

# MSA FireHawk® M7 Responder® Air Mask



**WHEN YOU GO IN, WE GO IN WITH YOU.**

MSA FireHawk M7 Responder Air Mask



The industry's most versatile respiratory protection consists of air mask, gas mask and PAPR!

The MSA FireHawk M7 Responder Air Mask is uniquely versatile protection that can quickly be transformed into an air-purifying respirator (APR) or 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 residential fire, accident or any unknown threat. MSA's FireHawk M7 Responder Air Mask provides the maximum level of protection. However, that amount of protection is not always needed, especially outside the immediate fire scene. Once the hazard has been assessed, air-purifying respirators may make the most sense for low concentrations of certain contaminants.

The FireHawk M7 Responder facepiece is NIOSH-approved for SCBA, PAPR and APR configurations, in accordance with MSA user instructions. This practical emergency respiratory protection system meets/exceeds NIOSH standards (see ATO ordering information for details).

### The FireHawk M7 Responder Air Mask

Seven life-safety design components built upon a modular air mask platform provide you with the highest-quality SCBA, giving you that lifesaving edge in the face of danger. This air mask offers more options than any other product in the industry.



### 1. Taking the Heat

The MSA FireHawk M7 PASS Alarm gets louder as heat increases! This patent-pending emitter exceeds 95 decibels and performs solidly!

### 2. Virtually "Bullet-Proof" Electronics

The FireHawk M7 HUD Receiver, Power Module and Control Module, encased within proprietary high-temperature impact-grade polymer compound, provide the highest possible protection against impact and water ingress on the fireground.



### 3. Critical Communications

Communications start with a high-performance mechanical speech diaphragm, a stand-alone solution. The diaphragm is backed by an electronic amplifier with internal facepiece microphone for ultimate clarity. The ClearCommand® Communication System provides clear communication during critical times.

### 4. Fireground Management

The practical, complete and user-friendly MSA Accountability System, based upon a proven system, displays a full array of visual and audible information for up to 100 firefighters within a one-mile line-of-site. Downloading reports makes record keeping easy.



### 5. Emergency Egress

Prepare for the unexpected. Choose from an integrated rappelling system, the MSA Rescue Belt II System, or extended duration air-purifying options with APR or PAPR accessories. Never before have so many options been available on one SCBA.





## 6. Lightweight and Easy-to-use

MSA always strives to lighten the load of components, reduce parts count, simplify maintenance, maximize user comfort, and modularize design.

The FireHawk M7 Responder Air Mask has a lightweight polymer backplate with quick-release harness straps, error-proof cam-lock cylinder attachment, fast change-out electronic components, large swiveling lumbar pad, and regulators that fit in the palm of your hand (fewer than 30 parts for the MMR and 14 for the first stage regulator). Our time-tested Ultra Elite® Facepiece has unbeatable comfort, visibility, communications, cross-contamination protection, fit, and seal.

## 7. Future-driven Design

Every FireHawk M7 Responder Air Mask electronics ensemble contains a 2.4GHz personal wireless network that transmits and receives encrypted information over short range on a firefighter's body. Software can be field-upgraded wirelessly; a thoroughly-tested RFI shield protects against all fireground radio signals.

## FireHawk M7 Responder APR

The Gas Mask with Canister helps to provide you with protection when you enter or exit a hazardous area, or work within the area for a limited time. As you breathe, inhaled air is drawn through the canister that removes, neutralizes and/or traps specific contaminants. Then, exhaled air leaves the facepiece through the facepiece exhalation valve.

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, harness and cylinder may be removed from the user, the MMR must always be connected to the inlet adapter to seal the facepiece inlet port.

MSA provides a tool to calculate your canister life for contaminant levels measured within your environment. See MSA's Response Respirator Selector for additional information at <http://webapps.msanet.com/responseguide/>.

## FireHawk M7 Responder PAPR

The Responder PAPR (powered air-purifying respirator) system is ideal when you need non-IDLH respiratory protection for an extended period of time (up to eight hours). This PAPR provides an OSHA-assigned protection factor 20 times greater than that provided by APR, due to positive pressure in the mask.

Essentially, this PAPR combines an industry-leading motor-blower with the Ultra Elite M7 Responder Facepiece for up to eight hours of air-purifying respiratory protection. 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. Air flow also prevents fogging within the facepiece, reduces claustrophobia and allows for extended use within hot and stressful environments.

