

**G1 SCBA**

**MSA**  
The Safety Company



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



At MSA, **“When you go in...We go in with you”** is more than just words, it’s what drives us. Everything we do is done with your safety and comfort in mind. When we create our products, we’re guided by a single question: how do we meet and exceed our customers’ safety needs? In answer, we solicited feedback from firefighters across the nation, we listened closely and we incorporated those ideas to produce the most advanced, intelligent user-friendly self-contained breathing apparatus (SCBA) available today.

**Introducing the G1 SCBA from MSA: the most comfortable, streamlined, balanced, configurable, and customizable SCBA we've ever produced.**



### Our Commitment to the Fire Service

MSA’s long-standing commitment to the fire service industry began nearly 100 years ago. Our goal is to provide dependable, high-quality products, instruments and service that will help to ensure a safe return home. MSA’s extensive knowledge and expertise has helped to harness new technologies to produce exceptional protective equipment.

The G1 SCBA is designed solely with your safety and comfort in mind. The G1 SCBA offers integrated and enhanced solutions to exceed your needs today as well as years into the future.



### A Timeline of Innovation



**1917:** MSA enters breathing apparatus market with Gibbs & Mcaa closed-circuit apparatus for rescue & firefighting.

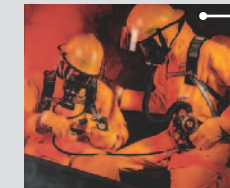
**1936:** First firefighting breathing apparatus – MSA Lightweight Half-Hour OBA.

**1967:** MSA introduces Belt-Mounted Regulator SCBA, Model 401.

**1980:** First fully-wound Ultra Elite air-cylinders.

**1983:** Custom 4500® Air Mask - MSA’s first high pressure SCBA.

**1985:** Nomex SCBA shoulder straps introduced; all Nomex Flame & Heat Resistant (FHR) SCBA harness.



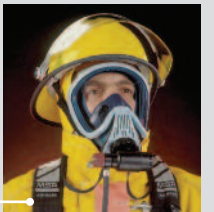
**1987:** First breathing apparatus to meet NFPA 1981 Edition fire service standards – Ultralight II & Custom 4500 II Revolutionary Quick-Fill® System allows firefighters to replenish air supply; becomes requirement on all NFPA SCBA in 2002. ClearCom™ RI Communications System integrates facepiece mic with radio. Vari-X Foam Generator produces expansion foam.

**1990:** Ultralite® and Custom 4500 MMR Air Masks introduced. Composite III Cylinder can be pressurized to 3000 psig.

**1992:** Firefly PASS System.

**1994:** Ultra Elite® Facepiece launched.

**1999:** MMR Xtreme® SCBA offers new levels of performance. Vulcan Carrier & Harness is first composite-molded SCBA back frame. DragonFly PASS is offered in stand-alone or integrated versions.



**2000:** Integrated Control Module (ICM).

**2002:** FireHawk® Air Mask, first unit certified to new NFPA 1981, 2002 Edition standard that includes CBRN component and Quick-Fill System.



**2007:** FireHawk M7 - First SCBA compliant to NFPA 1981 & 1982, 2007 Edition.

**2013:** FireHawk M7XT Air Mask.

**2014:** G1 SCBA.

*“MSA has taken all of the firefighters concerns and addressed them in the G1 SCBA.”*

*– TB, Firefighter*



**1. Facepiece is lightweight and compact: no electronics needed**

- Open port design with cross contamination protection
- Comfortable and easy to use, with low breathing resistance on and off air

**2. Control module provides dual color LCD and analog displays**

- Display automatically turns on when control module is lifted into viewing position
- Large print makes display easy to read
- Provides more data and functionality than ever before
- No matter which button is pressed, necessary information displays

**3. Improved visibility through buddy lights and reflective material**

- 4 buddy lights
- 2 control module lights
- Regulator light

**4. Heads up display (HUD) shows remaining cylinder pressure in 4 increments via colored LEDs**

- Clear and easy to understand and interpret provided information

**5. Electronic communications are integrated into every unit**

- Loud, clear communication
- Removes inhalation breathing noise



**6. G1 SCBA ergonomics**

- Swiveling, adjustable lumbar pad manages SCBA weight
- Improved comfort, balance, fit

