
- The Phalanx CBA-RCA Canister is also approved on the Ultravue Facepiece.



Description	Small	Medium	Large	Government Net Price
Phalanx CBA/RCA Facepiece, Black, with EZ-Don Harness and CBA/RCA Canister	491990	491989	491991	\$192.55
CBA/RCA Canister for Phalanx, Box of 6 (one size fits all)	—	—	817591	\$173.67

Accessories and Replacement Parts

Description	Part No.	Government Net Price
Cover lens for Phalanx		
Clear, box of 25	456975	\$29.63
Smoke-tinted, box of 6	494254	\$21.11
Smoke-tinted, box of 25	480326	\$60.79
Mirror-reflective, box of 6	494255	\$21.11
Yellow-tinted, box of 6	494256	\$24.52
Spectacle Kit for Phalanx	454819	\$43.59
Carrier	817040	\$21.05
Inlet Cap	488114	\$2.04

Description	Part No.	Government Net Price
Phalanx Lens Ring Replacement Kit		\$12.77
Small	471249	
Medium	464358	
Large	471250	
Phalanx Nosecup		\$27.75
Small	813138	
Medium	813139	
Large	813140	

RESPIRATOR CLEANING PRODUCTS

(see Data Sheet 10-00-13)

Description	Part No.	Government Net Price
Cleaner, Confidence Plus Germicidal, Liquid, 32 oz bottle	10009971	\$17.03
Towelettes, 220 unit canister	697382	\$12.50
Towelettes, 100 individually wrapped	697383	\$10.90
“The Big Ones” Towelettes, box of 50 individually wrapped	10022871	\$10.76
Disposable Lens Cleaning Station, small	10022086	\$4.28
Disposable Dispenser Box for Towelettes	10022087	\$5.59
Fog-Pruf 4 oz spray bottle	13016	\$3.80



Confidence Plus® Germicidal Cleaner



Personal Safety Equipment Towelettes

RESPONSE™ ESCAPE HOOD

The MSA Response Chemical-Biological Warfare Agent Riot Control Agent Hood features a quarter-mask facepiece with an integral hood that offers a comfortable fit with a large field of vision, reduced claustrophobia, and increased user recognition. The hood uses a 40-mm threaded canister. When the wearer inhales, contaminated air enters and flows through the canister, which removes the contaminants from the air stream, so the wearer breathes in clean, fresh air.

Description	Part No.	Government Net Price
Response Escape Hood with CBA/RCA canister, packaged	10022208	\$117.78
Response Escape Hood, tactical	10039843	\$114.21
Response Escape Hood with video	10037908	\$120.10
Training Hood	10043707	\$82.09



Response Escape Hood



SAFE ESCAPE™ CBRN RESPIRATORS

NEW!

When escaping from CBRN agents, every second counts. Depend on the Safe Escape Hood from MSA. The hood gives your employees the protection they need to escape from a terrorist situation safely, quickly and easily — whether they work in high-profile office environments, for government agencies or embassies, or as law enforcement or first responders. The MSA Safe Escape Hood is the equipment of choice for today's diverse workforce.

Engineered for Maximum Performance

Manufactured with a high-performance laminate material, the hood is designed to provide you with the latest in head and neck coverage with respiratory protection against CBRN agents. The soft, high-stretch rubber neck seal conforms to irregular neck contours, allowing a secure fit on a wide variety of users. Its unique sized nosecup helps reduce lens fogging and carbon dioxide buildup by directing airflow inside the hood.

The Safe Escape Hood canister features a high-efficiency particulate filter and activated carbon to combat aerosols, gasses and vapors. In fact, the canister used in the hood contains 50% more carbon than similar canisters used by the U.S. military. Furthermore, MSA has performed extensive testing on the Safe Escape Hood against both simulated and live chemical agents beyond what is tested by NIOSH.

Designed for Comfort

In addition to designing the hood for maximum protection, MSA also took into account the comfort factor. A user who is potentially under stress requires ease of donning and use. The large lens and translucent hood allow better visibility, face recognition and help reduce claustrophobia. The nose cup allows communication superior to that of conventional devices, which require wearers to breathe through a mouth bit. With the integrated nose cup, wearers can breathe and speak normally to provide potentially life-saving communications. The hood also features cradle-type self-adjusting head straps that allow for quick, no assistance donning in the event of an emergency.



Carrying the Safe Escape Respirator

Description	Small	Medium	Large	Government Net Price
Safe Escape Respirator in Hextreme Case, standard	10066790	10066791	10066792	\$147.35
Safe Escape Respirator in Hextreme Case, tactical version	10066787	10066788	10066789	\$147.35
Trainer version of Safe Escape Respirator	10066784	10066785	10066786	\$88.41

Description	Part No.	Government Net Price
Safe Escape Respirator Sizing Kit	10066681	\$10.02
Optional carrying straps and harness kit	10068310	\$36.02
DVD Training video for Safe Escape Respirator	10068013	\$32.09

Note: The only difference between the standard version and tactical version is the outer labeling on the hextreme case.

Canister Test Challenge and Test Breakthrough Concentrations

Agent	Test Concentration	NIOSH CBRN Allowable Breakthrough	Safe Escape Average Breakthrough Time
HD-Vapor	50 mg/m ³	3 mg/m ³	> 45 min.
GB	210 mg/m ³	1.05 mg/m ³	> 45 min.
Ammonia	1250 ppm	25 ppm	> 40 min.
Cyanogen chloride	150 ppm	2 ppm	> 30 min.
Cyclohexane	1300 ppm	10 ppm	> 40 min.
Formaldehyde	250 ppm	1 ppm	> 120 min.
Hydrogen cyanide	470 ppm	4.7* ppm	> 200 min.
Hydrogen sulfide	500 ppm	5 ppm	> 200 min.
Nitrogen dioxide	100 ppm	1 ppm NO ₂	> 50 min.
Phosgene	125 ppm	1.25 ppm	> 450 min.
Phosphine	150 ppm	0.5 ppm	> 290 min.
Sulfur dioxide	750 ppm	5 ppm	> 30 min.

* Sum of HCN and C₂N₂

OPTIMAIR® POWERED AIR PURIFYING RESPIRATORS

(see Bulletins 10-00-09, 10-04-09 and 1010-13-MC)

The **OptimAir MM zK Powered Air-Purifying Respirator (PAPR)** is designed for work in abatement, nuclear, lead, and other hazardous particulate environments. The PAPR filters particulates and provides a constant flow of respirable air to the Ultravue® or Ultra Elite® Facepiece. The mask-mounted motor/blower with HEPA filter has a low-profile design that enhances user maneuverability and simplifies decontamination. The PAPR includes a small, lightweight, water-resistant nickel metal hydride (NiMH) battery pack that will operate for eight hours of continuous use. The standard dual-rate battery charger will recharge a fully discharged battery in less than three hours.

The **OptimAir 6A Powered Air-Purifying Respirator (PAPR)** provides respiratory protection by filtering contaminants from ambient air and providing air flow to either a facepiece or hood (with HEPA filters only) at a rate equal to or exceeding NIOSH standards. It can be used with an entire family of filters, chemical cartridges, and combination cartridges for protection against particulates, toxic gases and vapors, or a combination of these hazards. It requires two filters. The unit is available with full- or half-mask facepieces, or a hood. Applications include hazardous materials cleanup, asbestos and lead paint abatement, chemical processing, foundry, smelter and coke oven applications, and nuclear facilities work.



The **OptimAir 6HC PAPR (Health Care Powered Air-Purifying Respirator)** from MSA is specifically designed to protect health care professionals from residual Chemical/Biological/ Radiological Agents, when they are performing First Responder duties during Homeland Security or terrorist situations.

The system features an Advantage 3000 facepiece and belt-mounted blower with two HC Cartridges. The canisters contain a pleated high-efficiency (P100) filter to remove aerosols, radionuclides, and solid particulates; and an impregnated activated carbon bed to adsorb (filter out) gases and vapors. The carbon bed is the same as used in military canisters and is effective against mustard (HD), Sarin (GB), DMMP (a Sarin simulant), HCN, and CK.

OptimAir 6HC PAPR with Advantage 3000 Facepiece



OptimAir MM zK PAPR

OptimAir MM zK PAPRs

Description	Facepiece	Small	Medium	Large	Government Net Price
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge	Ultravue, black silicone	10023881	10023859	10023880	\$358.22
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge	Ultravue, black Hycar	10023858	10023569	10023857	\$358.22
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge	Ultra Elite, black silicone	10023886	10023887	10023885	\$358.22
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge	Ultra Elite, black Hycar	10023882	10023883	10023884	\$358.22
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge, with rubber harness	Advantage 3000	10034152	10034150	10034151	\$326.78
with NiMH battery, dual-rate battery charger, belt, 1 Type HE OptiFilter XL cartridge, with Advantage harness	Advantage 3000	10034155	10034153	10034154	\$326.78

OptimAir 6A and 6HC PAPRs

Description	Facepiece	Small	Medium	Large	Government Net Price
OptimAir 6A PAPR with 1,500 Hour Motor, std battery w/charger	Millennium	10046392	10046391	10046391	\$520.63
OptimAir 6A PAPR with 1,500 Hour Motor, lithium battery	Millennium	10046395	10046394	10046396	\$509.49
OptimAir 6A PAPR with 1,500 Hour Motor	Ultravue, black	494237	494236	494238	\$506.87
OptimAir 6A PAPR with 1,500 Hour Motor	Comfo, black	—	800749	—	\$401.44
<i>(other facepiece sizes may be ordered with unit, contact the Contract Administrator for assistance)</i>					
OptimAir 6HC PAPR, with motor/blower module, lithium battery, breathing tube, belt and 2 HC Cartridges	Advantage 3000	—	10045100	—	\$517.35

Description	Part No.	Government Net Price
OptimAir 6A PAPR, with lithium battery	816892	\$487.88
OptimAir 6A PAPR, with brush-type motor, NiCad battery, breathing tube for tight-fitting facepieces, charger, belt, less facepiece and cartridges	10023039	\$363.46
OptimAir 6A PAPR, with brush-type motor, lithium battery, breathing tube for tight-fitting facepieces, belt, less facepiece and cartridges	10023040	\$352.32

COMFO® CLASSIC/ULTRA-TWIN®/ULTRA ELITE® AIR PURIFYING RESPIRATORS

(see Data Sheet 10-02-03 and 10-00-03)

The **Comfo Classic Respirator** features SoftFeel® facepiece material, an exclusive formulation that improves the pliability and softness of both Hycar™ rubber and silicone—the two facepiece materials available with Comfo Classic Respirators. The Comfo Classic Respirator offers a unique face seal design that gives wearers an exceptional fit.

The **Ultra-Twin Full-Facepiece Respirator** has an intumed lip around the edge for a secure, comfortable seal against the face. A large chin cup makes it easy to position. Five suspension headstraps and roller buckles hold the facepiece in place while minimizing hair entanglement. The wide polycarbonate lens is coated to resist scratching and chemical attack. The lens is held in place by a two-piece lens ring which is color-coded to indicate the size of the facepiece. Uses the full line of Comfo Cartridges and Filters. Standard equipment includes a speaking diaphragm for clear, short-range communications and a nosecup, to reduce lens fogging in low temperatures or high-humidity conditions.

The demand version of the **Ultra Elite Facepiece** from MSA can be used as a twin-cartridge air-purifying respirator for full-face respiratory protection. The unique lens design provides a high level of peripheral and downward vision. It is available in three sizes and has large adjustment tabs for easy donning and doffing. A speaking diaphragm in front of the wearer's mouth improves communication so that speech is not blocked. A nosecup reduces lens fogging in low temperatures or high-humidity conditions.

Description	Small	Medium	Large	Government Net Price
Comfo Classic Facepiece				
Hycar, Black	808075	808074	808076	\$18.62
Silicone, Black	808072	808071	808073	\$18.62
Ultra-Twin Facepiece				
Hycar, Black	471298	471286	471310	\$146.57
Silicone, Black	480263	480259	480267	\$146.57
Ultra Elite Facepiece, less twin Cartridge Adapter				
Silicone, Black	493072	493028	493116	\$158.84

Description	Part No.	Government Net Price
Twin-Cartridge Adapter for Ultra Elite Facepiece	803622	\$17.37



Comfo Classic Facepiece (with cartridges)



Ultra-Twin Facepiece



Ultra Elite Facepiece with Twin-Cartridge Adapter

COMFO CARTRIDGES FOR COMFO CLASSIC/ULTRA TWIN/ULTRA ELITE

P100-Particulate Filter (99.97% filter efficiency level) effective against *all* particulate aerosols.

Description	Re-Order Packaging	Part No.	Government Net Price
GMA P100	box of 6	815178	\$37.98
GMB P100	box of 6	815179	\$37.98
GMC P100	box of 6	815180	\$37.98
GMD P100	box of 6	815181	\$40.01
GME P100	box of 6	815182	\$41.03
GMI P100	box of 6	815184	\$43.21
Mersorb P100	box of 6	815185	\$75.42
P100	box of 10	815175	\$37.83
Low-Profile P100	box of 10	815177	\$37.83
P100 Sparkfoe	box of 10	815176	\$37.83



GME-P100 Comfo Cartridge



P100 Low Profile Comfo Cartridge

RESPIRATOR CARRYING/STORAGE CASE FOR ALL MSA RESPIRATORS

Black plastic carrying/storage case for full-facepiece respirators or other safety equipment, such as half-mask respirators, goggles, and ear muffs. Workers who store their safety equipment in car trunks, trucks, tool lockers, etc., will find this rugged case to be ideal.

Description	Part No.	Government Net Price
Black plastic carrying/storage case	D2056734	\$21.11



OptiFilter® Cartridges

Description	Packaging	Part No.	Government Net Price
Type H OptiFilter XL Cartridge	box of 6	496081	\$56.29
Type H OptiFilter Cartridge	box of 50	491009	\$458.02
Type H OptiFilter Cartridge	box of 6	491010	\$57.96
Type HE OptiFilter Cartridge	box of 6	10042346	\$175.38
GMC-H OptiFilter Cartridge	box of 6	494217	\$114.93
GMD-H OptiFilter Cartridge	box of 6	494219	\$114.93
OptiFilter XL Prefilter/Cover Assembly	1 each	497098	\$3.41
OptiFilter Prefilters	50/box	493524	\$8.81
Prefilter/Cover Assembly for OptimAir MM	1 each	496342	\$1.41
CBA/RCA OptiFilter Canister	box of 6	10011890	\$171.90



OptimAir Facepieces & Nosecups

Description	Small	Medium	Large	Government Net Price
Ultravue Facepiece, Black Hycar	471218	457126	471230	\$157.33
Ultravue Facepiece, Black Silicone	480251	480247	480255	\$157.33
Ultra Elite Facepiece, Black Hycar	493064	493020	493108	\$158.84
Ultra Elite Facepiece, Black Silicone	493072	493028	493116	\$158.84
Advantage 3100 Single-Port Respirator Facepiece, with rubber harness	10028999	10028998	10029000	\$84.03
Advantage 3100 Single-Port Respirator Facepiece, with Advantage harness	10031343	10031342	10031344	\$84.03
Nosecup, Ultravue/Ultra Twin, Black Silicone	813138	813139	813140	\$27.75



OptimAir 2K MM Battery Pack

OptimAir Accessories

Description	Part No.	Government Net Price
Cover lens, Ultra Twin/Ultravue, box of 25	456975	\$29.63
Spectacle Kit, Ultra Twin/Ultravue	454819	\$43.59
Voice Amplifier, ESP Ultravue	811737	\$250.46
OptimAir MM 2K PAPR NiMH Battery Pack	10023481	\$113.42
OptimAir MM 2K PAPR Motor/Blower Assembly	10023482	\$83.01
OptimAir MM 2K PAPR Cable Assembly	10023480	\$41.81
OptimAir MM 2K PAPR Dual Rate Battery Charger	10023483	\$62.87
OptimAir 6A Rechargeable Battery	491120	\$180.09
OptimAir 6A Lithium Battery	816912	\$178.78
OptimAir 6A Charger	463471	\$37.26
OptimAir 6A Dual Rate Charger	486614	\$187.29
OptimAir 6A 1,500 Hour Motor	491102	\$219.38
Facepiece Breathing Hose, 30 inch	486364	\$52.88
Facepiece Breathing Tube, 36 inch	492197	\$46.63
OptimAir 6A PVC Splash Cover	808494	\$50.75
OptimAir 6HC Motor Blower	10048178	\$219.38
OptimAir 6HC Lithium Battery	10048180	\$129.67
OptimAir 6HC Hood	10048179	\$81.86

OptimAir Flow Test Equipment & Accessories

Description	Part No.	Government Net Price
Field Test Unit, OptimAir 6A	468486	\$478.91
Flow Test Unit, OptimAir 6A/MM	488903	\$333.99
Flow Check Meter Adapter, MM	491046	\$3.11

Support Belts for PAPRs

Description	Part No.	Government Net Price
Urethane Coated Nylon Belt	492827	\$15.32
PVC Belt	473902	\$5.96
Web Belt	9961	\$20.91
Shoulder Support Strap	803903	\$18.01

FIREHAWK™ AIR MASK

Safety

- MSA's **EXCLUSIVE QUICK-FILL® SYSTEM** makes every SCBA capable of both receiving and donating air to firefighters in need. Although the NFPA standard requires all brands of SCBA to incorporate the RIC connection, only the MSA Air Mask can make full utilization of the fitting with our exclusive transfilling capability.
- An NFPA-compliant emergency egress system, integral to the SCBA waist belt, is available as an option. This **RESCUE BELT** comes complete with Kevlar line (50 ft. or 75 ft.) and rappelling hardware.
- The all new **AIRFRAME™ CARRIER AND HARNESS** comes standard, with large side handles and a central attachment point for pulling firefighters to safety in rescue scenarios.
- MSA's Ultra Elite® Facepiece is designed with a **ONE-WAY CHECK VALVE** to prevent cross-contamination among firefighters. Although regulators are shared among users, harmful pathogens (SARS, hepatitis, flu virus) are kept within each individual-issue facepiece.
- **Wireless electronics** add safety benefits by eliminating snag hazards that can accompany unnecessary wires on an SCBA.
- **CBRN POSITIVE PROTECTION** is provided by MSA's exclusive Tetraplex™ shield, which serves as the first line of defense in preventing chemical warfare agents from any initial contact with the critically important second-stage diaphragm.
- A **NEW INSERT**, now standard on all MSA cylinder valves, reduces the thrust of cylinders if they are mishandled.
- A **BUDDY LIGHT** on the MSA heads-up display lets others know when you are low on air, reinforcing the distinct communication of the Audi-Larm™ Audible Alarm.
- The Heads-Up Display has an **AUTOMATIC DIMMING FEATURE** in low ambient light to protect the visibility of firefighters.

FIREHAWK™ AIR MASK WITH CBRN PROTECTION

MSA has you protected with the latest enhancements to our FireHawk Air Mask, the fire service's FIRST NFPA 1981-2002 edition, NIOSH-approved CBRN self-contained breathing apparatus.

MSA's new FireHawk CBRN SCBA was developed to provide you with positive protection from CBRN agents, according to the stringent live-agent test regimen of the NIOSH approval process. Because conventional silicone diaphragms are among the SCBA components most vulnerable to CBRN agent permeation, our positive-protection design seals the new diaphragm of the Firehawk® regulator from any initial contact with contaminants.

The key to this protection are these revolutionary components, which lie within the CBRN version of the second-stage regulator:

- MSA's exclusive Tetraplex™ Protective Shield (patent pending). It serves as the first line of defense in preventing chemical warfare agents from contacting the vital components of the regulator and entering the user's air stream.

Simplicity

- An optional **SWIVELING LUMBAR PAD** for maximum freedom of movement and comfort when crawling or climbing.
- A **SLIDE-TO-CONNECT** or **PUSH-TO-CONNECT** regulator attachment to meet the widest range of your preferences.
- An **INTEGRATED SHUT-OFF** to prevent the loss of cylinder air when disconnecting the second-stage regulator.
- An **OPEN-FORM CYLINDER BAND** to allow rapid drop-in cylinder replacement, eliminating webbing adjustments and secondary retaining clips.
- Modular **"STAND ALONE" ELECTRONIC COMPONENTS** for easy maintenance, with no wires to route and no complicated mounting brackets.
- A **POWER-SAVING MODE** on the heads-up display, which is set as a default to maximize battery life, with a continuous-on mode that can be selected to provide a constant LED display.
- An optional ICM unit that serves as an integrated PASS and low-pressure warning device, with an optional digital display of cylinder pressure and time remaining. This ICM unit is also available with **DATA LOGGING AND DOWNLOADING** capabilities, to track the most recent 30 hours of use.
- A maintenance policy that delivers the **LOWEST POSSIBLE COST OF OWNERSHIP**, based on the frequency of use of the Air Mask. For many departments, this means only conducting an annual flow test according to the NFPA 1852 standard. Even a busy department using one cylinder every other day would find the cost of maintaining an SCBA to be less than \$7 per year.
- State-of-the-art regulator designs that have among the **FEWEST NUMBER OF PARTS** in the industry. The Firehawk regulator requires no tools, lubricants, or sealants in its maintenance.
- **NFPA AND CBRN UPGRADE KITS** to help users meet the most current performance standards.



Reliability

- **IN-HOUSE MANUFACTURING** of nearly every pneumatic, electronic, and structural component of the Air Mask to ensure optimal quality and performance.
- Use of the **HIGHEST QUALITY** and grades of stainless steel and aluminum with select blends of Kevlar, rubber, and plastic molding compounds for the highest strength and durability.
- **TEFLON HARD-COAT ANODIZED** valve bodies to minimize the friction of internal components and maximize their service life.
- Electronics designed for ruggedness and **IMMUNITY TO FIRE GROUND RFI** (radio frequency interference). The Air Mask's electronics must first pass through MSA's stringent in-house RFI chamber to ensure reliable operation before you use them.
- **100% INSPECTION** of all Air Mask critical attributes in production.
- An **ISO 9001:2000 CERTIFIED** organization.
- **RESPONSIBLE MAINTENANCE POLICIES** communicated to users by direct mail and over the internet, with the appropriate training and technical updates to help ensure the continued dependable operation of the Air Mask.
- A "best-in-class" service network with **OVER 2,000 CERTIFIED REPAIR FACILITIES** and a team of service specialists, committed to resolving customer issues any time, anywhere, all backed by a lifetime warranty.

- A permeation-resistant regulator diaphragm made of a proprietary rubber compound. It serves as the second line of defense in protecting the user's breathing zone.
- A modified valve core body (the engine of the regulator). It supports the new shield and diaphragm with a high-performance air-delivery system.

These components, plus one of the industry's best-fitting facepieces, MSA's Ultra Elite® Facepiece, ensure reliable and effective respiratory protection not only from agents that might be used in a terrorist attack, but also from many of the lethal byproducts of combustion that are encountered in everyday firefighting. Chemical plants, nuclear facilities, laboratories, and other industries harbor unknown and life-threatening environments that you might have to face. With MSA's new CBRN FireHawk Air Mask, you can be positive you are protected on every call.



ASSEMBLE-TO-ORDER (ATO) SYSTEM FOR FIREHAWK™ AIR MASKS

Prices are 39.55% discount off 2005 Price List.

