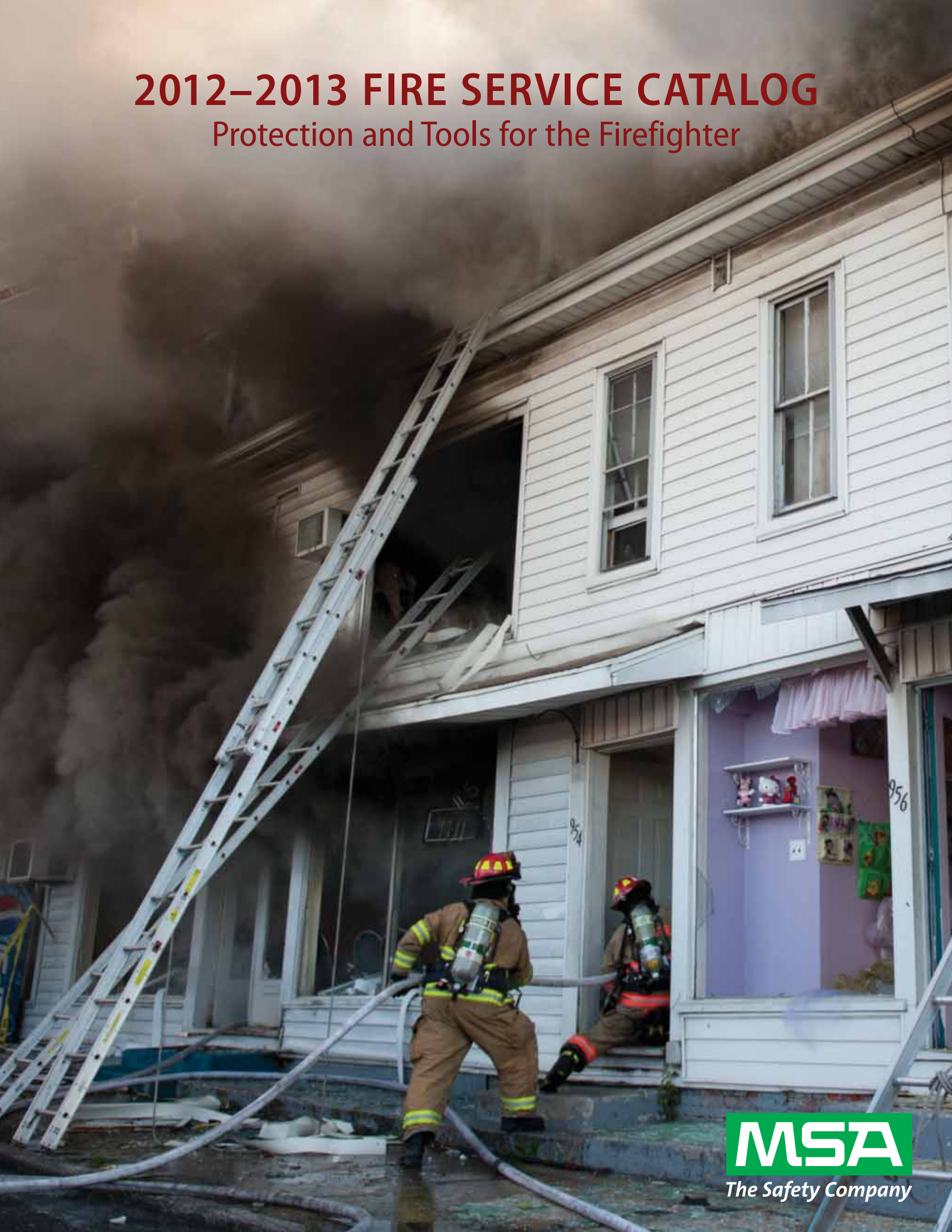


2012–2013 FIRE SERVICE CATALOG

Protection and Tools for the Firefighter





From us to you: better products and services

As your emergency responder duties expand, as well as your exposure to additional potential hazards, MSA continues to provide more emergency response products that exceed your expectations and requirements. MSA supports firefighters in countless ways, and recognizes your role as the front line of homeland security. We know that standards define what you need in compliant new equipment and upgrades, and we are constantly working on improving the products that you have come to rely on as the best in the industry, to make your job safer and easier. For your protection, you can count on MSA for the most technologically advanced products, as well as for the best support and training assistance.

We are committed to you

After more than 95 years of serving firefighters and rescue teams, MSA's premier focus continues to be the fire service for product innovations, improvements, and service. From our Cairns® Fire Helmets, Evolution® Series Thermal Imaging Cameras, and ICM® Tx PASS devices to our FireHawk® M7 Air Mask, we offer the very best in personal protective equipment. Your options in gas detection instruments and fall protection/rescue systems are more numerous and better than ever. And our MSA-U® on-line training tool provides in-depth product training with team-tracking capability that allows 24/7 instruction for your entire squad. MSA is prepared to equip firefighters with the highest level of protection.

Our people set us apart from the competition

MSA's SCBA are manufactured at our award-winning Murrysville facility, which recently completed production of over 5500 FireHawk M7 Responder® SCBA for the US Air Force and Coast Guard—a testament to the quality, reliability, and innovation of MSA Fire Service products. Whether your needs include a FireHawk SCBA, an Evolution TIC from our Cranberry PA plant, or a Cairns Helmet made in Jacksonville, North Carolina, you can be sure that each of them has been made with the dedicated care and skill of an MSA associate who's average time on the job of 18 years means consistent quality, time after time.

Assistance is everywhere

Your personalized service starts locally with your trained MSA-authorized distributor and MSA's Fire Service field sales Managers. To locate your nearest MSA Fire Service Distributor, or get an answer to an urgent technical question, our award-winning, dedicated team of customer service professionals is ready to help, as they understand your hazards as well as regulatory compliance. Contact them at 1-877-MSA-FIRE.



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PROVEN HISTORY

FUTURE DRIVEN

FireHawk® M7 Air Mask

MSA's enhanced **FireHawk M7 Air Mask** represents a true technological achievement in critical personal protection. As firefighters determined the safety requirements needed to meet new NFPA 1981 and 1982–2007-edition standards, MSA's engineering teams designed the solutions.

Enhancements include...

MSA FireHawk M7 Air Mask Less PASS

MSA M7 I-HUD Receiver

MSA Rescue Belt II System

FireHAWK® M7 Air Mask

High-visibility reflective panels

FireHawk M7 carrier and harness assembly with side handles and carabiner attachment

FireHawk M7 Control Module with accelerometer motion sensor, digital and mechanical pressure display time remaining, and thermal alarm

PR14™ First-Stage Regulator with only 14 internal parts

Ultra Elite facepiece with wide-view lens with Kevlar Speed-ON® Head Harness



ExtendAire™ Emergency Breathing System

Parachute-style buckles

Wireless FireHawk M7 I-HUD Receiver

Regulator keeper

Quick-Fill® URC with Audi-Larm™ Audible Alarm

High-performance mechanical speaking diaphragm

Swiveling lumbar pad

Firehawk® MMR

Double-pull Kevlar waist belt



Training is available 24/7 at
MSA-U® online training
Register Today!

Visit <http://msau.msanet.com>

MSA FireHawk® M7 Air Mask Less PASS

MSA's FireHawk M7 Value Configurations Option!

Your answer for basic, rugged, reliable SCBA protection at lower cost for applications where no PASS device is needed. All pneumatic and electronic components are the same as that of MSA's trusted FireHawk M7 Air Masks.

Features

- SCBA pneumatics same as FireHawk M7 Air Mask, less power and control components
- Choice of intermittent or continuous mode; user can switch among HUD modes
- SCBA with bell alarm is great for fire brigades, HazMat workers, and industrial applications
- Fire departments can purchase less PASS versions for use with existing standalone PASS devices.
- Easily upgrade from less PASS version to integrated PASS unit
- Simplified design and overall lighter in weight
- Lower profile and easy-to-read pressure gauge

The FireHawk M7 Air Mask Less PASS meets NFPA 1981 and can be retrofitted for an integrated PASS device if needed. This SCBA meets NFPA 1981 and 1982 when a PASS device is added.

New!



FireHawk M7 Air Mask Less PASS

Part Number	Description
10121712	Low-pressure, double-pull backplate, CBRN solid cover, slide-to-connect with threaded hose, pressure gauge, W/O PASS
10121713	Low-pressure, double-pull backplate, CBRN solid cover, push-to-connect with threaded hose, pressure gauge, W/O PASS
10121714	High-pressure, double-pull backplate, CBRN solid cover, slide-to-connect with threaded hose, pressure gauge, W/O PASS
10121715	High-pressure, double-pull backplate, CBRN solid cover, push-to-connect with threaded hose, pressure gauge, W/O PASS



How to Order SCBA: Get the Exact Model You Need

The Assemble-To-Order System

MSA's Assemble-To-Order System (ATO) will make ordering the right mask fast and easy. Instead of choosing from a handful of complete Air Mask assemblies, you can order a custom-made Air Mask with every option exactly as desired. Contact MSA Customer Service Center for details.

FireHawk M7 Air Mask Ordering Selection Matrix (NFPA 1981 and 1982-2007 edition compliant, NIOSH 42 CFR Part 84 CBRN certified)

Air Mask Pressure	Carrier/Harness Assembly	Lumbar Pad/Rescue Belt	Cylinder	MMR Type	Emergency Breathing Support	Facepiece	Nosecup	Head Harness	Electronic Communications	Pressure/Gauge Integrated PASS	Heads-Up Display	Case											
L 2216	A Single Pull without chest strap B Single Pull with chest strap C Double Pull without chest strap D Double Pull with chest strap	0 None 1 Swiveling Lumbar Pad G Rescue Belt II w/hook, 50' H Rescue Belt II w/carabiner, 50' J Rescue Belt II w/hook, FireTech rope, 50" K Rescue Belt II w/carabiner, FireTech rope, 50'	0 None 1 3AL Aluminum with air 2 30' Carbon with air 3 30' Carbon with air 4 3AL Aluminum less air 6 30' Carbon less air	A CBRN Firehawk STC, threaded B CBRN Firehawk STC, QC C CBRN Firehawk PTC, threaded D CBRN Firehawk PTC, QC	0 None 1 Quick-Fill 2 ExtendAire I 3 Quick-Fill and ExtendAire I A ExtendAire II B ExtendAire II with Quick-Fill C ExtendAire I & II D ExtendAire I & II with Quick-Fill	A None B Hycar, Small C Hycar, Medium D Hycar, Large	0 None 1 Medium 2 Large	0 None 2 Speed-ON less neck strap 4 Speed-ON with neck strap	A None B Clear-Command Ready with bracket C Clear-Command Amp D Clear-Command Amp/RI	1 Pressure Gauge and HUD Transmitter A PASS with thermal alarm activated B PASS without thermal alarm activated C PASS, telemetry and thermal alarm D PASS, telemetry without thermal alarm	A M7 HUD B M7 I-HUD	0 None 1 Hard Case 2 Soft Case 3 Black Bag for Facepiece 4 Hard Case with Black Bag for Facepiece 5 Soft Case with Black Bag for Facepiece 6 Red Bag for Facepiece 7 Hard Case with Red Bag for Facepiece 8 Soft Case with Red Bag for Facepiece											
													M 3000	Options A & B can only be chosen if a rescue belt is selected.	If choosing a rescue belt, the carrier/harness assembly must be a single pull (options A or B).	If choosing an ExtendAire option, the MMR type must be a QC (option B or D).	If choosing an Air Mask Pressure M, M is not compatible with Quick-Fill.	If choosing a Pressure Gauge and HUD Transmitter, the Heads-up Display type must be M7 HUD (Option A).					
													H 4500										

B-M7

Part Number

Quantity

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.



FireHawk M7 Responder® Air Mask

The MSA FireHawk M7 Responder Air Mask is uniquely versatile protection that can quickly be transformed into a CBRN air-purifying respirator (APR) or a CBRN powered air-purifying respirator (PAPR). You can change respirator modes as your job changes direction from first response and rescue to scene management and remediation activities.

Firefighters typically are the first to respond to any incident whether it is a structural fire, an accident, or any unknown threat. MSA's FireHawk M7 Responder Air Mask provides the maximum level of protection for CBRN environments. However, that amount of protection is not always needed, especially outside the immediate hot zone. Once the hazard has been assessed, air-purifying respirators (APR) may make the most sense for low concentrations of certain contaminants.

The M7 Responder facepiece is NIOSH approved for the SCBA, PAPR and APR configurations, in accordance with the MSA user instructions. This practical emergency respiratory protection system meets/exceeds the latest requirements of NFPA and NIOSH standards (see ATO ordering information for details). It's the **first and only device** of its kind, and an emergency responder's dream come true.

FireHAWK® M7 RESPONDER® Air Mask



The FireHawk M7 Responder Air Mask

Based on the seven life-safety design components built into the FireHawk M7 Air Mask to ensure you of the highest-quality SCBA currently available, giving you the lifesaving edge in the face of danger. This new air mask offers more options than any other product in the industry, combining the unique CBRN APR and PAPR options.

The FireHawk M7 Responder APR

To convert from SCBA to APR, the canister and breathing tube must be attached to the facepiece. When the SCBA cylinder valve is closed, facepiece valves convert to air-purifying mode through the APR canister. Although the air mask carrier and harness and cylinder may be removed from the user, the MMR regulator must always be connected to the inlet adapter to seal the facepiece inlet port.

The FireHawk M7 Responder PAPR

The CBRN Responder PAPR (Powered Air-Purifying Respirator) system is ideal when you need non-IDLH respiratory protection for an extended period of time (up to 8 hours). This PAPR provides an OSHA-assigned protection factor 20 times greater than APR, due to positive pressure in the mask. Essentially, it combines an industry-leading motor-blower and CBRN canisters to the Ultra Elite M7 Responder Facepiece, for up to 8 hours of air-purifying respiratory protection. Its constant filtered air flow (of at least 115 lpm) improves comfort with a cooling effect, greatly reducing pulmonary stress, and preserving strength and mental acuity. The airflow also prevents fogging in the facepiece, reduces claustrophobia, and allows for extended use in hot and stressful environments.



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How to Order SCBA: Get the Exact Model You Need

The Assemble-To-Order System

MSA's Assemble-To-Order System (ATO) will make ordering the right mask fast and easy. Instead of choosing from a handful of complete Air Mask assemblies, you can order a custom-made Air Mask with every option exactly as desired. Contact MSA Customer Service Center for details.

FireHawk M7 Responder Air Mask Ordering Selection Matrix (NFPA 1981 and 1982 - 2007 edition compliant, NIOSH 42 CFR Part 84 CBRN certified)

Air Mask Pressure		Carrier/Harness Assembly	Lumbar Pad/Rescue Belt	Cylinder	Emergency Breathing Support	Facepiece	Nosecup	Head Harness	Electronic Communications	APR/PAPR Kits	Integrated PASS/Telemetry	Case
L	2216	A	0 None	0 None	0 None	A None	0 None	0 None	A None	A None	A PASS with thermal alarm activated	0 None
		B	1 Swiveling Lumbar Pad	3 30' Carbon with air	1 Quick-Fill	B Hycar, Small	1 Medium	2 Speed-On less neck strap	B Clear-Command Ready with bracket	B APR 18" tube	B PASS without thermal alarm activated	1 Hard Case
M	3000	C	G Rescue Belt II w/hook, 50'	6 30' Carbon less air	2 ExtendAire I	C Hycar, Medium	2 Large	4 Speed-On with neck strap	C Clear-Command Amp	C APR 22" tube	C PASS, telemetry and thermal alarm	2 Soft Case
		D	H Rescue Belt II w/carabiner, 50'	0 None	3 Quick-Fill and ExtendAire I	D Hycar, Large			D Clear-Command Amp/RI	D APR 18" tube with PAPR kit	D PASS, telemetry without thermal alarm	
H	4500	Options A & B can only be chosen if a rescue belt is selected.	J Rescue Belt II w/hook, FireTech rope, 50"	1 30+ Carbon with air	A ExtendAire II					E APR 22" tube with PAPR		
			K Rescue Belt II w/carabiner, FireTech rope, 50"	2 30+ Carbon less air	B ExtendAire II with Quick-Fill							
				0 None	C ExtendAire I & II							
				1 30' Carbon with air	D ExtendAire I & II with Quick-Fill							
				2 45' Carbon with air								
				3 45' Carbon Low-Profile with air								
				4 60' Carbon with air								
				5 30' Carbon less Air								
	6 45' Carbon less Air											
	7 45' Carbon Low-Profile less Air											
	8 60' Carbon less Air											

A-M7R											
Part Number											
Quantity											

Special note regarding approvals - Approvals are only available (and were obtained) for each component (SCBA, APR and PAPR) as an independent CBRN respirator. Although the APR, PAPR and SCBA have been evaluated for seamless convertibility in a contaminated environment, as well as to the NFPA heat and flame test criteria, there is currently no standard for which to seek this type of system approval. Users are advised to convert among modes in an uncontaminated environment. Please see user's instructions for specific approval information and limitations.

Ultra Elite M7 Responder Facepieces

with ClearCommand Bracket		without ClearCommand Bracket	
Small	10093927	Small	10093924
Medium	10093926	Medium	10093923
Large	10093928	Large	10093925

PAPR only

10046570	CBRN Canister
10094024	C420 PAPR Kit (less facepiece and cartridge), includes C420 PAPR, belt, air-flow indicator and breathing tube

Accessories for C420 PAPR

B-20040-001	NiMH Rechargeable Battery Kit (2 NiMH batteries, charger and cap)
M-20020	LiSO2 Battery
10094021	6" Breathing Hose Assembly
S-20036	NiMH Rechargeable Battery Pack
B-20090-001	NiMH Rapid Battery Charger
B-30060-001	NiMH Rechargeable Battery Cap Assembly
S-30019	Web Belt Assembly
B-10079-001	PAPR Carrying Case

Spare/Replacement M7 HUD

M7 Responder HUD	M7 Responder HUD with bracket
10093911	10093912

APR only

10046570	CBRN Canister
10094016	APR Breathing Tube, 18"
10094023	APR Breathing Tube, 22"
10096619	APR Strap

SCBA Key Components

Facepiece Assemblies for FireHawk M7 Air Masks

Ultra Elite® Facepiece

Designed to provide exceptional peripheral and downward vision, the Ultra Elite Facepiece features a super-soft facepiece texture for a smooth and comfortable fit. It also resists chemical attack and temperature extremes, and withstands rugged day-to-day use without tearing and ripping.

The design of the Ultra Elite Facepiece is based on extensive anthropometric studies of the face-length, temple-width and chin-width data from more than 8,000 individuals. The result is a facepiece that provides an improved seal against a wide range of facial contours. To provide a secure, comfortable fit, the facepiece utilizes five adjustable straps with stainless steel, field-replaceable buckles that resist chemical attack. The straps also feature slightly larger adjustment tabs that are easier to grab, even with gloves on.

For slip-on convenience, the Ultra Elite Facepiece can be equipped with the Speed-ON® Facepiece Harness. Made of flame- and heat-resistant Kevlar Fabric, the harness features a hair-net type, five-point suspension that can be easily and securely adjusted at each point.

Lenses on MSA full facepieces are molded from polycarbonate, and a special super hardcoating resists scratches.



Ultra Elite Facepiece

ClearCommand® Communications System

MSA's ClearCommand Communications System features an internally mounted microphone coupled with a large-diameter (50mm) amplified speaker for optimal clarity and volume. Using a proprietary circuit design, the system delivers more than twice the volume of a facepiece alone. 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.



Firehawk® MMR

The Firehawk second-stage regulator features a unique Slide-To-Connect (STC) attachment system that allows firefighters to hang the regulator on the facepiece in the "ready position," then simply push it into the facepiece when SCBA air is needed. Doffing of the regulator, while wearing gloves, is also easy with two large release buttons that 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 very cold temperatures.

In addition to the STC system, MSA also offers a second connection option for the Firehawk Regulator, 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!

Maintenance is also a breeze, considering the Firehawk MMR design requires no tools, adhesives, or sealants, and has approximately 70% fewer parts as compared to other regulators on the market. Additionally, there are no internal adjustments required. Any adjustments to the regulator may be accomplished at a single adjustment point through the outlet port of the regulator.



Firehawk PTC Regulator



Firehawk STC Regulator

Ultra Elite M7 Facepiece, Speed-ON Head Harness, Nosecup and M7 HUD Bracket

	Firehawk STC			Firehawk PTC	
	Standard speaking diaphragm	ClearCommand ready		Standard speaking diaphragm	ClearCommand ready
Small	10084689	10084821	Small	10084690	10084822
Medium	10084823	10084825	Medium	10084824	10084826
Large	10084827	10084829	Large	10084828	10084830

Spare / Replacement M7 HUD

10091446	M7 HUD
10091447	M7 HUD with bracket

MSA M7 I-HUD Receiver for FireHawk M7 Air Mask

New!