**7. Central power system for all electronics**

- Only **one** power source
- Uses either alkaline or rechargeable battery
- No need for multiple battery sizes
- **Low cost of ownership**

**8. Available in easily-upgradeable threaded or quick-connect cylinder attachment**

- Quick attachment and replacement for return to the fireground

**Integrated technology for future expansion**

- Bluetooth, RFID, Near Field Communication (NFC), long-range radio

**Customizable — Built to meet your specific needs**

- Control module and HUD display required information; easily adapt to your existing standard operating procedure
- Wires/hoses can be routed as necessary





**About FACE.**

The G1 Facepiece *eliminates* electronic components from the facepiece. By removing added weight that results from housing electronics within the facepiece, the G1 Facepiece reduces stress and fatigue and improves your overall endurance level. This design also means that there are no electronic components on the outside of the facepiece that may result in snag and entanglement hazards. What's more, by eliminating costly electronic components, the price is reduced substantially, allowing personal-issue facepieces to be a cost effective measure. As an added bonus, the facepiece is equipped with cross-contamination prevention to reduce the spread of illness when facepieces are shared. But MSA didn't stop there. The G1 Facepiece is equipped with input capabilities for our speaker module to provide clear communication, outfitted on every G1 SCBA we manufacture.

The new G1 Facepiece is not only lightweight and compact with overall low profile design, it's comfortable and easy to use. Taking the preferred design features of the Ultra Elite Facepiece, including wide field of view and comfortable, robust seal geometry, we've taken the G1 SCBA to the next level with an open port to provide low breathing resistance, both on and off air. The G1 Facepiece can help you to conserve energy for when you need it most.



**Be Heard.**

**Electronic Voice Amplification Shouldn't Be Optional.** Every G1 SCBA is equipped with electronic voice amplification from the factory, because high quality fireground communications shouldn't be optional. With patent-pending design, dual microphones are integrated into the regulator to eradicate amplified inhalation breath. This unique feature automatically activates and shuts down with the unit. Shoulder-mounted speaker module provides loud and clear communications from the regulator microphone while maintaining low profile to aid in reducing snag points. Every G1 SCBA is equipped with this cutting edge technology, as MSA firmly believes that clear communication **should not** be optional.

**Turn Up the Heat.**

**Heat Immersion Testing.** When it comes to a rugged design that surpasses durability testing, there is nothing more stringent than the Heat Immersion Test that is required for all PASS devices. Not only does the G1 SCBA PASS device make the grade, but it is the **ONLY** SCBA on the market that also tests the speaker module. The G1 SCBA's complete electronic system surpassed the Heat Immersion Testing requirements; that means the G1 SCBA will continue to perform or continue to answer the call even when they turn up the heat.

**Designed to fit YOUR needs.**

**Cutting edge technology.** The G1 SCBA is an air mask that finally meets your demands, providing more functionality than ever before. The G1 Control Module has both dual analog and color digital LCD displays, making certain that your status is available at all times. Auto-start motion control mechanism built into the control module intuitively provides the information you need when you need it. And, thanks to audio and tactile buttons, no matter which button is pressed, your information is displayed.

**Highly configurable and customizable.** The G1 SCBA's user selectable configurations are an industry first: pressure; time remaining calculation; breathing time; temperature (the ability to set your own temperature alarm); and pressure drop (to alert you to leaks, either primary or secondary.) What's more, the control module and HUD can be programmed to project information required by your particular specification. But best of all, electronics can be



adjusted to the way YOU want. The G1 SCBA provides the ability to configure this device to follow any standard operating procedure, with alarm settings, lights and information provided on the control module. The G1 SCBA...designed for the flexibility you need!



**Heads up.**

**Internal HUD display.** No electronics? It's not only possible, it's true. By placing the heads up display within the regulator, we removed facepiece electronics, resulting in lighter weight, reduced profile, eliminated pairing, no cross talk, and no external contaminants that can often block the HUD view. This new design means that you no longer have to buy HUDs for each facepiece, reducing costs and maintenance. By using revolutionary light pipes, the G1 SCBA heads up display is clear and simple to understand; it's a HUD system made easy!