The Choice is Truly Yours

The ATO System makes it easy to order MSA Air Masks that are custom assembled to meet your specific needs. You start with a basic Air Mask configuration, and then choose from an extensive line of options that includes cylinders, dual-purpose capabilities, the Quick-Fill® System, various models and sizes of facepieces, nose cups, the Speed-ON™ Head Harness and other options based on your requirements. All to ensure that you get the one Air Mask you need.

With the ATO System, you get more choices in SCBA products in less time. "Special" orders, which used to take several weeks to process and ship, now take only days.

Custom Part Number Ordering

Using the ATO System is easy. You simply create your own part number for your desired Air Mask assembly using the ordering information provided on the price list to the right. Just select the number or letter that corresponds to your choice of components and fill in the appropriate box.

To determine the total Air Mask list price, just mark the cost of the components you choose in the boxes directly below each column, then total the figures. You're then just days away from having the most advanced and dependable respiratory protection available. Simple, easy, fast ... that's ATO.

Note: This matrix must only be used for ordering complete Air Mask assemblies. An Air Mask type must be specified. This matrix cannot be used for ordering individual components (i.e. facepieces, cylinders, etc.) Please order components separately using their standard MSA part number.

SCBA Type	Carrier/Harness Assembly	Lumber Pad/Rescue Belt	Cylinder	MMR Regulator Type	Air-Line Options	Breathing System	Facepiece	Nosecup	Head Harness	Communication	Gauge/Integrated PASS	Case
UM 2216 Firehawk Air Mask	A Airframe Single Pull without Chest Strap B Airframe Double Pull without Chest Strap C Airframe Single Pull with Chest Strap D Airframe Double Pull with Chest Strap Options A & C can only be chosen if either a rescue belt or an air-line option is selected.	0 None 1 Lumber Pad 2 Swiveling Lumber Pad A Rescue Belt - Standard 50' B Rescue Belt - Standard 75' C Rescue Belt - Long 50' D Rescue Belt - Long 75' E Swiveling Rescue Belt - Standard 50' F Swiveling Rescue Belt - Standard 75' G Swiveling Rescue Belt - Long 50' H Swiveling Rescue Belt - Long 75'	0 None 1 3AL Aluminum Hoop-Wound 2 Hoop-Wound 3 30 Carbon 4 3AL Aluminum less Air 5 Hoop-Wound less Air 6 30 Carbon less Air 0 None 1 30 Carbon 2 30 Carbon less Air 3 45 Carbon Low-Profile 4 60 Carbon 5 30 Carbon less Air 6 45 Carbon less Air 7 45 Carbon Low-Profile less Air 8 60 Carbon less Air	E Firehawk STC, Threaded, Solid Cover F Firehawk STC, OC, Solid Cover G Firehawk Threaded, Solid Cover H Firehawk PTC, OC, Solid Cover 126.39 0.00 126.39	0 None 1 Foster 2 Hansen If options 1 or 2 are chosen, the carrier/harness assembly must be a single pull (options A or C).	0 None 1 Quick-Fill Shoulder Mounter* 3 ExtendAir (EBS) with Dual Quick-Connect** 4 Shoulder Mounter 0.00 188.96 289.45 478.41	A None B Ultra Elite Hycar, Small C Ultra Elite Hycar, Medium D Ultra Elite Hycar, Large E Ultra Elite Silicone, Small F Ultra Elite Silicone, Medium G Ultra Elite Silicone, Large 170.20 170.20 170.20	0 None 1 Medium 2 Large	0 None 1 Rubber Neckstrap 2 Speed-ON Neckstrap 3 Rubber with Neckstrap 4 Speed-ON Neckstrap with Speed-ON Neckstrap	A Standard Speaking Diaphragm B Clear-Command Ready C Clear-Command AMP D Clear-Command AMP/PI (Less PTT) 0.00 86.20 250.81 371.76	A None B Pressure Gauge C ICM Tx with heat sensor D ICM Tx without heat sensor 0.00 88.91 628.10 628.10	0 None 1 Hard Case 2 Soft Case 0.00 66.05 66.05
MM 3000 Firehawk Air Mask												
CM 4500 Firehawk Air Mask												
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

Quantity

Part Number

Total Air Mask List Price =

All Pricing in U.S. Dollars

*Note: Standard Rescue Belt fits waist sizes up to 54 inches. Long Rescue Belt fits waist sizes up to 74 inches.

ASSEMBLE-TO-ORDER (ATO) SYSTEM FOR FIREHAWK™ AIR MASKS WITH CBRN PROTECTION

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To determine the total Air Mask list price, just mark the cost of the components you choose in the boxes directly below each column, then total the figures. You're then just days away from having the most advanced and dependable respiratory protection available.

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Assemblies are
NIOSH-approved under
CBRN standards.

Note: This matrix must only be used for ordering complete Air Mask assemblies. An Air Mask type must be specified. This matrix cannot be used for ordering individual components (i.e. facepieces, cylinders, etc.) Please order components separately using their standard MSA part number.

SCBA Type	Carrier/Harness Assembly	Lumbar Pad/Rescue Belt	Cylinder	MMR Regulator Type	Air-Line Options	Breathing System	Facepiece	Nosecup	Head Harness	Communication	Gauge/Integrated PASS	Case
UM 2216 FireHawk Air Mask	A Airframe Single Pull without Chest Strap 477.74	0 None 1 Lumbar Pad 42.52 2 Swiveling Lumbar Pad 56.84	0 None 1 3AL Aluminum 338.36 2 Hoop-Wound 407.24 3 30" Carbon 533.56 4 3AL Aluminum less Air 357.04 5 Hoop-Wound less Air 425.92 6 30" Carbon less Air 602.24	N CBRN Firehawk STC, Threaded, Solid Cover 174.32 Q CBRN Firehawk STC, OC, Solid Cover 52.92 R CBRN Firehawk Threaded, Solid Cover 179.32 S CBRN Firehawk PTC, OC, Solid Cover	0 None 1 Quick-Fill 188.96 2 Shoulder Mounted* 24.01 3 ExtendAir (EBS) with Dual Quick-Connect** 289.45 4 Shoulder Mounted Quick-Fill & ExtendAir (EBS) with Dual Quick-Disconnect 478.41	A None B Ultra Elite Hycar, Small 160.88 C Ultra Elite Hycar, Medium 160.88 D Ultra Elite Hycar, Large 160.88	0 None 1 Medium 24.01 2 Large 24.01	0 None 1 Speed-ON Neckstrap 32.99 2 Speed-ON Neckstrap with 39.35 4 Speed-ON Neckstrap	A Standard Speaking Diaphragm 0.00 B Clear-Ready Command 86.20 C Clear-Command AMP 250.81 D Clear-Command AMP/RI (Less PTT) 371.76	A None B Pressure Gauge 88.91 C ICM Tx with heat sensor 628.10 D ICM Tx without heat sensor 628.10	0.00 66.05 66.05	
MM 3000 FireHawk Air Mask	B Airframe Double Pull without Chest Strap 463.62	A Rescue Belt - Standard 50" 227.26 B Rescue Belt - Standard 75" 292.20 C Rescue Belt - Long 50" 240.63 D Rescue Belt - Long 75" 305.77	0 None 1 30" + Carbon 672.66 2 30" + Carbon less Air 691.34									
CM 4500 FireHawk Air Mask	C Airframe Single Pull with Chest Strap 473.78 D Airframe Double Pull with Chest Strap 489.97	E Swiveling Rescue Belt - Standard 50" 241.38 F Swiveling Rescue Belt - Standard 75" 306.52 G Swiveling Rescue Belt - Long 50" 255.15 H Swiveling Rescue Belt - Long 75" 320.09	0 None 1 30" + Carbon 596.32 2 45" Carbon 762.11 3 45" Carbon Low-Profile 762.11 4 60" Carbon 967.87 5 30" Carbon less Air 605.00 6 45" Carbon less Air 780.78 7 45" Carbon Low-Profile less Air 780.78 8 60" Carbon less Air 986.55									
<p>*MM is not compatible with Quick-Fill Option **ExtendAir is not compatible with air-line options.</p>												
<p>If choosing a rescue belt, the carrier/harness assembly must be a single pull (options A or C).</p>												
<p>Options A & C can only be chosen if either a rescue belt or an air-line option is selected.</p>												
<p>Price List</p>												
<p>Total Air Mask List Price = \$</p>												
<p>All Pricing in U.S. Dollars</p>												
<p>Quantity</p>												
<p>Part Number</p>												

*Note: Standard Rescue Belt fits waist sizes up to 54 inches.
Long Rescue Belt fits waist sizes up to 74 inches.

Tactical Air Masks

BlackHawk™ Tactical Air Mask

The BlackHawk Tactical Air Mask is especially designed for surveillance. Certain BlackHawk features eliminate reflections and/or audible sounds that would compromise concealment—in other words, it is black, sleek and silent.

Ultra Elite® Facepiece

- All-black Ultra Elite facepiece, available in Hycar or silicone
- Three sizes of facepiece with two sizes of black nose cups
- Nightfighter™ HUD System mounting bracket
- Speed-ON® Head Harness

Mask-Mounted Regulator

- Firehawk™ Regulator with Push-to-Connect feature
- Neoprene intermediate pressure hose
- Variable flow bypass system

EOSTI / Gauge

- Nightfighter™ Heads-Up Display functions silently as the low pressure warning device and the cylinder pressure gauge*
- System consists of a transmitter mounted on the gauge line and a receiver that mounts on the facepiece
- A series of LEDs provides the user with cylinder volume information
- LEDs function in an intermittent mode and can be refreshed by depressing the refresh button on the transmitter

* There is no audible low-pressure warning device on this unit.

Harness and Carrier

- Composite backplate made of glass-reinforced thermo-set plastic
- Waistbelt, shoulder straps and pull strap are all made of flame and heat-resistant (FHR) Kevlar
- Optional FHR shoulder pads and lumbar pad
- Optional FHR chest strap
- Adjustable Kevlar cylinder retention strap with over-center latching system
- Cylinder shroud that encompasses the cylinder and Air Mask pneumatics. Shroud is made of Advance FHR material

Cylinders

- The Blackhawk™ Air Mask is available in both low-pressure (2216 psi) and high-pressure (4500 psi) operating systems.
- Carbon-fiber cylinders available for use are: L-30 Stealth, H-30Stealth, H-45 Low-Profile Stealth, H-60 Stealth

Quick-Fill® System Option

- A shoulder-mounted Quick-Fill System option is offered

Workline Accessory

- For extended-use applications, an air-line accessory is available with your choice of five different types of fittings

Carrying Case

- A hard case or soft case are offered for storage purposes



BlackHawk™ Tactical Air Mask

Industrial SCBA

AirHawk™ MMR Air Mask

Based on the highly successful MMR Xtreme® Air Mask which sees duty in the harshest environment—firefighting—MSA's Airhawk™ MMR Air Mask incorporates the latest technologies available for industrial, agricultural, HazMat and HVAC work.

What sets the Airhawk SCBA apart from the rest of the field is the long list of options that let you customize the apparatus for your specific needs.

- The Airhawk SCBA is available in low-pressure (2216 psig) or high-pressure (4500 psig) versions.
- Three different 30-minute rated low-pressure cylinder types—aluminum, hoop-wound or stealth—let you choose low weight or low-cost:
- High-pressure Carbon Fiber-wrapped Composite cylinders are available in 30-, 45- or 60-minute rated durations.
- The innovative FireHawk PTC (Push-To-Connect) Regulator easily and securely attaches to your facepiece
- The industry leading Ultra Elite® Facepiece offers the choice of three sizes in either SoftFeel® Hycar rubber or silicone.
- Dual-purpose options allow the connection of an air-line. Five different quick-disconnect fittings are available.
- The harness assembly is available in Nylon or flame-and-heat-resistant Kevlar. A chest strap, lumbar pad and shoulder pads can also be added, making this the most comfortable industrial Air Mask on the market today.

Designed with the industrial user in mind, employing the latest in engineering advancements, the Airhawk MMR Air Mask will perform wherever firefighting compliance to NFPA 1981 is not required.



AirHawk™ MMR Air Mask

ASSEMBLE-TO-ORDER (ATO) SYSTEM FOR BLACKHAWK™ AIR MASKS

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SCBA Type	Carrier/ Harness	Pad Options	Cylinder	MMR Regulator Type	Air-Line Option	Emergency Breathing System	Facepiece	Nosecup	Head Harness	HUD Options	Case																																																
BL Blackhawk MMR (2216 psig)	0	0.00	0.00	0.00	0.00	0.00	A None	0.00	0.00	0.00	0.00																																																
	1	42.11	583.56	1	108.96	1	B Ultra Elite HyCar, Small	1	13.91	1	66.05																																																
	2	42.11		2	146.32		C Ultra Elite HyCar, Medium	2	33.35	2	66.05																																																
	3	84.22		3	108.96		D Ultra Elite HyCar, Large																																																				
	4	56.43		4	108.96		E Ultra Elite Silicone, Small																																																				
	5	98.54		5	146.32		F Ultra Elite Silicone, Medium																																																				
BH Blackhawk(M MR4500 psig)	0	0.00	0.00			0	G Ultra Elite Silicone, Large	0																																																			
	1		586.32			1		1		1																																																	
	2		762.11			2		2		2																																																	
	3		967.87			3		3		3																																																	
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NIOSH Approved, Non-NFPA Compliant

ASSEMBLE-TO-ORDER (ATO) SYSTEM FOR AIRHAWK™ MMR AIR MASKS

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SCBA Type	Carrier/ Harness	Pad Options	Cylinder	MMR Regulator Type	Air-Line Option	Facepiece	Nosecup	Head Harness	PASS	Case																					
AL AirHawk MMR (2216 psig)	0 Nylon without chest strap	0 None	0 None	0.00	0 None	A None	0 None	0.00	0 Gauge	0.00	0 None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
																				1 Shoulder Pad	1 3AL Aluminum	G Firehawk PTC with Swivel & Solid Cover	1 Snap-Tite Aluminum	B Ultra Elite, Hycar, Small	1 Medium	1 Rubber	1 ICM 2000 with heat	1 Hard Case			
																				2 Lumbar Pad	2 Hoop- Wound	2 Hansen SST	2 Hansen SST	C Ultra Elite, Hycar, Medium	2 Large	2 Speed-ON	2 ICM 2000 Plus with heat	2 Soft Case			
	1 Nylon with chest strap	88.75	2 Lumbar Pad	2 30" Stealth	146.32	3 Hansen Brass	D Ultra Elite, Hycar, Large	0	13.91	1	504.26	1	11.14	1	1	1	1	1	1	1											
																					3 Shoulder Pad & Lumbar Pad	4 Fester Steel	4 Snap-Tite Locking Aluminum	E Ultra Elite, Silicone, Small	1	1	1	1	1	1	
																					4 Swiveling Lumbar Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	F Ultra Elite, Silicone, Medium	2	2	2	2	2	2	
	2 Kevlar without chest strap	175.14	3 Shoulder Pad & Lumbar Pad	3 30" Stealth	108.96	4 Fester Steel	E Ultra Elite, Silicone, Small	0	39.35	2	628.10	2	11.14	2	2	2	2	2	2	2	2										
																						4 Swiveling Lumbar Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	1	1	1	1	1	1
																						5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	2	2	2	2	2	2
	3 Kevlar with chest strap	193.69	4 Swiveling Lumbar Pad	3 30" Stealth	108.96	5 Snap-Tite Locking Aluminum	F Ultra Elite, Silicone, Medium	0	111.14	2	123.84	2	11.14	2	2	2	2	2	2	2	2										
																						5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	1	1	1	1	1	1
																						5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	2	2	2	2	2	2
	AH AirHawk MMR (4500 psig)	0 Nylon without chest strap	0 None	0 None	0.00	0 None	A None	0 None	0.00	0 Gauge	0.00	0.00	0 None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
																						1 Shoulder Pad	1 30" Stealth	G Firehawk PTC with Swivel & Solid Cover	1 Snap-Tite Aluminum	B Ultra Elite, Hycar, Small	1 Medium	1 Rubber	1 ICM 2000 with heat	1 Hard Case	
																						2 Lumbar Pad	2 45" Stealth Low Profile	2 Hansen SST	2 Hansen SST	C Ultra Elite, Hycar, Medium	2 Large	2 Speed-ON	2 ICM 2000 Plus with heat	2 Soft Case	
1 Nylon with chest strap	88.75	2 Lumbar Pad	2 30" Stealth	146.32	3 Hansen Brass	D Ultra Elite, Hycar, Large	0	13.91	1	504.26	1	11.14	1	1	1	1	1	1	1	1											
																					3 Shoulder Pad & Lumbar Pad	4 Fester Steel	4 Snap-Tite Locking Aluminum	E Ultra Elite, Silicone, Small	1	1	1	1	1	1	
																					4 Swiveling Lumbar Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	F Ultra Elite, Silicone, Medium	2	2	2	2	2	2	
2 Kevlar without chest strap	175.14	3 Shoulder Pad & Lumbar Pad	3 30" Stealth	108.96	4 Fester Steel	E Ultra Elite, Silicone, Small	0	39.35	2	628.10	2	11.14	2	2	2	2	2	2	2	2											
																					4 Swiveling Lumbar Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	1	1	1	1	1	1	
																					5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	2	2	2	2	2	2	
3 Kevlar with chest strap	193.69	4 Swiveling Lumbar Pad	3 30" Stealth	108.96	5 Snap-Tite Locking Aluminum	F Ultra Elite, Silicone, Medium	0	111.14	2	123.84	2	11.14	2	2	2	2	2	2	2	2											
																					5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	1	1	1	1	1	1	
																					5 Swiveling Lumbar Pad & Shoulder Pad	5 Snap-Tite Locking Aluminum	5 Fester Steel	G Ultra Elite, Silicone, Large	2	2	2	2	2	2	

Total Air Mask
List Price
= \$

All Pricing in U.S. Dollars

Quantity

Part Number

B

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NIOSH Approved, Non-NFPA Compliant

REGULATORS

FireHawk™ MMR Regulator

The FireHawk second-stage regulator features a unique slide-to-connect attachment system that allows wearers to hang the regulator on the facepiece in the “ready position,” then simply push it into the facepiece when SCBA air is needed. Two large release buttons automatically turn off the flow of air as the regulator is doffed. A dual-swivel feature on the pressure hose provides maximum freedom-of-head movement and the silicone hose material ensures hose flexibility even at the coldest temperatures. Any adjustments to the regulator may be accomplished at a single adjustment point through the outlet port of the regulator. Fully compliant with NIOSH 42 CFR 84 and NFPA 1981, 2002 edition.

A new connection option for the FireHawk Regulator is the Push-to-Connect (PTC). The PTC's Adapter self-centers the FireHawk regulator and the loud dual sound of the regulator engaging onto the facepiece provides you with confidence that the FireHawk PTC is securely attached to your facepiece—an action that takes just seconds, when seconds count!

Description	Part No.	Government Net Price
FireHawk™ MMR Regulator Assemblies		
Firehawk MMR Regulator Assembly, Push-To-Connect	10033112	\$416.59
Firehawk MMR Regulator Assembly, Push-To-Connect	10033113	\$523.47
Firehawk MMR Regulator Assembly, Push-To-Connect	10037656	\$289.10
Firehawk MMR Regulator Assembly, US threaded	10023684	\$355.01
FireHawk MMR Slide Upgrade Kit (threaded type)	10025121	\$416.59
FireHawk MMR Slide Upgrade Kit (quick-connect type)	10025120	\$570.68
FireHawk Ultra Elite Facepiece Conversion Kit for Slide MMR	10028600	\$15.16
FireHawk MMR PTC Upgrade Kit (threaded type)	10038665	\$416.59
FireHawk MMR PTC Upgrade Kit (quick-connect type)	10038666	\$570.68
FireHawk Ultra Elite Facepiece Conversion Kit for PTC MMR	10038664	\$15.16
FireHawk MMR Slide Kit for Vulcan Harness	10027085	\$18.54
FireHawk™ MMR Dual-Purpose Kits		
FireHawk Dual-Purpose Kit, Foster, threaded	10026540	\$272.72
FireHawk Dual-Purpose Kit, Foster, quick-connect	10026541	\$275.49
FireHawk Dual-Purpose Kit, Hansen, threaded	10026543	\$226.91
FireHawk Dual-Purpose Kit, Hansen, quick-connect	10026542	\$251.87
FireHawk™ MMR Hose Assemblies		
FireHawk Hose Assembly, 1st stage, threaded	10026547	\$30.04
FireHawk Hose Assembly, 1st stage, quick-connect	10026548	\$98.03
FireHawk Hose Assembly, quick-connect w/socket	10032940	\$150.27
Regulator Assemblies for AirHawk SCBA		
Regulator Assembly, 1st stage, low-pressure	10037780	\$232.57
Regulator Assembly, 1st stage, high-pressure	10037781	\$232.57

Both **MMR and belt-mounted regulator (BMR) systems** respond quickly to a user's breathing requirements, even under the most demanding situations. Also, all MSA regulators are available in dual-purpose models, which permit air-line connections for long-duration work, such as HazMat reconnaissance.

For Ultralite and Custom 4500 MMR Air Masks

Description	Part No.	Government Net Price
First-Stage Regulator, Ultralite 2216 MMR	488885	\$346.18
Second-Stage MMR, Ultralite 2216 MMR	812857	\$382.43
Dual Purpose Conversion Kit, Foster steel QDs, for MMR masks	494964	\$248.75
Dual Purpose Conversion Kit, Hansen SST QDs, for MMR masks	815973	\$248.75

For Ultralite II Air Masks

(less elbow, high-pressure hose, & Audi-Larm device)

Description	Part No.	Gov't. Net Price
Pressure-demand regulator	803146	\$897.08
Pressure-demand regulator for dual-purpose version (Foster)	803152	\$986.33

For Custom 4500 II Air MaskS

(less elbow, high-pressure hose, & Audi-Larm device)

Description	Part No.	Gov't. Net Price
Pressure-demand regulator	803144	\$958.13
Pressure-demand regulator for dual-purpose version (Foster)	803148	\$1056.77



FireHawk™ Slide MMR Regulator



FireHawk™ MMR PTC Regulator



Second-Stage Quarter-Turn Mask-Mounted Regulator



Belt-mounted Dual-Purpose Regulator

FACEPIECES

MSA offers three facepieces: the **Ultra Elite® Facepiece**, the **Advantage® 3000 Facepiece** and the **Ultravue® Facepiece**. Each model offers an effective combination of comfort and performance and is available in two materials—black Hycar rubber and black silicone. Other options include: choice of regulators, harnesses, nose cups.