Features & Benefits

- Wireless M7 I-HUD Receiver contoured shape fits securely inside firefighter's Ultra Elite facepiece
- Nearly 40% lighter than external M7 HUD Receiver
- Placement inside facepiece eliminates snag point
- Unit automatically awakes and sleeps based upon pairing with SCBA
- Wireless magnetic radio transfers actual SCBA data via IEEE 802.11 network
- Enhanced light pattern for safety and security differentiation
- Displays SCBA cylinder pressure in quarter-cylinder increments
- If telemetry-equipped PASS device is used, M7 I-HUD Receiver displays evacuation alarm
- Red "buddy lights" in three locations alert other firefighters to low cylinder pressure, or motion alarm
- Powered by single, disposable CR2 lithium battery
- Low battery condition displays via single LED flash on display's left side; low battery SCBA condition displays as double flash
- TEST function button to verify functionality before use

Durability Testing

- M7 I-HUD Receiver survives two-meter drop test when mounted inside Ultra Elite Facepiece
- IP67-rated to withstand extreme hot and cold environments
- Vibration testing to NFPA 1981 standards
- Protection against short-time water submersion for thorough facepiece cleaning

Note: M7 I-HUD Receiver is not compatible for use with FireHawk M7 Less PASS SCBA.



M7 I-HUD Receiver

10114190

Receiver, M7 I-HUD

M7 I-HUD Receiver-ready Facepiece Assemblies

Ultra Elite Facepiece Assembly, I-HUD Ready

	Firehawk STC			Firehawk PTC	
	Standard I-HUD Receiver-ready	ClearCommand System-ready		Standard I-HUD Receiver-ready	ClearCommand System-ready
Small	10121716	10121718	Small	10121717	10121719
Medium	10121720	10121722	Medium	10121721	10121723
Large	10121724	10121726	Large	10121725	10121727

Cylinders

Carbon-Wrapped Cylinders

Carbon-wrapped Cylinders feature a unique outerwrap made of lightweight, high-performance carbon fibers, which reduces cylinder weight by two to six pounds when compared to fiberglass-wrapped cylinders and as much as ten pounds when compared to aluminum cylinders. They are available in six models to accommodate a wide range of applications.

Cylinders for SCBA

Part No.	Cylinder Type (Cylinder & Valve)	NIOSH Service Rating Life	Pressure	Weight** (empty)
807586	L-30* Carbon-Wrapped	30-minute	2216 psig	8 lb - 0 oz.
816115	L-30+* Carbon-Wrapped	30-minute	3000 psig	9 lb - 8 oz.
807587	H-30* Carbon-Wrapped	30-minute	4500 psig	7 lb - 4 oz.
807570	H-45* Carbon-Wrapped	45-minute	4500 psig	9 lb - 7 oz.
10035644	H-45 Low-Profile* Carbon-Wrapped	45-minute	4500 psig	9 lb - 10 oz.
807588	H-60* Carbon-Wrapped	60-minute	4500 psig	11 lb - 12 oz.
469619	Fiberglass Hoop-Wound	30-minute	2216 psig	13 lb. - 0 oz.
809872	Aluminum	30-minute	2216 psig	18 lb. - 0 oz.

*These cylinders are capable of custom options. **All weights shown are approximate.



For more information see Bulletin 0108-11-MC. See Bulletin 0108-13-MC for information on **custom-logoed cylinders** for your MSA Air Mask.

Emergency Egress Systems

MSA Rescue Belt II System

MSA's new, innovative device for emergency egress, the Rescue Belt II System, allows firefighters to rappel to safety should they become trapped in a building's upper level. MSA's Rescue Belt II System meets NFPA 1981-2007 edition for Fire Service Life Safety Rope and System Components. Ergonomically-contoured Ara-Shield rescue belt pouch easily stores:

- Choice of 50' MSA aramid/nylon or FireTech 32 rescue rope
- Auto-locking Sterling F4 descender
- Choice of Crosby hook or carabiner

Within extreme conditions, this NFPA-compliant device provides all required equipment for rappelling and one belt fits all members of fire department. With gloved hands, web management feature also integrates regulator holder for easy stowing of excess webbing.

To initiate emergency egress, use right hand to pull knotted rope end forward to access Crosby hook and descender. Secure Crosby hook, engage descender, and begin descent.

The Rescue Belt II System may be ordered as a new FireHawk® M7 Air Mask option or as an individually-sold component for upgrade of your existing MSA FireHawk Air Mask. The Rescue Belt II System is compatible with all MSA pouches, including ExtendAire™ II System and Quick-Fill® System.



Rescue Belt II System

	For FireHawk M7 Air Mask	For FireHawk Air Mask
with 50-ft aramid/nylon rope and Crosby hook	10119369	10119393
with 50-ft aramid/nylon rope and carabiner	10119370	10119394
with 50-ft FireTech 32 rope and Crosby hook	10119391	10119395
with 50-ft FireTech 32 rope and carabiner	10119392	10119396



Carrier & Harness Assembly

FireHawk M7 Carrier and Harness Assembly

The one component of any SCBA that has the most impact on firefighter comfort is the carrier and harness assembly. The FireHawk M7 Carrier and Harness assembly places an emphasis on firefighter comfort while maintaining the robustness and reliability that is expected in the fire service. The carrier comes standard with large side handles and a central attachment point for pulling firefighters to safety in rescue scenarios. The swiveling lumbar pad provides maximum freedom of movement and comfort when crawling or climbing.

The 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.

FireHawk M7 Carrier and Harness Assemblies

Part No.	Pressure		Chest Strap	Swiveling Lumbar Pad
	Low	High		
10086663	X		Yes	Yes
10086662		X	Yes	Yes
10086664	X		Yes	
10086665		X	Yes	

Accessories

10083134	Replacement FireHawk M7 Lumbar Pad
10012167	Chest Strap



MSA Accountability System

MSA's M7 Accountability System revolutionizes fireground safety by combining the latest computer software with a high-performance radio module and the field-proven technology of MSA's ICM TxR Integrated PASS.



A new way to monitor vital information

- Each MSA base station can monitor up to 50 firefighters, and you can use multiple base stations on a single computer.
- The FireHawk M7 Air Mask with telemetry transmits to incident command the firefighter's name, team assignment, cylinder pressure, service-time remaining, PASS alarms (motion or manual), thermal alarms, battery status, radio connectivity, and evacuation acknowledgement.

A fireground management system

- Personalized ID tags for each firefighter tell incident command exactly who is on scene.
- An integrated PAR (personnel accountability report) timer helps manage radio calls to each team.
- Incident command can manually add firefighters who are not wearing an SCBA or mutual aid firefighters, so all personnel can be accounted for.

Intuitive and easy to use

- Assign firefighters to teams by clicking on a firefighter's icon and dragging it to another team.
- A volume of critical information is available at a glance of the screen, due to the large number of firefighters that can be displayed and the pictorial format of the information.
- Receive both audible and visual indications of critical events such as PASS alarms or low-pressure alarms.

A two-way evacuation feature

- An individual firefighter, a team of firefighters, or all firefighters can be evacuated with the click of a button.
- When incident command transmits the alarm through the FireHawk M7 Air Mask, they'll know the firefighter received it, because the unit automatically sends a confirmation message to the base station.
- Firefighters will hear the evacuation alarm on their own personal PASS device. Also, visual indications in the HUD and an icon on the control module will alert the firefighter that it is time to evacuate.
- By simply pressing a button on the control module, a firefighter can send a manual confirmation to acknowledge that they have received and understand the critically important evacuation message.
- Although certain concrete and steel commercial structures can challenge any radio signal, MSA's Accountability System coverage with radio technology provides highly reliable performance for a 1-mile line-of-sight range.
- Due to the spread-spectrum design, it does not interfere with other high-band radio equipment.
- For additional safety, both base station and firefighter modules have an icon message to inform users if a firefighter falls out of radio signal range, so that alternate accountability measures, such as voice contact with teammates, can be taken.

Accountability System Base Station Kits

10072240	Accountability Base Station Kit (includes software, magnetic antenna kit, USB cable, wall-mount cable, and 8-24 volt power cable)
10098767	Accountability Base Station Kit (includes software, fixed antenna kit, USB cable, wall mount cable, and 8-24 volt power cable)



Accountability System

10083876	M7 Control Module Reader / M7 ID tag writer
10083875	M7 ID tags
10075756	Antenna kit with magnetic base
10098766	Antenna kit with fixed base
10063880	USB cable
10049410	8-24 volt, power cable
10047342	Wall mount power cable



Emergency Breathing Systems

The Quick-Fill® System

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.

Air Masks compliant to recent NFPA standards have the Quick-Fill URC fitting located at the Audi-Larm warning device. A Quick-Fill hose with a quick-disconnect connects the air source to the adapter for air transfer. See Bulletin 0105-92-MC for a Question & Answer overview of Quick-Fill Systems.



The Quick-Fill System

Replacement Parts for the Quick-Fill System

10111642	Quick-Fill Hose Kit in Pouch, 3-foot emergency transfill hose
485331	Emergency transfill hose, less Kevlar pouch
10111404	Replacement Pouch for Quick-Fill or ExtendAire II
485391	Male stainless steel quick-disconnect with SAE-10 thread, complete with dust cover (also for use as a fitting for customized refilling systems)
485392	Female quick-disconnect with SAE-4 thread, complete with dust cover

Quick-Fill Hoses

25-ft lengths are stocked; other "custom lengths" are available on a special material basis. All SAE Fittings are for high-pressure service. Female quick-disconnect fittings have dust covers.

25 ft	12 ft	10 ft	8 ft	6 ft	3 ft	
485332	802690	802689	802688	802687	485331	FQD x FQD
487907	802677	802675	802673	802671	492796	FQD x CGA-347 Outlet
487909	802685	802683	802681	802679	487427	FQD x CGA-347 CN
487906	802704	802703	802702	802701	802705	FQD x SAE-4
487908	802678	802676	802674	802672	492797	FQD x CGA-346 Outlet
487910	802686	802684	802682	802680	487428	FQD x CGA-346 CN

RescueAire™ II Portable Air-Supply System

The RescueAire II Portable Air Supply System is designed to meet the needs of Rapid Intervention Teams (RITs). The system consists of a lightweight Carbon-Wrapped cylinder, Quick-Fill® emergency breathing system, ExtendAire™ emergency breathing system, and an MMR regulator, supported by a flame- and heat-resistant harness. The RescueAire II is a complete system that can provide emergency breathing air for most any victim.

The RescueAire II System is available in both low-pressure (2216 psig) and high-pressure (4500 psig) versions. An optional shoulder strap is also provided for hands-free carrying.



RescueAire™ II Portable Air-Supply System

with L-30 cylinder	less cylinder	Low-Pressure (2216 psig)
10100096	10100095	RescueAire II, w/Firehawk Responder MMR
10041196	10041198	RescueAire II, Firehawk STC MMR
10041230	10041232	RescueAire II, Firehawk PTC MMR
with H-60 cylinder	less cylinder	High-Pressure (4500 psig)
10100097	10100094	RescueAire II, w/Firehawk Responder MMR
10041195	10041197	RescueAire II, Firehawk STC MMR
10041199	10041231	RescueAire II, Firehawk PTC MMR



The ExtendAire™ I and II Systems

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

The new ExtendAire II offers an integrated rescue hose into the PR14 1st stage regulator with both a male and female quick connect fitting.



The ExtendAire™ System



The ExtendAire™ II System upgrade

The ExtendAire I and II Systems

812958	ExtendAire Air-line Hose with foster plug
812973	40" Rescue Hose
10031798	ExtendAire Upgrade Kit for Threaded Firehawk MMR
10031797	ExtendAire Upgrade Kit for Quick-Connect Firehawk MMR
10105883	ExtendAire II Upgrade Kit for PR14 Regulator

Technical Rescue Cart

The Technical Rescue Cart is a steel cart with a color-designated control panel that allows one side of the panel to be used for primary respirator breathing air and one side for tool/secondary air requirements.

Two 1-hour cylinders are used to provide air for respirators. High-pressure cascade (fire truck) cylinder air is used to operate pneumatic tools.

The standard features of the Technical Rescue Cart make it a unique and very versatile air cart for the fire service and HazMat industries.

Cart Weight and Dimensions

Size: 35" H x 21" W x 15" D

Unit Weight: 54.5 pounds without cylinders

Features

Breathing-Air Segment includes:

- Two-wheeled, poly-coated steel cart, two sets of double-cylinder straps, air-line hose rack and adjustable pull handle
- Low-pressure cylinder bell alarm
- Four-outlet manifold – available with four outlet fitting options

Tooling-Air Segment includes:

- CGA-347 fitting to attach to an auxiliary remote high-pressure air source
- Low-pressure pneumatic alarm whistle
- Four-outlet manifold with Quick Disconnects



Technical Rescue Cart

10107835	Technical Rescue Cart equipped with union adapters
10107818	Technical Rescue Cart equipped with Snap-Tite Aluminum Quick-Disconnects
10107820	Technical Rescue Cart equipped with Foster Steel Quick-Disconnects
10107819	Technical Rescue Cart equipped with Hansen Brass Quick-Disconnects



The Technical Rescue Cart is sold without air cylinders.

The following MSA cylinders can be used with the cart:

- 60-minute, H-60 carbon-wrapped cylinder, PN 807588
- 45-minute, H-45 carbon-wrapped cylinder, PN 807570
- 30-minute, H-30 carbon-wrapped cylinder, PN 807587

See p. 11 for ordering information. A 60-minute cylinder will provide maximum air supply.

PremAire® Cadet Escape Respirator— Combination Supplied-Air Respirator with Escape Cylinder

Size, Simplicity, and Economy

An innovative streamlined design offers a first-stage regulator and cylinder valve within one assembly, creating a very small size and profile that is less likely to snag when working in tight places.

Low-profile escape cylinders can be worn on either the right or left hip. The Ultra Elite Pressure-Demand Facepiece or Advantage 4000 Facepiece with APR conversion capability offer choice of sizes and nose cups. The Firehawk® MMR Regulator uses a Push-To-Connect (PTC) attachment method. All regulators feature a bypass and a choice of solid cover or with purge button.

The PremAire Cadet Supplied-Air Respirator with Escape Cylinder is NIOSH-approved as a combination supplied-air respirator and self-contained breathing apparatus.

Features and Benefits

- New one-piece first-stage regulator and cylinder valve;
 - Combination cylinder valve and first stage pressure reducer
 - Very small size and profile
 - Regulator uses many of same parts as MSA FireHawk SCBA
- Regulator body protects cylinder gauge—no need for rubber gauge guard, reduces size!
- Choice of cylinder hip placement allows worker freedom and versatility
- Two harness materials:
 - Standard Nylon—ideal for chemical resistance
 - Kevlar—ideal in high heat environments or in areas with potential for sparks
- Two attachments for keeping cylinder secure on belt
 - Sturdy metal cylinder support bands
 - Nylon or Kevlar cylinder bags available for carbon fiber cylinders
- Shoulder support strap incorporates hose keeper; regulator hose stays in place close to body, reduces chance of snagging
- Bracket/holder for second-stage pressure regulator



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PremAire Cadet Combination Supplied-Air Respirator System with Escape Cylinder Assemble-To Order Matrix

Type	Carrier & Harness Type	Pad Option	Escape Cylinder	MMR Regulator	Facepiece	Nosecup	Head Harness	Quick Disconnect	Case
PC PremAire Cadet Escape	1 Nylon, strap carrier, standard 2 Kevlar, strap carrier, standard 3 Nylon, bag carrier, standard 4 Kevlar, bag carrier, standard	0 None 1 Shoulder	A 5-minute aluminum B 10-minute aluminum C 5-minute carbon D 10-minute carbon E 15-minute carbon	E Firehawk, Push-To- Connect, Responder Regulator	A None P Ultra Elite, Hycar, Responder, small Q Ultra Elite, Hycar, Responder, medium R Ultra Elite, Hycar, Responder, large S Ultra Elite, Hycar, Responder, small, communication ready T Ultra Elite, Hycar, Responder, medium, communication ready U Ultra Elite, Hycar, Responder, large, communication ready	0 None 1 Ultra Elite, medium 2 Ultra Elite, large	0 None 1 Rubber 2 Speed- ON Net	0 None A Snap-Tite, aluminum B Snap-Tite, stainless steel C Snap-Tite, brass D Hansen, stainless steel E Hansen, brass F Foster, steel G Foster, stainless steel H Foster, brass J Snap-Tite, locking, aluminum K Snap-Tite, locking, stainless steel M Snap-Tite, locking, brass N Foster, locking, stainless steel P Cejn, locking	0 None 1 Hard plastic case

Aluminum
escape
cylinders
are not
compatible
with bag
carriers

A-PC

Part Number										
Quantity										

ClearCommand® HCS Helmet Communication System

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. 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'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 your 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.

Uninterrupted communication from the time the alarm sounds until the incident is over.

For more complete information, see Bulletin 3639-01-MC.



Helmet Microphone Assembly

10042902	Helmet Microphone Assembly (includes Custom Fitted Flannel Headband Liner)
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See p. 18 for label mics, PTTs, and accessories.

Features and 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. The unit can be easily transferred to other users, and no tools are required for installation or removal.
- Can be used over 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 storage of the cable when it's not connected to the lapel mic or PTT.

ClearCommand® Communications System for Ultra Elite Facepieces

MSA's ClearCommand Communications System is designed specifically to meet the modern communications needs of firefighters. Because it's available in two versions, amplifier and amplifier with radio interface, firefighting 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) amplified speaker for optimal clarity and volume. Using a proprietary 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 ClearCommand 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.



ClearCommand System Kits

10024074	Amplifier Kit, complete with microphone
10051290	Amplifier Radio Interface Kit, w/ microphone, less PTT
10023055	Microphone Kit, with mounting bracket

See p. 18 for label mics, PTTs, and accessories.

Kits and Accessories for Communications Systems

Kits for Radio Interface*

Radio Brand	Radio Model	Lapel Mics	Stand-Alone PTT
Bendix-King	LPH; LPI; LPU; LPX; EPH; EPU; MPH; EPV; EPI; GPH	10042938	10045707
E.F. Johnson	LX2442/2443; FM5852; ZX2452/2453, 5850, 5855, 5860, 5861, 5862	10042942	10045711
E.F. Johnson	5100 series-511x,514x,518x,5133		10055501
E.F. Johnson	VIKING CL 500/8560/8565/8561/8566/8570/8571/5870/5876/5877/8591/8587, CH-HM91	10042943	10045712
GE Ericsson	Jaguar, 700P, 700PI, 7100P	10068237	
GE Ericsson	KPC, 500P	10042933	10045702
GE Ericsson	Monogram	10042934	10045703
GE Ericsson	MPA; MPD; MTL; TPX; GF (PACUDX), PAPST5	10042932	10045701
GE Ericsson	MRK, PRISM, LPE-200, Ericsson PK12GT, LPE50	10042907	10045666
GE Ericsson	PANTHER		
GE Ericsson	PCS, PC2005	10042906	10045665
Icom	A3E, A22, A22E	19582	19583
Icom	IC-2A/AT/E; ICH-2/6/12/16; ICU-2/6/12/16, IC-F11, IC-F11S, IC-F21, IC-F21S, IC-F21BR	10042944	10045713
Icom	IC-F30/40/30LT/40LT	10042946	10045715
Icom	IC-F30GT, IC-F40GT, IC-F30GS, ICF40GS	10058090	10067523
Icom	M88 (Marine radio), IC-F50, IC-F60		10064623
Icom	Side connector ICF4GT, ICF3GS, IC-F3GT, IC-F12S, IC-F22S, IC-F12, IC-F22, IC-F4G-2		10045714
Kenwood	TK 190/280/380/290/390/480/481/2140/3140/290K/2180/5210/3180	10042941	10045710
Kenwood	TK-208/220 /240/248/250/260/270/270G/272/308/320/340/350/353/360/370/372/373G/430/2160/3160; TH-21/25A/41/45/75/91A/2102/3102; DEMITOSS 9 (JAPAN), FREETALK LINE, TK2100K2/TK3101K, TK2200,TK3200, TK2202, TK-2170/TK3170, TK-3173	10042939	10045708
Kenwood	TK230/330	10042940	10045709
Maxon	PC-50; SP100; SP120; SP130; SP140, Alan HP125/425	10042908	10045667
Maxon	PL1145, PL2245, PL5161, PL5164		10061404
Maxon	SP2000 Series, SP-2550 SP-2850; SL70W	10042947	10045716
Maxon	SP5000 Series CP-0500 Series	10042948	10045717
Midland	70-145/148/154/245/254	10042951	10045720
Midland	70-153	10042949	10045718
Midland	70-165/166/265/266	10042950	10045719
Midland	70-195/295	10042952	10045721
Motorola	HT1000; JT1000; MT2000; MTX838; MTS2000; MTX2000/8000/9000 Transcrypt Stealth, MTX, GP900, XTS1500, XTS2500, XTS3000, XTS3500, XTS5000, XTS5000R, PTX1200, PTX3600, PR1500	10042903	10045662
Motorola	270,280, T289, T5100, T5200, T5300, T5320, T5400, T5410, T5420, T5600, T5620, T5700, T5720, T5800, T5820, T6200, T6210, T6220, T6250, T6300, T6310, T6320, T6400, T7200, FR50 AND FR60.	10049363	10061630
Motorola	ASTRO; SABER, MX1000, MX2000, MX3000	10042904	10045663