**Always in Demand.**

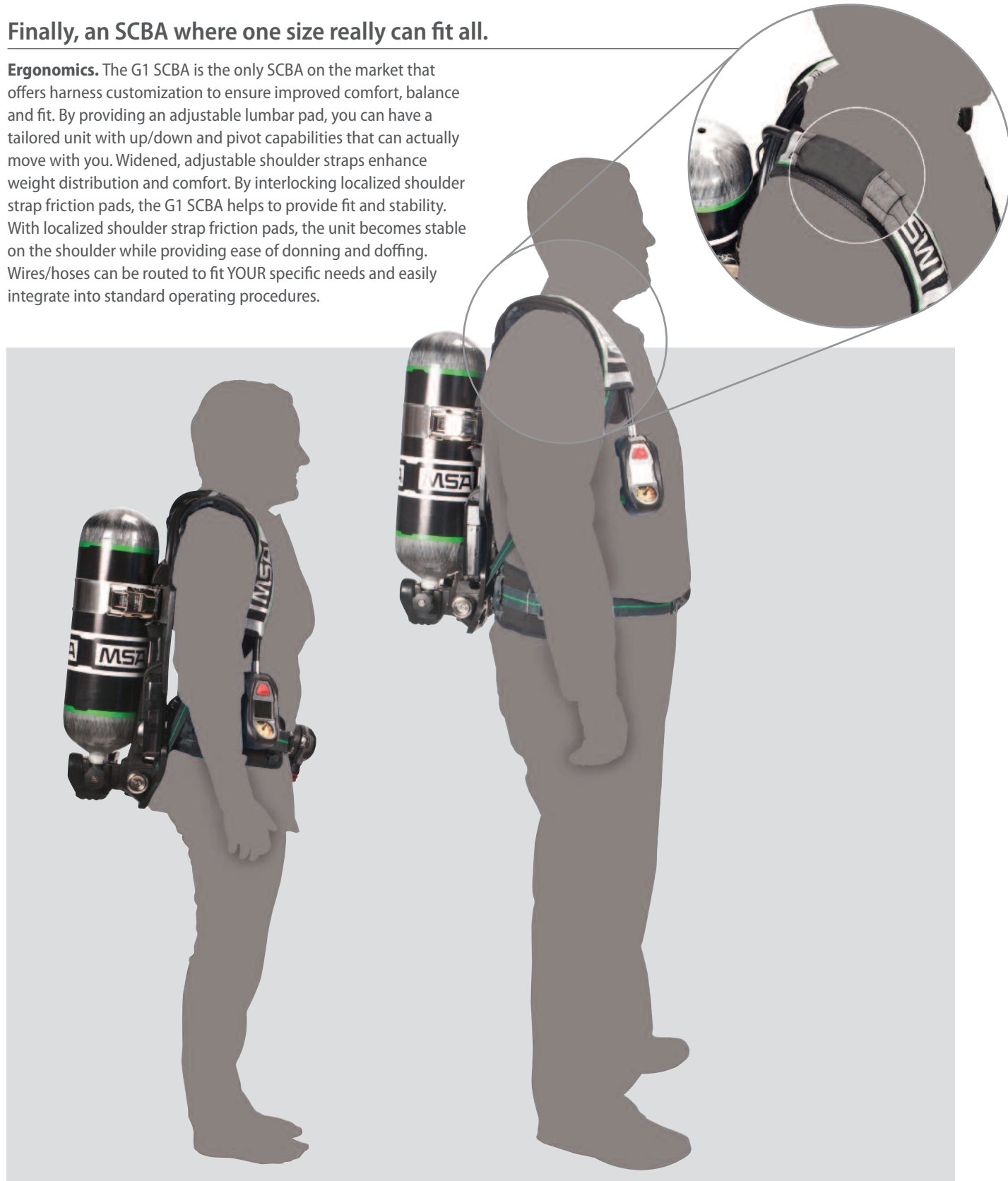
**G1 Mask-Mounted Regulator.** The G1 Regulator houses easy-to-operate heads up display and communications, yet is the smallest and lightest regulator available. Easily configured to meet firefighters' needs, this game-changing G1 Regulator can shut off air flow and start air flow without taking a breath, and release the regulator from the facepiece in one simple move! With no exposed wires and purge cover designed to keep the valve clean, the G1 Regulator is always in DEMAND.