Ultra Elite facepiece



Advantage 3000
Twin-Cartridge facepiece



Ultravue facepiece
Government
Net Price

Description	Small	Medium	Large	Government Net Price
MMR Facepieces				
Ultra Elite MMR Facepiece with FireHawk PTC Adapter, Speed-On Head Harness and Nosecup				
Black Hycar	10035684	10035682	10035686	\$252.89
Black Silicone	10035685	10035683	10035687	\$252.89
Ultra Elite FireHawk STC MMR Facepiece with Speed-On Harness and Nosecup				
Black Hycar	10024429	10024419	10024439	\$246.61
Ultra Elite Facepiece, packaged w/adapter, black	10016755	10016759	10016757	\$164.00
Ultra Elite Facepiece, packaged w/adapter, black	10016758	10016756	10016770	\$164.00
Ultra Elite Pressure-Demand Facepiece Assembly, MMR,				
Black Hycar	10024421	10024411	10024431	\$252.89
Black Silicone	10024425	10024415	10024435	\$264.39
Ultra Elite Pressure-Demand Facepiece Assembly, Hycar	—	10031163	—	\$255.37
Ultra Elite Pressure-Demand Facepiece Assembly, communications ready, black	10034606	10034603	10034609	\$353.52
Ultra Elite Pressure-Demand Facepiece Assembly, w/EZ-Don harness				
w/rubber harness	10037651	10037649	10037653	\$223.61
w/rubber harness	10037650	10037648	10037652	\$206.40
Ultra Elite Pressure-Demand Facepiece Assembly, black silicone, non-NFPA	10041375	10041371	10041379	\$213.29
Ultra Elite Pressure-Demand Facepiece Assembly, black silicone, non-NFPA	10041376	10041372	10041440	\$230.48
Ultra Elite 1/4-Turn MMR Facepiece with Speed-On Head Harness and Nosecup				
Black Silicone	815870	815857	815876	\$264.39
Ultravue Facepiece, MMR Pressure Demand, less Nosecup, with Rubber Head Harness (For Ultralite SCBA only)				
Black Hycar	815877	815878	815879	\$204.67
Black Silicone	815880	815881	815882	\$217.21
Advantage 3000 Twin-Cartridge Facepiece Assembly	10031340	10031309	10031341	\$72.81
Advantage 3000 Single-Cartridge Facepiece Assembly	10031343	10031342	10031344	\$84.03
Advantage 3000 Full Facepiece Faceblank, gray silicone	10025280	10025258	10025259	\$14.73
BMR Facepieces				
Ultra Elite BMR Facepiece with Speed-On Head Harness and Nosecup, Black Hycar	805327	492006	805331	\$252.89
Ultra Elite BMR Facepiece with Speed-On Head Harness and Nosecup, Black Silicone	493316	493196	493436	\$264.39
Ultra Elite BMR Facepiece with Rubber Head Harness, less Nosecup, Black Hycar	801450	801448	801452	\$216.72
Ultra Elite BMR Facepiece with Rubber Head Harness, less Nosecup, Black Silicone	801456	801454	801458	\$229.99

MMR XTREME FACEPIECE SPARE PARTS & ACCESSORIES

Description	Black Hycar			Black Silicone			Government Net Price
	Small	Medium	Large	Small	Medium	Large	
Nosecup, Ultra Elite	—	495188	495189	—	—	—	\$27.75
Nosecup, Ultravue/Ultra-Twin	—	—	—	813138	813139	813140	\$27.75

Description	Part No.	Government Net Price
Lens, Ultra Elite	805020	\$28.42
Voice Amplifier, ESP, Ultravue	811737	\$250.46



SCBA CYLINDERS

Description	Part No.	Government Net Price
Custom 4500, high pressure		
Cylinder, Stealth, H-30, 4500 PSI, Carbon Fiber	807587	\$635.18
Cylinder, Stealth, H-45, 4500 PSI, Carbon Fiber	807570	\$826.05
Cylinder, Stealth, H-45 Low Profile, 4500 PSI, Carbon Fiber	10035644	\$834.07
Cylinder, Stealth, H-60, 4500 PSI, Carbon Fiber	807588	\$1048.53
Ultralite, low pressure		
Cylinder, 30 Minute, 2216 PSI, Fiberglass, Hoop Wound	469619	\$441.18
Cylinder, 30 Minute, 2216 PSI, Aluminum	809872	\$366.56
Cylinder, Stealth, L30+, 3000 PSI, Carbon Fiber	816115	\$728.71
Cylinder, Stealth, L30, 2216 PSI, Carbon Fiber	807586	\$644.83

Cylinders, less air, are also available. Call MSA Customer Service at 1-866-MSA-1001 for details.



Stealth Cylinders

Fiberglass Hoop-Wound Composite Cylinder



3AL Cylinder

HEADS-UP DISPLAY

Nightfighter® Heads-Up-Display

The Nightfighter Heads-Up-Display (HUD) exceeds the latest requirements for firefighting SCBA as specified in NFPA 1981, 2002 Edition that requires all NFPA-complaint SCBA be equipped with at least one heads-up-display.



When you open your Air Mask's cylinder valve, the Nightfighter HUD automatically activates, displaying the cylinder pressure reading in 25% increments.

The wireless Nightfighter system consists of three components: a transmitter that mounts on the Air Mask's gaugeline, a facepiece bracket that attaches to the Ultra Elite facepiece, and a receiver that attaches to the facepiece bracket.

Description	Part No.	Government Net Price
Bracket	10037791	\$16.24
Receiver	10037792	\$128.99



EMERGENCY EGRESS SYSTEM **NEW!**

Rescue Belt

In a continuation of MSA's pursuit of firefighter safety, the Rescue Belt is being introduced to the fire service. This is an NFPA-compliant emergency egress system that is unique to MSA. The belt can be integrated into the carrier and harness assembly of the MSA Vulcan or Airframe Carrier and Harness assemblies. A 50 foot or 75 foot Kevlar line with a descender and carabiner is weaved into the belt to allow a trapped fire fighter to escape to either the ground or to a floor below the fire.

The belt is available in two lengths, standard (54 inches) and long (74 inches).

Description	Part No.	Government Net Price
50' Standard Rescue Belt	10052766	\$306.91
50' Long Rescue Belt	10052767	\$321.61
75' Standard Rescue Belt	10052768	\$377.26
75' Long Rescue Belt	10052769	\$391.96



HARNES & CARRIER ASSEMBLIES AND LUMBAR PADS

Airframe™ Carrier and Harness Assembly

The one component of any SCBA that has the most impact on firefighter comfort is the carrier and harness assembly. MSA is introducing a new carrier and harness assembly that places an emphasis on firefighter comfort while maintaining the robustness and reliability that is expected in the fire service. The Airframe carrier and harness comes standard with large side handles and a central attachment point for pulling firefighters to safety in rescue scenarios. The optional swiveling lumbar pad provides maximum freedom of movement and comfort when crawling or climbing.

The Airframe assembly utilizes the proven pieces from previous generations of Air Masks such as the tunneled shoulder straps for hose containment, and tri-bar slides for easy removal/installation of the waist belt and shoulder straps. All units are equipped with double-pull waist belts and an optional chest strap is available.



Airframe Carrier & Harness

Description	Part No.	Government Net Price
Airframe for FireHawk Air Masks, double-pull, low-pressure	10046846	\$508.23
Airframe for FireHawk Air Masks, double-pull, high-pressure	10046847	\$508.23
Standard Lumbar Pad	10011767	\$54.62
Swiveling Lumbar Pad	10055350	\$61.58
Chest Strap	10012167	\$29.64

Other Harness and Carrier Assemblies

Description	Part No.	Government Net Price
Vulcan™ Harness, Single Pull Waist Belt, for Low Pressure MMR SCBA	10005712	\$505.71
Vulcan Harness, Single Pull Waist Belt, for High Pressure MMR SCBA	10005714	\$505.71
Vulcan Harness, Double Pull Waist Belt, for Low Pressure MMR SCBA	10005788	\$523.47
Vulcan Harness, Double Pull Waist Belt, for High Pressure MMR SCBA	10005789	\$523.47
Lumbar Pad, Vulcan Harness	10011767	\$54.62
Chest Strap, for use with Vulcan Harness	10012167	\$29.64
Black Rhino™ Harness and Carrier Assembly, Ultralite 2216 PSI MMR	816487	\$549.68
Black Rhino Harness and Carrier Assembly, Custom 4500 PSI MMR	816486	\$549.68
Lumbar Pad, Black Rhino	817104	\$58.72
Ultralite Carrier and Harness Assembly, Single Pull Waist Belt	10024150	\$505.71
Custom 4500 Carrier and Harness Assembly, Single Pull Waist Belt	10024151	\$505.71
Ultralite Carrier and Harness Assembly, Double Pull Waist Belt	10024152	\$523.47
Custom 4500 Carrier and Harness Assembly, Double Pull Waist Belt	10024153	\$523.47
AirHawk Carrier, nylon cylinder strap	10037274	\$69.42
AirHawk Carrier, Kevlar cylinder strap	10037275	\$83.01
AirHawk Carrier and Harness Assembly, nylon cylinder strap	10037276	\$149.56
AirHawk Carrier and Harness Assembly, Kevlar cylinder strap	10037277	\$254.04



Vulcan Carrier & Harness



Black Rhino Carrier & Harness

APR ADAPTER

MSA's APR adapter provides SCBA wearers with the versatility they need to perform varied tasks with one common facepiece. From fire-fighting to overhaul to defense preparedness, users can switch from a positive-pressure facepiece to a negative-pressure air purifying respirator simply by engaging the APR Adapter. The APR Adapter uses MSA's comprehensive family line of air-purifying cartridges; select from the Advantage 200 or Comfo line of cartridges to protect against a multitude of airborne contaminants.

The APR Adapter is designed for use in non-IDLH environments and is NIOSH-approved. Contact MSA for more information.

Description	Part No.	Government Net Price
APR Adapter for Slide Firehawk MMR	10032511	\$92.13
APR Adapter for Slide Firehawk MMR, truck kit	10032925	\$489.40
APR Adapter for Slide Firehawk MMR, individual kit	10032927	\$122.34
APR Adapter for PTC Firehawk MMR	10040052	\$93.93
APR Adapter for PTC Firehawk MMR, truck kit	10040054	\$498.90
APR Adapter for ¼-turn MMR	10029823	\$88.49
APR Adapter for ¼-turn MMR, truck kit	10032924	\$489.40
APR Adapter for ¼-turn MMR, individual kit	10032926	\$122.34
CBA/RCA Canisters (box of 6)	817590	\$152.65



APR Adapter

MMR SCBA CYLINDER REFILLING SYSTEM - QUICK FILL®

(see Data Sheet 01-00-11)

The patented **Quick-Fill System** lets MSA Air Mask users refill and transfill air cylinders while the SCBA is worn, without removing the air cylinder—even in IDLH atmospheres. Use this MSA-exclusive option to:

- Fill an SCBA cylinder from a mobile compressor or cascade system in less than a minute.
- Transfill between two cylinders, providing an Emergency Breathing System.
- Extend the air supply over longer durations, using a remote compressed air source.

Because performance is not affected, MSA air masks retain NIOSH certification during use of the Quick-Fill System. It is available on all MSA Air Masks, including dual-purpose models, and is an integral component on NFPA 1981, 2002 edition models.

The Quick-Fill System uses a special adapter assembly. On belt-mounted units, it's located on the regulator, while MMR units have a junction block and fitting installed on the gauge line. A Quick-Fill hose with a quick-disconnect connects the air source to the adapter for air transfer.



Quick-Fill System

Description	Part No.	Government Net Price	Description	Part No.	Government Net Price
Quick Fill, MMR, Shoulder, Ultralite 2216 PSI	495172	\$228.07	Quick Disconnect, Male, Stainless Steel	485391	\$181.28
Quick Fill, MMR, Waist, Ultralite 2216 PSI	494963	\$316.93	Quick Disconnect, Female, Stainless Steel	485392	\$181.28
Quick Fill, MMR, Shoulder, Custom 4500 PSI	495173	\$207.48	EEBSS Hose Package	485366	\$384.08
Quick Fill, MMR, Waist, Custom 4500 PSI	494962	\$271.45	Transfill Hose less Pouch	485331	\$369.36
			Pouch	485390	\$34.35

Quick-Fill Hoses	25 ft		12 ft		10 ft		8 ft		6 ft		3 ft	
	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price	Part No.	Gov't Net Price
FQD x FQD	485332	\$610.57	802690	\$600.34	802689	\$582.26	802688	\$541.71	802687	\$511.09	485331	\$369.36
FQD x CGA-347 Outlet	487907	\$555.10	802677	\$507.25	802675	\$464.94	802673	\$452.18	802671	\$401.35	492796	\$295.89
FQD x CGA-347 CN	487909	\$555.10	802685	\$507.25	802683	\$464.94	802681	\$452.18	802679	\$401.35	487427	\$292.95
FQD x SAE-4	487906	\$526.03	802704	\$479.72	802703	\$467.24	802702	\$453.70	802701	\$373.99	802705	\$286.66
FQD x CGA-346 Outlet	487908	\$555.10	802678	\$507.25	802676	\$464.94	802674	\$452.18	802672	\$401.35	492797	\$295.89
FQD x CGA-346 CN	487910	\$555.10	802686	\$507.25	802684	\$464.94	802682	\$452.18	802680	\$401.35	487428	\$292.95

THE EXTENDAIRE™ SYSTEM

The ExtendAire System can be used as both an emergency breathing system and a dual-purpose device for ¼-turn MMR SCBA to allow users to quickly and easily connect to an air line.

Description	Part No.	Government Net Price
ExtendAire Kit, Single quick-disconnect	812956	\$211.35
ExtendAire Kit, Double quick-disconnect	812955	\$338.17
ExtendAire Air-line Hose	812958	\$197.27
40" Rescue Hose	812973	\$277.11



ExtendAire System

AUDI-LARM™ ASSEMBLIES FOR MMR AND BMR SCBA

Description	Part No.	Government Net Price
For Ultralite MMR with Vulcan Carrier, 2216 psig	10012994	\$385.17
For Ultralite MMR with Vulcan Carrier, 3000 psig	10012995	\$315.63
For Ultralite MMR with Black Rhino Carrier	488897	\$308.62
For Custom 4500 MMR with Vulcan Carrier	10012996	\$301.69
For Custom 4500 MMR with Black Rhino Carrier	485851	\$307.50
For Custom 4500 II BMR	807494	\$288.22
For Ultralite II BMR	807492	\$288.22
For Custom 4500 II BMR, with Vulcan Carrier/Harness	10013338	\$301.69
For Ultralite II BMR, with Vulcan Carrier/Harness	10013339	\$305.10
Audi-Larm Rebuild Kit	10028132	\$21.15
2002 NFPA Audi-Larm Assembly, Ultralite MMR with Quick-Fill	10037310	\$390.65



High-Pressure Filling Hose

REDUNDANT ALARM SYSTEMS

When you open your Air Mask's cylinder valve, the Redundant Alarm activates, displaying pressure readings through an analog gauge. The Redundant Alarm is low-profile and easily accessible, because it is built into your Air Mask and conveniently positioned at chest level. Should cylinder pressure levels decrease, both audible and visual indicators activate. Compliant with NFPA-1981, 2002 Edition.

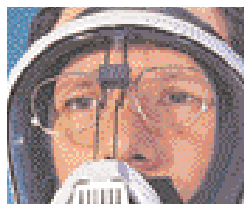
Description	Part No.	Gov't Net Price
Redundant Alarm, for Ultralite MMR Air Mask	10009770	\$195.11
Redundant Alarm, for Custom 4500 MMR Air Mask	10009771	\$195.11
Redundant Alarm, for Ultralite II BMR Air Mask	10013249	\$456.25
Redundant Alarm, for Custom 4500 II BMR Air Mask	10013300	\$458.79
Rubber Gauge-Line Tether	10016029	\$2.78

Note: For BMR SCBA manufactured prior to September 1999, an Audi-Larm assembly, shoulder pads, and shoulder-mounted gauge line must be purchased. Contact MSA Customer Service for specific ordering information.

SPECTACLE KITS



Side-Support Spectacle Kit (Ultra Elite)



Center-Support Spectacle Kit (Ultra Elite)



Spectacle Kit for Ultravue Facepiece

Description	Part No.	Government Net Price
Ultra Elite Spectacle Kit (side wire support)	804638	\$43.59
Ultra Elite Spectacle Kit (center support)	493581	\$43.59
Ultravue Facepiece Spectacle Kit	454819	\$43.59
Anti-Fog Applique for Ultra Elite	10037809	\$61.36
Anti-Fog Applique for Ultravue	10037810	\$61.36

WALKAWAY MOUNTING BRACKET AND WALL-MOUNTED CASE



Walkaway Mounting Bracket



Wall-Mounted Case

Description	Part No.	Gov't Net Price
Walkaway Mounting Bracket for Ultralite II or Ultralite MMR or Custom 4500 II or Custom 4500 MMR Air Masks with 30-minute cylinder	39851	\$130.65
Wall-Mounted Case for Ultralite II & Ultralite MMR, 30-minute	695308	\$471.77

FILLING HOSE FOR HIGH-PRESSURE CYLINDER

Description	Part No.	Government Net Price
High-Pressure Filling Hose Assembly	476105	\$486.71

ACCESSORIES FOR FILLING LOW-PRESSURE (2216 PSIG) CYLINDERS



Low-Pressure Filling Accessories

Description	Part No.	Government Net Price
Air Coupler Tee	68850	\$61.05
Air Pigtail	68851	\$81.56
Low-Pressure Air-Filling Hose, 5 feet long	476156	\$170.70

BREATHING TUBE ASSEMBLIES FOR BMR AIR MASKS

Description	Part No.	Government Net Price
Breathing Tube, standard	801165	\$50.71
Breathing Tube, wire-reinforced	803433	\$64.56
Breathing Tube, DIN threaded	803506	\$50.42
Neck Strap, PBI	801156	\$12.76

FIELD MAINTENANCE AND REPAIR



MSA offers a complete program for maintenance and repair of MSA Air Masks.

The program is supported with personalized training tailored to customers' needs and taught in the field by MSA-authorized personnel.

User maintenance covers procedures necessary to conduct general cleaning, inspection, and limited maintenance in accordance with the Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), and the American National Standards Institute (ANSI) standards.

C.A.R.E. Certified Air Mask Repair Education covers all maintenance for both low- and high-pressure SCBA. Air Mask inspection and maintenance can be performed by MSA or a factory-authorized service center. Or, individuals can obtain training for C.A.R.E. certification from MSA. By having a C.A.R.E.-certified technician on staff, fire departments and other facilities with a large number of Air Masks can perform all inspection and maintenance in-house.

- All repairs and maintenance can be done in the field.
- A selection of overhaul kits, spare parts, and tool kits is available.
- Users may conduct periodic performance testing using an authorized MSA regulator tester.



CLEARCOMMAND® HCS HELMET COMMUNICATION SYSTEM

(see Bulletin 3639-01-MC)

The Helmet Communication System from MSA is a state-of-the-art radio interface device which significantly improves the user's ability to receive and send messages even in loud ambient-noise environments. It goes wherever you go. The system consists of a helmet-mounted microphone and ear speaker assembly that weighs 5.3 ounces and easily snaps onto the user's fire helmet or industrial-style helmet's ratchet suspension. The helmet mic/ear speaker assembly connects to a lapel microphone or optional stand-alone PTT (push-to-talk) unit. The lapel microphone and PTT are permanently fitted with a connector for attachment to the specific radio of choice. The Helmet Communication System also offers a plug-in truck communication adapter that can be used by firefighters, along with their helmet microphone assembly, on the way to a fire scene or other incident. Once the firefighter arrives at the scene, the truck system cable is unplugged from the helmet microphone, and the helmet microphone cable end is connected to the user's lapel mic or PTT.

The user of the Helmet Communication System has uninterrupted communication from the time the alarm sounds until the incident is over.

Features & Benefits

- Incorporates a "noise-eliminating" bone-conduction voice transmitter that virtually eliminates high ambient noise levels.
- Custom user-fitted ear speaker brings all incoming communication directly to the user's ear. No need to lift your lapel mic up to your ear to hear transmission.
- Easily snaps onto the ratchet suspension of fire helmets or industrial-style helmets (Wildland). The unit can be easily transferred to other users, and no tools are required for removal.
- Can be used over the top of facepiece head harnesses, hoods and liners without losing the quality of the transmission.
- The bone-conduction microphone is made of soft silicone material, which makes it comfortable to wear, with no pressure points.
- The helmet microphone assembly can be reversed on the helmet suspension to position the ear speaker on either ear.
- The helmet mic system, when used with the lapel mic or PTT, is powered by the battery from the radio. No need to replace or re-charge dry cells.
- Special connectors suitable for most common radios are available for the lapel microphone and PTT, which allows users to adapt the system to their existing radios.
- The helmet mic is NFPA-certified which allows its use while fighting fires.
- Intrinsic safety approvals allow the use of the helmet communication system in hazardous environments.
- The stand-alone PTT unit is designed for use under hazardous material suits. The large button makes it easy for the user to depress and communicate.
- The helmet mic incorporates a cable keeper which allows for cable storage when it's not connected to the lapel mic or PTT.



Description	Part No.	Gov't Net Price
Helmet Microphone Assembly		
Helmet Microphone Assembly (includes Custom Fitted Flannel Headband Liner)	10042902	\$163.36
Lapel Mic Kits for Radio Interface*		
Maxon SP120, SP130, SP140	10042908	\$439.87
Motorola HT600, MT1000, MTX820, MTX900, Radius P200 & P500	10042909	\$390.27
Motorola HT1000, JEDI, MT2000, MTS2000, MTX838, MT839, MTX8000, MTX9000	10042903	\$382.79
Motorola Astro and Saber	10042904	\$428.94
Motorola Radius GP300, P110, SP50, LTS2000, Spirit-III, GTX, SP21	10042905	\$305.20
Motorola STX, MX800, MX840	10042920	\$520.95
GE Ericsson PCS, PC2005	10042906	\$689.44
GE Ericsson MRK, LPE-200, Prism, PX 126T	10042907	\$601.27
Stand-Alone PTT Kits for Radio Interface*		
Maxon SP120, SP130, SP140	10045667	\$399.89
Motorola HT600, MT1000, MTX820, MTX900, Radius P200 & P500	10045668	\$338.64
Motorola HT1000, JEDI, MT2000, MTS2000, MTX838, MT839, MTX8000, MTX9000	10045662	\$331.17
Motorola Astro and Saber	10045663	\$378.80
Motorola Radius GP300, P110, SP50, LTS2000, Spirit-III, GTX, SP21	10045664	\$253.57
Motorola STX, MX800, MX840	10045669	\$470.82
GE Ericsson PCS, PC2005	10045665	\$637.81
GE Ericsson MRK, LPE-200, Prism, PX 126T	10045666	\$549.63

Description	Part No.	Gov't Net Price
Truck System		
Nexus Adapter, D. Clarke	10045732	\$181.26
Phonejack Adapter, D. Clarke	10045731	\$181.26
Parts and Accessories		
Dust Cover	10046087	\$11.47
Belt Clip Assy, Standard	10046089	\$20.13
Belt Clip Assy, Clothes Pin Type	10046120	\$27.47
O-Ring, Single Pin Connector	10046121	\$19.65
Flannel Head Band Liner	10045778	\$3.76
Remote Finger PTT	10046574	\$160.88
Instructions	10046197	\$6.94
Guard Ring, short	10046122	\$2.08
Belt Clip Assembly, standard	10046089	\$20.13

*If your specific radio is not listed above, please contact MSA Customer Service.

CLEARCOMMAND™ COMMUNICATIONS SYSTEM FOR ULTRA ELITE® FACEPIECES

MSA's ClearCommand Communications System is designed specifically to meet the modern communications needs of first responders. Because it's available in two versions, amplifier and amplifier with radio interface, response teams can be properly fitted for the job at hand. Also, the systems are designed for "shared-use" of the amplifier with a unique "bus-bar" arrangement, so individual issue is not required.

The ClearCommand systems feature an internally mounted microphone coupled with a large-diameter (50mm) amplifier speaker for optimal clarity and volume. Using a patented circuit design, the system delivers more than twice the volume of a facepiece alone. Mounted in an "out-of-the-way" position, the ClearCommand System doesn't block vision or mechanical communication. The Ultra Elite's mechanical voicemitter is still fully functional, even with the system installed.