Kits for Radio Interface*

Radio Brand	Radio Model	Lapel Mics	Stand-Alone PTT
Motorola	CP100, SP10, SP21, AXU4100		10059441
Motorola	EX500; EX600	10053716	10057505
Motorola	EXPO; P10/50; HT10	10042924	10045693
Motorola	EXPO; P10/50; HT10	10042924	10045693
Motorola	GP350	10042930	10045699
Motorola	GP350 QD	10042931	10045700
Motorola	HT50/90/440; P100	10042925	10045694
Motorola	HT600, 800, 810, 820 ; MT1000; P200; MTX800/ 900; /900S, MTX800, MTX810, MTX820, MTX900	10042909	10045668
Motorola	HT750, HT1250, HT1550, HT1550-XLS, PRO 5150, PRO 7150, PRO 7350, PRO 7550, PRO 9150, GP328, GP329, GP338, GP339, GP340, GP360, GP680, MTX850, MTX850-LS, MTX8250, MTX8250-LS, MTX950, MTX9250, PTX700, PTX760, PTX780, PR860	10042922	10045691
Motorola	Motorola HT750 QD	10042923	10045692
Motorola	MT500	10042928	10045697
Motorola	MX300/310/320/340/350/360	10042927	10045696
Motorola	MX800; MX840, STX Series	10042920	10045669
Motorola	RADIUS GP300/ P1225; GTX; GTX8250; P110; SP10/50; SPIRIT-111, SP21, AP-73 (ASIAN RADIO), GP-88 (ASIAN RADIO), LTS 2000, GP63, GP68, PRO2150, PRO3150, CT150, CT250, CT250LS, CT450, CT450LS, MTX638 (ASIA & AUSTRALIA) GP-308, GP2000, CP200, CP300, CP150, PR400, EP450	10042905	10045664
Motorola	SABER QD	10042921	10045690
Motorola	Spirit-Pro, MU21CV, MU21CZ, SU21C, XTN Series, XTV2100, XTN446, CLS Series, XV1100, XZ1100, XU2100	10042929	10045698
Motorola	VISAR	10042926	10045695
Relm/SmartCom	MPS; MPV08, MPU08B, WHS150, MPV32, MPU32, Minicom 3200	10042953	10045722
Ritron/Jobcom	JBX151; JMX100/400 Series; RTX150/450; SST SERIES	10042954	10045723
Standard	HX240U/V	10042935	10045704
Standard	HX320	10042936	10045705
Standard	HX-381/482/580T/581T/582T/585T/587T	10042937	10045706
Tekk	T20; T40; T50; T60	10042955	10045724
Uniden	SPH / SPU Series, SPU 454	10042956	10045725
Uniden	SPS310T/320TS	10042957	10045726
Vertex	VX-160, VX-180, VX-210, VX-2R, VX-420, VX-424, VX-427	10058088	
Yaesu-Vertex	FT416/816/11R/41R, FTH2005, 2008, 2009, 7005, 7008, 7009	10042958	10045727
Yaesu-Vertex	FT76	10042962	10045779
Yaesu-Vertex	FTH2070	10042960	10045729
Yaesu-Vertex	VX10, VX300, VX400; VXF Series, F10/40/50, FT50R	10042959	10045728
Yaesu-Vertex	VX500, VX510	10042961	10045730
Yaesu-Vertex	VX-600, VX-600UB, VX-600VB, VX-600U, VX-600V, VX-800, VX-900	10058089	10061244

Parts and Accessories

10046087	Dust Cover
10046123	Guard Ring, Tall
10046122	Guard Ring, Short
10046089	Belt Clip Assy, Standard
10046120	Belt Clip Assy, Clothes Pin Type
10046121	O-Ring, Single-Pin Connector
10045778	Flannel Head Band Liner



SCBA Accessories

APR Adapter

MSA's APR adapter provides firefighters with the versatility they need to perform all tasks at the fire ground with one common facepiece. From fire-fighting to overhaul to homeland security, firefighters 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 line of air-purifying cartridges; select from the Advantage cartridges or our CBA/RCA canisters 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.

APR Adapters

Firehawk MMR STC Version	Firehawk MMR PTC Version	APR Adapter
10032511	10040052	APR Adapter
10032927	10040055	APR Adapter Individual Kit
10032925	10040054	APR Adapter Truck Kit

Accessories

10037809	Ultra Elite, Anti-Fog Applique (10/pkg)
817590	CBA/RCA Canisters (box of 6)
809858	Replacement Baffle
813341	Replacement Bayonet Cover

Fit Test Adapter Kits

10107229	APR Fit Test Adapter Kit, Slide-to-Connect
10107256	APR Fit Test Adapter Kit, Push-to-Connect

High-Pressure Filling Hose

Provides a convenient means to connect and charge high-pressure air into a high-pressure 4500 psig cylinder.

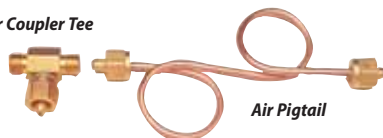


476105	High-Pressure Filling Hose Assembly
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Accessories for Filling Low-Pressure Cylinders

68846	Air Outlet Connection, complete w/ Gauge
68850	Air Coupler Tee
68851	Air Pigtail
476156	Low-Pressure Air-Filling Hose, 5 feet long

Air Coupler Tee



Air Pigtail

Spectacle Kit for Full-Facepiece Respirators

For use by workers who must wear corrective lenses, the Spectacle Kit can be easily inserted into the facepiece. The kit includes a wire support, rubber guide, and pair of metal-frame spectacles.



There are two kits for the Ultra Elite

Side-Support Spectacle Kit for Ultra Elite Facepiece

Center-Support Spectacle Kit for Ultra Elite Facepiece

facepiece; one uses a side-wire support to hold the spectacles in the facepiece, while the other uses a center support to position the unit. Desired adjustment is obtained by moving the spectacles in and out of the rubber guide and up and down the wire support. One size of spectacle frame is used (S-7 shape, 48-mm lens size) with Universal Bridge Corrective Lenses that can be obtained from local sources. The Spectacle Kit can be used with a nosecup.

Spectacle Kits

804638	Ultra Elite Spectacle Kit (side wire support)
493581	Ultra Elite Spectacle Kit (center support)

Nosecups

Molded from a soft rubber compound that is resistant to facial oils, the optional nosecup helps reduce the possibility of lens fogging. The nosecup is particularly effective under conditions of high humidity and/or low temperatures by inhibiting contact of moist exhaled air with the facepiece lens. A nosecup can be easily affixed to the facepiece without tools. Any size nosecup may be installed in any size Ultra Elite Facepiece for a customized, more comfortable fit.



Nosecups

495188	Medium Black Nosecup
495189	Large Black Nosecup

MSA Confidence Plus® Germicidal Cleaner

Mix with warm water for a germicidal cleaner that is effective against various micro-organisms including immunodeficiency virus Type 1 (HIV-1, associated with AIDS). EPA-approved for use on safety equipment.



Personal Safety Equipment Towelettes

Provides an excellent method for wiping and refreshing respirators, hardhats, and other safety equipment between full cleaning periods.



Cleaning Accessories

697382	Canister with 220 towelettes, 4-1/4" x 6"
697383	Box of 100 individually wrapped towelettes, 7-1/4" x 5"
10022871	"The Big Ones," Box of 50 individually wrapped towelettes, 8" x 11"
10009971	MSA Confidence Plus Germicidal Cleaner, 32 oz. bottle

Ultra Elite® CBRN Gas Mask

Safety

- Super-soft black Hycar rubber exceeds 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 first responder market



Ultra Elite CBRN Gas Mask

Size	with rubber Head Harness	with Speed-On Head Harness
Small	10052776	10052780
Medium	10052781	10052779
Large	10052778	10052777

Canisters & Cartridges

MSA CBRN Canister	10046570
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Millennium® CBRN Gas Mask

The NIOSH 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 a P100 filter to remove aerosols, radionuclides, and solid particulates, and an impregnated activated carbon bed to adsorb (filter out) gases and vapors
- Standard mechanical speaking diaphragm included, or add 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



Millennium CBRN Mask

With nose cup, drinking tube, and clear polycarbonate outsert. Order canisters separately.

Small	10051286
Medium	10051287
Large	10051288

Millennium CBRN Canisters

CBRN Canister	10046570
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Responder® CBRN PAPR (Powered Air-Purifying Respirator)

A belt-mounted powered air-purifying respirator with choice of 2 proven tight-fitting facepieces in 3 sizes. The motor/blower provides constant air flow of a minimum 115 lpm to the facepiece via the breathing tube, providing a twenty times greater OSHA assigned protection factor than non-powered APR. Can be used with CBRN cartridge or with the OptiFilter XL or PAPR GME Multigas HE cartridge for tactical operations.

- Protects wearers for up to 8 hours under many hazardous conditions
- Choice of 2 proven positive-pressure facepieces, the MSA Millennium and the MSA Ultra Elite
- Choice of CBRN cartridge or multi-gas / particulate chemical cartridges for non-CBRN use

The Responder CBRN PAPR is available with 2 battery choices that have the ability to be "hot-swapped" during warm environment use. The Lithium-Sulfur Dioxide mission battery has an 8 hour run-time. The Nickel Metal Hydride rechargeable battery has a 4 hour run-time. The motor/ blower will not interfere with radio communications as it is EMI shielded to MIL-STD-461C.

The Responder CBRN PAPR Kit comes complete with the motor-blower, belt, airflow indicator, breathing tube, and battery.



Responder CBRN PAPR Kits (less facepiece and cartridge)

You must choose Responder CBRN PAPR Kit, facepiece, and cartridge for complete system.

Part No.	Description
B-60141-030	Responder CBRN PAPR Kit with 30" Breathing Tube, LiSO ₂ Battery
B-60141-036	Responder CBRN PAPR Kit with 36" Breathing Tube, LiSO ₂ Battery
B-60170-030	Responder CBRN PAPR Kit with 30" Breathing Tube, NiMH Battery
B-60170-036	Responder CBRN PAPR Kit with 36" Breathing Tube, NiMH Battery

Gas Mask Facepieces with Head Harness (less cartridge)

Facepiece	Material	Head Harness	Size		
			Small	Medium	Large
Millennium	Hycar	6-point elastic	10051286	10051287	10051288
Ultra Elite	Hycar	Rubber	10052776	10052781	10052778
Ultra Elite	Hycar	SpeeD-ON	10052780	10052779	10052777

Cartridges

Part No.	Description
10046570	CBRN Canister, each
496081	OptiFilter XL cartridge, 6 pack
10072237	PAPR GME Multigas HE cartridge, each

Accessories for Responder CBRN PAPR

Part No.	Description
B-20040-001	NiMH Rechargeable Kit (2 NiMH Batteries, Charger & Cap)
S-20036	NiMH Rechargeable Battery Pack
B-20090-001	NiMH Rapid Battery Charger
M-20020	LiSO ₂ Mission Battery
B-30060-001	NiMH Rechargeable Battery Cap Assembly
S-30019	Web Belt Assembly
B-10079-001	PAPR Carrying Case



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About the CBRN PAPR Standard
 NIOSH released a CBRN standard for powered air-purifying respirators (PAPRs) in October 2006. NIOSH conducted product testing and issued approvals to MSA's Responder CBRN PAPR, which was the first PAPR to pass the NIOSH requirements.

OptimAir® TL PAPP

The OptimAir TL PAPP is NIOSH-certified with a variety of full facepieces and hood materials, styles and configurations including DuPont Tychem SL and QC with single and double bib. A choice of hose connection is also available. Unit has an APF (Assigned Protection Factor) of 1,000 when used with hood or tight-fitting facepiece.

Smart Design Features

- Crush proof breathing tube
- Automatic setting of flow rates
- Audible and visual alarms for low flow indication and low battery voltage
- Less bulk and better weight distribution for long-duration comfort
- Every cartridge has its own sealing gasket

Cartridges and Accessory Options

- P100
- Acid gas/organic vapor plus P100
- Acid gas/ammonia/formaldehyde plus P100
- Comfort waist belt
- Extended life battery
- Shoulder strap

OptimAir TL Kits

Kits include motor blower, smart charger, battery, comfort belt, and hose.

	with standard battery	with long-life battery
for Facepieces	10081114	10081115
for Hoods	10081116	10081117

Facepieces

Advantage 3100 Facepieces (Single Port)

Silicone	Small	Medium	Large
Rubber head harness	10028999	10028998	10029000
Advantage head harness	10031343	10031342	10031344

Advantage 4100 Facepieces* (Single Port)

Silicone	Small	Medium	Large
Net head harness	10083796	10083792	10083800
Rubber head harness	10083798	10083794	10083802
Hycar	Small	Medium	Large
Net head harness	10083797	10083793	10083801
Rubber head harness	10083799	10083795	10083803

Ultra Elite Facepieces

Silicone	Small	Medium	Large
Rubber head harness	493072	493028	493116
Hycar	Small	Medium	Large
Rubber head harness	493064	493020	493108

*Also requires RD40 Adapter P/N 10065330

OptimAir TL Hoods

	Tychem® QC (polyethylene-coated Tyvek)	Tychem® SL (saranex-coated Tyvek)
Single Bib		
20-pack, threaded connector, less suspension	10095739	10095741
20-pack, standard, less suspension	10095740	10095742
Double Bib		
20-pack, threaded connector, less suspension	10083330	10083382
20-pack, standard, less suspension	10095744	10095746
Hood Suspensions		
20-pack		10103864

For more information on the OptimAir TL PAPP, please see Bulletin No. 1010-15-MC.



Facepiece Accessories

10065330	RD-40 Inlet assembly, required for all Advantage 4100 facepieces
10049630	Hose for facepiece
10087129	Flow check device for facepiece only

Cartridges

10080455	P100 cartridge (6 pack)
10080454	OV/AG P100 cartridge (6 pack)
10080456	AG, AM, FM, P100 cartridge (6-pack)
10068152	SparkGuard cartridge cover (single unit) (2 req.)

Battery and Charger

10076108	Standard battery for OptimAir TL PAPP
10076110	Standard battery charger for OptimAir TL PAPP
10076109	Long-life battery for OptimAir TL PAPP
10076107	Long-life battery charger for OptimAir TL PAPP

Decon Accessories

10075799	Decon cover for OptimAir TL PAPP, 5-pack, natural
10087152	Decon cover for OptimAir TL PAPP, 5-pack, yellow
10078201	Decon belt (backpack buckle)
10074725	Decon belt (cam lock buckle)

Miscellaneous Accessories

10085084	O-ring replacement, hose hood, 10-pack
10049623	Comfort belt
10081414	Cartridge receptacle cover
10059112	Shoulder strap for OptimAir TL
10088150	Blower unit only

Advantage[®] 420 Half-Mask Respirator

- **Patent-pending one-piece UniBond over-mold facepiece** offers stability, comfort, and superior fit. The intelligent design eliminates multiple leak paths and with only three major components, the Advantage 420 significantly reduces the cost of ownership.
- **AnthroCurve™ II face-seal** adapts perfectly to multi-ethnic head sizes and facial contours. The facepiece design is based upon the new proposed NIOSH fit test panel and provides users with excellent fit, and superior comfort.
- **Patent-pending yoke and harness design** enables quick and easy switch between lock-down and drop-down modes. Drop-down mode allows user to remove facepiece and rest it safely against the chest while maintaining use of head protection. Lock-down mode allows the user to lock in a personal fit; respirator can be donned without further adjustments.
- **Low-profile design integrates extremely well with other personal protective equipment (PPE)**, such as headgear, eyewear, goggles, and faceshields. Unique, one-piece ComforTop headband and harness assembly eliminates pressure points when head protection is worn.
- **Comfort and adjustability** with form-fitting neck buckles and wide straps that eliminate discomfort around the neck, and the adjustable crown strap which adapts to different head sizes.

Completely Latex-Free!



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Advantage 420 Respirator

Description	Small	Medium	Large
Advantage 420 Assembly (includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve)	10102182	10102183	10102184
Advantage 420 Threaded Cartridge Assembly (includes facepiece, head cradle, elastic straps, buckle set, yoke with lever, two (2) inhalation valves, one (1) exhalation valve and two (2) threaded cartridge adapters)	10119576	10119575	10119574

Advantage 420 Respirator Spare Parts and Accessories

10097807	Harness Assembly with Buckles includes head cradle, elastic straps, and buckle set
10097883	Maintenance Valve Set includes one (1) exhalation valve and two (2) inhalation valves
10097886	Advantage 420 Maintenance Kit includes harness assembly with buckles, one (1) exhalation valve, and two (2) inhalation valves
10097810	Yoke with lever
10097881	Lever, package of 5
10097888	Inhalation valve, package of 10
10097891	Exhalation valve, package of 10
10097884	Buckle set, package of 5
10097887	Storage poly bag
468730	Vinyl storage bag with belt loops
809999	Advantage Adapter, package of 2, for threaded cartridges
10009971	MSA Confidence Plus Germicidal Cleaner (32 oz.)
697383	Cleaning Towelettes (individually wrapped), package of 100
697444	Bitrex Qualitative Fit-Test Kit
10056424	Advantage Quantitative Fit Test Adapter
10097899	Instructional CD

Advantage Respirator Cartridges

MSA Cartridge Description	Part Number
Organic Vapor (GMA)	815355
Organic Vapor w/N95 Prefilter (GMA)	815355 w/815394 or 816357
Organic Vapor w/R95 Prefilter (GMA)	815355 w/815397
Organic Vapor/P100 (GMA)	815362
Acid Gas (GMB)	815356
Acid Gas w/N95 Prefilter (GMB)	815356 w/815394 or 816357
Acid Gas w/R95 Prefilter (GMB)	815356 w/815397
Acid Gas/P100 (GMB)	815363
Organic Vapor/Acid Gas (GMC)	815357
Organic Vapor/Acid Gas w/N95 Prefilter (GMC)	815357 w/815394 or 816357
Organic Vapor/Acid Gas w/R95 Prefilter (GMC)	815357 w/815967
Organic Vapor/Acid Gas/P100 (GMC)	815364
Ammonia/Methylamine (GMD)	815358
Ammonia/Methylamine w/N95 Prefilter (GMD)	815358 w/815394 or 816357
Ammonia/Methylamine w/R95 Prefilter (GMD)	815358 w/815397
Ammonia/Methylamine/P100 (GMD)	815365
Multigas (GME)	815359
Multigas w/ N95 Prefilter (GME)	815359 w/815394 or 816357
Multigas w/R95 Prefilter (GME)	815359 w/815397
Multigas/P100 (GME)	815366
Iodine Vapor/P100 (GMI)	815641
Chlorine/Mercury Vapor (Mersorb)	815361
Chlorine/Mercury Vapor w/N95 Prefilter (Mersorb)	815361 w/815394 or 816357
Chlorine/Mercury Vapor w/ R95 Prefilter (Mersorb)	815361 w/815397
Chlorine/Mercury Vapor/P100 (Mersorb)	815368
Low-Profile P100	815369
N95 Snap-On Prefilter and Cover	815394 Pack of 10 816357 Box of 50 815392 Reusable Snap-On Cover, 2 in a Package
R95 Snap-On Prefilter and Cover	815397 Box of 20 815401 Reusable Snap-On Cover, 2 in a Package

Air-Purifying Respirator Fit-Test Accessories

Facepiece Fit-Test Kits



Qualitative Test Kit

Replacement Hood & Test Solutions

Banana Oil Test Kit

The Occupational Safety and Health Administration (OSHA) requires fit-testing to ensure proper fit for workers who use respirators. Quantitative testing methods rely on objective data to determine a proper fit. Qualitative fit-test methods are subjective in nature and rely on the judgment of the test subject.

Facepiece Fit-Test Kits

Bitrex Qualitative Fit-Test Kit

697444	Bitrex QLFT Kit
697446	Replacement Fit-Test Solution
697445	Replacement Sensitivity Solution
697448	Replacement Hood
697449	"Using the Qualitative Fit-Test Kit" DVD

Saccharin Qualitative Fit-Test Kit

The Saccharin Qualitative Fit-Test Kit eliminates the need for special filters and is especially useful for dust/mist respirators.

697287	Saccharin QLFT Kit
697286	Replacement Fit-Test Solution
697285	Replacement Sensitivity Solution
697448	Replacement Hood
697325	"Using the Qualitative Fit Test Kit" DVD

Banana Oil Qualitative Fit-Test Kit

MSA's Banana Oil Fit-Test Kit relies on a test subject's ability to detect a 95% pure solution of Isoamyl Acetate (banana oil).

801628	Qualitative Fit Test Kit
801629	Qualitative Fit Test Kit, in rugged Pelican case

Fit Test Adapters

QuikChek III Adapter

The QuikChek III Adapter is specially designed for respirators equipped with Ultra Elite Full Facepieces. The QuikChek III model threads directly into the facepiece inlet. For completion of a quantitative fit test, an OptiFilter XL Cartridge must then be threaded into the QuikChek III Adapter.



QuikChek IV Adapter

Adapter allows qualitative fit-testing and is specially designed for Ultra Elite and Ultravue Full-Facepieces with quarter-turn quick-disconnect. Fit-test kit includes a Type H Cartridge.



QuikChek™ Adapters

805078	QuikChek III Fit Test Adapter
803196	Replacement Kit with 25 ft of sampling tubing, 25 connectors, clip and suction cups
496081	OptiFilter XL Cartridge (box of 6)
817446	QuikChek IV Fit-Test Kit
491010	Type H OptiFilter Cartridge (box of 6)

Fit Test Adapter for Advantage Facepieces

For Advantage 420, Advantage 3100, and Advantage 4100 Respirators.

10056424	Advantage Quantitative Fit Test Adapter
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Probed Respirator Facepieces

All Models Available

To make it easy for you to perform quantitative fit tests, MSA offers a full line of specially modified facepiece assemblies. Each probed facepiece is equipped with a built-in probe assembly, sampling line, and clothing clip to hold the sampling line. The probes are made of solid brass. All respirators use standard MSA high-efficiency filters for tests. Contact MSA for specific models and ordering information.

S-CAP™ Fire Escape Hood

Most victims of fire are not injured by heat or flames but rather by smoke and gases, especially carbon monoxide. The S-CAP Fire Escape Hood is simple to don and use and is effective within seconds, using a filter designed for a minimum rated service time of 15 minutes.