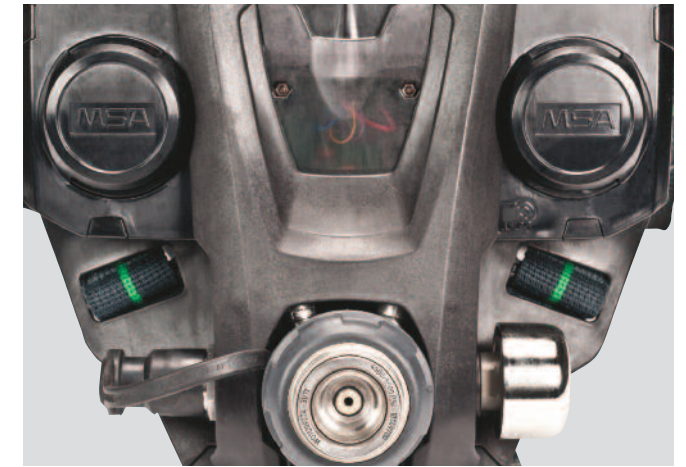
**Finally, an SCBA where one size really can fit all.**

**Ergonomics.** The G1 SCBA is the only SCBA on the market that offers harness customization to ensure improved comfort, balance and fit. By providing an adjustable lumbar pad, you can have a tailored unit with up/down and pivot capabilities that can actually move with you. Widened, adjustable shoulder straps enhance weight distribution and comfort. By interlocking localized shoulder strap friction pads, the G1 SCBA helps to provide fit and stability. With localized shoulder strap friction pads, the unit becomes stable on the shoulder while providing ease of donning and doffing. Wires/hoses can be routed to fit YOUR specific needs and easily integrate into standard operating procedures.



**The Power of One.**

**Central Power System.** With only one centralized power source, you can use either an alkaline or an industry first rechargeable battery. As the ONLY manufacturer to offer rechargeable batteries, we've taken SCBA protection to a whole new level — finally, an SCBA that doesn't require multiple battery sizes! No need to manage battery types, compartments and change-outs, resulting in lower cost of ownership.



**Make a Connection.**

**Pressure Reducer.** Designed to work with quick connect or CGA threaded equipped cylinders, there's a connection to meet your need. Adding to flexibility are available direct and remote quick connect attachment options. This flexibility makes cylinder change-outs effortless. Pressure reducer accessory ports allow for future upgradeability, including the high pressure Quick Fill® System. And with quick-connect and threaded-connection options and easy upgrades from threaded to quick-connect option, there are few replacement parts. All in all, this unit provides each user with many choices, all of which result in lower cost of ownership.

**When Air is Low, Seconds Matter.**

**Universal Air Connection (UAC).** When air is low and you must access the UAC for emergency purposes, seconds matter. That's why MSA invented the patent-pending RIT light to shine a bright white LED on the UAC connection, making it easier to find and connect to a rescue air source. Because when air is low, seconds matter. The primary UAC illuminates when End of Service Time Indicator (EOSTI) reaches 35%. The patent-pending Rapid Intervention Team (RIT) light makes it easy to connect to supplement a fallen firefighter's air supply. No more fumbling in the dark!





## Light where you need it.

**Improved visibility.** The G1 SCBA is equipped with 360 degrees of three-stage buddy lights, providing increased visibility of your status to those around you. Highly reflective shoulder straps and photoluminescent cylinder provides another visibility level within any environment.

## When seconds matter.

**Make the connection.** Patent-pending RIT light designed to illuminate the Universal Air Connection (UAC) for Quick-Fill System operations, means no more fumbling in the dark when seconds matter!

## No Thinking Required.

**Buddy light system.** Red light, green light, yellow light too, the G1 SCBA is equipped with a resourceful buddy light system that allows the unit's condition to be viewed from any orientation. The user's unit status can be determined from any direction and from great distance.