The Responder C420 Motor-Blower is trustworthy, with more than 50,000 fielded in various U.S. military programs, and arrives complete with motor-blower, belt, air flow indicator, canisters, and breathing tube. Choose one of two batteries that can be hot-swapped during warm environment use.

To convert from SCBA to PAPR, the PAPR 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 PAPR, at which time the user powers on the PAPR motor. Although the air mask carrier, harness and cylinder may be removed from the user, the MMR must always be connected to the inlet adapter to serve as a seal for the facepiece inlet port.

# What's in this **air mask**?









# Specifications

## SCBA

- Air mask weight with empty H-30 cylinder (including batteries) is 22 lbs-8 oz
- FireHawk M7 Control Module is equipped with both analog and digital pressure displays
- RFI shielding up to 50v/m radio signal load across 80 MHz to 2.5 GHz range
- PASS heat alarm performance > 95 dB @ 500°F
- Water immersion protection – FireHawk M7 Air Mask electronics at 5-ft. depth for 1 hour
- Air delivery – manufactured to 320 lpm rate; design qualified at 640 lpm cyclic breathing
- Data logging – most recent 25-hours-of-use information
- Electronic ID tagging (RFID) standard with MSA Accountability System
- Optional equipment: Rescue Belt Rappelling System (50-ft.), MSA Accountability System,
- Extend-Aire™ and Quick-Fill Emergency Breathing Systems, swiveling lumbar pad, chest strap
- Standard equipment includes facepiece cross-contamination check valve, thermal alarm, time-remaining display, wireless programming and network, front and rear buddy lights, auto-dim HUD, large drag-carrying handles, stainless steel cylinder band with cam-lock system

## PAPR

- Maximum flow rate 130-140 lpm
- Lithium-sulfur dioxide mission battery LiSO2 BA 5800/U operates 8 hours
- Nickel metal hydride rechargeable battery operates 4 hours
- Ambient temperature -32 to 49°C / -26 to 120°F
- EMI MIL-STD-461C, Part 4, RE02
- Environmental water and dust protection - IP68 (inlet and outlet ports closed)
- Decontamination – performance not affected adversely
- Expected working life of blower (MTTF) > 1,000 hrs (per EA-DTL-1827)

# Ordering Information

## FireHAWK M7 Responder Air Mask

Ordering Selection Matrix, NIOSH 42 CFR Part 84-certified)\*

Air Mask Pressure	Carrier/Harness Assembly	Lumbar Pad/Rescue Belt	Cylinder	Emergency Breathing Support	Hycar Rubber Facepiece	Nosecup	Head Harness	Electronic Communications	APR/PAPR Kits	Integrated PASS/Telemetry	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  Options A & B can be chosen only if Rescue Belt is selected.	0 None 1 Swiveling Lumbar Pad A Rescue Belt standard, 50" B Rescue Belt mid-size, 50" 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, 50"  If choosing rescue belt, carrier/harness assembly must be single-pull (Options A or B).	0 None	0 None 1 Quick-Fill* 2 ExtendAire™ Quick-Fill and ExtendAire  If choosing an air mask pressure M, M is not compatible with Quick-Fill.  A ExtendAire II B ExtendAire II with Quick-Fill C ExtendAire I & II D ExtendAire I & II with Quick-Fill	A None	0 None	0 None	A None B ClearCommand™ -ready with bracket C ClearCommand amp D ClearCommand amp/RI	A None B APR 18" tube C APR 22" tube D APR 18" tube with PAPR kit E APR 22" tube with PAPR kit	A PASS with thermal alarm activated B PASS without thermal alarm activated C PASS, telemetry and thermal alarm D PASS, telemetry without thermal alarm	0 None						
			3 30' carbon with air		1 Medium	1 Medium	2 2 Large										
			6 30' carbon less air		2 Large	2 Large											
			0 None														
			1 30+ carbon with air														
			2 30+ carbon less air														
			0 None														
			1 30' carbon with air														
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
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\*Special note regarding approvals - Approvals are only available (and were obtained) for each component (SCBA, APR and PAPR) as an independent respirator. Although the APR, PAPR and SCBA have been evaluated for seamless convertibility in a contaminated environment, as well as to heat and flame test criteria by independent labs, there is currently no standard for which to seek this type of system approval and they have not been evaluated by NIOSH. Users are required to convert among modes in an uncontaminated environment.  
Please see user's instructions for specific approval information and limitations.