The radio interface version features the same amplifier as the amp-only version, combined with an ear-speaker for incoming radio messages and a lapel mic assembly for interface with over 100 radios. The lapel mic can be used as a component of the Clear Command system or as a stand-alone hand mic.

Both the amplifier and radio interface models are intrinsically safe, and meet the applicable requirements of NIOSH and NFPA 1981, 2002 edition.



Clear Command Communications System

Description	Part No.	Gov't Net Price
Amplifier Kit, complete with microphone	10024074	\$249.80
Amplifier Radio Interface Kit, with microphone, less PTT	10051290	\$363.99
Amplifier Radio Interface Kit, with single pin	10051289	\$293.68
Microphone Kit, with mounting bracket	10023055	\$94.37
PTT Lapel Mic Kits for Radio Interface*		
Motorola HT1000, JT1000, MT2000, MTS2000, MTX838, MTX2000, MTX8000, MTX9000 Transcrypt, Stealth, GP900, XTS3000, XTS3500, and MTX	10025553	\$378.28
Motorola Astro and Saber (hardwired)	10025554	\$437.04
Motorola Radius GP300, P1225, GTX, P110, SP10, SP50, SP21, LTS2000, and Spirit-III	10025556	\$301.00
GE Ericsson PCS and PC2005	10025557	\$683.66
GE Ericsson MRK, LPE-200, Prism, and PX126T	10025558	\$595.84
MAXON SP120, SP130, and SP140	10025559	\$435.13
Motorola HT600, HT800, HT810, HT820, MT1000, MTX800, MTX810, MTX900, MTX900S, and P200	10025580	\$385.73
Motorola MX800, MX840, and STX Series	10025581	\$531.40
Maxon SP120, SP130, SP140	10042908	\$439.87
Motorola HT600, MT1000, MTX820, MTX900, Radius P200 & P500	10042909	\$390.27
Motorola HT1000, JEDI, MT2000, MTS2000, MTX838, MT839, MTX8000, MTX9000	10042903	\$382.79
Motorola Astro and Saber	10042904	\$428.94
Motorola Radius GP300, P110, SP50, LTS2000, Spirit-III, GTX, SP21	10042905	\$305.20
GE Ericsson PCS, PC2005	10042906	\$689.44
GE Ericsson MRK, LPE-200, Prism, PX 126T	10042907	\$601.27
Stand-Alone PTT Kits for Radio Interface*		
Maxon SP120, SP130, SP140	10045667	\$399.89
Motorola HT600, MT1000, MTX820, MTX900, Radius P200 & P500	10045668	\$338.64
Motorola HT1000, JEDI, MT2000, MTS2000, MTX838, MT839, MTX8000, MTX9000	10045662	\$331.17
Motorola Astro and Saber	10045663	\$378.80
Motorola Radius GP300, P110, SP50, LTS2000, Spirit-III, GTX, SP21	10045664	\$253.57
Motorola STX, MX800, MX840	10045669	\$470.82
GE Ericsson PCS, PC2005	10045665	\$637.81
GE Ericsson MRK, LPE-200, Prism, PX 126T	10045666	\$549.63
Truck System		
Nexus Adapter, D. Clarke	10045732	\$181.26
Phonejack Adapter, D. Clarke	10045731	\$181.26
Parts and Accessories		
Dust Cover	10046087	\$11.47
Guard Ring, Tall	10046123	\$2.08
Guard Ring, Short	10046122	\$2.08
Belt Clip Assy, Standard	10046089	\$20.13
Belt Clip Assy, Clothes Pin Type	10046120	\$27.47
O-Ring, Single Pin Connector	10046121	\$19.65
Flannel Head Band Liner	10045778	\$3.76



Radio Interface with Clear Command System

ESP® COMMUNICATIONS SYSTEM

(See Bulletin 0106-08)

The ESP Communications System is a one-piece voice projection device for facepieces used on MSA Air Masks. Comfortable to wear and easy to use, the unit depends on rugged construction for resistance to water, flame, heat, and impact. It is compatible with fire departments' existing handheld radios for clear, long-range communications. A standard nine-volt alkaline battery powers the unit (not included) and will last up to 18 hours before it needs to be replaced.

Description	Part No.	Gov't Net Price
ESP System Conversion Kit for Ultravue Facepiece, battery not included	811737	\$250.46

* More radio kits are available. Contact MSA Customer Service for additional ordering information.

ADDITIONAL SCBA PRODUCTS FOR SIN-426-1D

Description	Part No.	Government Net Price
Ultra Elite Facepiece Assemblies		
Ultra Elite Facepiece Assembly, PTC, medium, Hycar, Non-NFPA	10037648	\$206.40
Ultra Elite Facepiece Assembly, pressure-demand, medium, Hycar, EZ-Don harness	10037649	\$223.61
Ultra Elite Facepiece Assembly, pressure-demand, medium, Hycar, Non-NFPA	10039982	\$206.40
Ultra Elite Facepiece Assembly, pressure-demand, medium, Silicone, Non-NFPA	10039983	\$215.38
Ultra Elite Facepiece Assembly, pressure-demand, medium, slide, CBRN	10059916	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, medium, Speed-ON, CBRN	10059917	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, small, Speed-ON, CBRN	10059918	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, small, Speed-ON, CBRN	10059919	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, large, Speed-ON, CBRN	10059920	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, large, Speed-ON, CBRN	10059921	\$237.41
Ultra Elite Facepiece Assembly, pressure-demand, medium, Hycar, rubber spider	10040094	\$249.03
Ultra Elite Facepiece Assembly, pressure-demand, medium, Silicone, rubber spider	10040095	\$260.63
Ultra Elite Facepiece Assembly, pressure-demand, small, black, rubber spider	10040101	\$246.61
Ultra Elite Facepiece Assembly, demand, APR/CBRN, small	10052776	\$162.28
Ultra Elite Facepiece Assembly, demand, APR/CBRN, large	10052777	\$189.78
Ultra Elite Facepiece Assembly, demand, APR/CBRN, large	10052778	\$162.28
Ultra Elite Facepiece Assembly, demand, APR/CBRN, medium	10052779	\$189.78
Ultra Elite Facepiece Assembly, demand, APR/CBRN, small	10052780	\$189.78
Ultra Elite Facepiece Assembly, demand, APR/CBRN, medium	10052781	\$162.28
Firehawk Regulator Assemblies		
Firehawk Regulator Assembly, quick-connect, solid cover	10047529	\$565.56
Firehawk Regulator Assembly, quick-connect, solid cover	10047600	\$551.61
Firehawk Regulator Assembly, threaded, solid cover	10047536	\$355.01
Firehawk Regulator Assembly, threaded, solid cover	10047601	\$461.79
Firehawk Regulator Assembly, threaded, solid cover	10047602	\$402.01
Firehawk Regulator Assembly, slide, threaded	10047537	\$355.01
Firehawk Regulator Assembly, slide 30"	10050151	\$159.80
Firehawk Regulator Assembly, slide 42"	10050152	\$159.80
Firehawk Regulator Assembly, slide 42"	10050153	\$163.27
Firehawk Regulator Assembly, PTC, PremAire, solid cover, 42"	10050492	\$291.86
Firehawk Regulator Assembly, Slide, PremAire, solid cover, 42"	10050493	\$259.30

Description	Part No.	Gov't Net Price
Miscellaneous Replacement Parts and Accessories		
Alarm & Gauge Assembly, whistle, gauge, 2216 psig	10038282	\$203.72
Alarm & Gauge Assembly, whistle, gauge, 4500 psig	10038283	\$203.72
Cylinder & Valve Assembly, carbon, 4500, less air	10040591	\$846.29
Cylinder & Valve Assembly, 3000 psig, 8 cu ft	10042420	\$318.89
Cylinder & Valve Assembly, 3000 psig, 17 cu ft	10042423	\$359.54
Cylinder & Valve Assembly, 2216 psig, 45 ft, 5 ALR	10062196	\$643.66
Cylinder & Valve Assembly, 4500 psig, 45 ft, 5 ALR	10062197	\$646.65
Hose Assembly, 2nd Stage, Firehawk w/quick-connect coupling	10046484	\$145.90
Slide Button Assembly, Firehawk, gray	10047331	\$12.83
Backplate, Vulcan, nylon	10046633	\$10.35
Shoulder Strap, Vulcan, MMR, left	10048173	\$87.02
Amplifier, radio interface, w/single pin	10051289	\$293.68

Description	Part No.	Gov't Net Price
Facepiece/Respirator		
Facepiece/Respirator, pkgd., medium, tinted	10048800	\$218.56
Facepiece/Respirator, pkgd., small, tinted	10048811	\$218.56
Facepiece/Respirator, pkgd., large, tinted	10048812	\$218.56
MMR Air Mask Assembly		
Air Mask Assembly, MMR, Pressure-Demand, 4500 psig, Ultra Elite, medium	10050751	\$4,175.95
Instructional Videotapes		
Instructional Videotape for AirHawk MMR	10058408	\$13.06
Instructional Videotape, Care & Use of Millennium Gas Mask	10063443	\$13.06

EVOLUTION® 4100 TIC

The Evolution 4100 TIC combines our patented popular design with a proven high-performance vanadium oxide microbolometer sensor. Its dual-handle design and 5" display provide functionality and ease of use not found in competitive TICs. With the capacity for two batteries, the Evolution 4100 TIC allows up to 5 hours of continuous operation. The heat seeker and digital temperature readout features provide even more valuable information to the firefighters using the camera. A full line of accessories, such as the truck-mounted charger, are also available for Evolution 4100 TIC. See Bulletin 3400-37-MC for product specifications.

Description	Part No.	Gov't Net Price
Evolution 4100 with Quick Temp, Heat Seeker, Transmitter, Standard Charger	10057641	\$13,244.85
Evolution 4100 with Quick Temp, Heat Seeker, Standard Charger	10057642	\$12,144.66
Evolution 4100 with Quick Temp, Heat Seeker, Transmitter Truck Charger	10057643	\$12,881.39
Evolution 4100 with Heat Seeker, Standard Charger	10057610	\$11,617.48
Evolution 4100 with Truck Charger	10057701	\$11,041.19
Evolution 4100 with Heat Seeker, Quick Temp, Truck Charger	10057702	\$11,781.20
Evolution 4100 with Heat Seeker, Transmitter	10057703	\$12,730.77
Demo Unit: Evolution 4100 with all accessories	10057704	\$14,086.36
Evolution 4100 with Quick Temp Celsius, Heat Seeker, Transmitter, Standard Charger	10057719	\$13,244.85

Part Numbered configurations with a Truck Charger include a Wrist Strap.

Part Numbered configurations with a Standard Charger include Carrying Case, Shoulder Strap and Reflective Trim Kit.

Use the Assemble to Order (ATO) Configurator on p37 to order customized configurations.

Accessories for the Evolution 4000-Series TIC

Description	Part No.	Gov't Net Price
Evolution 4000-Series Vehicle-Mounted Charging System	10034902	\$464.14
Vehicle Mounting Bracket for Evolution 4000-Series TIC	10036108	\$264.73
Bunker Clip/Wrist Strap	10022505	\$75.13
Standard Shoulder Strap	10022532	\$102.46
NiMetH Battery	10016001	\$94.87
Standard Battery Charger – 2 slots	10016301	\$459.17
Cigarette Lighter Adapter (charger)	10016304	\$246.67
Disposable Display Covers (3/pkg) for Evolution 4000-Series TIC	10032953	\$20.54
Sun Shroud	10041800	\$40.12



Features	Benefits
Microbolometer technology (vanadium oxide)	Sharpest picture available
Large-screen display	Team of users gets full view of the action
Revolutionary ergonomic design	Superior balance and easy handling
Heat Seeker Indicator	Rapid identification of combustion source
Unique high-impact bumper protection system	Drop protection from any angle Outstanding durability
Easy-to-read indicators on video display	Minimum confusion in "heat of battle"
Reflective logos/labels	Easy to locate in dark environments
Optional Quick-Temp Indicator with Digital Temperature Measurement	Easy identification of relative temperature of surrounding surfaces
Optional Remote Wireless Video Transmission System	Seamless communication to incident command
Optional Vehicle-Mounted Charging System	TIC is easily accessible and at the ready

REMOTE WIRELESS VIDEO TRANSMISSION SYSTEMS

MSA's Remote Wireless Video Transmission Systems are modular high-performance systems which allow transmission of video signals from the Evolution TICs to fully contained receiving stations.

State-of-the-art 2.4 GHz technology and electronic and imaging components ensure that the Remote Wireless Video Transmission System provides optimum performance for the firefighter. The systems operate at one of two user-selectable frequencies and have been integrally designed to allow for maximum user flexibility.

Description	Part No.	Gov't Net Price
Deluxe Receiver Kit – Includes receiving station and integrated 12" display, magnetic-mounted omni-directional antenna, wall-type and cigarette lighter power supplies, and BNC to RCA adapters in a hard-sided Pelican case	10048135	\$3,002.60
Mini Receiver Kit – Includes receiver, magnetic-mounted omni-directional antenna, wall-type and cigarette lighter power supplies, connection cable for external monitor, and BNC to RCA adapters in a soft-sided, easily transported case	10048134	\$1,533.68
Deluxe Remote Wireless Receiving Station P/N 10018995 without 5" flat panel display module, including receiver	10020165	\$1,707.02
Tripod kit - 1-5' SLIK tripod and carrying case (for mounting 12" high gain receiving antenna or Evolution cameras)	10018996	\$128.26
Receiver	10015938	\$910.76
Transmitter	10015939	\$464.04
Receiver	10020168	\$714.63
Optional High Gain directional antenna with tripod mount	10019650	\$343.81
10-ft video BNC cable	10020290	\$30.37
Evolution 5000 External Transmitter	10047573	\$1,391.61

Thermal Imaging is a valuable tool for the fire service, but should not be relied upon as a sole means of navigation and should not be used in place of standard firefighting practices. It is recommended that you obtain specialized fireground training prior to using any TIC in an actual fire or emergency situation. Training can be obtained through local or state fire training academies, several private training entities, or fire service distributors.

Tactical Thermal Imaging Training for Firefighters

Available from:

SAFE-IR, INC.
P.O. Box 297
Montgomery, NY 12549
Phone Toll-Free 1-877-472-3347
www.SAFE-IR.com

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Evolution 4100 Thermal Imaging Camera, configured exactly the way you want it.

Prices are 34.51%
discount off 2005
Price List.

TIC Camera Type	Heat Seeker		Quick-Temp		Transmitter		Battery Charging		# Of Batteries		Carrying Attachments		Storage Options		Other Accessories		Custom Features	
	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
1 Evolution 4100 TIC- NTSC Format (Standard Format in U.S.)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
	10311.40	225.94	0.00	514.10	0.00	1100.23	0.00	448.61	0.00	94.96	0.00	75.31	0.00	343.82	0.00	13.10	0.00	0.00
		1	1	2	1	Transmitter	1	Standard Charger 110-220	1	One	1	Wrist Strap	1	Carrying Case	1	Reflective Trim Kit	0	None
		2	2	2	2	Transmitter	2	Truck Mounted Charger	2	Two	2	Shoulder Strap	2	Non-Charging Mounting Bracket	2	Sun Shroud	0	None
		2	2	3	3	Transmitter	3	Cigarette Lighter DC Adapter	3	Three	3	Wrist & Shoulder Strap	3	Display Covers	3	Trim Kit, Sun Shroud & Display Covers	0	None
		2	2	4	4	Transmitter	4	Standard Charger & Cigarette Charger	4	Four	4	Canadian Navy Strap	4	Trim Kit, Sun Shroud & Display Covers	4	Trim Kit, Sun Shroud & Display Covers	0	None
		2	2	5	5	Transmitter	5	Standard Charger & Truck Charger & Cigarette Charger	5	Five	5	Shoulder Strap with Seatbelt Buckle	5	Trim Kit, Sun Shroud & Display Covers	5	Trim Kit, Sun Shroud & Display Covers	0	None
		2	2	5	5	Transmitter	5	Standard Charger & Truck Charger & Cigarette Charger	5	Five	5	Shoulder Strap with Seatbelt Buckle	5	Trim Kit, Sun Shroud & Display Covers	5	Trim Kit, Sun Shroud & Display Covers	0	None

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Part Number

Total Evolution 5000 List Price

=

\$

All pricing in US dollars



EVOLUTION® 5200 TIC

Introducing the new Evolution 5200 Fire Service Thermal Imaging Camera—
with Next Generation Performance and New Exclusive Features available only from MSA!

High Performance Safety

- 320°F High Sense Mode Range—gives high image definition over the widest temperature range of any Fire Service TIC
- Twice the Low Sensitivity in the 320° to +1000°F range, compared to all other Fire Service TICs—for great imaging! It all adds up to the highest ISDR* of any Fire Service TIC – with clearer, sharper, more detailed images over the entire temp range.*

*Instantaneous Scene Dynamic Range is the combined value of a sensor's sensitivity and temperature range to determine the number of temperature differences that can be seen at any given instant.

Exclusive Features

- New HeatSeeker PLUS – now providing image detail shading
- InstantOn
- InstantMode Switching
- Warnings on all ShutDowns• Shutter Indicator
- Temp Bar and Digital Temp
- 15% Low Sense Activation

Low Cost– High Value

As Fire Service TICs become more affordable, MSA takes the lead by adding new features and increasing performance – while lowering both initial and lifetime costs. The increased value of MSA TICs is realized through expanded TIC uses, time saved and SAFETY—every day!



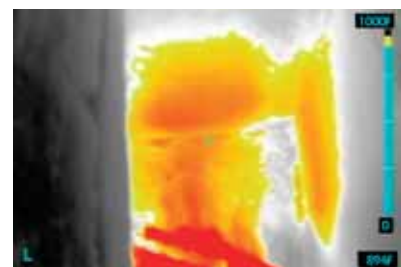
Durability – MSA designs, manufactures and tests to existing standards that include:

- Water/Dust Ingress.....International Standard CEI, IEC 529, IP 67Classification
- Direct Flame/Heat Exposure.....Simulated NFPA 1981 – 2002 Edition, NFPA 1982–1998
- Vibration.....Edition MIL-STD-810E Category 1 Loose Cargo
- Radio Frequency Interference.....Transport CE/EN 50081–2:1992, EN 50082–2:1992, FCC
- Rollover (Truck Charger).....Part 15 Simulated NFPA 1901–12, 1.7

TIC configurations	Part No.	Govt. List Price
Evolution 5200 TIC with 110-220V charger and one battery	10063768	\$7,220.00
Evolution 5200 TIC with 110-220V charger, Quick-Temp, HeatSeeker, 2 batteries, wriststrap, carrying case and reflective trim kit	10063767	\$8,231.78
Evolution 5200 TIC with truck-mounted charger, Quick-Temp, HeatSeeker, 2 batteries and wrist strap	10063766	\$8,339.83
Evolution 5200 TIC with 110-220V charger, Quick-Temp, HeatSeeker 2 batteries, Retractable Lanyard, carrying case and reflective trim kit	10063765	\$8,241.60
Evolution 5200 TIC with truck-mounted charger, Quick-Temp, HeatSeeker, 2 batteries and Retractable Lanyard	10063764	\$8,349.66
Evolution 5200 TIC with 110-220V charger, Quick-Temp, HeatSeeker, 2 batteries, shoulder strap, carrying case and reflective trim kit	10063763	\$8,267.80
Evolution 5200TIC with 110-220V charger, 2 batteries and carrying case	10063762	\$7,455.75
Evolution 5200 TIC with truck-mounted charger and 2 batteries	10063761	\$7,586.73



Heat Seeker PLUS in High Sense Mode—
notice multiple heat temperature differences



Heat Seeker PLUS in Low Sense Mode—
notice wall and ceiling separation

Accessories for the Evolution 5000 TIC

Description	Part No.	Government Net Price
Charger 110-volt AC with cigarette lighter adapter	10041100	\$101.51
Charger 220-volt AC	10040162	\$170.27
Lithium Ion Battery	10038412	\$65.49
Vehicle-Mounted Charging System	10038977	\$402.75
Wrist Strap	10039516	\$28.61
Shoulder Strap	10039515	\$65.49
Retractable Lanyard	10040226	\$39.24
Carabiner Attachment	10040005	\$12.87
Sun Shroud	10039603	\$42.57
Reflective Trim Kit	10040163	\$10.72
Non-Charging Mounting Bracket	10039602	\$170.27
Display Cover	10038970	\$21.45

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Evolution 5200 Thermal Imaging Camera, configured exactly the way you want it. To obtain a copy of the ATO System and Price Information for the Evolution 5200 TIC, request Bulletin No. 3400-50-MC.

Prices are 34.51%
discount off 2005
Price List.

Evolution® 5200 TIC

TIC Camera Type	Heat Seeker PLUS	Quick-Temp	Video Accessories	Battery Charging	# Of Batteries	Carrying Attachments	Storage Options	Other Accessories	Custom Features
1 Evolution 5200 TIC NTSC Format (Standard Format in U.S.)	0 No 0.00 1 Yes 219.39	0 None 0.00 1 Fahrenheit Scale 504.27 2 Celsius Scale 504.27	0 SMA to BNC Connector 0.00 1 Tripod Mounting Adapter 39.29	0 None 0.00 1 Standard Charger Kit includes 110-220 AC Cigarette Lighter Adapter 101.51 2 Evolution 5000-Series Truck Mounted Charger 402.76 3 Standard Charger Kit, 110-220 AC Cigarette Charger and Evolution 5000-Series Truck Mounted Charger 504.27	1 One 65.49 2 Two 130.98 3 Three 196.47 4 Four 261.96	0 None-Carabiner Only 0.00 1 Wrist Strap 29.47 2 Shoulder Strap 65.49 3 Retractable Lanyard 39.29 4 Wrist Strap, Shoulder Strap and Retractable Lanyard 134.25	0 None 0.00 1 Carrying Case 170.27 2 Non-Charging Mounting Bracket 170.27 3 Display Covers 22.92 4 ID Kit, Sun Shroud & Display Covers 78.59	0 None 0.00 1 Reflective Label ID Kit 22.92 2 Sun Shroud 42.57 3 Display Covers 22.92 4 ID Kit, Sun Shroud & Display Covers 78.59	0 None 0.00
	+	+	+	+	+	+	+	+	+
	\$	\$	\$	\$	\$	\$	\$	\$	\$

Total
Evolution 5200
List Price
\$
All pricing in US dollars

TIC kits are available. Use the part numbers on the back page or the above matrix if a custom configuration is desired.

A-EV5200-1 -

Part Number	Quantity

LAW ENFORCEMENT

SOLARIS® AND SOLARIS FX MULTIGAS DETECTORS

(See Bulletin 08-1650 for more information.)

The Solaris Multigas Detector and the Solaris FX Detector are affordable, durable, reliable, easy-to-use portable instruments for detecting the presence of O₂, H₂S, CO and combustible gas. (The Solaris FX Detector is the same as the regular Solaris Detector, except that it features a different LEL sensor. The sensor has faster response and release times for toluene, xylene and other aromatic hydrocarbons. With these enhancements, the Solaris FX Detector is ideal for use in the chemical and petrochemical markets, where fast detection and clearing of aromatic hydrocarbons is crucial.) Both Solaris Detectors are designed to withstand rough handling in harsh environments. Best of all, they deliver MSA's commitment to quality at the smallest size and, even smaller price.