- Filters out CO and smoke
- Universal size
- Easily fitted with quick donning
- Minimal training required
- EN 403:2004 approved
- Highly visible yellow hood
- Adjustable head harness on the outside of the hood, with cotton neck seal for easy donning
- Wide field of view lens
- Heat-resistant against brief flame contact and elevated temperatures

S-CAP Fire Escape Hood

10064644	S-CAP in cardboard box
10064645	S-CAP in wall box

Wall Box



Evolution® 5000 Series Thermal Imaging Cameras

TOP TEN

Reasons To Choose An Evolution 5000 Series TIC



1 Durability

All Evolution 5000 Series TICs are unmatched in durability. Our rigorous testing includes a 6-Foot Drop Test 3 times onto concrete. The TIC must then pass our IP 67 Rating test for Dust and Water Ingress by being submerged in 3 ft of water for 30 minutes. Additionally, the camera is subjected to a flame-and-heat test which simulates NFPA 1981 and is shielded from Radio Frequency Interference from common fire ground sources like radios.

2 Performance

Its advanced microbolometer camera engine makes the Evolution 5000 Series of cameras the most versatile TIC for all firefighting conditions. Besides offering an outstanding stable image in very high heat, Evolution 5000 TICs do an excellent job in lower temperatures. The Heat Seeker Plus colorization and dual-mode temperature scale also provide excellent response in all temperature applications. This flexibility makes any one of the Evolution 5000 Series of cameras the most sensible TIC choice for all of your calls.

3 Advanced Safety Features

All Evolution 5000 series TICs have advanced safety features starting with (1) the TIC's exclusive dual means of temperature measurement: bar graph and digital, and (2) over-temperature warning to protect the electronics from excessive heat, (3) the shutter indicator tells the user when an automatic recalibration is taking place, (4) the TIC provides a continuous battery status icon with easy to read color power graduations.

4 Ergonomics

As a tool designed for handsfree integration with a firefighter's gear, the Evolution 5000 Series TICs can easily be oriented to the ready position. It has a dual handle design for fast handoff, a 3.5" display for large multiple viewers and a simple on/off button for easy operation.

5 Selection / Choice / Flexibility

MSA offers four models of TIC in the Evolution 5000 series. All of the cameras feature the same basic user functions and interchangeable accessories. This allows a department to select the Evolution 5000 Series model of camera for a specific application (i.e. structural firefighting, search and rescue) without having to retrain the firefighter on each model.

6 Complete Line of Accessories

All cameras are supported by a comprehensive line of accessories, including charging systems, video transmission and recording systems and a number of carrying accessories.

7 Fast Startup, One-Button Operation and Wide Field of View

The Evolution 5000 Series Cameras are simple to use, with one-button on/off operation. Startup is instantaneous (<2 seconds).

8 Battery Design and Performance

Inside the handle, the battery is protected from temperature extremes and harsh conditions. The small, lightweight battery provides over 2 hours of continuous run-time.

9 Simplified Ordering, Outstanding Delivery

Two part numbers per model provide you with the TIC and accessories you'll need to put your Evolution camera into immediate service. MSA offers same-day shipment on all models of Evolution 5000 Series TICs.

10 Unmatched Service and Support

When you choose MSA, you are choosing award winning customer service. Our repair center provides a 48-hour turnaround on most repairs and has a TIC loaner program available when needed. MSA also provides nationwide coverage with our Best-in-Class network of distributors and a dedicated First Responder sales team to meet your needs. With MSA's extended warranty program, your Evolution 5000 Series TIC can be covered for up to 3 years.

- The highest image definition over the widest temperature range of any Fire Service TIC

- Design-driven durability

- Today's most advanced technology in the most comfortable, proven, easy-to-use Fire Service TIC design

- Many features, many accessories



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Evolution® 5800 TIC

MSA's Evolution 5800 TIC offers state-of-the-art imagery with a high-resolution-format, microbolometer-based infrared sensor.

Image Detail Enhancement (IDE) software enhances the camera's imagery so that it matches the total dynamic range of the original image, and improves image detail, even in scenes with an extreme temperature range. This enhanced imagery is combined with five user-selectable color palettes, to give firefighters a customized image that maximizes the scene information you need for your plan of attack, even in low temperature-contrast environments.

The heart of the Evolution 5800 TIC is the vanadium oxide microbolometer that incorporates a 320 x 240 focal plane array sensor, generating over 76,000 pixels of image detail with a 36° field of view. 2X Digital zoom magnifies the image detail that you want to see.

Two additional features in all camera models, Standard Quick Temp and Heat Seeker Plus, complete the most advanced thermal imaging package available.

The Evolution 5800 TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs, including single-button activation, patented dual-handle design for fast handoff, a lightweight lithium ion battery for two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5800 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.



**Superior
Imagery**

FEATURES	BENEFITS
User Selectable Palettes	Maximizes scene information, providing greater image detail
Image Detail Enhancement	Enhances camera imagery in low contrast temperature environments
Instant On	Camera starts in 2 seconds or less
High-sense Imagery	Best high-sense imagery 2 to 4 times longer than competitive cameras
320 x 240 Focal Plane Array	Increased number of pixels for improved picture quality
2X Digital Zoom	Magnifies image, providing more detail
Heat Seeker Plus	Only MSA offers color pixelization in high- and low-sense modes

Evolution 5800 User Selectable Palette Imagery



White Hot Imagery



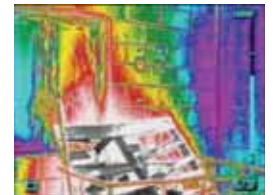
Black Hot Imagery



Fire and Ice Imagery



Fusion Imagery



Rainbow Imagery

Evolution 5800 TIC

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5800 complete with User selectable palettes, 2X Digital Zoom, Heat Seeker Plus, Quick Temp and User's instruction manual	10097333	10097334



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Evolution 5200HD² TIC

The Evolution 5200HD² TIC is a multipurpose firefighting tool, designed for search-and-rescue as well as structural firefighting. High-resolution TIC provides superior images in low and high-sense modes from the VOx microbolometer that incorporates a 320 x 240 focal plane array sensor, generating over 76,000 pixels of image detail in both low- and high-sense modes.

An optional 2X digital zoom for image enlargement further enhances the user's ability to see image detail. The Evolution 5200HD² with its 36° field of view makes objects appear larger and closer so that images are easier to see.

The Evolution 5200HD² TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs, including single-button activation, patented dual-handle design for fast handoff, a lightweight lithium ion battery for two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5200HD² comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.



Multipurpose

FEATURES	BENEFITS
Heat Seeker Plus	Only MSA offers color pixelization in high- and low-sense modes
Instant On	Camera starts in 2 seconds or less
320 x 240 Focal Plane Array	Increased number of pixels for improved picture quality
2X Digital Zoom (optional)	Magnifies image, providing more detail
Quick Temp	Numerical temperature readout of the scene
High-sense Imagery	Best high-sense imagery 2 to 4 times longer than competitive cameras

Evolution 5200HD² TIC Views



High -sense image detail



Low-sense imagery on the display of an E5200HD² TIC



Same picture with 2X Digital Zoom showing low-sense imagery



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Evolution 5200HD² TIC

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5200HD ² complete with Heat Seeker Plus, Quick Temp & User's instruction manual, less 2X Zoom	10097247	10097248



Evolution 5200 TIC

The Evolution 5200 TIC represents MSA's traditional model of thermal imaging camera, the classic choice of hundreds of fire departments in the US and globally for years. Now proven over time, the Evolution 5200 model was designed for use during structural firefighting. The large 55° field of view provides firefighters with the information needed to make fast and safe decisions about their plan of attack.

As MSA's first TIC to use the Photon VOx (vanadium oxide) microbolometer Infrared sensor, the Evolution 5200 incorporates a 160 x 120 focal plane array, which generates over 19,000 pixels of image detail in both low- and high-sense modes.

The Evolution 5200 TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs, including single-button activation, patented dual-handle design for fast handoff, a lightweight lithium ion battery for two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

As with all MSA TICs, the Evolution 5200 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.



Structural Applications

FEATURES	BENEFITS
Instant On	Camera starts in 2 seconds or less
160 x 120 Focal Plane Array	High-resolution imagery with the power of 19,000 pixels
Heat Seeker Plus	Identifies the hottest objects in both high- and low-sense
Quick Temp	Numerical temperature readout of the scene
High-sense Imagery	Best high-sense imagery 2 to 4 times longer than competitive cameras

Evolution 5200 TIC Views



High-sense image detail



Low-sense imager detail



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Evolution 5200 TIC

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5200 complete with Heat Seeker Plus, Quick Temp and User's instruction manual	10097245	10097246



Evolution 5600 TIC

The Evolution 5600 TIC delivers reliable thermal imaging performance in a value-driven design. This versatile TIC provides detailed images from the vanadium oxide microbolometer sensor, and features a 120 x 120 focal plane array with over 15,000 pixels and a 45° field of view.

MSA's highly functional Heat Seeker and Quick Temp functions are standard and deliver unmatched performance and superior image quality at all temperatures, employing an easy-to-use, time-tested design.

The Evolution 5600 TIC incorporates all of the established user-friendly form factors in MSA's 5000 Series TICs, including single-button activation, patented dual-handle design for fast handoff, a lightweight lithium ion battery for two hours of run time, a protective battery compartment, and a comprehensive offering of interchangeable accessories.

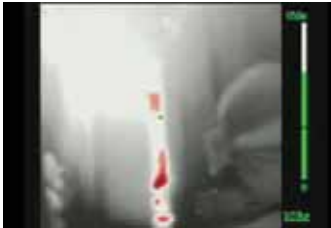
As with all MSA TICs, the Evolution 5600 comes standard with a two-year camera core warranty and a one-year warranty on all of the other camera components.



Value-Driven

FEATURES	BENEFITS
Heat Seeker Plus	Only MSA offers color pixelization in high- and low-sense modes
Quick Temp	Numerical temperature readout of the scene
Instant On	Camera starts in 2 seconds or less
120 x 120 Focal Plane Array	High performance VOx infrared sensor
High-sense Imagery	Best high-sense imagery 2 to 4 times longer than competitive cameras

Evolution 5600 TIC Views



High-sense image detail with Heat Seeker enhancing the heat source with red isotherm



Low-sense image detail with Heat Seeker enhancing the heat source with red isotherm



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Evolution 5600 TIC

Description	Part Number	
	Fahrenheit	Celsius
Evolution 5600 complete with Heat Seeker Plus, Quick Temp & User's instruction manual	10097331	10097332

Evolution 5000 Series Thermal Imaging Kits

Fire Station TIC Kit

This kit contains all of the components and accessories that a fire department needs to put their MSA Evolution Thermal Imaging Camera into service. The Fire Station Kit consists of two (2) rechargeable Lithium-Ion Batteries, Single-Unit AC Charger, Retractable Lanyard, Carabiner, Instruction CD and a hard plastic carrying case.



Vehicle TIC Kit

This kit contains all of the components and accessories that a fire department needs to install their MSA Evolution Thermal Imaging Camera into service on a fire truck. The Vehicle Kit consists of two (2) rechargeable Lithium-Ion Batteries, Universal Truck Charger, Retractable Lanyard, Carabiner, and Instruction CD.



Thermal Imaging Kits

Fire Station TIC Kit	10096887
Vehicle TIC Kit	10096886

Evolution 5000 Series Video Systems and Accessories

Video Transmission and Recording Systems



Evolution Video Transmitter

Evolution Video Transmitter

Self-contained, modular design allows for maximum flexibility to deploy the transmitter easily when needed. Requires no modification to the TIC. An independent power supply does not draw power from the TIC battery, thus allowing for maximum run time of both TIC and transmission system.



Mini Receiver Kit

Mini-Receiver Kit

The Mini-Receiver Kit enables users to customize video monitoring and recording setup. The kit includes a two channel receiver, multiple power cords, and additional adapters packaged in a soft-sided case, with additional room for accessories and the transmitter. Receiver kits come standard with a magnetic mounted, omnidirectional antenna.



Deluxe Receiver Kit

Deluxe Receiver Kit

The Deluxe Receiver Kit provides users with a complete solution for viewing transmitted images using a single receiver console. The kit features a 12" display that is integrated into the lid of the protective Pelican case. It comes complete with an omni-directional antenna and 110-220 volt AC wall-type and 12 volt DC cigarette-lighter powered supply cords.



Evolution Video Capture Kit

Evolution Video Capture Kit

Small, easy-to-use, stand-alone video device records screen action of any Evolution 5000-Series TIC for up to 2 hours. Connects in seconds and provides downloadable video clips of fireground action for recordkeeping and training.

Video Transmission and Recording Systems

Evolution Video Transmitter	10047573
Mini-Receiver Kit	10050376
Deluxe Receiver Kit	10050375
Evolution Video Capture Kit	10071750

Accessories



Single-Unit Charger

Single-Unit Charger

Desktop charger for Evolution Lithium-Ion batteries. Requires 110 or 220 volt AC power supply.



Universal Truck Charger

Universal Truck Charger

Charges any Evolution 5000-Series TIC WITH or WITHOUT the Wireless Transmitter or the Video Capture unit attached. The "smart" Universal Charger trickle-charges the battery inside the TIC first, then switches to the spare battery charging module.



Non-Charging Universal Truck Bracket

Non-Charging Universal Truck Bracket

A bracket used to secure the Evolution TIC in a vehicle. System does not have any charging capabilities.



Reflective Label ID Kit

Reflective Label ID Kit

These HIGHLY REFLECTIVE Write-On Labels will make TIC accountability easier, and provide additional reflectivity on the top and sides of your Evolution 5000 Series TIC. Each Label Kit contains five sets of four labels in bright red, orange, yellow, green and blue. Labels are easily written on with a permanent marker.

Accessories

Single-Unit Charger	10041100
Universal Truck Charger	10067565
Universal Truck Bracket	10067707
Reflective Label ID Kit	10062184
Sun Shroud	10039603
Disposable Display Covers	10038970
Lithium ion Battery	10038412
Tripod Adapter	10040229
Carabiner	10040005
Plastic Carrying Case	10040223
Retractable Lanyard	10040226
Shoulder Strap	10039515
Wrist Strap	10039516

Cairns® Fire Helmets



Top 10 Reasons to Choose Cairns Fire Helmets

1 Impact Protection
Only Cairns Helmets offers the most complete system for impact absorption; the helmet shell, crushable front holder, impact cap, tube-lock, and suspension straps work as an energy-absorbing system to protect you. The greatest testament to Cairns Helmets is the number of lives saved by the above-and-beyond top-and-side impact protection and penetration resistance of the best helmet in the fire service.

2 Thermal Protection
Almost every Cairns Helmet provides our thermal impact cap as extra protection. A Cairns Helmet with an impact cap is up to 66% cooler than a fire helmet without a thermal impact cap, helping users protect their heads from heat.

3 Eye Protection
Only Cairns Helmets are available with the revolutionary patent-pending Defender® Visor— retractable, full-coverage, close-fitting eye protection that meets both NFPA and ANSI standards. By complementing helmets with a full line of conventional faceshields and goggles, Cairns Helmets is the clear leader in firefighters' eye and face protection.

4 Shell Release System
This safety system found only on Cairns Helmets provides an extra margin of protection, should the helmet shell become lodged during firefighting.

5 Comfort
Cairns Helmets are well known for their comfort, ride, and weight distribution. You can benefit from our decades of experience resulting in a highly refined helmet with unparalleled wearability, letting you focus on the job at hand.

6 Quality
Cairns Fire Helmets are known for quality, from design to manufacture. You can feel the quality of our 100% handcrafted leather helmets and our hardware's durability and strength.

7 User-Friendly
Your fire helmet routine maintenance is minimal, easy and fast with our easy-to-remove headband liners. To aid with NFPA 1851 standard compliance concerning fire helmet care and maintenance, MSA offers a free guide to NFPA 1851 compliance for Cairns Helmets with optional online certification. Visit the Fire Service Market at MSAsafety.com for details.

8 Selection
Cairns Helmets offers the most complete line of fire helmets, from leathers to traditional and modern styles, from thermoplastic to fiberglass and Kevlar composites. No one else can match our selection. Just ask for your favorite style.

9 Warranty
Cairns Helmets provides a 5-year shell replacement warranty and additional lifetime component coverage. We lead the way with a superior warranty.

10 Heritage
Since 1836, Cairns Helmets has been designing and manufacturing high-quality fire helmets. No other helmet manufacturer has our experience and history within the fire service. More firefighters choose Cairns Helmets than any other brand of fire helmet.

At Cairns Helmets, safety is our tradition. So choose Cairns Helmets for the ultimate reason – YOUR safety!

A Few Words About Helmet Performance

Cairns Fire Helmets are designed and manufactured to be durable. All of our leather, thermoplastic, fiberglass, and Kevlar helmets exceed industry standards for heat, impact, and penetration protection. Cairns offers the most diverse line in the industry, so you can choose the helmet that is best for your application.

Leather: New Yorker NSA® and N6A™ Helmet Models

Top-grain steer hide shell, layered with a high-performance thermal impact cap, skillfully hand-tooled by MSA Cairns craftsmen. The only 100% true leather helmet.

Kevlar: Classic 1000™ and Intruder 990® Helmet Models

Fiberglass-reinforced Kevlar shell provides maximum thermal, impact, and penetration protection. Available in both modern and traditional styles.

Fiberglass: Cairns® 1010 and 1044, 660C Metro™, Invader 664™ and Commando HP3® Helmet Models

Exclusive, Dura-Glas® chip-resistant, through-color, high-performance, high-heat-resistant, compression-molded, fiberglass composite shell. Available in both modern and traditional styles.

Thermoplastic: Structural 360S™, 360R™, 360R-13™ and 880 Tradition® Helmet Models

Through-color thermoplastic shell combines toughness and durability with NFPA performance. Available in both modern and traditional styles.

All Cairns® Kevlar, Fiberglass, Thermoplastic* and Leather N6A** Fire Helmets are certified to NFPA 1971-2007. The Leather NSA is OSHA certified.

*The 360R-13 is approved to NFPA 1951-2007 only.

**Natural color N6A is not NFPA compliant.



Other Features

Shell Release System (Fiberglass* and Kevlar Models Only)

Reduce the chance of neck injury with a shell that is designed to release from the impact cap in the event that it would become lodged during a fall. Although the outer shell releases, the impact cap and earlaps are designed to stay on the user's head for continued impact and thermal protection. Meets NFPA 1971, Rev. 2007, 80 lbs. minimum for release requirement.

* Does not include HP3

Adjustable Headband System (Excludes Leather Models)

Cairns headband features:

- Three-position, rear-ratchet height adjustment to ensure a secure, comfortable fit for all head sizes between 6-3/8 and 8-3/8 (on 880 Tradition, fit is between 5-5/8 and 7-3/8 inches).
- An adjustable front headband allows perfect fit between the helmet and a SCBA mask without lifting the helmet or exposing the forehead.

Leather Helmets



Cairns N6A Houston Helmet

- Handcrafted, 100% leather shell
- The Cairns 5-year shell replacement warranty
- Non-corroding, high-temperature-resistant faceshield/goggle hardware
- Durable helmet hanger that fits on large hooks and resists bending
- Minimal parts for lower service cost and easier maintenance
- High-temperature impact cap increases thermal and impact protection
- Comfortable fit for head sizes Medium (6¾ – 7½) and Large (7½ – 8¾)

NFPA 1971- 2007 certified

Cairns N5A New Yorker Helmet

- Handcrafted, 100% leather shell
- The Cairns 5-year shell replacement warranty
- Non-corroding, high-temperature-resistant faceshield/goggle hardware
- Durable helmet hanger that fits on large hooks and resists bending
- Minimal parts for lower service cost and easier maintenance
- High-temperature impact cap increases thermal and impact protection
- Comfortable fit for head sizes Medium (6¾ – 7½) and Large (7½ – 8¾)

OSHA certified

Leather Forever!

Since 1836, Cairns has been the original manufacturer of leather firefighting helmets. The Houston helmet retains the same authentic look and quality that generation after generation of firefighters have relied upon.

- The Houston shell is constructed of top-grain steer hide, impregnated with a natural resin system, which is sealed and over-coated with a colored high-luster finish.

- The crown is hand-sewn to the one-piece brim section. Showing attention to detail in every stitch, the brim is embossed with Cairns original Oak Vine pattern.
- Increasing your safety, a thermal impact liner is then installed within the leather crown. The thermal impact liner dramatically increases the levels of protection where you need it most.
- The Cairns six-way overhead strap suspension system reduces shock transmission at the top of the helmet while providing a deep, comfortable fit.

- High-temperature Nomex chinstrap with quick release and postman's slide enhances performance, safety, and fit.
- Velcro stowage for extra chinstrap material.
- Aluminum-core edge trim.
- Complete your unique helmet with the comfort pad kit supplied with every helmet. Using these pads provides a superior fit and feel that you cannot get in a typical fire helmet.



Training is available 24/7 at
MSA-U® Online Training
Register Today!