### The Quick-Fill System



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

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

Air masks compliant to recent NFPA standards have Quick-Fill URC fitting located at the Audi-Larm™ Audible Alarm warning device. Quick-Fill System hose with quick-disconnect connects air source to adapter for air transfer. See Bulletin 0105-92-MC for a Quick-Fill System Q&A.

### Ordering Information

| QUICK-FILL SYSTEM REPLACEMENT PARTS | Part Number | Description                                 |
|-------------------------------------|-------------|---|
|                                     | 10156464    | ExtendAire II Kit for G1 SCBA               |
|                                     | 10156465    | Waist Mounted Quick-Fill for G1 SCBA        |
|                                     | 10156466    | Replacement ExtendAire II Pouch for G1 SCBA |
|                                     | 10156467    | Replacement Quick-Fill Pouch for G1 SCBA    |
|                                     | 10156468    | 3 ft Quick-Fill hose in pouch for G1 SCBA   |

|                  | 25 ft  | 12 ft  | 10 ft  | 8 ft   | 6 ft   | 3 ft   |                      |
|------------------|--------|--------|--------|--------|--------|--------|----------------------|
| QUICK-FILL HOSES | 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     |

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

### Spectacle Kit for G1 Facepiece

We have taken the old and outdated spectacle kits of the past and thrown them in the trash. Working with TriSpec, MSA has designed a modern and sophisticated option, providing both clear sight and style.

| Part Number | Description                    |
|-------------|--------------------------------|
| 10144230    | Spectacle Kit for G1 Facepiece |



### G1 Cylinders for Remote Connection

| Cylinder Pressure | Cylinder Duration | Connection Type | Air      | Less Air |
|-------------------|-------------------|-----------------|----------|----------|
| 2216 psig         | 30 min            | Remote          | 10156422 | 10156431 |
| 4500 psig         | 30 min            | Remote          | 10156423 | 10156432 |
| 4500 psig         | 45 min LP*        | Remote          | 10156424 | 10156433 |
| 4500 psig         | 45 min            | Remote          | 10156425 | 10156434 |
| 4500 psig         | 60 min            | Remote          | 10156426 | 10156435 |

\* Low Profile version of the 45 min, 4500 psig cylinder

### G1 Cylinders for Direct Connection

| Cylinder Pressure | Cylinder Duration | Connection Type | Air      | Less Air |
|-------------------|-------------------|-----------------|----------|----------|
| 2216 psig         | 30 min            | Direct          | 10156440 | 10156449 |
| 4500 psig         | 30 min            | Direct          | 10156469 | 10156450 |
| 4500 psig         | 45 min LP*        | Direct          | 10156442 | 10156451 |
| 4500 psig         | 45 min            | Direct          | 10156443 | 10156452 |
| 4500 psig         | 60 min            | Direct          | 10156444 | 10156453 |

\* Low Profile version of the 45 min, 4500 psig cylinder

### G1 Cylinders for 5500 psig system

| Cylinder Pressure | Cylinder Duration | Connection Type | Air      | Less Air |
|-------------------|-------------------|-----------------|----------|----------|
| 5500 psig         | 30 min            | Remote          | 10156427 | 10156436 |
| 5500 psig         | 45 min            | Remote          | 10156428 | 10156437 |
| 5500 psig         | 60 min            | Remote          | 10156429 | 10156438 |
| 5500 psig         | 75 min            | Remote          | 10156430 | 10156439 |
| 5500 psig         | 30 min            | Direct          | 10156445 | 10156454 |
| 5500 psig         | 45 min            | Direct          | 10156446 | 10156456 |
| 5500 psig         | 60 min            | Direct          | 10156447 | 10156457 |
| 5500 psig         | 75 min            | Direct          | 10156448 | 10156458 |