Features

- Ergonomic Design—For maximum comfort.
- Alarm System—World-class triple alarm system with 100+ decibel audible alarm, multiple high-intensity visual alarm and strong vibrating alarm.
- Display Features—Superior display features simultaneous gas concentration display, backlighting for easy reading and alphanumeric message bar for easy use.
- Lightweight—Under 8 oz., compact size that makes it easy to wear.
- Durable—Case with rubberized armor provides superior protection against liquid and dust ingress (IP 65 rated).
- Long-life Battery—Rechargeable lithium ion battery provides 14+ hours of continuous run time and delivers best-in-class performance in extreme conditions.
- TIM System Compatible—Compatibility for computer automated calibration and record-keeping.
- Sampling Pump Option—Optional powered sampling pump with extensive contaminant filtering system.
- Warranty—Outstanding 2-year, all-inclusive warranty.



Solaris and Solaris FX Kits

	Solaris Part No.	GSA Price	Solaris FX Part No.	GSA Price
Basic Kits				
4-Gas Instrument	10048148	\$563.49	10056449	\$563.49
3-Gas (LEL, O ₂ , CO)	10048150	\$514.13	10056450	\$514.13
3-Gas (LEL, O ₂ , H ₂ S)	10048211	\$514.13	10056451	\$514.13
2-Gas (LEL, O ₂)	10048213	\$464.76	10056452	\$464.76
Standard Kits (includes datalogging option)*				
4-Gas Instrument	10048147	\$633.31	10056453	\$633.31
3-Gas (LEL, O ₂ , CO)	10048149	\$583.95	10056454	\$583.95
3-Gas (LEL, O ₂ , H ₂ S)	10048212	\$583.95	10056455	\$583.95
2-Gas (LEL, O ₂)	10048214	\$534.54	10056456	\$534.58

	Solaris Part No.	GSA Price	Solaris FX Part No.	GSA Price
Industrial Kits (includes Econo-cal calibration kit)				
4-Gas Instrument	10049293	\$775.07	10056457	\$775.07
3-Gas (LEL, O ₂ , CO)	10049294	\$725.70	10056458	\$725.70
3-Gas (LEL, O ₂ , H ₂ S)	10049295	\$725.70	10056459	\$725.70
2-Gas (LEL, O ₂)	10049296	\$676.33	10056460	\$676.33
Deluxe Kits (includes Econo-cal calibration kit, datalogging & sampling pump)*				
4-Gas Instrument	10049297	\$1076.92	10056461	\$1076.92
3-Gas (LEL, O ₂ , CO)	10049298	\$1027.55	10056462	\$1027.55
3-Gas (LEL, O ₂ , H ₂ S)	10049299	\$1027.55	10056463	\$1227.55
2-Gas (LEL, O ₂)	10049300	\$978.18	10056464	\$978.18

All of the above kits include a UL approved Solaris, battery charger, calibration cap assembly and instruction manual in CD-rom.

* To download the Solaris data the MSA data docking module (P/N 710946) must also be purchased—see below.

Replacement Parts

Sensors	Part No.	GSA Price
4-Gas (CO, H ₂ S, O ₂ & Combustible)		
Sensor replacement kit	10049406	\$444.31
Replacement CO Sensor	10046944	\$141.05
Replacement H ₂ S Sensor	10046945	\$141.05
Replacement O ₂ Sensor	10046946	\$126.95
Replacement Combustible Sensor	10046947	\$134.00
Pre-Filter for CO sensor	10047967	\$3.08
Protective felt for sensor inlets	10044927	\$2.31
Cover label for empty sensor location	10049052	\$2.96

Power Supply	Part No.	GSA Price
Charger Cradle Assembly	10048185	\$38.79
North American Power Supply	10047342	\$14.11
Global Power Supply	10047343	\$21.16
Vehicle Charger	10049410	\$98.74

Replacement Parts	Part No.	GSA Price
Calibration cap	10044994	\$6.93
Horn chamber protective insert	10046042	\$3.53
Suspender style attachment clip	10028342	\$4.94
Adhesive backing strip for suspender clip	10048051	\$1.41
Replacement screw for suspender clip	10040037	\$0.78

Carrying Case	Part No.	GSA Price
Cordura Jacket	10049053	\$29.62

Sampling Accessories	Part No.	GSA Price
Universal Pump Probe, UL Approval	10046528	\$232.03
Universal Pump Probe, MSHA Approval	10047595	\$232.03

Datalogging	Part No.	GSA Price
Datalog Kit (Software/Infrared reader)	710946	\$282.10
Datalogging Software Only	710988	\$176.31

Operational Videos	Part No.	GSA Price
Solaris Multigas Detector Overview - VHS	10049318	\$14.07
Solaris Multigas Detector Overview - CD ROM	10049319	\$14.07
Replacement instruction manual on CD ROM	10048654	\$17.63
Replacement Instruction Manual, paper copy	10046202	\$3.67

Calibration Accessories	Part No.	GSA Price
Calibration Cap Assembly	10044995	\$10.58
Regulator, .25 LPM, Model RP	467895	\$105.79
Regulator, Combination, .25 LPM, Model RP	711175	\$130.47
4-Gas RP Cylinder	10045035	\$197.47
4-Gas Econ-Cal Cylinder	10048280	\$126.95
4-Gas Econ-Cal Cylinder (CO)	10048789	\$119.89
4-Gas RP, CH ₄ Cylinder	10048890	\$197.47
4-Gas RP, CH ₄ Cylinder (CO)	813718	\$105.79
4-Gas Econo-Cal CH ₄ Cylinder	10048981	\$126.95

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Solaris Multigas Detector, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy, request Bulletin 0816-48.

Prices are 29.48% discount off 2005 Price List.

Solaris® Multigas Detector Assemble-to-Order (ATO) Options

- To create your instrument configuration, select the instrument option code and mark them in the boxes to the right.
- To calculate your instrument price, write in the price for each option in the space provided to the right, add up the total and write it in the "Total Unit Price" box below.

Option	Description	Code	Price	Selection	Price	
A. Datalog Options	The datalog option enables the Solaris Multigas Detector to store exposure data for easy retrieval at a later time. To download the Solaris data the MSA datalog kit (p/n 710946) must also be purchased.	Datalog Options				
		Standard Instrument	S	\$330.74	<input type="checkbox"/>	\$
		Datalogging option selected	D	\$400.55	<input type="checkbox"/>	\$
B. Combustible Sensor Options	If a combustible gas sensor is desired, two options are available: 0-100% LEL or 0-5% CH ₄ .	Combustible Sensor Options				
		None	0	\$0.00	<input type="checkbox"/>	\$
		0-100% LEL	L	\$49.36	<input type="checkbox"/>	\$
		0-5% CH ₄	M	\$49.36	<input type="checkbox"/>	\$
C. Oxygen Sensor Options	To choose to have an oxygen sensor installed in your new Solaris Multigas Detector, choose selection 1. For no oxygen sensor, enter a "0".	Oxygen Sensor Options				
		None	0	\$0.00	<input type="checkbox"/>	\$
		O ₂ Sensor	1	\$49.36	<input type="checkbox"/>	\$
D. Carbon Monoxide Sensor Options	To choose to have a carbon monoxide sensor installed in your new Solaris Multigas Detector, choose selection 1. For no carbon monoxide sensor, enter a "0".	Toxic Sensor 1 Options				
		None	0	\$0.00	<input type="checkbox"/>	\$
		CO Sensor	1	\$49.36	<input type="checkbox"/>	\$
E. Toxic Sensor 2 Options	To choose to have a hydrogen sulfide sensor installed in your new Solaris Multigas Detector, choose selection 1. For no hydrogen sulfide sensor, enter a "0". To choose to have a NO ₂ sensor installed, choose 3. For no NO ₂ sensor, choose 2.	Toxic Sensor 2 Options				
		None (H ₂ S Sensor not installed)	0	\$0.00	<input type="checkbox"/>	\$
		H ₂ S Sensor	1	\$49.36	<input type="checkbox"/>	\$
		None (NO ₂ Sensor not installed)	2	\$0.00	<input type="checkbox"/>	\$
		NO ₂ Sensor	3	\$119.88	<input type="checkbox"/>	\$
F. Battery Charging Options	A Solaris-specific battery charger must be used to recharge the batteries in the Solaris unit. Global battery charger comes with several international plug outlet configurations for countries outside of North America.	Battery Charging Options				
		None	0	\$0.00	<input type="checkbox"/>	\$
		North American outlet-compatible	N	\$35.26	<input type="checkbox"/>	\$
		Global outlet-compatible	G	\$42.31	<input type="checkbox"/>	\$
G. Instrument Approvals	It is now possible to select the specific type of approval that a Solaris instrument possesses. Default approval for North America will be granted by Underwriters Laboratory (UL). MSHA approval is needed for mining applications that are specifically regulated by MSHA procedures. The Solaris UL approval is recommended for the United States and Mexico. The Solaris CSA approval label is recommended for Canada.	Instrument Approvals				
		Underwriters Laboratory (UL)	U	\$0.00	<input type="checkbox"/>	\$ 0.00
		Mine Safety & Health Adm (MSHA)	M	\$0.00	<input type="checkbox"/>	\$
		CSA	C	\$0.00	<input type="checkbox"/>	\$
H. Sampling Pump	It is now possible to combine the sampling pump and probe for the Solaris unit into one easy-to-use accessory. The pump probe is very versatile and can be attached to the Solaris instrument in seconds. The built-in Water Stop filter helps to ensure the sampling system is not contaminated with dirt and debris during use.	Sampling Pump				
		None	0	\$0.00	<input type="checkbox"/>	\$
		Universal pump probe	1	\$232.01	<input type="checkbox"/>	\$
I. Calibration Kits	MSA provides two options for performing instrument calibration. The cost-effective Econo-Cal (34 liter) cylinder and fixed flow regulator provides an economical means to calibrate the Solaris instrument. The Model RP calibration kit also has a fixed flow 0.25 lpm regulator and provides the user with a larger capacity (58 liter) calibration gas cylinder.	Calibration Kit Options				
		None	0	\$0.00	<input type="checkbox"/>	\$
		Econo-Cal Calibration Kit	1	\$211.56	<input type="checkbox"/>	\$
		Model RP Calibration Kit	2	\$282.08	<input type="checkbox"/>	\$

Your Model Part Number Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... **A** **B** **C** **D** **E** **F** **G** **H** **I**

A-SOLARIS- - - - - - - - - -

Total Unit Price = \$

All Pricing is in US Dollars

SIRIUS® PID MULTIGAS DETECTOR

The Sirius Multigas Detector unit with PID Sensor gives users all they are looking for in a reliable, easy-to-use, durable package to detect volatile organic compounds, while measuring for combustible, toxic and oxygen deficient atmospheres.

Tremendous Flexibility—One PID and four gases in one instrument allows for detection of hundreds of chemicals.

Reliable PID Performance—MSA's own proprietary PID sensor design (patent-pending) provides users with excellent PID performance including humidity resistance, stable zero readings, and fast response and clear times to enable users to get their jobs done dependably.

User-Friendly Software—Easy-to-use software allows users to focus on their tasks at hand!

Superior, Proprietary PID Sensor Design—Reduces maintenance time and cost.

Flexible Configurations—This design combines two instruments into one the Sirius unit can be used with or without the PID sensor mode.

Loud, Attention-Grabbing Alarm—The Sirius Multigas Detector provides outstanding alarms to clearly warn users of a hazardous situation. A piercing alarm horn, resonating through a specially designed horn chamber, is designed into the Sirius unit to give users an audible warning in the event of an alarm condition. Multidirectional bright LED lights give users visible warning of alarm conditions that can be easily seen from any direction the Sirius unit is facing. A "Safe LED" light gives users confidence the unit is actively detecting gas by flashing every 15 seconds.

Interchangeable Lithium-ion and Alkaline Battery Packs—Allows for quick battery turn to keep users continually charged and ready to take action.

Easy Calibration and Compatibility with MSA's Total Instrument Manager—One-button calibration makes calibration simple for any user. Intelligent software frees users from complicated calibration adjustments. The Sirius Multigas Detector is also compatible with MSA's Total Instrument Manager for automated calibration and record keeping.

Long-Term Storage Kit—Provides all the tools necessary to keep the Sirius Multigas Detector running if the unit has not been frequently used.



Sirius Multigas Detector Kits	Part #	10.6 eV	LEL	O2	CO	H2S	Li Ion	Alka Bat	10 ft line	1 ft probe	Ret Line	Bl Boot	Cor Jac	Cal Kit	Data Log	Blk Cas	Std Cap	Lamp Cl Kit	GSA Price
Deluxe LEL 4-Gas Lithium Ion PID	10051141	•	•	•	•	•	•		•	•	•	•	•	•		•	•		\$2989.20
Deluxe LEL 3-Gas H2S Lithium Ion PID	10051142	•	•	•		•	•		•	•	•	•	•	•		•	•		\$2855.20
Deluxe LEL 3-Gas CO Lithium Ion PID	10051143	•	•	•	•		•		•	•	•	•	•	•		•	•		\$2855.20
Deluxe LEL 4-Gas Lithium Ion PID Datalog	10051144	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	\$3236.04
Deluxe LEL 4-Gas Lithium Ion PID less bt/jac	10051117	•	•	•	•	•	•		•	•	•		•	•		•	•	•	\$3008.95
Industrial LEL 4-Gas Lithium Ion PID	10051146	•	•	•	•	•	•		•	•	•	•	•	•			•		\$2494.82
Industrial LEL 3-Gas H2S Lithium Ion PID	10051147	•	•	•		•	•		•	•	•	•	•	•			•		\$2360.82
Industrial LEL 3-Gas CO Lithium Ion PID	10051148	•	•	•	•		•		•	•	•	•	•	•			•		\$2360.82
Industrial LEL 4-Gas Lithium Ion PID no jacket	10051149	•	•	•	•	•	•		•	•	•	•					•		\$2463.09
Industrial LEL 4-Gas Lithium Ion PID with cal	10051150	•	•	•	•	•	•		•	•	•		•	•	•	•	•		\$3150.00
Economy LEL 4-Gas Alkaline PID	10051151	•	•	•	•	•		•									•		\$2196.85
Economy LEL 3-Gas H2S Alkaline PID	10051152	•	•	•		•	•										•		\$2062.86
Economy LEL 3-Gas CO Alkaline PID	10051153	•	•	•	•		•										•		\$2062.86
Economy LEL 4-Gas Lithium Ion PID	10051154	•	•	•	•	•	•										•		\$2246.22

Sirius Multigas Detector Kits	Part #	10.6 eV	LEL	O2	CO	H2S	Li Ion	Alka Bat	10 ft line	1 ft probe	Ret Line	Bl Boot	Cor Jac	Cal Kit	Data Log	Blk Cas	Std Cap	Lamp Cl Kit	GSA Price
Deluxe CH4 4-Gas Lithium Ion PID	10051177	•	•	•	•	•	•		•	•	•	•	•	•		•	•		\$2989.20
Deluxe CH4 3-Gas H2S Lithium Ion PID	10051178	•	•	•		•	•		•	•	•	•	•	•		•	•		\$2855.20
Deluxe CH4 3-Gas CO Lithium Ion PID	10051179	•	•	•	•		•		•	•	•	•	•	•		•	•		\$3102.04
Deluxe CH4 4-Gas Lithium Ion PID Datalog	10052511	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	\$3341.83
Industrial CH4 4-Gas Lithium Ion PID	10051181	•	•	•	•	•	•		•	•	•	•	•	•			•		\$2494.82
Industrial CH4 3-Gas H2S Lithium Ion PID	10051182	•	•	•		•	•		•	•	•	•	•	•			•		\$2360.82
Industrial CH4 3-Gas CO Lithium Ion PID	10051183	•	•	•	•		•		•	•	•	•	•	•			•		\$2360.82
Industrial CH4 4-Gas Lithium Ion PID no jac	10051184	•	•	•	•	•	•		•	•	•	•					•		\$2463.09
Economy CH4 4-Gas Alkaline PID	10051185	•	•	•	•	•		•									•		\$2196.85
Economy CH4 3-Gas H2S Alkaline PID	10051186	•	•	•		•	•										•		\$2062.86
Economy CH4 3-Gas CO Alkaline PID	10051187	•	•	•	•		•										•		\$2062.86
Economy CH4 4-Gas Lithium Ion PID	10051188	•	•	•	•	•	•										•		\$2246.22

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Sirius PID Multigas Detector, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy, request Bulletin 0803-05.

Prices are 29.48% discount off 2005 Price List.

Sirius™ Multigas Detector (Fire Service) Assemble-to-Order (ATO) Options

- To generate your instrument configuration, select instrument options and mark them in the boxes to the right.
- To calculate your instrument price, write in the price for each option in the space provided to the right and add to the base price of \$1,445.66 below.

Option	Description	Code	Price	Selection	Price	
A. Photoionization Detector Lamp Option	To choose the standard 10.6 eV lamp for most VOCs, choose selection A. For the low energy 9.8 eV lamp with the most VOC discrimination, enter selection B.	PID Lamp				
		None	0	\$0.00		
		PID with 10.6 eV Lamp (0-2000 ppm)	A	\$176.30	<input type="checkbox"/>	\$
		PID with 9.8 eV Lamp	B	\$211.56	<input type="checkbox"/>	\$
B. Combustible Sensor Option	To choose to have your MSA 20L combustible sensor reading set to be displayed as 0-100% LEL, enter selection "L". For a display of 0-5% methane, enter an "M".	Combustible Sensor				
		None	0	\$0.00		
		0-100% LEL	L	\$126.94	<input type="checkbox"/>	\$
		0-5% Methane	M	\$126.94	<input type="checkbox"/>	\$
C. Oxygen Sensor Options	To choose to have an oxygen sensor installed in your new Sirius Multigas Detector, enter selection 1. For no oxygen sensor, enter a "0".	Oxygen Sensor				
		None	0	\$0.00		
D. Carbon Monoxide Sensor Option	To choose to have a carbon monoxide sensor installed in your new Sirius Multigas Detector, enter selection 1. For no carbon monoxide sensor, enter a "0".	Carbon Monoxide Sensor				
		None	0	\$0.00		
E. Hydrogen Sulfide Sensor Option	To choose to have a hydrogen sulfide sensor installed in your new Sirius Multigas Detector, enter selection 1. For no hydrogen sulfide sensor, enter a "0".	Hydrogen Sulfide Sensor				
		None	0	\$0.00		
F. Battery Pack & Charger Options	You may choose between MSA's lithium ion battery pack which includes a standard lithium ion battery charger, or the convenience of an alkaline battery pack. You may also choose to have both battery pack types included with your new Sirius Multigas Detector.	Battery Pack/Charger				
		None	0	\$0.00		
		Lithium ion, includes charger & cord	A	\$109.31	<input type="checkbox"/>	\$
		Replaceable alkaline Both Lithium ion and replaceable alkaline battery packs	B	\$59.94	<input type="checkbox"/>	\$
G. Vehicle Charger Option	If you would like to order the vehicle charger for your new Sirius Multigas Detector, enter selection 1.	Vehicle Charger				
		None	0	\$0.00		
H. Sampling Lines	MSA's Quick-Connect sampling lines are of the highest quality materials, guaranteed to provide accurate sampling concentrations. Sirius Multigas Detector sampling lines all includes a Quick-Connect air-line fitting for easy attachment and tight seal. For sampling jet fuel, enter selection 3 for the 10' teflon sampling line option, or selection 4 for the 25' sampling line option.	Sampling Lines				
		None	0	\$0.00		
		10-foot polyurethane	1	\$44.08	<input type="checkbox"/>	\$
		25-foot polyurethane	2	\$47.60	<input type="checkbox"/>	\$
		10-foot teflon (for jet fuel sampling)	3	\$51.13	<input type="checkbox"/>	\$
		25-foot teflon (for jet fuel sampling)	4	\$58.18	<input type="checkbox"/>	\$
I. Sampling Probes	MSA's sampling probes are durable & comfortable to use. The built in Water-Stop filter ensures that your sampling system is not contaminated with dirt and debris if the probe tip is dipped in water. You must order a probe if you order a sampling line, as we strongly recommend that you operate the instrument with this filter in place.	Sampling Probes				
		None	0	\$0.00		
		1-foot Probe	1	\$90.27	<input type="checkbox"/>	\$
		3-foot Probe	2	\$98.02	<input type="checkbox"/>	\$
J. Carrying Attachments	While a high-strength stainless steel D-Ring is offered with this instrument at no extra charge, there are three other options for handling the instrument: the retractable carrying line for use with the D-Ring, the shoulder harness and the wrist harness to be used on the user's arm with a Level A suit.	Carrying Attachments				
		None	0	\$0.00		
		Retractable Carrying Line with Belt Clip	1	\$28.21	<input type="checkbox"/>	\$
		Shoulder Harness	2	\$14.10	<input type="checkbox"/>	\$
K. Instrument Jackets and Boots	To offer the highest level of instrument protection, you may choose a protective black rubber boot and harness, or a cordura jacket. You may also order both options by choosing selection C.	Instrument Jacket/Boot				
		None	0	\$0.00		
		Red Boot with Harness	R	\$54.30	<input type="checkbox"/>	\$
L. Calibration Kits	You may choose one of two calibration options for your Sirius Multigas Detector. The fixed-flow .25 lpm regulator includes a multigas calibration cylinder and also an isobutylene calibration gas cylinder if a PID selection is chosen. You may also order just the isobutylene calibration kit with gas cylinder.	Calibration Kits				
		None	0	\$0.00		
		Econo-Cal Fixed-Flow Regulator Calibration Kit (includes multigas and isobutylene cylinders)	1	\$405.49	<input type="checkbox"/>	\$
		Model RP Fixed-Flow Regulator Calibration Kit (includes multigas and isobutylene cylinders)	2	\$458.38	<input type="checkbox"/>	\$
M. Data Communications Kit	If you need to track the readings and operations of your Sirius Multigas Detector, consider ordering the instrument with the optional built-in datalogging module. The option also provides TWA and STEL capabilities.	Data Communications				
		None	0	\$0.00		
		Data Link Module	1	\$176.30	<input type="checkbox"/>	\$
N. Packaging	Your new Sirius Multigas Detector may be protected by a standard black plastic case, or by a black premium field case. You may also choose the option of a long-term storage kit case for emergency response, large enough to hold the Sirius Multigas Detector, calibration cylinders, spare sensors, spare PID lamp and lithium ion battery pack with charger, spare alkaline battery pack, lamp cleaning kit and simple-to-read and understand refresher instructions.	Packaging				
		Standard shipping carton	0	\$0.00		
		Standard black PVC case	1	\$88.86	<input type="checkbox"/>	\$
		Premium black field case	2	\$67.98	<input type="checkbox"/>	\$
		Long-term storage kit case	4	\$140.33	<input type="checkbox"/>	\$
O. PID Lamp Cap	The standard easy-access lamp cap is included with your Sirius Multigas Detector at no extra charge. You may also choose a tamper-proof lamp cap.	PID Lamp Cap				
		None	0	\$0.00		
		Standard easy-access lamp cap	S	\$0.00	<input type="checkbox"/>	\$0.00
		Alternative tamper-proof lamp cap	T	\$0.00	<input type="checkbox"/>	\$0.00

Your Model Part Number Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ...