Visit <http://msau.msanet.com>

Traditional Style Helmets



Cairns 1010 Helmet

- Tough, painted, DuraGlas® Helmet fiberglass composite shell
- Integral, retractable, close-fitting Defender® Visor option
- Meets ANSI Z87.1+ and fulfills NFPA requirement for Primary Eye Protection
- Easy front headband adjustment
- Simple ratchet height adjustment fits many head sizes
- Headband (6 $\frac{3}{8}$ – 8 $\frac{3}{8}$) fits wide range of head sizes
- May be used for proximity firefighting when combined with appropriate accessories (bonnet, shroud, gold-coated faceshield)

Certified to NFPA 1971-2007 edition

Cairns 1044 Helmet

- Tough, through-color, DuraGlas® Helmet fiberglass composite shell
- Integral, retractable, close-fitting Defender® Visor option
- Meets ANSI Z87.1 and fulfills NFPA requirement for Primary Eye Protection
- Easy front headband adjustment
- Simple ratchet height adjustment fits many head sizes
- Headband (6 $\frac{3}{8}$ – 8 $\frac{3}{8}$) fits wide range of head sizes
- May be used for proximity firefighting when combined with appropriate accessories (bonnet, shroud, gold-coated faceshield)

Certified to NFPA 1971-2007 edition

Cairns 1000 Helmet

- Tough, painted, DuraGlas® Helmet fiberglass composite shell with Kevlar reinforcement
- Easy front headband adjustment
- Simple ratchet height adjustment
- Headband (6 $\frac{3}{8}$ – 8 $\frac{3}{8}$)

Certified to NFPA 1971-2007 edition

880 Tradition Helmet

- Tough, high temperature Ultem plastic shell
- Easy front headband adjustment
- Simple ratchet height adjustment
- Headband (5 $\frac{5}{8}$ – 7 $\frac{5}{8}$)

Certified to NFPA 1971-2007 edition

The Defender® Integrated, Optional Visor for Cairns 1010 and Cairns 1044 Models provides:

- Primary eye protection
- Retractable eyewear system that's ready when you need it
- Available on a new helmet or user-upgrade kit
- Quick-disconnect attachment for fast lens change-out without tools
- A means of never losing or misplacing your eye protection
- Optically correct lens to eliminate peripheral distortion
- No front piece blockage as with other eye protection styles
- Compliance with ANSI Z871+
- Stays clean and protected from heat when stored

Head Protection System (Impact)

- Crushable eagle
- Impact cap also provides increased thermal protection
- 6-point overhead suspension
- Unique tube lock system absorbs impact shock

Shell Release System

- Reduces risk of neck injury, as shell releases from impact cap in the event that it becomes lodged during a fall
- Impact cap and earlaps stay on user's head for continued impact and thermal protection
- Meets NFPA 1971, Rev 2007, 80-lbs minimum for release requirement

Adjustable Headband System provides:

- 3-position, rear-ratchet height adjustment for secure, comfortable fit for most head sizes between 6 $\frac{3}{8}$ and 8 $\frac{3}{8}$
- Adjustable front headband for perfect fit between helmet and SCBA mask without lifting helmet or exposing forehead

Standard Features

- Cairns Helmets provides a 5-year shell replacement warranty
- Cairns Helmets offers the largest selection and widest variety of fire helmet options
- Cairns Helmets exceed industry standards for heat, impact, and penetration protection
- Easy maintenance and lower cost of ownership
- High-temperature foam liner offers increased thermal and impact protection when combined with shell-release system
- High-temperature Nomex chinstrap with quick release and postman's slide enhances performance, safety and fit



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Modern and Rescue Style Helmets



Cairns 660C and 664 Invader Helmets

- Tough, DuraGlas® Helmet fiberglass composite shell—either painted (660C) or through-color (664 Invader)
- Integral, retractable, close-fitting Defender® Visor option
- Meets ANSI Z87.1+ and fulfills NFPA requirement for Primary Eye Protection
- Easy front headband adjustment
- Simple ratchet height adjustment fits many head sizes
- Headband (6¾ – 8¾) fits wide range of head sizes
- Sleek low-profile modern style
- May be used for proximity firefighting when combined with appropriate accessories (bonnet, shroud, gold-coated faceshield)

Certified to NFPA 1971-2007 edition

Cairns Structural 360S Helmet

- Tough, high temperature thermal plastic shell
- Easy front headband adjustment
- Simple ratchet height adjustment fits many head sizes
- Headband (6¾ – 8¾) fits wide range of head sizes

Certified to NFPA 1971-2007 edition

Cairns Commando HP3 Structural & Rescue Helmet

- Tough, painted, DuraGlas® Helmet fiberglass composite shell
- Integral, retractable, close-fitting Defender® Visor option
- Meets ANSI Z87.1 and fulfills NFPA requirement for Primary Eye Protection
- Easy front headband adjustment
- Simple ratchet height adjustment
- Headband (6¾ – 8¾)
- Available 3-point chinstrap

Certified to both NFPA 1971-2007 and NFPA 1951-2007 editions



Cairns Rescue 360R and 360R-13 Helmets

- Tough, painted, DuraGlas® Helmet fiberglass composite shell
- Easy front headband adjustment
- Simple ratchet height adjustment
- Headband (6¾ – 8¾)

Certified to both NFPA 1971-2007 and NFPA 1951-2007 editions

The Defender® Integrated, Optional Visor for Cairns 660C and 664 Invader Models provides:

- Primary eye protection
- Retractable eyewear system that's ready when you need it
- Available on a new helmet or user-upgrade kit
- Quick-disconnect attachment for fast lens change-out without tools
- A means of never losing or misplacing your eye protection
- Optically correct lens to eliminate peripheral distortion
- No front piece blockage as with other eye protection styles
- Compliance with ANSI Z87.1+
- Stays clean and protected from heat when stored

Head Protection System (Impact)

- Impact cap also provides increased impact protection (not available on 360R-13 Model)
- 6-point overhead suspension
- Unique tube lock system absorbs impact shock (Cairns 660C and 664 Invader Models only)

Shell Release System (not available with 360R or 260 R-13 Models)

- Reduces risk of neck injury, as shell releases from impact cap in the event that it becomes lodged during a fall
- Impact cap and earlaps stay on user's head for continued impact and thermal protection
- Meets NFPA 1971, Rev 2007, 80-lbs minimum for release requirement

Adjustable Headband System provides:

- 3-position, rear-ratchet height adjustment for secure, comfortable fit for most head sizes between 6¾ and 8¾
- Adjustable front headband for perfect fit between helmet and SCBA mask without lifting helmet or exposing forehead

Standard Features

- Cairns Helmets provides a 5-year shell replacement warranty
- Cairns Helmets offers the largest selection and widest variety of fire helmet options
- Cairns Helmets exceed industry standards for heat, impact, and penetration protection
- Easy maintenance and lower cost of ownership
- High-temperature foam liner offers increased thermal and impact protection when combined with shell-release system
- High-temperature Nomex chinstrap with quick release and postman's slide enhances performance, safety and fit



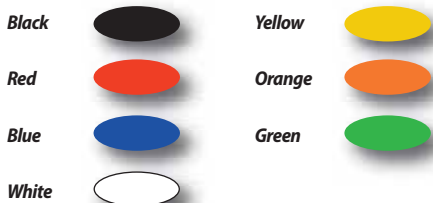
Training is available 24/7 at
MSA-U® Online Training
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Visit <http://msau.msanet.com>

Popular Options for Cairns Helmets

Not all options available with all helmets. See Cairns Fire Helmets Catalog (Bulletin 3600-01-MC) for more information, or call MSA Customer Service at 1-877-MSA-FIRE.

HELMET COLORS



Colors shown are approximate.

EARLAPS



CHINSTRAPS



EYE PROTECTION

GOGGLES



Cairns ESS Goggle

With Cairns ESS Goggle, choose one of the following attachment systems:

wraparound strap and D-Ring (Cairns ESS Goggle)



low-profile snap-on/snap-off attachment (ESS Innerzone 2 Goggle)



two-piece strap and mounting bracket system (ESS Innerzone 1 Goggle)



wraparound strap and two adhesive backed Velcro tabs (ESS Innerzone 3 Goggle)



DEFENDER LENS ASSEMBLIES



BOURKES (Non NFPA-compliant)



Use for cosmetic purposes only. Provides no eye or face protection.

FACESHIELDS



CFR PROXIMITY SYSTEM

Crash Fire Rescue (CFR) Proximity System consists of:

- Shroud for Helmet
- 6" Gold-Coated Faceshield

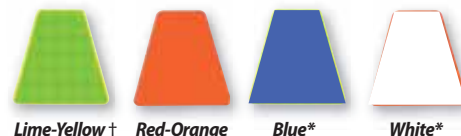


SIX-INCH FRONTS



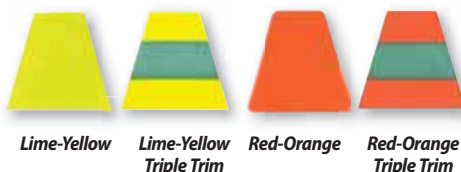
REFLECTIVE TRIM OPTIONS

Reflexite



† Standard
* Non NFPA-compliant

Scotchlite



FRONT HOLDERS



Silk-Screened Eagle



Carved Brass Eagle



Silk-Screened Maltese Cross



Carved Brass Beaver

Dragon (not shown)

For a large selection of graphics, decals, chrome, gold badges and accessories, see the Cairns Fire Helmets Catalog (Bulletin 3600-01-MC)

Protective Eyewear for Emergency Services

All MSA Sightgard Safety Glasses listed in this catalog are compliant with the general protector and impact requirements of ANSI/ISEA Z87.1-2010. Many are also compliant with CSA Z94.3-2007 and listed with CSA International as certified (as noted). To see the full listing of all products in the Sightgard line, please visit: <http://www.msasafety.com/sightgard>.

Alaska™



Features

- Frameless, lightweight style
- Anti-fog coating (as noted)
- Padded, adjustable nosebridge
- 99.999% UV protection (as noted)

10110420	Silver Mirror, UV
10118473	Clear, AF
10118474	Gray, AF/UV

Essential™ Adjust



Features

- Anti-fog coating (as noted)
- 99.999% UV protection (as noted)
- Tuff Stuff Anti-scratch Coating (as noted)
- Horizontal and vertical adjustable temples



10119756	Gray (metallic taupe frame), AF/UV
10119757	Indoor/outdoor Mirror, AS/UV
10119758	Silver Mirror, AF/UV
10119759	Light Brown, AF/UV
10119760	Gray (black frame), AF/UV
10119761	Clear, AF
10119762	Sky Blue Mirror, UV

Essential™ Euro Adjust



Features

- Anti-fog coating (as noted)
- Adjustable temples
- 99.999% UV protection



10119753	Dark Brown, AF/UV
10119754	Silver Mirror, UV
10119755	Sky Blue Mirror, UV

Nuevo Wrap™



Features

- 99.999% UV protection
- Stylish wraparound comfort
- Anti-fog coating



10106385	Gray, AF/UV
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OvrG™ II



Features

- For use over small-to-medium framed prescription glasses
- Updated "squared off" look
- Stylish enough to wear without glasses
- 99.999% UV protection



10118475	Clear, UV
10118476	Indoor/outdoor, UV

Racer™ Red



Features

- Rich red mirrored lens
- 99.999% UV protection
- Anti-fog coating

10106381	Sky Red Mirror, AF/UV
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Sentry™



Features

- 99.999% UV protection
- Soft-tipped temples prevent slipping even under tough conditions
- Vented nose pad

10111729	Silver Mirror, UV
----------	-------------------

Yellow Jacket™



Features

- Amber gradient wrap-style lens
- 99.999% UV protection
- Great for indoor or outdoor use



10106386	Gradient Amber, UV
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Hearing Protection



left/RIGHT Earmuffs *unique design/BETTER FIT*

Each cup is specifically designed for the left or right ear to better conform to your head.

- Adjust individually to ear angle
- Raise and lower muffs independently

10087436	left/RIGHT, LOW, White, headband model (NRR 21)
10092878	Hygiene kit, left/RIGHT, LOW
10087426	left/RIGHT, MEDIUM, Blue, headband model (NRR 25)
10092879	Hygiene kit, left/RIGHT, MEDIUM
10087399	left/RIGHT, HIGH, Yellow, headband model (NRR 28)
10092880	Hygiene kit, left/RIGHT, HIGH



HPE Headband Model Muff (NRR 26)

10061271	HPE headband model
10061291	Hygiene kit, complete with cushions and inserts

EXC Headband Model Muff (NRR 24)

10061229	EXC headband model
10061292	Hygiene kit, complete with cushions and inserts



Tri-Seal™ Reusable Silicone Ear Plugs (NRR 25)

10005607	Corded, dispenser box of 100 individually packaged pairs
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FormFit™ Round Disposable Foam Ear Plugs (NRR 29)

10009332	Round, corded, dispenser box of 200 pairs
10009333	Round, non-corded, dispenser box of 200 pairs

ALTAIR® 5X Multigas Detector



Built on Durability

- LEL, O₂, and toxic gas detection
- Rugged polycarbonate housing
- Able to survive a 10-foot drop
- Field-proven integral pump
- Ergonomic design
- Glove-friendly buttons
- High-contrast display

Powered by Performance

- MSA XCell Sensors have a typical life of more than double the industry average
- Engineered using MSA's proprietary application-specific integrated circuit (ASIC) design
- Superior stability, accuracy, and repeatability
- Faster response and span calibration times
- Save calibration gas and maintenance costs
- Response time can also mean saving lives.
- Wide variety of IR sensors covering many gases and ranges including CO₂.

Flexibility to Meet Your Needs

- Configurable with either a high-resolution color or monochrome LCD display with multilingual capabilities
- MSA's Logo Express® Service option to customize the color display
- Easily configurable with interchangeable plug-and-play sensor slots for MSA XCell Sensors
- Up to six gases can be monitored simultaneously.
- Optional glow-in-the-dark instrument housing for IR sensor-equipped units
- Lithium-ion battery lasts up to 20 hours
- Alkaline battery pack available as an accessory
- Compatible with the MSA GALAXY® Automated Test System and MSA Link™ Software.

Specifications

Gas Type	Range	Resolution
Combustible	0–100%	LEL 1% LEL
Oxygen	0–30% vol	0.1% vol
Carbon monoxide	0–2000 ppm	1 ppm
Hydrogen sulfide	0–200 ppm	1 ppm
Sulfur dioxide	0–20 ppm	0.1 ppm
Chlorine	0–20 ppm	0.1 ppm
Ammonia	0–100 ppm	1 ppm
Nitrogen dioxide	0–20 ppm	0.5 ppm
Chlorine dioxide	0–1 ppm	0.01 ppm
Phosphine	0–5 ppm	0.1 ppm
Hydrogen cyanide	0–30 ppm	0.1 ppm
Carbon dioxide	0–10%vol	0.01% vol
Butane	0–25%vol	0.1% vol
Methane	0–100%vol	1% vol
Propane	0–100%vol	1% vol

Accessories

10082834	USB IR receiver
10114837	Battery pack, Alkaline
10088099	MSA Link Software CD



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ALTAIR 5X Detectors

ALTAIR 5X Detector with 3-year warranty, monochrome display, data logging, charger, integral pump, and tubing

Approvals		Configuration
U.S.	Canada	
10116924	10115118	LEL, O ₂ , CO, H ₂ S
10116925	10115119	LEL, O ₂ , CO, H ₂ S, SO ₂

ALTAIR 5X Detector Industrial Kits - monochrome display, integral pump, 10 ft sampling line, and 1 ft probe

10116926	10115120	LEL, O ₂ , CO, H ₂ S
10116927	10115141	LEL, O ₂ , CO, H ₂ S, SO ₂

ALTAIR 5X Detector Deluxe Kits - color display, integral pump, 10 ft sampling line, and 1 ft probe

10116928	10115142	LEL, O ₂ , CO, H ₂ S
10116929	10115143	LEL, O ₂ , CO, H ₂ S, SO ₂

Altair 5X Galaxy Automated Test System

10090603	Standard system
10090602	Standard system with charging capability and cylinder holder
10090594	Smart system (memory card)
10090592	Smart system (memory card) with charging and cylinder holder

Calibration Gas

10045035	58L Quad gas mix RP 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄
10048280	34L Econocal Quad gas 60 ppm CO, 20 ppm H ₂ S, 15% O ₂ , 1.45% CH ₄
711070	34L (10 ppm SO ₂ , balance air)

ALTAIR 5X Multigas Detector Assemble-to-Order (ATO) Options

To create your instrument configuration, select your instrument option codes and mark them in the selection boxes to the right.

1. Instrument Type	All ALTAIR 5X Multigas Detectors come standard with data logging and MotionAlert and InstantAlert features. Choose your instrument type, equipped with internal pump. The monochrome full-graphic display is standard; a high-resolution crystal-clear color display with logo customization is optional.	Instrument Type Pumped with monochrome display Pumped with color display Color and glow-in-the-dark case (unit must be configured with IR sensor)	Code A B H	Selection
2. Combustible Sensor	Choose your combustible sensor calibration. To select 0-100% LEL pentane, please choose L ; for 0-5% Vol methane choose M . For no combustible sensor, select 0 for none.	Combustible Sensor Options None LEL 1- 100% pentane 0-5% Vol methane	Code 0 L M	Selection
3. Sensor #1	To have an oxygen sensor installed, please select K ; if you plan on configuring the ALTAIR 5X Detector with two-tox sensor, please select 1 for both CO and H ₂ S sensors; for no sensor enter 0 .	Oxygen Sensor Options None Oxygen 0-30% CO/H ₂ S 0-2000 ppm & 0-200 ppm CO 0-2000 ppm H ₂ S 0-200 ppm	Code 0 K 1 2 3	Selection
4. Sensor #2	Choose your toxic gas sensor.	Toxic Sensor 1 & 2 Options None SO ₂ 0-20 ppm Cl ₂ 0-20 ppm NO ₂ 0-20 ppm NH ₃ 0-100 ppm PH ₃ 0-5 ppm HCN 0-30 ppm ClO ₂ 0-1 ppm NO 0-250 ppm	Code 0 A B C D E F G H	Selection
5. Sensor #3	Choose your additional toxic gas sensor.	Toxic 3 Sensor Options None CO/H ₂ S 0-2000 ppm & 0-200 ppm CO 0-2000 ppm H ₂ S 0-200 ppm SO ₂ 0-20 ppm C ₂ 0-20 ppm NH ₃ 0-100 ppm	Code 0 1 2 3 A B D	Selection
6. Advanced Sensor	Add your IR sensor to complete your sensor suite in the ALTAIR 5X Multigas Detector. Combustible sensors are not available with CSA approvals.	Advanced Sensor Options None CO ₂ 0-10% Vol Butane 0-25% Vol Propane 0-100% Vol Methane 0-100% Vol	Code 0 B D F L	Selection
7. Packaging	For an economy plastic carrying case, choose E ; for red, choose R ; for standard carton packaging, choose 0 .	Packaging Options Standard carton Economy plastic Red economy	Code 0 E R	Selection
8. Approval Label	Choose the applicable approval label for your area. For the USA, choose C , for Europe choose E , for Australia, choose A .	Approval Label Options NORTH AMERICA (Canada pending) UL only (no catalytic combustible sensor in unit) Europe ATEX Australia	Code C T E A	Selection
9. Logo Express	Upon startup, the ALTAIR 5X Multigas Detector can display your company logo or other information. You must select color display for this option. To add your company logo, choose L and upload your logo to the web address which will be sent automatically to you via email. Your order with customized logo cannot be processed without uploading your logo.	Logo Express Options None Logo Express® Service	Code 0 L	Selection
10. Sampling line and probe kit	MSA quality sampling lines with quick-connect fittings. If you are sampling Cl ₂ , ClO ₂ and/or NH ₃ , please select option 2 ; for all other gases select option 1 . For no sampling line and probe kit select 0 .	Sampling Line and Probe Kit Options None 1 ft probe and 10 ft P/U line 1 ft probe and 10 ft teflon line (reactive gases)	Code 0 1 2	Selection

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** **3** **4** **5** **6** **7** **8** **9** **10**

A-ALT5X- - - - - - - - - - -

ALTAIR® 4X Multigas Detector

MSA'S ALTAIR 4X Multigas Detector is driven by the most advanced technology available in any portable gas detector.

- Full three-year warranty
- Four-year sensor life
- Lower cost of ownership
- IP67 rating
- End-of-sensor-life warning
- 24-hour run time
- Withstands 20-foot drop
- Fast, high-performing MSA XCell™ sensors

Specifications		
Gas	Range	Resolution
LEL	0–100%	1%
O ₂	0–30% vol	0.1% vol
CO	0–1999 ppm	1 ppm
H ₂ S	0–200 ppm	1 ppm

Exclusive Safety Features Unique to Gas Detection:

- MotionAlert™ feature signals “man down”
- InstantAlert™ feature allows user to manually activate alarms.



ALTAIR 4X Multigas Detector – charcoal



ALTAIR 4X Multigas Detector – phosphorescent

ALTAIR 4X Multigas Detector

ALTAIR 4X Multigas Detector with North American approval, quick-start card, data logging, charger, calibration cap and tubing, CD manual. MotionAlert feature is now included as standard on all detectors.