# Ordering Information Replacement Parts

Ultra Elite M7 Responder Facepieces				
Facepiece with ClearCommand System Bracket			Facepiece without ClearCommand System Bracket	
Small		10093927	Small	10093924
Medium		10093926	Medium	10093923
Large		10093928	Large	10093925

M7 I-HUD Receiver	
10114190	Receiver, M7 I-HUD

ClearCommand Communication System for Ultra Elite Facepieces	
10024074	Amplifier Kit, complete with microphone
10023056	Replacement amplifier unit
10051290	Amplifier Radio Interface Kit, complete with microphone
10051289	Replacement amplifier radio interface unit
10023005	Bracket only

Quick-Fill and ExtendAire System Accessories	
485331	Emergency transfill hose, less Kevlar pouch
485366	Quick-Fill System 3-ft. emergency transfill hose in Kevlar pouch
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
812958	ExtendAire System air-line hose with Foster plug
812973	40" rescue hose
10031797	ExtendAire System Upgrade Kit for quick-connect Firehawk MMR
10031798	ExtendAire System Upgrade Kit for threaded Firehawk MMR
10105883	ExtendAire II System Upgrade Kit for PR14 Regulator
10111404	Replacement pouch for Quick-Fill or ExtendAire II Systems
10111642	Quick-Fill System Hose Kit in pouch, 3-ft. emergency transfill hose

## Carbon-wrapped Cylinders

A unique outerwrap made of lightweight, high-performance carbon fibers reduces cylinder weight by two to six pounds when compared to fiberglass-wrapped cylinders, and by as much as 10 pounds when compared to aluminum cylinders. Cylinders are available in six models to accommodate a wide range of applications.



Part No.	Cylinder Type (Cylinder & Valve)	NIOSH Service Rating Life	Pressure (psig)	Weight* (empty)
807586-SP	L-30	30'	2216 psig	8 lbs. – 0 oz.
816115-SP	L-30+	30'	3000 psig	9 lbs. – 8 oz.
807587-SP	H-30	30'	4500 psig	7 lbs. – 4 oz.
807570-SP	H-45	45'	4500 psig	9 lbs. – 7 oz.
10035644-SP	H-45 Low-Profile	45'	4500 psig	9 lbs. – 10 oz.
807588-SP	H-60	60'	4500 psig	11 lbs. – 12 oz.

\*All weights shown are approximate figures.

## Accountability System

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



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

Rescue Belt II	
10119369	Rescue Belt II System, FireHawk M7 Air Mask, 50-ft aramid/nylon rope, Crosby hook
10119370	Rescue Belt II System, FireHawk M7 Air Mask, 50-ft aramid/nylon rope, carabiner
10119391	Rescue Belt II System, FireHawk M7 Air Mask, 50-ft FireTech 32 rope, Crosby hook
10119392	Rescue Belt II System, FireHawk M7 Air Mask, 50-ft FireTech 32 rope, carabiner

APR only		PAPR only	
10046570	CBRN canister	10094024	C420 PAPR Kits (less facepiece and cartridge)**
10094016	APR breathing tube - 18"		
10094023	APR breathing tube - 22"		

\*\* Includes C420 PAPR, belt, air-flow indicator, breathing tube.

Accessories for C420 PAPR	
B-20040-001	NiMH Rechargeable Battery Kit (2 NiMH batteries, charger, 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

# MSA—The Safety Company

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*At MSA, our business is safety. We've been the world's leading manufacturer of high-quality fire/rescue and safety products since 1914, providing sophisticated, life saving devices and protective gear — the result of countless R&D hours, relentless testing, and an unwavering commitment to quality that saves lives and protects those men and women who protect us each and every day. Our core product focus emphasizes Self-Contained Breathing Apparatus (SCBA), including the revolutionary MSA G1 SCBA and respiratory protective equipment, Cairns® head, eye, face, hearing and communications protection, fall protection and rescue products, ALTAIR® portable gas detection instruments and Galaxy Test Systems, and Evolution® Thermal Imaging Cameras (TIC). When You Go In, We Go In With You. For more information, visit [www.MSAfire.com](http://www.MSAfire.com) or call **1-877-MSA-FIRE**.*

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## Our Mission

MSA's mission is to see to it that men and women may work in safety and that they, their families, and their communities may live in health throughout the world.

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



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