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A-SIRIUS-														

Add Base Unit Price + \$1,445.66

Total Unit Price = \$

All Pricing is in US Dollars

FIVESTAR® ALARM

(See Bulletin 0816-06)

The FiveStar Alarm provides the flexibility to meet your gas detection needs, yet is incredibly simple to use. The durable, high-impact case makes it long-lasting, while the advanced ergonomic design and software reduce worker load and simplify operation. This means less time spent training and less time out of service. Over its life, the FiveStar Alarm's ease of use, safety features, and long-term money savings combine to provide the best in gas detection available today.

To order the FiveStar Alarm, see the Assemble-To-Order Chart on p. 45.



The FiveStar Alarm's simplicity is obvious from the start:

- Three well-marked, easy-to-use keys.
- Display faces user.
- High levels of RFI protection.
- Flexible smart sensors.
- Weatherproof—IP54-rated.

The FiveStar Alarm's advanced software features mean safer operation:

- Limits on sensor zeroing.
- Limits on one-button calibration.
- User acknowledges configuration changes.
- Data recording is standard.

The FiveStar Alarm saves money:

- Unbeatable warranty and service.
- Long-life combustible sensor.
- One-button calibration saves training and gas.
- 5-gas capability means one detector can do the job of two.
- Battery "gas gauge" reduces down time.
- 20-hour NiMH battery option means one battery can do the job of two.

Gas sensors available—you can order the FiveStar Alarm with sensors to detect:

- Combustible gas (0–100% LEL or 0–5% methane)
- Oxygen (0–25%)

and up to **three** of the following gases:

- Ammonia 0-100 ppm
- Carbon monoxide 0-2000 ppm
- Chlorine 0-20 ppm
- Chlorine Dioxide 0-5 ppm
- Hydrogen sulfide 0-500 ppm
- Nitric oxide 0-100 ppm
- Nitrogen dioxide 0-100 ppm
- Phosphine 0-5 ppm
- Sulfur dioxide 0-100 ppm

More gas detection capabilities are continually introduced. Call for availability of other gas detection capabilities. Some configuration limitations apply.

Replacement Sensors and Other Accessories

Part No.	Description	GSA Price
710317	Combustible Gas (LEL) Sensor	\$148.10
815333	Oxygen Sensor	\$148.10
710656	Carbon Monoxide Sensor	\$148.10
710657	Hydrogen Sulfide Sensor	\$148.10
710662	Nitric Oxide Sensor	\$203.82
710663	Nitrogen Dioxide Sensor	\$203.82
710664	Sulphur Dioxide Sensor	\$203.82
10012282	Chlorine Sensor	\$259.53
10011530	Phosphine Sensor	\$259.53
10008609	Pump Module	\$292.68
710427	Standard NiCad Battery Pack	\$148.10
10008642	Standard Heavy-Duty Battery Pack	\$193.94
710955	Standard Replaceable Battery Pack	\$112.84
10008606	Ni-Plated Battery Pack	\$148.10
10013145	Ni-Plated Heavy-Duty Battery Pack	\$193.94
10008607	Ni-Plated Replaceable Battery Pack	\$112.84
494716	Charger, 10v	\$46.21
495965	Charger, 220v	\$57.13
710423	Vehicle Charger	\$86.04
801759	5-Unit Charger	\$338.80
710570	Charger Stand	\$70.53
710465	Sample Line, 5-ft coiled	\$35.26
497332	Sample Line, 5-ft	\$16.93
497333	Sample Line, 10-ft	\$22.33
497334	Sample Line, 15-ft	\$27.72
497335	Sample Line, 25 ft	\$32.34

Part No.	Description	GSA Price
800972	Sample Line, 5-ft Teflon	\$54.67
811187	Sample Line, 10-ft Teflon	\$83.93
800332	Probe, 1-ft	\$79.69
800333	Probe, 3-ft	\$88.16
803561	Bar Hole Probe, 3-ft	\$98.74
803848	Hot Gas Probe	\$114.25
801582	Replacement Water Stop Filters (10 each)	\$20.02
801291	Charcoal Filter Holder	\$69.11
14318	Replacement Charcoal Filters	\$29.03
711039	Line Scrubber Holder	\$66.51
711052	Line Scrubber Cartridges	\$64.67
813514	Dilution Tube, 1:1	\$52.61
813409	In-Line Dust Filter	\$13.36
813971	Dust Filter Replacements (10 each)	\$31.88
806160	End-of-line Dust/Water Filter	\$15.02
806749	Protective Rubber Boot for alkaline battery, black	\$59.24
710946	Downloading Software Kit	\$282.10
711242	Orange Nylon Protective Jacket	\$33.15
710884	Black Leather Protective Jacket	\$62.77
711120	Orange Nylon Protective Jacket for Add-On Pump	\$33.15
711119	Black Leather Protective Jacket for Add-On Pump	\$62.77
710790	Pump Module	\$292.68
710824	Calibration Adapter	\$38.79
710959	Aspirator Assembly	\$123.42
710988	Data Docking Module	\$176.31




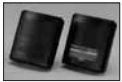









Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the FiveStar Alarm, configured exactly the way you want it. To obtain a copy of the ATO System and Price Information for the FiveStar Alarm, request Bulletin No. 0816-07-MC. To obtain a copy of the ATO via FAX, call MSA QuickLit Information Service at 1-800-672-9010. At the prompt, request QuickLit Document #2454 (ATO for FiveStar Personal Alarm).

Prices are 29.48% discount off 2005 Price List.

FiveStar® Alarm Assemble-to-Order (ATO) Options

- To select your instrument configuration, select instrument options and mark them in the boxes to the right.
- To calculate your instrument price, write in the price for each option in the space provided to the right and add to the base price of \$669.94 below.

A. Electrochemical Sensor Options		Please list the code number for the toxic gas sensors desired in the spaces to the right. In order to properly process your order, list them in descending order . Use zeros to complete any of the four selections where no sensor is desired (e.g. 2100). Add the price of each sensor to obtain the sensor sub-total pricing.	<table border="1"> <thead> <tr> <th>Sensors (Select 4)</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>Oxygen (0-25%)</td><td>1</td><td>\$148.09</td></tr> <tr><td>Carbon Monoxide (0-2000 ppm)</td><td>2</td><td>\$148.09</td></tr> <tr><td>Hydrogen Sulfide (0-200 ppm)</td><td>3</td><td>\$148.09</td></tr> <tr><td>Nitric Oxide (0-100 ppm)</td><td>4</td><td>\$203.80</td></tr> <tr><td>Nitrogen Dioxide (0-100 ppm)</td><td>5</td><td>\$203.80</td></tr> <tr><td>Sulfur Dioxide (0-100 ppm)</td><td>6</td><td>\$203.80</td></tr> <tr><td>Chlorine (0-20 ppm)</td><td>7</td><td>\$259.57</td></tr> <tr><td>Phosphine (0-5 ppm)</td><td>8</td><td>\$259.57</td></tr> <tr><td>Ammonia (0-100 ppm)</td><td>9</td><td>\$259.57</td></tr> <tr><td>Chlorine Dioxide (0-5 ppm)</td><td>A</td><td>\$259.57</td></tr> </tbody> </table>	Sensors (Select 4)	Code	Price	None	0	\$0.00	Oxygen (0-25%)	1	\$148.09	Carbon Monoxide (0-2000 ppm)	2	\$148.09	Hydrogen Sulfide (0-200 ppm)	3	\$148.09	Nitric Oxide (0-100 ppm)	4	\$203.80	Nitrogen Dioxide (0-100 ppm)	5	\$203.80	Sulfur Dioxide (0-100 ppm)	6	\$203.80	Chlorine (0-20 ppm)	7	\$259.57	Phosphine (0-5 ppm)	8	\$259.57	Ammonia (0-100 ppm)	9	\$259.57	Chlorine Dioxide (0-5 ppm)	A	\$259.57	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>Toxic 1</td><td>\$</td></tr> <tr><td>Toxic 2</td><td>\$</td></tr> <tr><td>Toxic 3</td><td>\$</td></tr> <tr><td>Toxic 4</td><td>\$</td></tr> <tr><td>Total \$</td><td></td></tr> </tbody> </table>	Selection	Price	Toxic 1	\$	Toxic 2	\$	Toxic 3	\$	Toxic 4	\$	Total \$	
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B. Combustible Gas Sensor Options		If a combustible gas sensor is desired, select type of display. There are two options available: 0-100% Lower Explosive Limit (%LEL Pentane) or 0-5% Methane (%CH4)	<table border="1"> <thead> <tr> <th>Sensors</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>% LEL Pentane</td><td>L</td><td>\$148.09</td></tr> <tr><td>% CH₄ (Methane)</td><td>M</td><td>\$148.09</td></tr> </tbody> </table>	Sensors	Code	Price	None	0	\$0.00	% LEL Pentane	L	\$148.09	% CH ₄ (Methane)	M	\$148.09	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																																
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D. Alternate Languages	English Español Français	The FiveStar Alarm speaks your worker's language. Select the alternative languages option and the instrument will display a screen at battery attachment point which asks user to select between three languages for screen displays.	<table border="1"> <thead> <tr> <th>Language</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>English only</td><td>0</td><td>\$0.00</td></tr> <tr><td>English, Spanish & French</td><td>1</td><td>\$0.00</td></tr> </tbody> </table>	Language	Code	Price	English only	0	\$0.00	English, Spanish & French	1	\$0.00	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$ 0.00</td></tr> </tbody> </table>	Selection	Price		\$ 0.00																																			
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E. Battery Pack Options		There are multiple, flexible options to power the instrument. The standard NiCd and heavy-duty NiMH rechargeable battery packs have a built-in gas gauge to provide the remaining hours of run time for the instrument. The NiMH battery provides up to 20 hours of continuous operation for long-running jobs. The convenient replaceable pack can operate with either alkaline or lithium batteries.	<table border="1"> <thead> <tr> <th>Battery Pack</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>Standard NiCd Rechargeable</td><td>A</td><td>\$148.09</td></tr> <tr><td>Replaceable "AA"</td><td>B</td><td>\$112.83</td></tr> <tr><td>Codes A & B</td><td>C</td><td>\$260.93</td></tr> <tr><td>NiMH</td><td>D</td><td>\$193.93</td></tr> <tr><td>Codes B & D</td><td>E</td><td>\$306.76</td></tr> </tbody> </table>	Battery Pack	Code	Price	None	0	\$0.00	Standard NiCd Rechargeable	A	\$148.09	Replaceable "AA"	B	\$112.83	Codes A & B	C	\$260.93	NiMH	D	\$193.93	Codes B & D	E	\$306.76	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																							
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F. Battery Charger Options		From wall adapters to vehicular chargers, you can recharge your batteries wherever you need. Also, the unique Fast Charger offers the best technology available in safe, rapid charging of your NiCd battery packs. For a small investment, the Fast Charger not only fully charges in less than five hours, it also pays for itself by ensuring the longest possible life from your rechargeable packs.	<table border="1"> <thead> <tr> <th>Battery Charger</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>8-24VDC (Vehicle)</td><td>1</td><td>\$86.03</td></tr> <tr><td>110 VAC</td><td>2</td><td>\$46.54</td></tr> <tr><td>220 VAC</td><td>3</td><td>\$57.12</td></tr> <tr><td>110 VAC and Vehicle</td><td>4</td><td>\$132.58</td></tr> <tr><td>Fast Charger (NiMH and NiCd)</td><td>5</td><td>\$222.14</td></tr> </tbody> </table>	Battery Charger	Code	Price	None	0	\$0.00	8-24VDC (Vehicle)	1	\$86.03	110 VAC	2	\$46.54	220 VAC	3	\$57.12	110 VAC and Vehicle	4	\$132.58	Fast Charger (NiMH and NiCd)	5	\$222.14	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																							
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G. Sampling and Calibration Methods		The FiveStar Alarm's sampling systems provide the highest degree of protection available. The patented PulseCheck® Pump constantly checks the flow system for changes in operation and will provide an alarm to the user if it senses a major change. You do need to have at least one pump, aspirator or calibration cap in your "fleet" to calibrate your instruments.	<table border="1"> <thead> <tr> <th>Sampling/Cal. Methods</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>Aspirator Pump Module</td><td>A</td><td>\$123.41</td></tr> <tr><td>Calibration Cap</td><td>C</td><td>\$38.79</td></tr> <tr><td>PulseCheck Pump</td><td>P</td><td>\$292.66</td></tr> </tbody> </table>	Sampling/Cal. Methods	Code	Price	None	0	\$0.00	Aspirator Pump Module	A	\$123.41	Calibration Cap	C	\$38.79	PulseCheck Pump	P	\$292.66	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																													
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H. Sampling Lines		MSA's high-speed sampling lines are of the highest quality materials guaranteed to not alter sample concentration. Screw fittings with O-Ring couplings at each end ensure that there are no leaks when the system is operating.	<table border="1"> <thead> <tr> <th>Sampling Lines</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>5-foot coiled</td><td>1</td><td>\$35.26</td></tr> <tr><td>10-foot</td><td>2</td><td>\$24.68</td></tr> <tr><td>15-foot</td><td>3</td><td>\$31.73</td></tr> <tr><td>25-foot</td><td>4</td><td>\$35.26</td></tr> </tbody> </table>	Sampling Lines	Code	Price	None	0	\$0.00	5-foot coiled	1	\$35.26	10-foot	2	\$24.68	15-foot	3	\$31.73	25-foot	4	\$35.26	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																										
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I. Sampling Probes		MSA's sampling probes are durable and comfortable to use. The built in WaterStop® filter in the handle of the probe ensures your sampling system is not contaminated with dirt and debris if the probe tip is dipped under water. You must order a probe if you order a sampling line as we strongly recommend that you operate the instrument with this filter in place.	<table border="1"> <thead> <tr> <th>Sampling Probe</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>8" Probe</td><td>1</td><td>\$19.04</td></tr> <tr><td>1-foot straight</td><td>2</td><td>\$78.69</td></tr> <tr><td>3-foot straight</td><td>3</td><td>\$88.15</td></tr> <tr><td>3-foot, holes near tip</td><td>4</td><td>\$98.73</td></tr> <tr><td>3-foot, holes near handle</td><td>5</td><td>\$98.73</td></tr> <tr><td>Hot-gas sampling probe</td><td>6</td><td>\$114.24</td></tr> </tbody> </table>	Sampling Probe	Code	Price	None	0	\$0.00	8" Probe	1	\$19.04	1-foot straight	2	\$78.69	3-foot straight	3	\$88.15	3-foot, holes near tip	4	\$98.73	3-foot, holes near handle	5	\$98.73	Hot-gas sampling probe	6	\$114.24	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																				
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J. Carrying Attachments		While a high strength, molded plastic belt clip is offered with the instrument at no charge, there are three other options for handling the instrument. The swivel belt loop allows quick release from your belt with a half-turn. The pistol grip kit is helpful for longer stints of hand-held sampling.	<table border="1"> <thead> <tr> <th>Belt Clip</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>Molded plastic belt clip</td><td>1</td><td>\$0.00</td></tr> <tr><td>Swivel belt loop</td><td>2</td><td>\$59.24</td></tr> <tr><td>Pistol grip handle</td><td>3</td><td>\$59.24</td></tr> <tr><td>Stainless steel belt clip</td><td>4</td><td>\$15.51</td></tr> </tbody> </table>	Belt Clip	Code	Price	Molded plastic belt clip	1	\$0.00	Swivel belt loop	2	\$59.24	Pistol grip handle	3	\$59.24	Stainless steel belt clip	4	\$15.51	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																													
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K. Instrument Jacket		To offer the highest levels of environmental and rough handling protection for your FiveStar Alarm, you can order either a leather or Cordura Nylon jacket. The cases are custom designed to fit either the diffusion instrument or the instrument with the pump.	<table border="1"> <thead> <tr> <th>Instrument Jacket</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>Leather Case</td><td>1</td><td>\$62.76</td></tr> <tr><td>Cordura Nylon Jacket</td><td>2</td><td>\$33.14</td></tr> </tbody> </table>	Instrument Jacket	Code	Price	None	0	\$0.00	Leather Case	1	\$62.76	Cordura Nylon Jacket	2	\$33.14	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																																
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L. Calibration Kits (Only available in ATO for Combustible O ₂ , CO, H ₂ S—other gases must be purchased separately)		MSA provides two options for verifying instrument calibration. The RP kit, with a constant flow regulator and replaceable cylinders provides the greatest accuracy. The Squirr® Gas Check Kit's aerosol canisters provides an economical means with which to verify instrument calibration.	<table border="1"> <thead> <tr> <th>Calibration Accessories</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>Model RP Calibration Kit</td><td>1</td><td>\$317.34</td></tr> <tr><td>Squirr Gas Check Kit</td><td>2</td><td>\$84.62</td></tr> </tbody> </table>	Calibration Accessories	Code	Price	None	0	\$0.00	Model RP Calibration Kit	1	\$317.34	Squirr Gas Check Kit	2	\$84.62	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																																
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M. Data Communications Kit		The FiveStar Link Communications Kit contains the software and adapter necessary to download the instrument datalog or change the instrument setup options.	<table border="1"> <thead> <tr> <th>Data Communications</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>None</td><td>0</td><td>\$0.00</td></tr> <tr><td>FiveStar Link</td><td>1</td><td>\$282.08</td></tr> </tbody> </table>	Data Communications	Code	Price	None	0	\$0.00	FiveStar Link	1	\$282.08	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																																			
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N. Packaging Options and Carrying Cases		You can further protect your FiveStar Alarm with optional carrying cases. For ease of transport and handling, these cases can be even be ordered to accommodate calibration accessories. With the premium cases, a simple-to-understand training videotape is included at no extra charge.	<table border="1"> <thead> <tr> <th>Packaging & Carrying Cases</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>Standard shipping container only</td><td>0</td><td>\$0.00</td></tr> <tr><td>Black plastic case</td><td>1</td><td>\$91.68</td></tr> <tr><td>Heavy duty case with video</td><td>2</td><td>\$109.31</td></tr> <tr><td>Large, heavy duty case with video and space for cylinder</td><td>3</td><td>\$137.51</td></tr> <tr><td>Orange plastic case</td><td>4</td><td>\$102.25</td></tr> </tbody> </table>	Packaging & Carrying Cases	Code	Price	Standard shipping container only	0	\$0.00	Black plastic case	1	\$91.68	Heavy duty case with video	2	\$109.31	Large, heavy duty case with video and space for cylinder	3	\$137.51	Orange plastic case	4	\$102.25	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$</td></tr> </tbody> </table>	Selection	Price		\$																										
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O. Instrument Case Selection		The FiveStar Alarm is offered in two case housings: standard, nickel-plated ABS or stainless steel fiber-filled black ABS. The standard nickel-plated version provides higher levels of Radio Frequency Interference (RFI) protection, whereas the stainless-filled version provides resistance against corrosion in harsh chemical environments.	<table border="1"> <thead> <tr> <th>Instrument Cases</th> <th>Code</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>Nickel-plated</td><td>0</td><td>\$0.00</td></tr> <tr><td>Stainless filled</td><td>1</td><td>\$0.00</td></tr> </tbody> </table>	Instrument Cases	Code	Price	Nickel-plated	0	\$0.00	Stainless filled	1	\$0.00	<table border="1"> <thead> <tr> <th>Selection</th> <th>Price</th> </tr> </thead> <tbody> <tr><td></td><td>\$ 0.00</td></tr> </tbody> </table>	Selection	Price		\$ 0.00																																			
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Your Model Part Number Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... A A A A B C D E F G H I J K L M N O
A-5ST- - - -

Add Base Unit Price + \$669.94

Total Unit Price = \$

All Pricing is in US Dollars

ORION® MULTIGAS DETECTOR

(See Bulletin o816-27)

The Orion Multigas Detector is a low-cost, reliable, and easy-to-use portable instrument for detecting the presence of O₂, H₂S, CO and combustible gas. It will stand up to the roughest handling in even the toughest environments.

Features

- One-button calibration
- Long-life battery
- Carbon-filled nylon case
- Tough, durable construction
- Built-in pump
- TIM® System compatibility
- Large, easy-to-read display
- Durable sensors
- Link™ Software compatibility

Approvals

The Orion Multigas Detector has been designed to meet intrinsic safety testing requirements in certain hazardous atmospheres. The Orion Multigas Detector has been approved by UL and cUL for use in Class I, Division I, Groups A, B, C, and D.

To order the Orion Multigas Detector, see the Assemble-To-Order Chart on p. 47.



Replacement Sensors and Other Accessories

Part No.	Description	GSA Price
711306	Carbon Monoxide Sensor	\$141.05
711307	Hydrogen Sulfide Sensor	\$141.05
10024247	Combustible Gas (LEL) Sensor	\$134.00
10025940	Oxygen Sensor	\$126.95
10020545	Sampling Pump Aspirator Module	\$130.47
710465	Sample Line, 5-ft coiled	\$35.26
497332	Sample Line, 5-ft	\$16.93
497333	Sample Line, 10-ft	\$22.33
497334	Sample Line, 15-ft	\$27.72
497335	Sample Line, 25 ft	\$32.34
800972	Sample Line, 5-ft Teflon	\$54.67
811187	Sample Line, 10-ft Teflon	\$83.93
800332	Probe, 1-ft	\$79.69
800333	Probe, 3-ft	\$88.16
803561	Bar Hole Probe, 3-ft	\$98.74
803848	Hot Gas Probe	\$114.25
801582	Replacement Water Stop Filters(10 each)	\$20.02
801291	Charcoal Filter Holder	\$69.11
14318	Replacement Charcoal Filters	\$29.03
711039	Line Scrubber Holder	\$66.51
711052	Line Scrubber Cartridges	\$64.67
813514	Dilution Tube, 1:1	\$52.61
813971	Dust Filter Replacements(10 each)	\$31.88
806160	End-of-line Dust/Water Filter	\$15.02
710946	Downloading Software Kit	\$282.10
10020485	Black Leather Protective Jacket	\$63.47
10020486	Case	\$29.47
10020489	Videotape	\$14.07
10025539	Pump Cap Assembly	\$15.94









Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Orion Detector, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy, request Bulletin o816-28.

Prices are 29.48% discount off 2005 Price List.

Orion® Multigas Detector Assemble-to-Order (ATO) Options

- To generate your instrument configuration, select instrument options and mark them in the boxes to the right.
- To generate your instrument price, write in the price for each option in the space provided to the right and add to the base price of \$352.60 below.