Part No.	Description
10107602	ALTAIR 4X Multigas Detector (LEL, O ₂ , CO, H ₂ S) Charcoal
10110443	ALTAIR 4X Multigas Detector (LEL, O ₂ , CO) Charcoal
10110444	ALTAIR 4X Multigas Detector (LEL, O ₂) Charcoal
10107603	ALTAIR 4X Multigas Detector (LEL, O ₂ , CO, H ₂ S) Phosphorescent
10110445	ALTAIR 4X Multigas Detector (LEL, O ₂ , CO) Phosphorescent
10110446	ALTAIR 4X Multigas Detector (LEL, O ₂) Phosphorescent

Calibration Accessories

467895	Regulator 0.25 lpm Model RP
10089321	Calibration assembly (cap, tube, connector)
10048280	34L quad gas mix (1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S)
10045035	58L quad gas mix (1.45% CH ₄ , 15% O ₂ , 60 ppm CO, 20 ppm H ₂ S)

Power Supply

10086639	Charging cradle components
10087913	North American power supply
10092233	Charging cradle assembly
10095774	Vehicle charger
10111212	5-Unit multi-unit charger North American plug
10111214	10-Unit multi-unit charger North American plug

Accessories

10069894	Stainless steel suspender clip
10046528	Universal Pump Probe (UL)
10088099	MSA Link™ Software CD-ROM
10082834	JetEye IR Adapter with USB connector
10050333	Hand aspirator assembly

Sensors/Spare Parts

10106729	Sensor Kit, XCell O ₂
10106725	Sensor Kit, XCell CO/H ₂ S two-tox
10106723	Sensor Kit, XCell H ₂ S
10106724	Sensor Kit, XCell CO
10110030	Front housing with integrated dust filters (Charcoal)
10110029	Front housing with integrated dust filters (Phosphorescent)
10106621	Main board with battery pack
10110061	LCD frame assembly (frame, LCD, zebra strips, screws)
10110062	Sensors gasket, Phillips screws (4x), self-tapping (2x)
10106623	CD manual, ALTAIR 4X Multigas Detector

ALTAIR 4X Multigas Detector Assemble-to-Order (ATO) Options

To create your instrument configuration, select your instrument option codes and mark them in the boxes to the right.

A. Instrument Type	The Altair 4X Multigas Detector comes standard with MSA's new XCell Sensors and MotionAlert feature to indicate 'man-down'.	Instrument Type Altair 4X w/ XCell Sensors and MotionAlert feature	Code X	Selection
B. Combustible Sensor	Choose your combustible sensor calibration. To select 0-100% LEL pentane, please choose L , for 0-5% Vol methane, choose M . For no combustible sensor, select 0 for none.	Combustible Sensor None LEL 1-100% pentane 0-5% Vol methane	Code 0 L M	Selection
C. Oxygen Sensor	To have an oxygen sensor installed, please select 1 . For no oxygen sensor, please select 0 .	Oxygen Sensor Options None 0-30% Vol	Code 0 2	Selection
D. Toxic Sensor	To configure your new ALTAIR 4X Multigas Detector choose 0 for no toxic sensor. Choose A for both CO and H ₂ S sensors, choose B for CO, or C for H ₂ S.	Toxic Sensor Options None 0-1999 ppm CO and 0-200 ppm H ₂ S 0-1999 ppm CO 0-200 ppm H ₂ S	Code 0 A B C	Selection
E. Power Supply	Select the correct power supply for your region. Add an instrument cradle to firmly secure your instrument while charging on the shelf or in a vehicle.	Power Supply Options None North American European with cradle Australian with cradle North American with cradle Global	Code 0 N E A M G	Selection
F. Approval Label	Choose the applicable approval label for your area. For Europe choose E , for North America choose C , and for Australia choose A .	Approval Label Options Europe ATEX North America CSA (Canada pending) Australia	Code E C A	Selection
G. Extended Warranty	MSA includes a full 3-year warranty on the Altair 4X Multigas Detector, which includes sensors, battery and electronics. Choose 1 for an additional year (four years total).	Extended Warranty Options Three years standard warranty Extended warranty (four years total)	Code 0 1	Selection
H. Packaging	To order bulk packaging for up to 10 units, choose 1 (one instrument version per package); to order the standard single unit carton choose 0 .	Packaging Single carton 10-unit bulk package	Code 0 1	Selection
I. Color Case Option	For standard charcoal gray case, choose 0 . For low light situations, choose 1 for a glow-in-the-dark model.	Color Case Option Standard Charcoal Phosphorescent (Glow-in-the-Dark)	Code 0 1	Selection

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

Selection ... **A** **B** **C** **D** **E** **F** **G** **H** **I**
 A-ALT4X- - - - - - - - - -



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Sirius® PID Multigas Detector for the Fire Service

One PID, Four Gases...Detects Hundreds of Chemicals

The Sirius Multigas Detector provides the solution you have looked for in one complete package; incredible performance, maximum simplicity, and durable design all with MSA's commitment to quality.

Tremendous Flexibility

Simultaneously monitor for volatile organic compounds with low vapor pressures while measuring for combustible, toxic and oxygen deficient atmospheres within one reliable, easy-to-use, durable unit.

Reliable PID performance

Integrating proprietary PID sensor design (patent pending) along with proven reliable multigas detector designs.

User friendly software

Easy-to-use software allows users to focus on their tasks at hand.

Superior patent pending PID sensor design

Reduces maintenance time and cost.

Flexible configurations

Combines two instruments into one.

Loud, attention grabbing alarm system

The Sirius Multigas Detector alarms clearly warn users of a hazardous situation.

Interchangeable lithium-ion and alkaline battery packs

Keep instruments running 24 hours a day, 7 days a week.

Easy calibration

Increase user safety by easily ensuring proper sensor performance.



Training is available 24/7 at
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Sirius Multigas Detector Kits (LEL)	Part #	10.6 eV	LEL	O ₂	CO	H ₂ S	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
Deluxe LEL 4-Gas Lithium-ion PID	10051141	•	•	•	•	•	•		•	•	•	•	•	•		•	•	
Deluxe LEL 3-Gas H ₂ S Lithium-ion PID	10051142	•	•			•	•		•	•	•	•	•	•		•	•	
Deluxe LEL 3-Gas CO Lithium-ion PID	10051143	•	•		•		•		•	•	•	•	•	•		•	•	
Deluxe LEL 4-Gas Lithium-ion PID Datalog	10051144	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	
Deluxe LEL 4-Gas Lithium-ion PID less bt/jac	10051117	•	•	•	•	•	•		•	•	•			•		•		•
Industrial LEL 4-Gas Lithium-ion PID	10051146	•	•	•	•	•	•		•	•	•	•	•				•	
Industrial LEL 3-Gas H ₂ S Lithium-ion PID	10051147	•	•			•	•		•	•	•	•	•				•	
Industrial LEL 3-Gas CO Lithium-ion PID	10051148	•	•		•		•		•	•	•	•	•				•	
Industrial LEL 4-Gas Lithium-ion PID no jackt	10051149	•	•	•	•	•	•		•	•	•	•					•	
Industrial LEL 4-Gas Lithium-ion PID with cal	10051150	•	•	•	•	•	•		•	•	•			•	•	•	•	
Economy LEL 4-Gas Alkaline PID	10051151	•	•	•	•	•		•									•	
Economy LEL 3-Gas H ₂ S Alkaline PID	10051152	•	•			•		•									•	
Economy LEL 3-Gas CO Alkaline PID	10051153	•	•		•			•									•	
Economy LEL 4-Gas Lithium-ion PID	10051154	•	•	•	•	•	•										•	
Sirius Multigas Detector Kits (CH₄)																		
Deluxe CH ₄ 4-Gas Lithium-ion PID	10051177	•	•	•	•	•	•		•	•	•	•	•	•		•	•	
Deluxe CH ₄ 3-Gas H ₂ S Lithium-ion PID	10051178	•	•			•	•		•	•	•	•	•	•		•	•	
Deluxe CH ₄ 3-Gas CO Lithium-ion PID	10051179	•	•		•		•		•	•	•	•	•	•		•	•	
Deluxe CH ₄ 4-Gas Lithium-ion PID Datalog	10052511	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
Industrial CH ₄ 4-Gas Lithium-ion PID	10051181	•	•	•	•	•	•		•	•	•	•	•				•	
Industrial CH ₄ 3-Gas H ₂ S Lithium-ion PID	10051182	•	•			•	•		•	•	•	•	•				•	
Industrial CH ₄ 3-Gas CO Lithium-ion PID	10051183	•	•		•		•		•	•	•	•	•				•	
Industrial CH ₄ 4-Gas Lithium-ion PID no jac	10051184	•	•	•	•	•	•		•	•	•	•					•	
Economy CH ₄ 4-Gas Alkaline PID	10051185	•	•	•	•	•		•									•	
Economy CH ₄ 3-Gas H ₂ S Alkaline PID	10051186	•	•			•		•									•	
Economy CH ₄ 3-Gas CO Alkaline PID	10051187	•	•		•			•									•	
Economy CH ₄ 4-Gas Lithium-ion PID	10051188	•	•	•	•	•	•										•	

Sirius PID Multigas Detector Assemble-to-Order (ATO) Options

To create your instrument configuration, select the instrument option codes and mark them in the boxes to the right.

Option	Description	Options	Code	Selection
A. Photoionization Detector Lamp Option	To choose the standard 10.6 eV lamp for most VOC's, choose selection A .	PID Lamp PID with 10.6 eV Lamp (0-2000 ppm)	A	
B. Combustible Sensor Option	To have your MSA 20L combustible sensor reading set to be displayed as 0-100% LEL, enter L . For a display of 0-5% methane, enter M .	Combustible Sensor None 0-100% LEL 0-5% Methane	0 L M	
C. Oxygen Sensor Options	To have an oxygen sensor installed, enter 1 . For no oxygen sensor, enter 0 .	Oxygen Sensor None Oxygen (0-25%)	0 1	
D. Carbon Monoxide Sensor Option	To have a carbon monoxide sensor installed, enter 1 . For no carbon monoxide sensor, enter a 0 .	Carbon Monoxide Sensor None Carbon Monoxide (0-500 ppm)	0 1	
E. Hydrogen Sulfide Sensor Option	To have a hydrogen sulfide sensor installed, enter 1 . For no hydrogen sulfide sensor, enter a 0 .	Hydrogen Sulfide Sensor None Hydrogen Sulfide (0-100 ppm)	0 1	
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 Lithium-ion, includes charger & cord Replaceable alkaline Both Lithium-ion and replaceable alkaline battery packs	0 A B C	
G. Vehicle Charger Option	To order the vehicle charger for your new Sirius Multigas Detector, enter 1 .	Vehicle Charger None Vehicle Charger	0 1	
H. Sampling Lines	MSA's Quick-Connect sampling lines include a Quick-Connect air-line fitting for easy attachment and tight seal. For sampling jet fuel, enter 3 for the 10' teflon sampling line option, or enter 4 for the 25' sampling line option.	Sampling Lines None 10-foot polyurethane 25-foot polyurethane 10-foot teflon (for jet fuel sampling) 25-foot teflon (for jet fuel sampling) 3-foot polyurethane coiled	0 1 2 3 4 5	
I. Sampling Probes	MSA's sampling probes with 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 1-foot Probe 3-foot Probe 8-inch Probe	0 1 2 3	
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 Retractable Carrying Line with Belt Clip Shoulder Harness Wrist Harness	0 1 2 3	
K. Instrument Jackets and Boots	For the highest level of instrument protection, enter B for a protective black rubber boot and harness, or enter C for a cordura jacket. You may also order both options by choosing D .	Instrument Jacket/Boot None Black Boot with Harness Cordura Jacket with Harness Black Boot, Cordura Jacket and Harness	0 B C D	
L. Calibration Kits	Choose 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. Enter 3 to order just the isobutylene calibration kit with gas cylinder.	Calibration Kits None Econo-Cal Fixed-Flow Regulator Calibration Kit (includes multigas and isobutylene cylinders) Model RP Fixed-Flow Regulator Calibration Kit (includes multigas and isobutylene cylinders) Isobutylene Calibration Kit (includes gas cylinder)	0 1 2 3	
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 Data Link Module Data Link Module and Software Kit	0 1 2	
N. Packaging	Enter 1 for a standard black plastic case, or 2 for a black premium field case. Choose 4 or 5 for 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 Standard black PVC case Premium black field case Long-term storage kit case Long-term storage kit basic includes PID lamp, add \$180 each sensor	0 1 2 4 5	
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 Standard easy-access lamp cap Alternative tamper-proof lamp cap	0 S T	

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

Selection ...

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

ALTAIR® Pro Fire CO and Pro HCN Single-Gas Detectors

Ease of Use

The ALTAIR Pro Fire CO and Pro HCN Gas Detectors combine user flexibility and functional simplicity.

- True single-button operation provides the user with a clear path to any function
- Alarm check, bump test, fresh air setup, calibration
- Use an easily replaceable, commercially available battery
- Built-in gas-delivery adapter

Distinctive Triple Alarm System

1. The piercing *audible* alarm is an average of 95 dB @ 1 foot and is designed to not be confused with other sounds.
 2. The *visual* alarm features dual bright LED displays located on top of the instrument which can be seen from all angles.
 3. Internal *vibrating* alarm also comes standard with all units
- Low, high, TWA, and STEL alarm points are adjustable

Sensors

The ALTAIR Pro Fire CO and Pro HCN Gas Detectors use fast-responding replaceable sensors that meet UL, cUL, ATEX, and Australian standards.

Built-In IR Communication (Event and Data-Logging)

- Data-logging is a standard feature
- Automatically record the 50 latest events
- Peak reading every 3 minutes in a periodic data log
- Assess alarm conditions, confirm bump tests or calibration, and verify firefighter exposure
- MSALink Software allows you to view these logs, adjust alarm set points, give the unit a specific name, and disable or activate particular features and options.

Durability

- Thick rubberized housing designed to withstand accidental drops and other impacts
- Metal screw inserts offer stability throughout the unit's lifetime
- Durable suspension clip
- Highly water-and-dust-resistant, rated to IP67
- Exceeds the industry-average rating



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ALTAIR Pro Fire CO and Pro HCN Single-Gas Detectors

Instrument Type	Part No.	Low Alarm	High Alarm	STEL	TWA
Carbon Monoxide (CO) Fire	10076723	25 ppm	100 ppm	100 ppm	25 ppm
Hydrogen Cyanide (HCN)	10076729	4.7 ppm	10 ppm	10 ppm	4.7 ppm

Accessories

710882	Calibration gas cylinder, 60 ppm CO
711072	Calibration gas cylinder, 10 ppm HCN
467895	Regulator, 0.25 lpm
10030325	Tubing, 16"
10088099	MSALink software CD-ROM
100741323	CR2 battery
711306	Replacement CO Sensor (CO Fire)
655051	Replacement HCN Sensor
10041107	Lanyard clip
10073346	Hardhat clip
10040002	Clip, suspender (standard)
10069894	Clip, stainless steel
10041105	Cellphone clip

Altair Single-Gas Detector

The Altair Single-Gas Detector features sensor options for carbon monoxide, hydrogen sulfide and oxygen and will operate for over two years maintenance free and is one of the most cost-effective single-gas detectors on the market. Advanced design offers superior dust and water protection and high resistance to RFI. Rubberized housing and one-button operation.

Alarm System

Triple-alarm system featuring two bright flashing LEDs, a piercing audible alarm, and a vibrating alarm.

1. 95 dB *audible* alarm (distinct sounds for High and Low alarms)
2. Dual *LEDs* positioned at upper corners to be seen from all angles
3. Standard *vibrating* alarm and standard event logging

Durability Features

- Hard polycarbonate case, encapsulated in a thick rubberized shell
- Extremely resistant to drops and impacts
- Rated to IP67 protection levels for dust/water ingress

Warranty

Two years or 18 hours of alarm (1080 minutes)



Altair Single-Gas Detector (Standard Models)

Part No.	Gas	Low Alarm	High Alarm
10092522	Carbon Monoxide (CO)	25 ppm	100 ppm
10092521	Hydrogen Sulfide (H ₂ S)	10 ppm	15 ppm
10092523	Oxygen (O ₂)	19.5% Vol	23% Vol

Alternate set point models available. Call MSA Customer Service for more information.



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ALTAIR QuickCheck™ Station

- Fast, easy bump tests
- Maintenance free
- Checks instrument's visual, audible, and vibrating alarms
- Easy-to-understand LEDs show tests in progress and pass/fail status
- Compatible with most ALTAIR and ALTAIR Pro Detectors

ALTAIR® QuickCheck Station

Manual Regulator	Automatic Regulator	Gas Type
10076692	10076704	O ₂ /CO/H ₂ S/SO ₂ /NO ₂

Replacement and Accessory Parts

10047342	North American Power Supply
10049410	Vehicle Power Supply
10077384	Regulator Tubing
10077385	Front Housing Assembly
10075893	Automatic Gas Regulator
467895	Manual Regulator
710386	Single Cylinder Holder



Calibration

Galaxy® Automated Test System

Extremely Easy to Use

- Standard web browser accessibility for data retrieval and reporting
- Industry-standard memory card available for simple data retention
- System does not require a computer or network interface
- Works automatically without the touch of a single button
- Minimal training needed

Versatile and Expandable

- Up to 10 systems can be interconnected
- Instrument charging option available
- Optional battery pack available for remote use

Durable, Innovative Design

- Wireless- or wired-network interface available
- Invention system door also functions as dust cover
- Guaranteed to work in the harshest environments
- In-line gas cylinder holster available; keeps the work area clean and orderly

Value-Driven Performance

- All-inclusive, 2-year warranty
- High quality, cost-effective solution
- Very low total cost of ownership



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Galaxy System Kits

	ALTAIR 5 Pumped	ALTAIR 5 Diffusion	ALTAIR 4/4X	Sirius	ALTAIR
Basic Standalone Kit					
Basic System	10090589	10090552	10089964	10061050	10078252
Standard Standalone Kit (Includes Regulator)					
Standard System	10090603	10090618	10089998	10061810	10078253
Standard System + Charging	10090600	10090615	10089995	10061811	—
Standard System + Cylinder Holder	10090602	10090617	10089997	10061812	10078254
Standard System + Charging, Cylinder Holder	10090601	10090616	10089996	10061813	—
Smart Standalone Kit (Includes Regulator, Memory Card)					
Smart System	10090594	10090583	10089969	10061814	10078255
Smart System + Charging	10090590	10090579	10089965	10061815	—
Smart System + Cylinder Holder	10090593	10090582	10089968	10061816	10078256
Smart System + Charging, Cylinder Holder	10090592	10090581	10089967	10061817	—
Portable Kits (Includes Regulator, Battery Pack)					
Portable System	10090599	10090588	10089994	10061818	10078257
Portable System + Memory Card, Cylinder Holder	10090598	10090587	10089993	10061819	10078258
Wired Network Kits (Includes Regulator, Wired Ethernet Access)					
Wired Network System	10090608	10090623	10090003	10061820	10078259
Wired Network System + Charging, Cylinder Holder	10090607	10090622	10090002	10061821	—

Accessories

710288	Demand Flow Regulator
10047342	North American Power Supply
10047343	Global Power Supply

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

The ATO System makes it easy to “custom order” the Galaxy Automated Test System, configured exactly the way you want it. You can choose from an extensive line of base components and accessories. See the ATO chart below to make your selections.

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

<p>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. Solaris Instruments must have datalogging installed to operate with the Galaxy test stand. Note: The ALTAIR Galaxy test stand should only be used with CO, H₂S and O₂ versions of the ALTAIR and ALTAIR Pro Single-Gas Detectors. Note: Choose ALTAIR 5 Diffusion Galaxy for a diffusion ALTAIR 5 gas detector. Choose ALTAIR 5 Pumped Galaxy for a pumped ALTAIR 5 gas detector. Note: Choose Altair 5 Pumped Galaxy for use with Altair 5iR instruments.</p>	<table border="1"> <thead> <tr> <th>Test Stand Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>Solaris, Solaris with Alkaline Battery</td> <td>A</td> </tr> <tr> <td>Sirius</td> <td>B</td> </tr> <tr> <td>Altair/Altair Pro</td> <td>D</td> </tr> <tr> <td>Altair 4</td> <td>F</td> </tr> <tr> <td>Altair 5 Diffusion</td> <td>G</td> </tr> <tr> <td>Altair 5 Pumped</td> <td>H</td> </tr> </tbody> </table>	Test Stand Options	Code	Solaris, Solaris with Alkaline Battery	A	Sirius	B	Altair/Altair Pro	D	Altair 4	F	Altair 5 Diffusion	G	Altair 5 Pumped	H
Test Stand Options	Code														
Solaris, Solaris with Alkaline Battery	A														
Sirius	B														
Altair/Altair Pro	D														
Altair 4	F														
Altair 5 Diffusion	G														
Altair 5 Pumped	H														
<p>B. Calibration Cylinders The Solaris and ALTAIR 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". Note: Choose option 1 for any Altair 5 instruments that will require use of more than 1 calibration gas. This would include certain exotic gases like SO₂, NH₃, Cl₂ and also non-CO₂ versions of the Altair 5iR gas detector. Note: Not available for ClO₂ or % Vol Combustible.</p>	<table border="1"> <thead> <tr> <th>Calibration Cylinder Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>0</td> </tr> <tr> <td>Yes</td> <td>1</td> </tr> </tbody> </table>	Calibration Cylinder Options	Code	No	0	Yes	1								
Calibration Cylinder Options	Code														
No	0														
Yes	1														
<p>C. Regulator At least 1 demand flow regulator is required for either the Solaris, Orion or ALTAIR 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 to calibrate an instrument.</p>	<table border="1"> <thead> <tr> <th>Regulator Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>1 Regulator</td> <td>1</td> </tr> <tr> <td>2 Regulators</td> <td>2</td> </tr> <tr> <td>3 Regulators</td> <td>3</td> </tr> <tr> <td>None</td> <td>0</td> </tr> </tbody> </table>	Regulator Options	Code	1 Regulator	1	2 Regulators	2	3 Regulators	3	None	0				
Regulator Options	Code														
1 Regulator	1														
2 Regulators	2														
3 Regulators	3														
None	0														
<p>D. Cylinder Holder The number of cylinder holders should match the number of gas cylinders required for an instrument calibration. Included in this option is the ability to order either 1, 2, or 3 cylinder holders. Note: For Cl₂ and NH₃, please order 3 cylinder holders and ensure that the exotic gas goes into cylinder holder 3, furthest to the left.</p>	<table border="1"> <thead> <tr> <th>Cylinder Holder Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>1 Cylinder Holder</td> <td>1</td> </tr> <tr> <td>2 Cylinder Holders</td> <td>2</td> </tr> <tr> <td>3 Cylinder Holders</td> <td>3</td> </tr> <tr> <td>None</td> <td>0</td> </tr> </tbody> </table>	Cylinder Holder Options	Code	1 Cylinder Holder	1	2 Cylinder Holders	2	3 Cylinder Holders	3	None	0				
Cylinder Holder Options	Code														
1 Cylinder Holder	1														
2 Cylinder Holders	2														
3 Cylinder Holders	3														
None	0														
<p>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). <i>Not compatible with Solaris with alkaline batteries, ALTAIR, and ALTAIR Pro instruments.</i></p>	<table border="1"> <thead> <tr> <th>Charging Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>0</td> </tr> <tr> <td>Yes</td> <td>1</td> </tr> </tbody> </table>	Charging Options	Code	No	0	Yes	1								
Charging Options	Code														
No	0														
Yes	1														
<p>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.</p>	<table border="1"> <thead> <tr> <th>Power Supply Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>North American Supply</td> <td>N</td> </tr> <tr> <td>Global Supply</td> <td>G</td> </tr> <tr> <td>Battery Pack & North American Supply</td> <td>B</td> </tr> <tr> <td>Battery Pack & Global Supply</td> <td>X</td> </tr> <tr> <td>Battery Pack & Australian Supply</td> <td>Y</td> </tr> </tbody> </table>	Power Supply Options	Code	North American Supply	N	Global Supply	G	Battery Pack & North American Supply	B	Battery Pack & Global Supply	X	Battery Pack & Australian Supply	Y		
Power Supply Options	Code														
North American Supply	N														
Global Supply	G														
Battery Pack & North American Supply	B														
Battery Pack & Global Supply	X														
Battery Pack & Australian Supply	Y														
<p>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.</p>	<table border="1"> <thead> <tr> <th>Memory Card Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>No</td> <td>0</td> </tr> <tr> <td>Yes</td> <td>1</td> </tr> </tbody> </table>	Memory Card Options	Code	No	0	Yes	1								
Memory Card Options	Code														
No	0														
Yes	1														
<p>H. Network Interface Module For wired (ethernet) connectivity to your internal network, select option "A". The location where the Galaxy will be installed must have the capability for this option to operate properly. Only 1 network interface module is needed per Galaxy system.</p>	<table border="1"> <thead> <tr> <th>Network Interface Module Options</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>0</td> </tr> <tr> <td>Wired Web Interface</td> <td>A</td> </tr> </tbody> </table>	Network Interface Module Options	Code	None	0	Wired Web Interface	A								
Network Interface Module Options	Code														
None	0														
Wired Web Interface	A														

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-GALAXY- - - - - - - - - -

Regulators

Gas Miser® Demand Regulator: The Intelligent Regulator

- Made of nickel-plated brass and polished aluminum (especially important for reactive gases)
- Can supply gas flow from 0.1 lpm to 3.0 lpm
- Designed for use with any MSA Model RP Calibration Cylinder except chlorine and ammonia*
- Features an automatic ON/OFF valve that releases gas only on demand
- Shuts off automatically
- Regulator can stay connected to the cylinder
- Eliminates the need to change regulators to accommodate different instruments or flow rates
- Supplied with calibration tubing and special fitting



Gas Miser
Model RP



Gas Miser
Model BD-20

* A Gas Miser Regulator for chlorine and ammonia is available for Model RP cylinders —P/N 10034391

Model RP Combination Regulators

- Trigger activation allows a bump test or calibration check in the “SQUEEZE” mode
- Fixed-flow calibration in the up or “LOCKED” position
- For use with all Model RP and Econo-Cal calibration cylinders
- Supplied with calibration tubing and special fitting



Gas Miser® Manifold

- Cylinder holder
- Incorporates a 4-station “bump test” or calibration manifold
- Works with Model RP and Econo-Cal cylinders and Gas Miser regulator on any pumped or aspirated instrument
- Bump test or calibrate up to four instruments simultaneously
- Gas Miser regulator sold separately



Regulators

.25/1.5 LPM Flow Control

Model RP Cylinder .25 lpm*	467895
Model RP Cylinder 1.5 lpm	467896

Gas Miser Demand Regulator

Model RP	710288
Model RP, Chlorine and Ammonia	10034391
Model BD-20, with CGA 590 fitting	710289

Model RP Combination Regulator

Model RP Combination Regulator, .25 lpm	711175
Model RP Combination Regulator, 1.5 lpm	711174

Gas Miser Manifold

4-station Manifold	710274
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Model RP Calibration Check Kits

Check Kit, Model RP, with 0.25 lpm regulator—complete	477149
Check Kit, Model RP, with 1.5 lpm regulator—complete	477150

* Can be used with chlorine and ammonia; replaces P/N 809945.

Model RP Calibration Check Kits



.25/1.5 LPM Flow Control
Model RP

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

Calibration Gas

Each MSA Calibration Gas Cylinder is shipped with an individual copy of a material safety data sheet (MSDS) and an individual copy of a certificate of analysis.

MSA certifies that the gas mixture in calibration gas cylinders was prepared gravimetrically, using NIST traceable weights. The lot number and nominal value of the gas constituents in percent by volume, percent by mass, PPM, or volume are specified on the cylinder. The uncertainty statement of the specified nominal value is also listed.

Model RP and Model R Calibration Cylinders—Non-Reactive Gases, Steel Cylinder, 100 Liters

			100 liters, 1000 psi	19 liters, 300 psi	34 liters, 500 psi
Gas Fill	Gas Mixture	Background	Model RP	Model R	Econo-Cal
Air	air zero (THC < 1 ppm)	—	801050	—	—
Carbon Monoxide	400 ppm carbon monoxide	air	806255	—	—
	300 ppm carbon monoxide	air	473180	461769	—
	200 ppm carbon monoxide	air	809243	—	—
	100 ppm carbon monoxide	air	809242	—	—
	50 ppm carbon monoxide	air	809241	—	—
	100 ppm carbon monoxide	nitrogen	806734	—	—
Hydrogen	0.8% hydrogen	air	803102	—	—
Isobutylene	100 ppm isobutylene	air	494450	—	10048279
Methane	2.5% methane	air	491041	459942	—
	6.6% methane	nitrogen	801049	—	—
Oxygen	20.8% oxygen	nitrogen	479857	468248	—
	5.0% oxygen	nitrogen	493580	476302	—
Nitrogen	100% nitrogen	—	481317	—	—
Nitrous Oxide	10 ppm nitrous oxide	nitrogen	806736	—	—
Pentane	0.75% pentane (50% LEL)	air	804532	—	—
Propane	0.6% propane	air	493579	—	—
Combination	0.35% pentane, 19.0% oxygen, 100 ppm carbon monoxide	nitrogen	10007047	—	—
	0.6% propane, 15% oxygen, 60 ppm carbon monoxide	nitrogen	801051	—	—
	1.45% methane, 300 ppm carbon monoxide, 15% oxygen	nitrogen	10010162	—	—
	2.5% methane, 60 ppm carbon monoxide, 15% oxygen	nitrogen	813718	—	—
	2.5% methane, 300 ppm carbon monoxide, 15% oxygen	nitrogen	10040291	—	—
	1.45% methane, 15% oxygen	nitrogen	478192	—	—
	1.45% methane, 15% oxygen, 60 ppm carbon monoxide	nitrogen	478191	—	—



Model RP

Model RP Cylinder

Contents: Pressure 1000 psig; approximately 100 liters at atmospheric pressure

Size: 13-3/4" x 3"

Weight: 2 lb 13 oz

Material: Steel

Model RP and Model Econo-Cal Calibration Cylinders—Reactive Gases, Aluminum Cylinder, 58 & 34 Liters

			58 liters, 500 psi	
Gas Fill	Gas Mixture	Background	Model RP	Econo-Cal
Ammonia	25 ppm ammonia	nitrogen	814866	711078
Chlorine	10 ppm chlorine	nitrogen	806740	711066
Hydrogen Sulfide	40 ppm hydrogen sulfide	nitrogen	467897	711062
	15 ppm hydrogen sulfide	nitrogen	806253	711064
	10 ppm hydrogen sulfide	nitrogen	467898	711060
Nitric Oxide	50 ppm nitric oxide	air	812144	711074
Nitrogen Dioxide	10 ppm nitrogen dioxide	air	808977	711068
Phosphine	0.5 ppm phosphine	nitrogen	710533	711088
Hydrogen Chloride	40 ppm hydrogen chloride	nitrogen	710210	711080
Hydrogen Cyanide	10 ppm hydrogen cyanide	nitrogen	809351	711072
Sulfur Dioxide	10 ppm sulfur dioxide	air	808978	711070
Combination Gas Cylinders	1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 10 ppm hydrogen sulfide	nitrogen	804770	711058
	1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 20 ppm hydrogen sulfide	nitrogen	10048788	10048790
	1.45% methane, 15% oxygen, 60 ppm carbon monoxide, 20 ppm hydrogen sulfide	nitrogen	10045035	10048280
	1.45% methane, 15% oxygen, 10 ppm hydrogen sulfide	nitrogen	804769	711056
	1.45% methane, 15% oxygen, 300 ppm carbon monoxide, 10 ppm hydrogen sulfide	nitrogen	813720	711076
	1.45% methane, 15% oxygen, 60 ppm carbon monoxide, 20 ppm hydrogen sulfide	nitrogen	10048890	10048981
	2.5% methane, 15% oxygen, 20 ppm hydrogen sulfide	nitrogen	10048889	10048888
	0.35% pentane, 19% oxygen, 100 ppm carbon monoxide, 35 ppm hydrogen sulfide	nitrogen	10007049	—



Model RP



Econo-Cal

Model RP Cylinder

Contents: Pressure 500 psig; approximately 58 liters at atmospheric pressure

Size: 13-3/4" x 3"

Weight: 1 lb 11 oz

Material: Aluminum

Econo-Cal Cylinder

Contents: Pressure 500 psig; approximately 34 liters at atmospheric pressure

Size: 13-3/4" x 3"

Weight: 1 lb 1 oz

Material: Aluminum

Note: Reactive gases have an expiration date listed on each cylinder. This is to ensure the highest quality and accuracy for instrument calibration. Most cylinders have a shelf life date of 12 months. Check with MSA Customer Service for the exact shelf life of a particular calibration cylinder.

Model RP Calibration Cylinder—Steel, 100% Methane

Contents: Pressure 1000 psig; approximately 58 liters of pure methane with odorant added to smell like natural gas in all commercial gas lines

Size: 8-1/2" x 3" **Weight:** 1 lb 13 oz
Material: Steel

Model RP Cylinder—Steel, 100% Methane

Gas Fill	Gas Mixture	Part No.
Methane	100% Methane	711014

Model BD-20 Calibration Cylinders

Contents: Pressure 2200 psig; approximately 552 liters (20 cu ft) of gas at atmospheric pressure

Size: 25" x 4 1/4" **Weight:** 10 lb 9 oz **Material:** Steel

Model BD-20 Calibration Cylinders

Gas Fill	Gas Mixture	Background	Part No.
Methane	2.5% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	710566
	1.45% Methane, 15% Oxygen, 60 ppm Carbon Monoxide	Nitrogen	710565
Air, zero	Air, zero, THC<1 ppm	—	710776



Squirt® Gas Bump Tester

813411 | Squirt Gas Bump Test Kit, less cylinder, but with required fittings and adapters, complete with instructions

Cylinders for Squirt Gas

Instrument	Squirt Gas Cylinder	Combustible						Balance
		Methane	Pentane Simulant	Oxygen	Carbon Monoxide	Hydrogen Sulfide	Isobutylene	
Explosimeter	815307	2.5%	See cylinder	—	—	—	—	Air
Gasport	814350	2.5%	—	15% O ₂	60 ppm CO	—	—	Nitrogen
Gasport	814349	2.5%	—	15% O ₂	300 ppm CO	35 ppm H ₂ S	—	Nitrogen
Passport, FiveStar, Solaris	814497	1.3%	50% LEL	15% O ₂	60 ppm CO	—	—	Nitrogen
Passport, FiveStar, Orion	814559	1.3%	50% LEL	15% O ₂	300 ppm CO	35 ppm H ₂ S	—	Nitrogen
MiniCO** Responder, Pulsar+	814978	—	—	—	60 ppm CO	—	—	Air
MiniH ₂ S*Responder	814979	—	—	—	—	35 ppm H ₂ S	—	Nitrogen
MicroGard**	815308	1.3%	50% LEL	15% O ₂	—	—	—	Nitrogen
Passport PID II	815704	—	—	—	—	—	100 ppm	Air

* Reactive gases have an expiration date listed on each cylinder. This is to ensure the highest quality and accuracy for instrument calibration. Most cylinders have an expiration date of 12 months. Check with MSA Customer Service for the exact shelf life of a particular calibration cylinder

** Requires calibration adapter.



Contents: Pressure 155 psig; approximately 11 liters at 70°F

Cylinder-Holders

Single Portable Cylinder-Holder

- For use with all MSA Model R and Model RP cylinders
- Fits neatly on a workbench or shelf
- Ensures calibration cylinder (with the regulator attached) stays where you put it



Double Cylinder-Holder, Wall-Mounted

- Houses any MSA Model R and Model RP cylinder
- Molded base and holding straps keep the cylinders securely in position
- Cylinders and/or regulators can be easily changed
- Ideal for field station calibrations
- Easily mounted for workbench applications



Cylinder Holders

Single Cylinder Holder, 6" wide x 13" long x 4" high	710386
Double Cylinder Holder, 17" high, 10" wide, 3 1/2" deep at base	710483

Calibration Cylinders Are Recyclable!

MSA is affiliated with the Association of Retarded Citizens, Butler County—a nonprofit organization that employs mentally challenged citizens—and established a Cylinder Recycling Program. 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.

The MSA Recycling Center limits the return of calibration cylinders to MSA-logoed cylinders only. Non-MSA cylinders will be rejected. Contact MSA Customer Service for additional details at 1-877-MSA-FIRE.



Recycling Accessories

Devalving Tool, Model "RP" & Econo-Cal Cylinders	711228
Devalving Tool, Model "R" cylinders	711229
Shipping Box, Special, Pre-addressed	711227

Carbon Monoxide Detector Tube Cards

Carbon Monoxide Detector Tube Cards give firefighters a way to reassure worried homeowners. Placed near the source of a suspected leak, the card contains a detector tube that changes color if hazardous levels of CO are detected.

Features & Benefits

- Provide simple and accurate way for homeowners to monitor CO
- Simple to use—instructions are printed on card
- Provide added peace-of-mind for worried homeowners
- Cost-effective way to enhance community relations efforts for fire departments, utilities, HVAC companies and government agencies
- Organizations can easily customize cards by printing or stamping logo and phone number in space provided

Ordering Information

CO Detector Tube Cards

481954	CO Detector Tube Cards, box of 20
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HazMat Response Kit with Detector Tubes and Pump

The HazMat Response Detector Tube Kit can be used by firefighters, HazMat Response Teams and others to help classify unknown chemical gases and vapors at accident or spill sites. A Quad-Port Sampler allows four chemical classes to be tested simultaneously.

The portable kit contains 12 types of Detector Tubes (each with sufficient tubes for 10 complete tests), a Kwik-Draw Pump to draw the sample through the tubes, the Quad-Port Sampler and a convenient, easy-to-follow interpretation guide.

Features & Benefits

- Quickly classifies unknown chemical gases and vapors
- Quad-Port Sampler allows simultaneous testing with four detector tubes, meaning less time in IDLH atmosphere
- Flow-limiting orifices ensure even sample flow
- Portable and easy to handle
- Includes simple interpretation guide



Ordering Information

HazMat Response Kit

807472	Includes 12 types of detector tubes, multiple tube holder, Kwik-Draw Pump and interpretation guide
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SafeSite® Multi-Threat Detection System



**SAFEMTX
Multi-Threat
Detector**



**SAFECOM
Command
Center**



**HAZMATCAD Plus Detector
with SAFECOM Belt-Bridge**



**Sirius PID Multigas Detector
with SAFECOM Belt-Bridge**



**ADASHI
CERTIFIED
COMPATIBLE**

**ADASHI First Responder
Software helps
emergency responders
manage, communicate
and respond to
dangerous incidents.**



PC Connection



The SAFESITE Multi-Threat Detection System simultaneously monitors and wirelessly communicates six potential threats: CWAs, VOCs, TICs, gamma radiation, combustible gas and oxygen deficiency.

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

- Homeland Security
- Emergency Response
- Public Events
- Building Protection
- Mass Transportation Centers
- Perimeter Monitoring
- Hazardous Response
- Port Surveillance
- Confined Space Monitoring

SAFESITE System components consist of the SAFEMTX™ Multi-Threat Detector, the SAFECOM™ Command Center and SAFECOM™ Belt-Bridge with SIRIUS® Wireless Interface or HAZMATCAD Interface and SAFECONFIG™ Software. The system can be installed permanently (wired or wireless) for continual monitoring or deployed as a portable system.

Through the SAFECOM Command Center, alarms are identified with both visual and audible alarms. Alarms can then 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 the specific deployment scenario.

SAFESITE is fully compatible with ADASHI First Responder Software. SAFESITE threat information will appear in the ADASHI PC interface. ADASHI software capabilities include plume modeling and weather information for comprehensive event information and threat management.

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

- 1 System Status** – alerts user to alarm, warning or fault within a particular system.
- 2 Signal Strength** – communication status from SAFEMTX™ Detector to SAFECOM™ Command Center.
- 3 Threat Readings** – scrolling readings of up to 16 MTX Detectors per channel. Unit is identified by large icon to the left of the readings. In alarm condition, display snaps to unit in alarm.
- 4 Map** – option for map view or uploaded image view.
- 5 Power** – status of battery life of SAFEMTX Detectors.
- 6 Action Buttons** – allow user to select address, cycle units, acknowledge alarms and enable or disable units from the system.
- 7 MTX Icons** – identify number of units enabled in current network. Users may view specific unit reading by double-clicking on icon.

BIOSENSOR™ 2200R Biological Agent Detector

- Portable, on-site instrument for rapid detection, analysis, and identification of biological agents
- Unique and highly accurate bioassay technology
- Excellent sensitivity and low false positives
- Rapid measurement during white powder response calls such as anthrax, ricin, botulism, SEB, and plague
- Exclusive five minute time-to-answer
- Employs dynamic surface generation, a patent pending type of immunoassay detection technology
- Combines benefits of both the free solution and lateral flow types for more rapid analysis
- User-friendly format, and detector stability within a wide range of climates.

Both wet and dry samples may be tested and results are displayed with a simple red (target present) or green (no target present) indication. As tests are nondestructive, samples may be retained as evidence. Single-test, disposable cartridges with on-board reagents have a 12-month shelf life. This instrument is permanently housed in a sturdy, lightweight Pelican case.

Instrument Features and Benefits

- 5 minute time-to-answer
- Uses positive and negative control cartridges
- Battery-operated with ability to run 50 tests on a single charge
- Fully deconable housing; IP67 rated
- Visual and audible alarms provide clear indication of status
- Extremely easy to use with a training time of one hour
- Integrated RFID (radio frequency identification) for automatic cartridge recognition



BIOSENSOR 2200R Biological Agent Detector

10084834	MSA BIOSENSOR 2200R Biological Agent Detector Kit*, includes carry case, charger, cartridge starter kit (10084758), instruction manual, and quick start guide.
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BIOSENSOR Cartridge Plans

10084758	MSA BIOSENSOR cartridge starter kit includes 3 Anthrax/Ricin dual kits**, 1 Anthrax, 1 Ricin, 3 positive control, 2 negative control cartridges, and 2 wet sample kits
10084753	MSA BIOSENSOR Low volume cartridge plan includes 6 Anthrax/Ricin dual kits**, 2 Anthrax, 2 Ricin, 6 positive control, 2 negative control cartridges, and 2 wet sample kits
10084754	MSA BIOSENSOR Medium volume cartridge plan includes 24 Anthrax/Ricin dual kits**, 6 Anthrax, 6 Ricin, 24 positive control, 6 negative control cartridges, and 4 wet sample kits
10084755	MSA BIOSENSOR High volume cartridge plan includes 60 Anthrax/Ricin dual kits**, 8 Anthrax, 8 Ricin, 60 positive control, 8 negative control cartridges, and 6 wet sample kits.

* Extended warranties available.

** Each biohazard cartridge test kit includes a dry sample kit. Please contact your local MSA rep for more information.



Targets

- Anthrax/ricin duplex—one test, two agents
- Anthrax
- Ricin
- SEB (staphylococcal enterotoxin B)
- Botulism*
- Plague*
- Smallpox*
- Tularemia*
- Cholera*
- West Nile virus*

*additional agents in development



Training is available 24/7 at
MSA-U® Online Training
Register Today!