A. Combustible Sensor Options	To choose to have MSA's own long-life 20L combustible sensor installed in your new Orion Multigas Detector, choose selection 1. For no combustible sensor, enter a "0."	Combustible Sensor None % LEL (Pentane, 0-100%)	Code 0 1	Price \$0.00 \$112.83	Selection <input type="checkbox"/>	Price \$
B. Oxygen Sensor Option	To choose to have an oxygen sensor installed in your new Orion Multigas Detector, choose selection 1. For no oxygen sensor, enter a "0."	Oxygen Sensor None Oxygen (0-25%)	Code 0 1	Price \$0.00 \$105.78	Selection <input type="checkbox"/>	Price \$
C. Carbon Monoxide Sensor Option	To choose to have a carbon monoxide sensor installed in your new Orion Multigas Detector, choose selection 1. For no carbon monoxide sensor, enter a "0."	Carbon Monoxide Sensor None Carbon monoxide (0-999 ppm)	Code 0 1	Price \$0.00 \$119.88	Selection <input type="checkbox"/>	Price \$
D. Hydrogen Sulfide Sensor Option	To choose to have a hydrogen sulfide sensor installed in your new Orion Multigas Detector, choose selection 1. For no hydrogen sulfide sensor, enter a "0."	Hydrogen Sulfide Sensor None Hydrogen sulfide (0-200 ppm)	Code 0 1	Price \$0.00 \$119.88	Selection <input type="checkbox"/>	Price \$
E. Battery Pack Options	 You can choose between MSA's NiMH rechargeable batteries which will run your Orion Multigas Detector for up to 16 hours in pump mode and 20 hours in diffusion mode, or you can choose the convenience of alkaline batteries. For ultimate flexibility choose "both!"	Battery Pack Standard NiMH rechargeable (comes with standard AC charger) Replaceable alkaline Both NiMH and alkaline	Code A B C	Price \$141.04 \$70.52 \$211.56	Selection <input type="checkbox"/>	Price \$
F. Battery Charger Options	 If you order your Orion Multigas Detector with a rechargeable battery pack, the charger is included in the price. If you want the optional vehicular charger adapter, choose selection "1."	Battery Charger None/Standard AC charger Vehicular charger	Code 0 1	Price \$0.00 \$148.09	Selection <input type="checkbox"/>	Price \$
G. Sampling Methods	 The Orion Multigas Detector's patented Pulsecheck™ pump technology leads the industry. If you choose the built-in pump, operating directly off the instrument batteries, you are assured of an audible pump fault alarm and you do not need to maintain a second set of batteries. If you are ordering diffusion instruments, a calibration cap will be included to calibrate your instruments.	Sampling Methods None Integral, Pulsecheck pump Manual aspirator module	Code D P A	Price \$0.00 \$70.52 \$105.78	Selection <input type="checkbox"/>	Price \$
H. Sampling Lines	 MSA's high-speed sampling lines are of the highest quality materials guaranteed to not alter sample concentration. Screw fittings with O-Ring couplings at each end ensure there are no leaks when the system is operating.	Sampling Lines None 3-foot coiled 5-foot coiled 10-foot 15-foot 25-foot	Code 0 1 2 3 4 5	Price \$0.00 \$31.73 \$35.26 \$24.68 \$31.73 \$35.26	Selection <input type="checkbox"/>	Price \$
I. Sampling Probes	 MSA's sampling probes are durable and comfortable to use. The built-in Water Stop filter ensures your sampling system is not contaminated with dirt and debris if the probe tip is dipped in water. You must order a probe if you order a sampling line as we strongly recommend you operate the instrument with this filter in place.	Sampling Probe None 1-foot straight 3-foot straight 3-foot, holes near tip 3-foot, holes near handle Hot gas probe	Code 0 1 2 3 4 5	Price \$0.00 \$79.69 \$88.15 \$98.73 \$98.73 \$114.24	Selection <input type="checkbox"/>	Price \$
J. Carrying Attachments	 While a high-strength, nylon clip is offered with the instrument at no extra charge, a swivel belt loop kit, which allows quick release from your belt with a half turn, is also available.	Belt Clip Standard nylon Swivel belt loop	Code 0 1	Price \$0.00 \$59.24	Selection <input type="checkbox"/>	Price \$
K. Instrument Jacket	 For the highest levels of environmental and rough handling protection, you can order from a variety of jackets and boots for your Orion Multigas Detector.	Instrument Jacket None Black rubber boot Black leather case Orange cordura jacket Black rubber boot/Orange cordura Red rubber boot	Code 0 B L C D R	Price \$0.00 \$52.89 \$63.47 \$31.73 \$84.62 \$52.89	Selection <input type="checkbox"/>	Price \$
L. Calibration Kits	You can choose one of two calibration options for your Orion Multigas Detector. The flexible RP kit provides a constant flow regulator that is reused and provides the greatest accuracy. The squirt gas test kit provides a very economical means to verify instrument calibration.	Calibration Kit Options None RP Calibration Kit (includes gas) Squirt Gas Check Kit (includes gas)	Code 0 1 2	Price \$0.00 \$317.34 \$84.62	Selection <input type="checkbox"/>	Price \$
M. Data Communications Options	If you need to track the readings and operation of your Orion Multigas Detectors, consider ordering them with the optional built-in datalogging module. This option also provides STEL and TWA capabilities.	Data Communications None Orion link module Module and download software	Code 0 1 2	Price \$0.00 \$176.30 \$246.82	Selection <input type="checkbox"/>	Price \$
N. Packaging Options and Carrying Cases	 You can further protect your Orion Multigas Detector with optional carrying cases. For ease of transport and handling, these cases can be even be ordered to accommodate calibration accessories. With the premium cases, a simple-to-understand training videotape is included at no extra charge.	Packaging & Carrying Cases Standard shipping container only Black plastic case w/ space for cylinder, with video Heavy-duty case with video Large, heavy-duty case with video and space for 2 cylinders Orange plastic case w/ space for cylinder, with video	Code 0 1 2 3 4	Price \$0.00 \$63.47 \$84.62 \$133.91 \$63.47	Selection <input type="checkbox"/>	Price \$

Your Model Part Number

Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... **A** **B** **C** **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N**

A-ORION- - - - - - - - - - - - - - - -

Add Base Unit Price + \$352.60

Total Unit Price = \$

All Pricing is in US Dollars

PULSAR® SINGLE-GAS DETECTOR

The MSA PULSAR Single-Gas Detector provides maintenance-free, 24-month monitoring for the detection of CO, H₂S, or O₂. With a unique design combined with a competitive price, it is the clear choice in single-gas detectors.

Key features of the PULSAR Single-Gas Detector include:

- The PULSAR requires no field calibration, battery or sensor replacement.
- Spring and suspension attachment clips are standard—keeping the unit attached during even the roughest use. The unit can be worn inside or outside a pocket, as well as on the belt or helmet.
- A long-life battery offers 33% more capacity than the competition.
- A numeric display with characters 4x larger than the competition allows users to count down service life from 24 months with accuracy and confidence.
- It's designed to survive a 6-ft drop and to meet an environmental protection rating of IP54 to help ensure that the unit will be virtually impervious to water and dust ingress.
- Because the PULSAR Single-Gas Detector has a built-in gas-delivery adapter, no easy-to-misplace accessories are needed to conduct gas-response tests.
- Newly designed, MSA-built, stainless steel sensors with solid electrolyte construction contain no liquid, eliminating the possibility of sensor leakage.
- A triple alarm system, complete with audio, vibrating, and visual alarms leaves no doubt for the user in an alarm situation.



Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to “custom order” the Pulsar Single Gas Detector, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy, request Bulletin o802-25.

Prices are 29.48% discount off 2004 Price List.

Pulsar® Single Gas Detector Assemble-to-Order (ATO) Options

- To select your instrument configuration, select the instrument options and mark them in the boxes to the right.
- To calculate your instrument price, write in the price for each option in the space provided to the right, add up the total and write it in the “Total Unit Price” box below.

1. Instrument Type		Code	Instrument Type	Price	Selection	Price
		1	CO without vibrating alarm	\$175.59	<input type="checkbox"/>	
		2	CO with vibrating alarm	\$175.59	<input type="checkbox"/>	
		3	H ₂ S without vibrating alarm	\$175.59	<input type="checkbox"/>	
		4	H ₂ S with vibrating alarm	\$175.59	<input type="checkbox"/>	
		5	O ₂ without vibrating alarm	\$175.59	<input type="checkbox"/>	
		6	O ₂ with vibrating alarm	\$175.59	<input type="checkbox"/>	

2. Alarm Setpoints		Code	Alarm Setpoints	Selection	Price
		A	CO 25 ppm & 100 ppm	<input type="checkbox"/>	\$ 0.00
		B	CO 30 ppm & 60 ppm	<input type="checkbox"/>	
		C	CO 35 ppm & 100 ppm	<input type="checkbox"/>	
		D	CO 35 ppm & 400 ppm	<input type="checkbox"/>	
		E	CO 50 ppm & 200 ppm	<input type="checkbox"/>	
		F	CO 100 ppm & 300 ppm	<input type="checkbox"/>	
		G	CO 150 ppm & 200 ppm	<input type="checkbox"/>	
		L	H ₂ S 10 ppm & 15 ppm	<input type="checkbox"/>	
		M	H ₂ S 10 ppm & 20 ppm	<input type="checkbox"/>	
		N	H ₂ S 10 ppm & 25 ppm	<input type="checkbox"/>	
		O	H ₂ S 15 ppm & 25 ppm	<input type="checkbox"/>	
		W	O ₂ 19.5% & 18.0%	<input type="checkbox"/>	
		X	O ₂ 22.5% & 19.5%	<input type="checkbox"/>	

Your Model Part Number Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... 1 2

A-PULSAR- -

Total Unit Price = \$

All Pricing is in US Dollars

HAZMATCAD™* HAZARDOUS MATERIAL CHEMICAL AGENT DETECTOR

The HAZMATCAD Hazardous Material Chemical Agent Detector is a handheld instrument that detects and classifies Chemical Warfare Agents (CWA). When compared to other technologies, the HAZMATCAD Detector offers more capabilities and greater reliability at a lower cost.

Features

- Compact, light-weight and portable
- Self-diagnostic check during rapid warm-up
- Alphanumeric display with LED alarms
- Dual-Mode SAW Operation—Fast or High Sensitivity
- Operates between 8 and 12 hours on rechargeable Li-Ion batteries
- Vapor-diffusion check source verifies system performance
- Unit can be hand-carried or worn on belt
- RS-232 and IrDA communication ports; stores up to 8 hours of data
- Inlet design protects against dust and particulates



NEW!



HAZMATCAD Detector Kits

Kits include: HAZMATCAD Detector; Battery Charger; Belt Clip; Two Sony Rechargeable Batteries; Hard, Water-resistant Carrying Case; Operating Manual; Vapor Check Source

Instrument	Chemical Agents Detected	Part No.	GSA Price
HAZMATCAD Detector	Nerve and Blister	10055094	\$3,852.93
HAZMATCAD Detector	Nerve, Blister and Hydrogen Cyanide	10055095	\$4,253.41
HAZMATCAD Detector	Nerve, Blister and Phosgene	10055096	\$4,253.41

HAZMATCAD™* PLUS HAZARDOUS MATERIAL CHEMICAL AGENT DETECTOR

The HAZMATCAD Plus Detector detects for Chemical Warfare Agents (CWA) and selected Toxic Industrial Chemicals (TICs). It is a portable instrument designed for one-hand operation. It is very easy to operate and requires limited training for effective use.

Features

- Self-diagnostic check during rapid warm-up
- Alphanumeric display with LED alarms
- Dual-Mode SAW Operation – Fast or High Sensitivity
- Electrochemical Cells – Real time analysis
- Operates between 8 and 12 hours on rechargeable Li-Ion batteries
- Vapor-diffusion check source verifies system performance
- RS-232 and IrDA communication ports; stores up to 8 hours of data
- Inlet design protects against dust and particulates

HAZMATCAD Plus Detector Kit

Kit includes: HAZMATCAD Detector; Battery Charger; Belt Clip; Two Sony Rechargeable Batteries; Hard, Water-resistant Carrying Case; Operating Manual; Vapor Check Source

Instrument	Chemical Agents Detected	Part No.	GSA Price
HAZMATCAD Plus Detector	Nerve and Blister agents and TICs (phosgene, hydrogen cyanide, halogen and hydride gas)	10055097	\$6,308.71

NEW!





DETECTOR TUBES FOR USE WITH HAND-HELD PUMPS

(see Data sheet o8-00-02)

Use these tubes to detect a wide variety of substances, as detailed below.

Substance Measured	Detector Tube applicable	Part No. (1 pkg. of 10 tubes)	Measuring range (ppm)	Threshold Limit Value 1998 ACGIH (ppm)	GSA Price
Acetic Acid	Acetic Acid-1	804138	1-80	10	\$33.25
Acetone	Acetone-100	804141	100-10,000	500	\$33.25
Acetylene dichloride, cis and trans (1,2 Dichloroethylene)	Trichloroethane-5	487343	10-500	200	\$33.35
Ammonia	NH3-2	804405	2-500	25	\$33.25
	NH3-0.1%	804406	0.1-10 Vol.-%		\$29.92
Benzene		655837	0.25-10	-	\$46.54
Hydrogen Chloride	HCl-1	803948	1-30	5 (ceiling)	\$39.34
Hydrogen Cyanide	HCN-2	803945	2-50	4.7 (ceiling)	\$39.34
Perchloroethylene (Tetrachloroethylene)	Per-5	804429	5-200	25	\$29.92
Phosphine	PH3-0.05	497101	0.05-3	0.3	\$38.79
Triethylamine	Triethylamine-5	804134	5-30	1	\$29.92

CHEMICAL WARFARE AGENT DETECTOR TUBES

(See Bulletin 5555-90-MC for more detail.)

Detect a wide range of nerve, blister, blood, and choking agents.

- Quick, simple to use; easy to interpret results
- "Go/No Go" style
- Unparalleled flexibility and ease of sampling
- Can be used with MSA's full line of pumps, including the Kwik-Draw, Gas-Tester II, and Toximeter II pumps
- Economically priced
- All sold as box of 10 tubes

Part No.	Description	GSA Price
10007650	Blister-Lewisite	\$52.09
10007651	Blood and Choking—CG, DP, AC, CK	\$52.09
10007652	Blister-variety, including Mustard Gas	\$52.09
10007653	Blister-Mustard Gas	\$52.09
10007654	Nerve-Sarin, VX, GA, GD, etc.	\$52.09

DETECTOR TUBE PUMPS

MSA's **Kwik-Draw®** and **Kwik-Draw Deluxe Pumps** can be used with an assortment of MSA's detector tubes to spot-test atmospheres for a wide variety of toxic substances. They are designed for one-hand operation and consistent delivery of a sample draw volume of 100 milliliters (ml).

The **Gas-Tester II H Pump** is set for action by compressing the bellows. A pump stroke is completed by pressing the release button. When the sample (100ml) is drawn through the tube, the end-of-stroke indicator changes color. An accurate measurement is obtained because the sample draw procedure itself is controlled only by the specifications of the pump and the flow resistance of the detector tube.

The **Toximeter II Automatic Detector Tube Pump** makes the sampling process easier, allowing the user to preset the number of pump strokes (from 1 to 250 pump strokes). Inherently safe, the automatic pump works with all MSA detector tubes. It can also be used as a sampling pump.



Kwik-Draw Pump



Gas-Tester II H Pump



Toximeter II Pump

Part No.	Description	GSA Price
488543	Kwik-Draw Detector Tube Pump with remote sampling adapter and carrying pouch	\$193.94
487500	Kwik-Draw Detector Tube Pump with remote sampling adapter, end-of-stroke indicator, & carrying pouch	\$236.26
696944	Gas Tester II-H Pump	\$289.15
655585	Toximeter II Automatic Pump	\$983.82

DETECTOR TUBE ACCESSORIES

Part No.	Description	GSA Price
73067	Sampling Line, 10 ft.	\$18.27
73068	Sampling Line, 25 ft.	\$55.71
73069	Sampling Line, 50 ft.	\$134.00
87970	Remote Sampling Adapter, required for sampling line	\$3.52
485233	Multiple Tube Holder Assembly	\$147.40
488780	Solvent-Resistant Sampling Line, 25 ft., with reel	\$46.19
72762	Tube, Tipbreaker	\$3.29
488872	Tube Holder, required for P/N 488780	\$23.89
655777	Toximeter Filter Set, TX2	\$38.08
655779	Battery Pack, with charger jack	\$175.61
655780	Sampling Line, 13 ft.	\$66.29
655781	Toximeter Carrying Case, leather	\$84.63
655782	Toximeter Sampling Line Adapter	\$35.49

DETECTOR TUBE KITS

Part No.	Description	GSA Price
807472	HazMat Response Detector Tube Kit	\$777.19
10044998	Chemical Warfare Detector Tube Kit	\$1,022.61
10044999	Clandestine Lab Detector Tube Kit	\$826.55
10049765	Chemical Warfare Kit w/ELF Pump	\$1,988.81

SAFESITE® MULTI-THREAT DETECTION SYSTEM

NEW!

(See Bulletin 07-2067 for more detail, such as system specifications and available sensors.)

The MSA SafeSite Hazardous Gas Detection System monitors, detects and communicates the presence of up to six potential threats, including chemical warfare agents (CWA), gamma radiation, volatile organic compounds (VOC), toxic industrial chemicals (TIC), combustible gases and oxygen deficiency—all within a wireless network.

The SafeSite System combines state-of-the-art detection technology with advanced wireless communications capabilities to provide superior preventative and counter-measure solutions for:

- homeland security
- public events
- mass transportation centers
- hazardous response
- confined space
- emergency response
- building protection
- perimeter monitoring
- port surveillance

The SAFESITE System consists of two main components, the SAFEMTX™ Multi-Threat Detector and the SAFECOM™ Command Center. The system can be installed permanently (wired or wireless) for continual monitoring or deployed as a portable system.

The SAFEMTX Multi-Threat Detector utilizes multi-sensing technologies to detect up to six potential threats; helping first responders, law enforcement and government agents reduce the risk of exposure and facilitate consequence management.

The SAFEMTX Detector also offers GPS location technology, pumped flow, horn, beacon, interchangeable smart-sensors for maximum flexibility, a display lock-out panel which hides the display during public monitoring, and internal diagnostics to identify signal strength during system deployment. Min, max and average values over a 1-, 8- or 24-hour time period are available at the SAFEMTX Detector. Power options allow for lithium ion or alkaline batteries, as well as AC power and 12 VDC vehicle connection..

The SAFECOM Command Center receives mission-critical information from SAFEMTX Detectors and permits this crucial and wide-ranging data to be quickly converted to practical information for rapid decision-making through an uncomplicated graphical user interface.

The SAFECOM Command Center can manage up to two systems with 16 SAFEMTX Detectors per system, integrating SAFEMTX data, including:

- gas readings
- alarm status
- GPS location
- battery run time
- SAFEMTX min, max and average values
- relative CWA threat level
- radiation dose rate
- RF signal strength
- fault conditions

Through the SAFECOM Command Center, alarms are identified with both visual and audible alarms, alarms can be acknowledged and silenced, detectors can be enabled and disabled, event logs and event log history can be viewed, plus units can be customized to suit specific deployment scenario.

The SAFECOM Command Center maps SAFEMTX Detectors through GPS technology, specific address input or “click and dragging” icons onto images.

The SAFECOM unit is also a TCP/IP hub, allowing all information to be placed on a network for remote viewing.

Wireless Technology

The SAFESITE System provides two miles of wireless communication between any SAFEMTX Detector and SAFECOM Command Center and, when necessary, the SAFECOM unit can configure and SAFEMTX Detector as a repeater to ensure maximum signal strength and reliable deployment without the need to move units.



Threat	Technology	Benefit
Chemical warfare agents	Surface acoustic wave (SAW)	Low false positives and false alarms, speciation of nerve & blister agents
Gamma radiation	Cadmium zinc telluride (CZT)	Sensitive with adjustable threshold and 2 ranges. (0-100 mR/hr, 0.1mR/hr resolution and 0-1000 mR/hr, 1mR/hr resolution)
Volatile organic compounds	Photo-ionization (PID)	10.6eV lamp provides ppm readings for broad band toxics and VOC detection
Toxic industrial chemicals	Electro-chemical	Detects for many specific toxic gases such as chlorine, ammonia, hydrogen cyanide and hydrogen chloride
Oxygen deficiency	Electro-chemical	Oxygen deficiency monitoring for confined space
Combustible gas	Catalytic	Wide range detection for hydrocarbons

Call MSA Customer Service at 1-866-MSA-1001 for a quotation.

MSA SAFETOX™ AND SAFEVOC™ GAS MONITORS

SafeTOX and SafeVOC Gas Monitors are used in a variety of industrial applications. The monitors are easy to install and operate; just apply power to the SafeTOX or SafeVOC Gas Monitor and it is ready for operation.

Applications

SafeTOX and SafeVOC Monitors can be applied in any indoor and outdoor application where there is a threat of the build-up of combustible gases, the presence of toxic gases, or oxygen deficiency including:

- Refineries
- Chemical and petrochemical facilities
- Steel mills
- Water and waste water
- Mining
- General industry

Design and Operation

All SafeTOX and SafeVOC Gas Monitors, regardless of the gas selected for detection, are designed for maximum performance and reliability.

All monitors are:

- Housed in a rugged, metal enclosure designed for NEMA 4X
- Designed with the sensor mounted external to the enclosure, it is easily replaced by simply unscrewing the sensor housing and removing the plug-in sensor
- Factory calibrated, making them ready for installation and immediate operation
- Uniquely designed to eliminate all potentiometers, or any other type of internal adjustment
- Shipped with a unique Sensorgard which protects the sensor from dirt, water, etc., while allowing gas to penetrate into the unit. The Sensorgard also acts as a baffle in windy environments

Standard Features

- Large, 1.75", four-digit LED display
- Three levels of alarm
- Large LED alarm indicators
- Internal relay contacts for FAULT, CAUTION, WARNING and ALARM
- A normally-energized fault relay provides a contact output for any condition that would not be considered NORMAL
- Failsafe fault relay output
- Diagnostics that appear on the display
- Audible alarm
- 4-20 mA output

Advanced Features

The advanced features of the SafeTOX and SafeVOC Monitor provide:

- Date of last successful calibration recorded within the SafeTOX and SafeVOC Monitor
- "Replace Sensor" indication when sensor nears its end-of-life
- Real-time clock for time and date stamping of events
- Logging of minimum, maximum and average gas concentrations over predetermined time intervals
- Selectable lock-out of output signals during calibration to inhibit alarms and control actions

Calibration

Although the SafeTOX and SafeVOC Gas Monitor features tremendous stability, it is essential, as with all gas monitors, that it be calibrated periodically with the gas of interest to ensure proper operation. The SafeTOX and SafeVOC Monitors simplify calibration by:

- Providing an internal 2-button keypad for access to all set-up parameters and stored values, including initiation of calibration
- Allowing two types of remote communication devices for calibration
- Providing easy to follow instructions on the LED display
- Instructing the user when to apply zero and span gas
- Automatically making any necessary adjustments
- Displaying the actual gas readout during calibration
- Returning to normal operation immediately after calibration



SafeTOX and SafeVOC Monitors are available in a variety of models to meet individual monitoring needs. The Standard, Plus and Advanced models offer varying features to cater to specific applications. The SD2 model is specifically designed for Class I, Division 2 Groups B,C,D.

Standard

- Bottom-mount sensor
- 70 db Piezo buzzer alarm
- Diffusion sampling
- NEMA 4X metal enclosure
- Internal relays

SD2

- Bottom-mount sensor
- 70 db Piezo buzzer alarm
- Diffusion sampling
- No internal relays
- NEMA 4X metal enclosure
- Class I, Division 2 Groups B,C,D

Plus

- Bottom-mount sensor
- 85 db Federal alarm horn
- Diffusion sampling
- NEMA 4X metal enclosure
- Two top-mounted strobes (yellow and red) are activated from the warning and alarm levels
- Internal relays

Accessories

Controller

The SafeTOX and SafeVOC Controller provides complete password-protected access to all features through its full function keypad.

Use the Controller to:

- Set alarm levels
- Change span-gas values
- Display date of last calibration
- Display minimum, maximum and average gas values

Advanced

- Bottom-mount sensor
- 85 db Federal alarm horn
- Internal pump sampling system for remote sample draw
- NEMA 4X metal enclosure
- Two top-mounted strobes (yellow and red) are activated from the warning and alarm levels
- Internal relays

Calibrator

The SafeTOX and SafeVOC Calibrator is an economical solution basic calibration operations for the SafeTOX and SafeVOC Gas Monitors.