Visit <http://msau.msanet.com>

Fall Arrest, Rescue and Confined Space Equipment

Gravity™ Rigger/Rescue Harness



The harness incorporates a sit harness design which allows the user a much higher degree of comfort while in the sitting position. The Gravity Rigger/Rescue Harness is suitable for rappelling/control descent, positioning, ladder climbing, rescue, and fall arrest. Meets ANSI Z 359.1 and applicable OSHA standards, and is CSA certified. Additional sizes available.

SSH60930001	Gravity Riggers Harness, black polyester webbing, cross-over design, integral belt
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SureGrab™ Positioning Lanyard



SNYL5370H306	SureGrab positioning lanyard, manual, closed body, c/w 5/8" x 6' yellow Static Kernmantle, chrome locking swivel snaphook, <i>left-handed version</i>
SNYR5370H306	SureGrab positioning lanyard, manual, closed body, c/w 5/8" x 6' blue Static Kernmantle chrome locking swivel snaphook, <i>right-handed version</i>

Carabiners

MSA Rescue Carabiners

- Certified to meet NFPA 199301995, Class "G"
- The SRCC642 auto-locking model meets ANSI Z359.1-1992
- Weight: approx. 11 oz
- Strength: 12,364 lb



Fireman Hook Carabiner

- Unique side swing gate offers a greater gate opening compared to similar sized carabiners
- Meets ANSI Z 359.1-1992
- Includes stainless steel captive bar (not installed)
- Weight: approximately 13.7 oz
- Strength: 6,750 lb



SRCC641	Carabiner, 1.2" (32mm) gate, carbon steel, zinc-plated
SRCC642	Carabiner, 1.2" (32mm) gate, carbon steel, zinc-plated, auto-locking
SRCC307	Carabiner, 2" (50mm) gate, carbon steel, zinc-plated, auto-locking

Anchorage Connectors

Thermatek® Anchorage Connector Strap

- Kevlar webbing and stitching
- Contrasting colors of webbing and stitching allows for easier inspection
- Heat- and burn-resistant



Boom Belt

- Attaches to boom arm
- Adjustable
- Allows for quick & easy inspection



10023487	Thermatek anchorage connector strap
SSB22040	Boom belt, 1-1/4" nylon webbing, adjustable, one size fits all

Bosun Chair

Designed to be used in conjunction with our Full Body Harnesses, the Bosun Chair is the best method to sit suspended for long durations. The Bosun Chair attached to the chest D-ring will keep the user in the upright position.

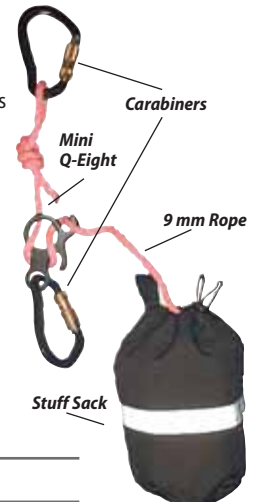


SSH3505017	Bosun Chair, 5" x 16-1/2" padded aluminum seat, black nylon straps, 2 carabiners
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Firefighter's Escape Kit

The Firefighters Escape Kit was created as a tool for emergency egress for a fire fighter trapped in an upper floor of a building. This kit is lightweight and easy to use. Firefighter's Escape Kit includes:

- 2 Suretyman aluminum auto-locking carabiners (P/N - SRCA853)
- 60 ft (18.3 m) 9mm rope (P/N - SRP500900)
- Mini Q-Eight
- Small stuff sack



10030026	Firefighter's Escape Kit
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Rescue Cradles

The Rescue Cradle is available in two model types. The SRH30701 model is designed to allow easy placement on a person. Equipped with 4" (10 cm) polyester webbing and 4-3" (7.6 cm) D-rings. One size fits all.



SRH30701	Rescue Cradle, 4" (10 cm) polyester webbing and 4-3" (7.6 cm) D-rings
SRH30703	Rescue Cradle, 1-3/4" (4.4 cm) nylon webbing, 2" (5 cm) attachment ring, and an elastic shoulder strap

SRH30701

Fall Protection Rescue Kit

The Fall Protection Rescue Kit is designed to be an “out of the bag” rescue system. This kit combines a remote hook and extension pole with a rescue utility system. The remote hook and extension pole allows for remote attachment of a rescue line to a victim. The Rescue Utility System allows a rescuer to raise or lower the victim to safety. This kit should be used with a back-up system (not included).

Fall Protection Rescue Kit includes:

- Adjustable Pole, 6 ft (1.8m) to 12 ft (3.6m) (P/N SFP675009)
- Pole Adapter (P/N SCE109001) converts pole to hold remote hook
- Remote Hook (P/N SRCA401) for remote attachment
- Storage Bag (P/N SRB675009) for pole and remote hook
- Rescue Utility System (P/N SRS15200)—raising and lowering system with a 4:1 mechanical advantage



10030025	Fall Protection Rescue Kit
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Note: Due to a 4:1 mechanical advantage, the user should order the Rescue Utility System with 4 times the length of rope necessary for their application. For example, the 200' system provides a 50' working length. A 600' system provides a 150' working length.

Anthron Descender

The Anthron Descent Controller is a manually operated controlled descent device. It is most commonly used for suspended work positioning, self-evacuation, or rescue operations. The device utilizes a cam assembly that provides friction on the rope to hold a load, or allow the load to descend at a controlled rate. To begin descent, the user depresses the control lever on the Anthron. If the control lever is fully depressed in a panic situation, the descent will stop. Other features include:

- Proper roping/rigging diagrams on side of Descender
- Device can be installed/removed at any point on the rope
- Working load of 300 lbs (136 kg)



Anthron Systems

Includes Anthron Descender, 2 Carabiners, 7/16" (11mm) Rope

with 50' rope	with 100' rope	with 150' rope
SDC726050	SDC726100	SDC726150

Replacement Parts

SDSD-25	Anthron descender
SRB431101	Rope/equipment bag, holds 300' (90m) rope
SRB430305	Rope/equipment bag, #3 Cordura, orange, holds 300' (90m) rope

Replacement Rope

7/16" (11mm) Static Kernmantle synthetic

50' length	100' length	150' length
SDC716050	SDC716100	SDC716150

Pulleys and Rigging Plates

Suretyman™ RQ3 Pulley

Designed to meet the rigorous standards of the professional rescuer. Pulley features high grade aluminum side plates and sheaves, oilite bearings, stainless steel bolts, washers and lock nuts. Aluminum side plates swivel and rotate to allow pulley to be attached anywhere along rope. Top holes of side plates are large enough to accept three carabiners. Prusik hitch provides rope security. Accepts 3/8" (1cm) to 1/2" (1.3cm) static kernmantle ropes. Side plates are powder coated. Strength: 8, 100 lb (36kN).



Suretyman Mini Knot Passing Pulley

- Ample room for the passing of knots
- Aluminum sheave (that will not score like some plastic sheaves)
- Locking pin
- Half the size and weight of some of the larger, bulkier knot passing pulleys
- Size: 9-1/2" (24cm) tall, 4" (10cm) wide, 3" (7.6cm) deep



Suretyman Stealth Rigging Plate

The RQ3 Stealth Rigging Plate's unique design is by an RQ3 Master Instructor. Anchor on the point and the wings will rotate toward the load for a straighter line of pull. Material: aluminum. Weight: .46 lb (250g). Strength: 11,000 lbs (48kN).



SPPPU8708	Suretyman RQ3 Pulley, 2" (5cm) double, Std/Prusik, orange, aluminum, weight: .83 lb (375g)
SPPPU8720	Suretyman Mini Knot Passing Pulley, yellow, weight: 1.9 lb (.89kg)
SRSR5990	Suretyman/RQ3 Stealth Rigging Plate, aluminum, teal

Suretyman Rescue Eight

- Designed for fire service, rescue, and police tactical operations
- Designed for rope diameters from 7/16" (11 mm) to 5/8" (16 mm)
- Available in aluminum or steel
- Weight: 1.5 lb (675 g)
- Strength: 6,720 lb (30 kN)



SRSF5045	Suretyman Rescue Eight, steel
SRSF5077	Suretyman Rescue Eight, aluminum

Suretyman RQ3 Q-Eight

- Ears/cleat are positioned to make tie off very easy and safe
- Ears/cleat still prevent larks footing (girth hitch)
- Designed for 7/16" (11 mm) diameter rope—will work with 1/2" (12 mm) diameter rope
- Aluminum, anodized gold
- Weight: 8 oz (.24 kg)
- Strength: 13,000 lbs (58 kN)



SRSF FE2120	Suretyman RQ3 Q-8
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Ropes and Accessories

Static Kernmantle Ropes

These ropes are 100% permanent solution dyed color with contrasting marker stripe. Superior flexibility and knotability, provided by a unique double-twist cable core construction, gives superior resistance to abrasion that is up to four times greater than other static kernmantle ropes. These ropes are designed with load absorbing capabilities to provide additional safety in the event a dynamic force is applied.



SRP508760050	7/16" (11 mm), nylon, 6,500 lb (2,948 kg), black, 50'
SRP504860SL050	1/2" (12 mm), nylon, 9,100 lb (4,128 kg), white/orange tracer, 50'
SRP508960050	5/8" (16 mm), nylon, 11,400 lb (5,171 kg), black, 50'
SRP530961050	1/2" (12 mm) polyester, 9,100 lb (4,128 kg), red, 50'
SRP510660SL050	3/8" (10 mm), nylon, 5,000 lb (2,269 kg), white/blue tracer, 50'
SRP544000050	7/16" (11 mm), nylon, 6,500 lb (2,722 kg), olive, 50'
SRP504866SL050	1/2" (12 mm), nylon, 9,000 lb (4,083 kg), white/blue tracer, 50'
SRP504863SL050	1/2" (12 mm), nylon, 9,000 lb (4,083 kg), red/white tracer, 50'

Additional lengths are available in 1-foot increments.

Prusik & Accessory Cords

Prusik cords have the same high quality and long wear design as rescue ropes. Size selection should be based upon diameter of the main line. The flexible cord is both strong and highly resistant to abrasion. Prusik cords and accessory cords are identical.

SRP500860	8mm Accessory Cord, nylon. Use with 1/2"-5/8" (1.3cm-1.6cm) main line, black, 3,100 lb (1,406kg)
SRP500900	9mm Accessory Cord, nylon. Use with 1/2"-5/8" (1.3cm-1.6cm) main line, 3,600 lb (1,632kg)

Rope Identification System

7/16" & 1/2" Static Kernmantle Ropes listed above will meet NFPA standards with the addition of the Rope Identification System. This system consists of a special label that carries all necessary NFPA information and a serial number. The serial number is attached to the rope by a shrink wrap. The shrink-wrapped serial number provides traceability if the label is ever lost, so a new label can be issued. The Rope Identification System must be ordered with the rope. Please specify these part numbers with your rope order if you require a rope that meets the NFPA standard.

SRS598016	7/16" (11mm) NFPA Life Safety Rope Tag, with serial number, shrink tube
SRS598012	1/2" (12mm) NFPA Life Safety Rope Tag, with serial number, shrink tube

Only 1 required per rope.

Rope Bag

SRB430201	Rope Bag #2, orange, holds 200 ft/ 1/2" (60.1m/12mm) rope
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Safety-at-Heights Training

The most active, hands-on, solutions-based training available.

Course Offerings

- Fundamentals of Safety-at-Heights
- Competent Person for Equipment Inspection & Rescue Planning
- Safety-at-Heights Program Management & Rescue Planning
- Competent Person for Safety-at-Heights
- Industrial High Angle Rescue
- Fall Protection & Rescue in Confined Spaces



On-site training available

Course Locations

- Courses are offered in our training facilities located in Butler, Pennsylvania; Houston, Texas; Edmonton, Alberta, Canada; or Queretaro, Mexico.
- Hands-on training available on-site at your facility.
- Custom courses can be conducted to fit your specific applications and needs.

Registration Information

- Call us at 1-888-672-2222 or fax us at 1-800-976-0398.



Training is available 24/7 at
MSA-U® online training
Register Today!

Visit <http://msau.msanet.com>

Basic High Angle Rescue Kits

The Basic High Angle Rescue Kits were designed for the Fire Department planning to assemble a high angle rescue team. A complete high angle rescue system consists of two kits: a Belay System Kit, and a Raising/Lowering System Kit.

The Belay system kit includes:

- 3 large "D" shaped rescue carabiners (P/N SRCC641) - NFPA approved Class G
- 200 ft (61m) 1/2" rope, orange and white (P/N SRP504860SL) - NFPA approved
- 33 ft (10m) 9mm accessory cord (P/N SRP500900) for making load-release hitch
- 65" (1.65m) 8mm accessory cord & 53" (1.35m) accessory cord (P/N SRP500860) make-up the tandem Prusiks
- 6 ft (1.8m) Suretyman anchorage sling (P/N SFP2267406)
- #3 rope bag, orange (P/N SRB430301)

The Raising/Lowering System includes:

- 6 large "D" shaped rescue carabiners (P/N SRCA641) - NFPA approved Class G
- Stealth rigging plate (P/N SRSPR5990)
- 200 ft (61m) 1/2" rope, red (P/N SRP504863SL) - NFPA approved
- 33 ft (10m) 9mm accessory cord (P/N SRP500900) for making load-release hitch
- 65" (1.65m) 8mm accessory cord & 53" (1.35m) accessory cord (P/N SRP500860) make-up the tandem Prusiks
- 53" (1.35m) 8mm accessory cord (P/N SRP500860) for creating the Prusik for connecting the raising system
- 2 Single Pulleys, 4" (100mm) (P/N SPPPU8710) —Prusik minding pulleys
- Brake Bar Rack (P/N SRS14001) - lowering device is NFPA approved
- 6ft (1.8m) Suretyman anchorage sling (P/N SFP2267406)
- #3 rope bag, black (P/N SRB430305)

10030023	Belay System Kit
10030024	Raising/Lowering System Kit

Suretyman Rescue Utility System

The Suretyman Rescue Utility System incorporates all the features professionals have come to expect from a first class rescue system. The system is primarily used for raising and lowering people or equipment in rescue and industrial work access and is ideal for confined space applications.

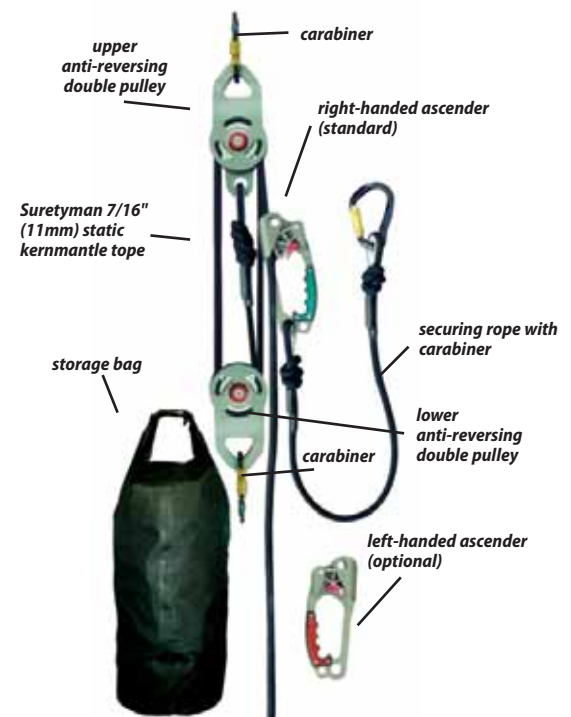
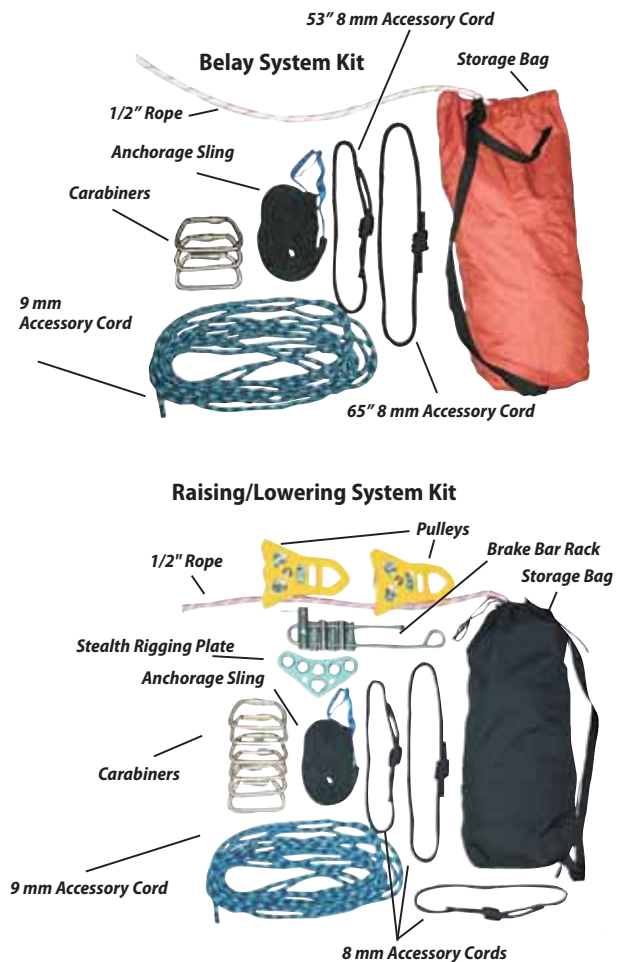
The Suretyman Rescue Utility System features:

- Pulleys equipped with a built-in anti-reversing lock
- Only a 10 lb force is all that is required to hold a 220 lb (90kg) load
- Suretyman ascender attached to both the operating rope and the user via a securing rope— if the operating rope accidentally releases, the ascender automatically stops the descent
- Rapid deployment
- Virtually maintenance free
- Rated for 2-person load
- Compact and light weight with a standard system weight of 17 lb (7.7kg)
- Versatile for rescue & access
- Multi-purpose ascent or descent
- Rated capacity of 600 lbs (272kg) for personnel and materials
- Standard rope length of 200 ft (66m) with a maximum rope length of 600 ft (200m)

Please Note: Due to a 4:1 mechanical advantage, the user should order the Rescue Utility System with 4 times the

SR515200	Suretyman Rescue Utility System (200' length)
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length of rope necessary for their application. For example, the 200' system listed above provides a 50' working length. A 600' system provides a 150' working length.



Confined Space/Head First Extraction System

The Confined Space/Head First Extraction System (HFES) is a specialized rescue product designed for those extreme cases where the rescuer has no other option, but to be lowered head first into a confined space to perform a rescue. These cases are rare, but can happen when someone has fallen into a restrictive confined space such as a well or drain system. The extraction system allows the rescuer to be lowered comfortably into a confined space head first, harness the victim, and raise both victim and rescuer out of the confined space. This small, compact system can be used with any confined space retrieval equipment such as tripods and davits.

The HFES consists of:

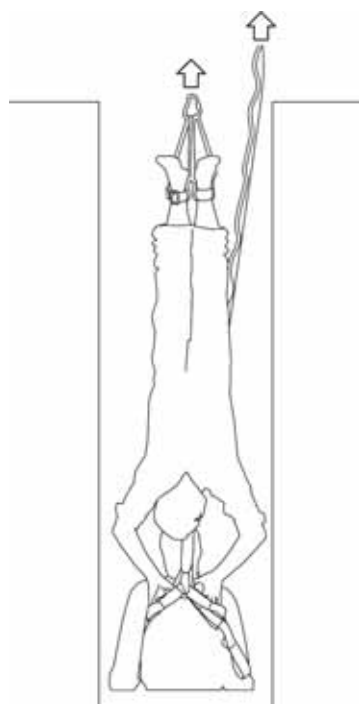
- Adjustable Lifting Strap
- Adjustable Victim Strap
- 1 Pair of Ankle Harnesses
- 2 Carabiners
- Storage Bag



*Top: pair of ankle harnesses
Middle: 2 carabiners
Bottom: storage bag (lifting strap and victim strap not pictured)*

Extraction System

SRS3100	Confined space/head first extraction system
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Confined Space Entry Kit

A Confined Space Entry Kit makes it easy for you to order a confined space system.

The kit features:

- Single part number for simplified ordering: P/N 10105271
- Lynx Rescuer allows for non-entry rescue of a confined space entrant
- Lynx Hoist designed for lifting, lowering and positioning of personnel and materials
- Carrying bags allow for great portability

Confined Space Entry Kit

10105271	Confined Space Entry Kit
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Replacement parts and accessories

1015612	Leg base support strap
10089207	Carabiner
506222	Pulley
10011744	Lynx Rescuer
10016569	Side Mount Lynx Hoist
506232	Lynx Rescuer Mounting Bracket
10105656	Tripod duffel bag
507151	Hoist/Rescuer carrying bag



Workman® Tripod

Easy To Use

- Simple setup procedure makes the process quick and promotes correct use.
- Legs automatically lock in the open position for added safety.
- A maximum height indicator provides quick and easy identification of the maximum leg extension length.
- Aluminum leg and head design reduces weight, improving portability.

Durable

- An internal leg-locking mechanism prevents accidental disengagement during use and reduces the possibility of damage to the mechanism while in use or in storage.

Versatile

- The leg base support strap also serves as a convenient carrying strap.



10102002	Workman Tripod
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Replacement parts and accessories

1015612	Leg base support strap	10016569	Side Mount Lynx Hoist
10089207	Carabiner	506232	Lynx Rescuer Mounting Bracket
506222	Pulley	10105656	Tripod duffel bag
10011744	Lynx Rescuer	507151	Hoist/Rescuer carrying bag

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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