The SafeTOX and SafeVOC Calibrator offers:

- The industry's simplest method of calibration
- Easy-to-use, three-button control

Specifications

Gas Types		Combustibles; oxygen; toxics
Temperature Range	VOC sensor	0° to +40°C; +32° to +104°F
	Toxics and oxygen	-20° to +50°C; -4° to +122°F (Range on some models may differ.)
Combustibles		-40° to +90°C; -40° to +194°F
Drift	Zero Drift	<5%/Yr., typically
	Span Drift	<10%/Yr., typically
Noise		Less than 1% FS
Accuracy	Repeatability	±1% FS or 2 ppm (VOC)
	Linearity	±2% FS (Combustible; O ₂ ; CO) ±10% FS or 2 ppm (others)
Step Change Response		T20 O ₂ and toxics < 12 sec. (Typ. 6 sec.)
		T50 O ₂ and toxics < 30 sec. (Typ. 12 sec.)
		T50 Combustibles < 8 sec.
		T90 Combustibles & VOCs < 20 sec.
Humidity		0-95% RH, non-condensing
Sensor Life	VOC	>1 year
	Combustibles	3 years typically
	Toxics and O ₂	2 years typically
Full replacement warranty		1 year
Hazardous Area Rating		General Purpose
Power Input		110-220 VAC power input
Signal Output		4-20 mA 2-wire current source
Internal Relays		Fault, Caution, Warning, Alarm
Internal Relay Contact Rating		5 amp @ 125 VAC; 5 amp @ 30 VDC
Physical Dimensions	Enclosure	10"W x 12"H x 5"D
	Weight	13 lbs.
Approvals		NEMA 4X- All Class 1, Div. 2- SD2

Gas Selection and Range	Standard	Gov't Net Price	SD2	Gov't Net Price	Plus	Gov't Net Price	Advanced	Gov't Net Price
Carbon Monoxide 0-100 PPM	10062821	\$1,587.82	10062824	\$1,587.82	10062822	\$2,031.12	10062823	\$2,534.87
Carbon Monoxide 0-500 PPM	10062825	\$1,587.82	10062828	\$1,587.82	10062826	\$2,031.12	10062827	\$2,534.87
Oxygen 0-25%	10062829	\$1,587.82	10062832	\$1,587.82	10062830	\$2,031.12	10062831	\$2,534.87
Hydrogen Sulfide 0-10 PPM	10062833	\$1,587.82	10062837	\$1,587.82	10062835	\$2,031.12	10062836	\$2,534.87
Hydrogen Sulfide 0-50 PPM	10062838	\$1,587.82	10062841	\$1,587.82	10062839	\$2,031.12	10062840	\$2,534.87
Hydrogen Sulfide 0-100 PPM	10062842	\$1,587.82	10062845	\$1,587.82	10062843	\$2,031.12	10062844	\$2,534.87
Chlorine 0-5 PPM	10062846	\$1,587.82	10062849	\$1,587.82	10062847	\$2,031.12	10062848	\$2,534.87
Sulfur Dioxide 0-25 PPM	10062850	\$1,587.82	10062853	\$1,587.82	10062851	\$2,031.12	10062852	\$2,534.87
Nitric Oxide 0-100 PPM	10062854	\$1,587.82	10062857	\$1,587.82	10062855	\$2,031.12	10062856	\$2,534.87
Nitrogen Dioxide 0-10 PPM	10062858	\$1,587.82	10062862	\$1,587.82	10062860	\$2,031.12	10062861	\$2,534.87
Hydrogen Cyanide 0-50 PPM	10062863	\$1,587.82	10062866	\$1,587.82	10062864	\$2,031.12	10062865	\$2,534.87
Hydrogen Chloride 0-50 PPM	10062867	\$1,587.82	10062870	\$1,587.82	10062868	\$2,031.12	10062869	\$2,534.87
Chlorine Dioxide 0-3 PPM	10062871	\$1,587.82	10062875	\$1,587.82	10062873	\$2,031.12	10062874	\$2,534.87

GALAXY™ AUTOMATED TEST SYSTEM FOR SOLARIS, SIRIUS AND ORION GAS DETECTORS **NEW!**

Extremely Easy to Use

Effortless Operation

Works without the touch of a single button; no user intervention is required.

Standalone

No computer or network interface required for any mode of operation.

Setup

No tubing, no wires, no mess! Simply connect the gas cylinder to the Galaxy Test Stand and the setup is complete.

Easy-to-Understand Pass/Fail Indicators

High-intensity LEDs provide quick, unmistakable notification of a successful calibration or test.

Versatile and Expandable

Multiple System Interconnectivity

Up to 10 specific and different Galaxy modules can be interconnected.

Instrument Charging

As an added feature, MSA instruments can be recharged on the Galaxy Test System.

Industry-Standard Memory Card

An industry-standard memory flash card retains data for more than 1000 individual test records.

Optional Replaceable Battery Pack

An optional battery pack utilizes replaceable AA alkaline batteries and can provide up to 100 calibrations or bump checks per instrument Test Stand!

Optional Printer

The perfect solution for attaching the most current calibration record to your confined space entry permit or maintaining a calibration log book.

Desktop or Wall-Mount

With various lengths of din rail available, any combination of up to 10 Galaxy units and 3 cylinder holders can be mounted to a wall.

Durable, Innovative Design

Wireless or Wired Network Interface

This optional interface is offered for either wired (Ethernet) or wireless (802.11b) networks. Any web browser such as Internet Explorer or Netscape Navigator can be used to access the data of a network-enabled Galaxy Automated Test System.

Inventive System Door

The door operates as a device to ensure proper gas flow to the MSA instrument. It also functions as the method to provide the proper connection when charging your MSA instrument, as well as a dust cover.

Robust Design

As you've come to expect from all of MSA's equipment, the Galaxy Test Stand, molded out of high-strength polycarbonate plastic, will withstand the harshest of environments.

In-line Gas Cylinder Holder

The gas cylinder holder (patent pending), helps keep the work area uncluttered; an MSA exclusive.

Outstanding Warranty

The Galaxy Test System comes with a two-year, all-inclusive warranty.

Very Low Total Cost of Ownership

With the automated record-keeping capabilities that are available with each Galaxy Test Stand, there's no need to keep hand-written records of an instrument's calibration history.



Galaxy™ Automated Test System Assemble-to-Order (ATO) Options

- To create your instrument configuration, select the instrument option code and mark them in the boxes to the right.
- To calculate your instrument price, write in the price for each option in the space provided to the right, add up the total and write it in the "Total Unit Price" box below.

A. Test Stand Instrument Type	Each Galaxy test stand has a dedicated instrument type. Up to 10 specific systems can be mixed and matched; however, different instruments types will not work in the same test stand. The Solaris® and Orion® Instruments must have datalogging installed to operate with the Galaxy test stand.	Test Stand Options Solaris Sirius Orion	Code A B C	Price \$1301.09 \$1301.09 \$1301.09	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
B. Calibration Cylinders	The Solaris and Orion Galaxy test stand, by default will operate with 1 calibration gas cylinder. The Sirius® Galaxy test stand, by default, will operate with 2 calibration gas cylinders. If your system configuration requires 3 cylinders for calibration, select option "1".	Calibration Cylinder Options No Yes	Code 0 1	Price \$0.00 \$70.52	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
C. Regulator	At least 1 demand flow regulator is required for either the Solaris or Orion Galaxy Test Stands. At least 2 demand flow regulators are required for the Sirius Galaxy Test Stand. The number of regulators you need equals the number of gas cylinders required for an instruments calibration.	Regulator Options 1 Regulator 2 Regulators 3 Regulators None	Code 1 2 3 0	Price \$176.30 \$352.60 \$528.90 \$0.00	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
D. Cylinder Holder	The number of cylinder holders should match the number of gas cylinders required for an instruments calibration. Included in this option is the ability to order either 1, 2, or 3 cylinder holders.	Cylinder Holder Options 1 Cylinder Holder 2 Cylinder Holders 3 Cylinder Holders None	Code 1 2 3 0	Price \$70.52 \$141.04 \$211.56 \$0.00	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
E. Instrument Charging	If you'd like to have your new Galaxy system installed with the ability to charge your instrument, select "1" for this option. (Requires instrument with rechargeable batteries).	Charging Options No Yes	Code 0 1	Price \$0.00 \$105.78	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
F. Power Supply	A power supply is required to power each Galaxy test stand. The global power supply comes with several international plug outlet configurations for countries outside of North America, for this option select "G". Select the battery pack option "B" for locations (includes North American supply) where AC power may not be easily accessible. If you choose the instrument charging option, the battery pack option is not available.	Power Supply Options North American Supply Global Supply Battery Pack & North American Supply Battery Pack & Global Supply	Code N G B X	Price \$35.26 \$42.31 \$141.04 \$148.09	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
G. Memory Card	If you'd like to have a removable memory card installed in your new Galaxy System, select option "1". A memory card reading device is required to read the memory card, this must be entered as a different line item on your order. Only 1 memory card is needed per Galaxy System.	Memory Card Options No Yes	Code 0 1	Price \$0.00 \$35.26	Selection <input type="checkbox"/>	Price \$ <input type="text"/>
H. Network Interface Module	For wired (ethernet) connectivity to your internal network, select option "A". For wireless (802.11b) connectivity to your internal network, select option "B". The location where the Galaxy will be installed must have either of these capabilities for this option to operate properly. Only 1 network interface module is needed per Galaxy system.	Network Interface Module Options None Wired Web Interface Wireless Web Interface	Code 0 A B	Price \$0.00 \$352.60 \$528.90	Selection <input type="checkbox"/>	Price \$ <input type="text"/>

Your Model Part Number Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... **A** **B** **C** **D** **E** **F** **G** **H**

A-GALAXY - - - - - - - - - - - -

Total Unit Price = \$

All Pricing is in US Dollars

CALIBRATION KIT, KIT PARTS and CALIBRATION GASES

See data sheet o8-00-28 for more info.

These various gases listed below are used to calibrate the above equipment.

COMPLETE KIT

Part No.	Description	GSA Price
477149	Calibration Kit, Model RP with .25 lpm regulator	\$148.10

CALIBRATION REGULATORS

Part No.	Description	GSA Price
467895	Flow Control, 1000 psi, .25 lpm	\$105.79
710288	Multiflow Regulator, RP Cylinder	\$183.37
711175	Model RP Combination Regulator .25 lpm	\$130.47

CALIBRATION GAS CYLINDERS

Steel, 100 Liters, 1000 psig, no shelf life **Hazardous**
Background—Air (Note: P/N 801050—Air—has no background)

Part No.	Gas Fill	Gas Mixture	GSA Price
801050	Air	air zero (THC < 1 ppm)	\$109.31
806255	Carbon	400 ppm carbon monoxide	\$109.31
473180	Monoxide	300 ppm carbon monoxide	\$109.31
809243		200 ppm carbon monoxide	\$109.31
809242		100 ppm carbon monoxide	\$109.31
809241		50 ppm carbon monoxide	\$109.31
803102	Hydrogen	0.8% hydrogen	\$109.31
494450	Isobutylene	100 ppm isobutylene	\$109.31
491041	Methane	2.5% methane	\$109.31
493579	Propane	0.6% propane	\$109.31

Steel, 100 Liters, 1000 psig, no shelf life **Hazardous**
Background—Nitrogen

Part No.	Gas Fill	Gas Mixture	GSA Price
801049	Methane	6.6% methane	\$109.31
479857	Oxygen	20.8% oxygen	\$109.31
493580		5.0% oxygen	\$109.31
10007047	Combination	0.35% pentane, 19.0% oxygen, 100 ppm carbon monoxide	\$109.31
801051	Combination	0.6% propane, 15% oxygen, 60 ppm carbon monoxide	\$109.31
10010162	Combination	1.45% methane, 300 ppm carbon monoxide, 15% oxygen	\$109.31
813718	Combination	2.5% methane, 60 ppm carbon monoxide, 15% oxygen	\$109.31
478192	Combination	1.45% methane, 15% oxygen	\$109.31
478191	Combination	60 ppm carbon monoxide, 1.45 % methane, 15% oxygen	\$109.31

CALIBRATION GAS CYLINDERS

Aluminum, 58 Liters, 500 psig, shelf life **Hazardous**
Background—Air

Part No.	Gas Fill	Gas Mixture	GSA Price
808977	Nitrogen Dioxide	10 ppm nitrogen dioxide	\$197.47
812144	Nitric Oxide	50 ppm nitric oxide	\$197.47
808978	Sulfur Dioxide	10 ppm sulfur dioxide	\$109.31
814866	Ammonia	25 ppm ammonia	\$253.89

Aluminum, 58 Liters, 500 psig, shelf life **Hazardous**
Background—Nitrogen

Part No.	Gas Fill	Gas Mixture	GSA Price
467897	Hydrogen	40 ppm hydrogen sulfide	\$109.31
806253	Sulfide	15 ppm hydrogen sulfide	\$109.31
467898		10 ppm hydrogen sulfide	\$109.31
806740	Chlorine	10 ppm chlorine	\$253.89
710533	Phosphine	0.5 ppm phosphine	\$282.10
804769	Combination Gas Cylinder	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	\$197.47
804770	Combination Gas Cylinder	300 ppm carbon monoxide, 1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	\$197.47
813720	Combination Gas Cylinder	2.5% methane, 300 ppm carbon monoxide, 15% oxygen, 10 ppm hydrogen sulfide	\$197.47
10007049	Combination Gas Cylinder	0.35% pentane, 19% oxygen, 100 ppm carbon monoxide, 35 ppm hydrogen sulfide	\$197.47

CALIBRATION ACCESSORIES

Part No.	Description	GSA Price
710386	Calibration Gas Holder, single cylinder	\$35.26
710483	Calibration Gas Holder, double cylinder	\$42.32



SQUIRT GAS BUMP TEST KIT

Part No.	Description	GSA Price
813411	Squirt Gas Bump Test Kit, less cylinder, with required fittings, complete with instructions	\$38.79

CALIBRATION GAS CYLINDERS

Squirt Gas Aerosol Can, 11 Liters, 155 psig, no shelf life **Hazardous**
Balance—Nitrogen

Part No.	Instrument	Gas Mixture	GSA Price
814497	FiveStar	1.3% methane, 52% LEL, 15% oxygen, 60 ppm carbon monoxide	\$26.80

Squirt Gas Aerosol Can, 11 Liters, 155 psig, shelf life: 14 weeks **Hazardous**
Balance—Nitrogen

Part No.	Instrument	Gas Mixture	GSA Price
814559	FiveStar	1.3% methane, 52% LEL, 15% oxygen, 300 ppm carbon monoxide, 35 ppm hydrogen sulfide	\$38.79



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 are not refilled, but salvaged for scrap. All money generated from selling the scrap cylinders is placed in the ARC operating fund for salaries and operating costs.

Calibration cylinders are considered hazardous unless the cylinders are 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 helps you pay the lowest shipping costs available.

The MSA Recycling Center limits the return of calibration cylinders to MSA-logged cylinders only. Non-MSA cylinders will be rejected. Contact the Customer Service Center for additional details at 1-866-MSA-1001.

Calibration Gas Recycling Tools

See Bulletin 0818-04 MC for more info.

Part No.	Description	GSA Price
711228	Devalving Tool, Model RP Cylinders	\$52.89
711227	Shipping Box, Special, Pre-Addressed	\$3.31



PASSIVE HEARING PROTECTION

Guarding workers against the daily hazards of noise is of paramount concern in countless industries. The challenge is to balance personal attenuation devices with comfort. A worker who takes off hearing protection to rub sore ears is a worker at risk. MSA provides a wide selection of hearing protection designed for the most demanding applications, offers protection with a variety of Noise Reduction Ratings, and does it with the benefits of style and comfort. Noise Reduction Rating (NRR) is third-party certified in accordance with ANSI S3.19-1974, EN352 and meets CSA Class A.

HPE Muff (NRR – 26dB)

Designed specifically for very high noise levels, the powerful Muff is ideal for airfields, power plants and other areas with intense noise.

EXC Muff (NRR – 24dB)

The ear muff is so comfortable that you always want to wear it. Unique injection molded inserts provide excellent attenuation and maximum space for the ears inside the cap. Headband offers force adjustment for individual fit.

Description	Part No.	GSA Price
HPE—headband model	10061271	\$14.37
Hygiene Kit for HPE, complete with cushions and inserts	10061291	\$5.73
EXC—headband model	10061229	\$12.41
Hygiene Kit for EXC, complete with cushions and inserts	10061292	\$5.73



Comfort Band™ Hearing Protector (NRR – 18dB)

The MSA Comfort Band Hearing Protector is made with soft, easily cleanable pods and a durable plastic neck band.

Description	Part No.	Gov't Net Price
Comfort Band Hearing Protector, each (must be ordered in multiples of 20)	10003344	\$3.60
Band-style Earplug	10024060	\$4.58



Comfort Band Hearing Protector

EAR PLUGS

Description	Part No.	Gov't Net Price
Tri-Seal™ REUSABLE Silicone Ear Plugs (NRR – 25dB)		
Tri-Seal Reusable Silicone Ear Plugs (non-corded) Dispenser box (suitable for wall hanging) of 100 individ. packaged pairs	10005606	\$63.60
Tri-Seal Reusable Silicone Ear Plugs (corded) Dispenser box (suitable for wall hanging) of 100 individ. packaged pairs	10005607	\$82.90
Tri-Seal Reusable Silicone Ear Plugs (corded), 1 pair in plastic case with chain	10002831	\$1.04
FormFit™ DISPOSABLE Foam Ear Plugs—Conical-Shaped Ear Plugs (NRR – 31dB)		
FormFit Disposable Molded Urethane Foam Ear Plugs (non-corded) Dispenser Box (suitable for wall hanging) of 200 individually packaged pairs	10051348	\$16.34
FormFit Disposable Molded Urethane Foam Ear Plugs (corded) Dispenser Box of 200 individually packaged pairs	10051347	\$34.54



Tri-Seal Reusable Ear Plugs



FormFit Disposable Ear Plugs

conical shape

round shape

ELECTRONIC HEARING PROTECTION

Guarding people against the daily hazards of noise is of paramount concern in countless industries. The challenge is to balance personal attenuation devices with comfort and the ability of communication and listening to music, so that workers will wear their hearing protectors all the time. With over 40 years of experience, MSA now offers a new wide range of hearing protectors with built-in electronics – from basic functions to high-specification communication devices.

You have the choice between headband and helmet-mounted versions. All products are comfortable hearing protectors, designed to prevent you from feeling isolated, thereby encouraging you to use them and so protecting your hearing for the rest of your life. Noise Reduction Rating (NRR) is third-party certified in accordance with ANSI S3.19-1974 and EN352-3. Also meets CSA Z94.2.



ListenOnly Basic Slotted Cap Model

Basic and Pro Line

The line features standard and advanced electronics with a very good price-to-performance ratio. Built-in features, such as FM and CutOff are optional.

ListenOnly Basic Headband Model (NRR – 24dB)

ListenOnly Basic Slotted Cap Model (NRR – 22dB)

External connection to CD, MP3-player or scanner

- Connection lead with 3.5 mm stereo jack included (fits most CD and MP3-players, etc.)
- The cable can be removed easily when not needed



FM Basic Headband Model



ListenOnly Basic Headband Model

FM Basic Headband Model (NRR – 24dB)

FM Basic Slotted Cap Model (NRR – 22dB)

Built-in radio receiver—mono

- Scan stations automatically
- Memory for last selected station and volume
- Automatically switches off to save batteries

FM Pro Headband Model (NRR – 24dB)

FM Pro Slotted Cap Model (NRR – 22dB)

Built-in radio receiver—stereo

- Scan stations automatically
- Memory for last selected station and volume
- Automatically switches off to save batteries
- Battery life of 120–140 hours



FM Pro Headband Model



CutOff Pro Headband Model

CutOff Pro Headband Model (NRR – 24dB)

CutOff Pro Slotted Cap Model (NRR – 22dB)

Built-in level dependent function protects without you feeling isolated

- Lets through speech and other harmless sounds while protecting you from harmful noise
- Battery life of 1000 hours
- Amplification of weak sounds
- Auxilliary input for connection if external devices

	<i>ListenOnly Basic</i> Part No.	<i>Gov't</i> Price	<i>FM Basic</i> Part No.	<i>Gov't</i> Price	<i>FM Pro</i> Part No.	<i>Gov't</i> Price	<i>CutOff Pro</i> Part No.	<i>Gov't</i> Price
Headband model	10061275	\$37.33	10061274	\$64.83	10061280	\$83.17	10061278	\$119.19
Slotted cap model*	10061277	\$37.33	10061276	\$64.83	10061281	\$83.17	10061279	\$119.19
Hygiene Kit	10061536	\$5.73	10061536	\$5.73	10061293	\$5.83	10061293	\$5.83
Sound quality	mono		mono		stereo		stereo	
Volume memory			•		•		•	
Battery save function			•		•		•	
Battery life (approx. hours)			300		120-140		300	

*fits V-Gard, Advance, Toppard & Thermalgard slotted caps

Connected By Cable

CC CutOff

Connect-by-Cable Earmuffs reproduce and amplify sounds while automatically filtering out harmful noise levels. Allows the wearer to hear warning sounds, alarms and other important information. Ideal for use in high-impulse noise areas, road maintenance, railroad work and other environments where you need to hear surrounding sounds at the same time as protecting your hearing.

- Noise-cancelling boom microphone permits two-way communication with minimal interference from background noise
- Muffs can be ordered with cable adapters for direct connection to communication radios such as Motorola, Kenwood, Icom, etc. and DECT phones
- High amplification of weak signals possible
- Sound level from the electronic circuits limited to max 82 dB(A)
- Weight: 330 g (headband), 325 g (slotted cap)

Description	Part No.	Gov't Net Price
CC CutOff headband model (NRR – 23dB)	10061283	\$259.33
Hygiene Kit	10061293	\$5.83

Protection, amplification and communication with the Supreme Pro

Effective noise attenuation and amplification at the same time

The Supreme Pro Muff exploits the latest technology to deliver very high sound quality with reproduction of ambient sound and good directional location. This means that faint sounds are amplified, while harmful sounds and background noise are filtered out efficiently. Supreme Pro hearing protectors are not just technically advanced but have excellent comfort and reliability.

Supreme Pro

Our top model. Provides optimum protection with high amplification, AUX input and watertight battery compartment. Both earmuffs are shaped to suit both right-handed and left-handed shots.

- Two separate, well-shielded microphones for optimum stereo effect and location of sound direction
- High amplification and natural sound reproduction without “chopping”
- Around 300 hours battery life with two standard AAA batteries
- AUX input for connecting external audio sources, such as a radio. Lead with 3.5 mm mono jack plug included

Description	Part No.	Gov't Net Price
Supreme Pro headband model (NRR – 18dB)	10061285	\$220.04
Hygiene Kit	10061294	\$5.83



CC CutOff Headband Model



Supreme Pro

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Fall Protection
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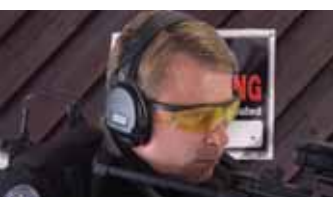
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Hearing Protection
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Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products 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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