| A   | B   | C  | D  | E  | F  | G   | H  | I   | J  | K   |
|---|---|--|--|--|--|---|--|---|--|---|
| System Pressure   | Cylinder Connection   | Harness  | Cradle Type                                  | Lumbar Type  | Regulator Type   | Regulator Hose Type                           | Emergency Breathing Support  | Speaker Module                              | PASS   | Battery Type                                |
| <b>2</b> 2216 psig<br><b>4</b> 4500 psig<br><b>5</b> 5500 psig* | <b>1</b> CGA Threaded Direct Connection *<br><b>2</b> CGA Threaded Remote Connection<br><b>3</b> CGA Quick Connect Direct Connection*<br><b>4</b> CGA Quick Connect Remote Connection<br><br><i>If 1 or 3 are selected, fabric band must be used.</i> | <b>1</b> Standard without Chest Strap<br><b>2</b> Standard with Chest Strap<br><b>3</b> Serviceable Tunnel without Chest Strap<br><b>4</b> Serviceable Tunnel with Chest Strap | <b>M</b> Metal Band<br><b>F</b> Fabric Band* | <b>B</b> Basic<br><b>F</b> Fixed Swiveling Lumbar Pad<br><b>A</b> Adjustable Swiveling Lumbar Pad<br><b>1</b> Rescue Belt II Hook, 50'*<br><b>2</b> Rescue Belt II Carabiner, 50'*<br><b>3</b> Rescue Belt II 50' FireTech Rope, Hook*<br><b>4</b> Rescue Belt II, 50' FireTech Rope, Carabiner* | <b>1</b> Purge cover Left Shoulder<br><b>2</b> Solid cover Left Shoulder<br><b>3</b> Purge cover Right Shoulder<br><b>4</b> Solid cover Right Shoulder | <b>C</b> Continuous<br><b>Q</b> Quick Connect | <b>0</b> None<br><b>1</b> Waist Mounted Quick-Fill*<br><b>2</b> ExtendAire II*<br><b>3</b> Waist Mounted Quick-Fill and ExtendAire II* | <b>L</b> Left Chest<br><b>R</b> Right Chest | <b>A</b> PASS Right Shoulder<br><b>B</b> PASS Left Shoulder<br><b>C</b> PASS Telemetry Right Shoulder<br><b>D</b> PASS Telemetry Left Shoulder | <b>A</b> Alkaline<br><b>R</b> Rechargeable* |

\*NOT AVAILABLE UNTIL Q4 2014

Column: A B C D E F G H I J K

G1FS

PART NUMBERS (BOLD LEFT HAND COLUMNS)

QUANTITY

Assemble-To-Order System for SCBA Facepiece

| A             | B   | C              | D  | E  | F  | G                              |
|---------------|---|----------------|--|--|--|--------------------------------|
| Application   | Size  | Material       | Nosecup  | Head Harness   | Neckstrap  | Regulator Connection           |
| <b>F</b> Fire | <b>S</b> Small<br><b>M</b> Medium<br><b>L</b> Large | <b>1</b> Hycar | <b>0</b> None<br><b>S</b> Small<br><b>M</b> Medium<br><b>L</b> Large | <b>0</b> None<br><b>4</b> 4 pt Adjustable<br><b>5</b> 5 pt Adjustable<br><b>R</b> Rubber | <b>0</b> None<br><b>C</b> Cloth<br><b>R</b> Rubber | <b>1</b> Fixed Push-to-Connect |

Note: Part number facepieces are also available.

Column: A B C D E F G

G1FP

PART NUMBERS (BOLD LEFT HAND COLUMNS)

QUANTITY

G1 Facepieces

| Part Number | Type         | Size   | Nosecup Size | Headharness     | ATO Configuration  |
|-------------|--------------|--------|--------------|-----------------|--------------------|
| 10156458    | Fire Service | Small  | Small        | 4 pt Adjustable | G1FP-F-S-1-S-4-0-1 |
| 10156459    | Fire Service | Medium | Medium       | 4 pt Adjustable | G1FP-F-M-1-M-4-0-1 |
| 10156460    | Fire Service | Large  | Large        | 4 pt Adjustable | G1FP-F-L-1-L-4-0-1 |
| 10156461    | Fire Service | Small  | Small        | Rubber          | G1FP-F-S-1-S-R-0-1 |
| 10156462    | Fire Service | Medium | Medium       | Rubber          | G1FP-F-M-1-M-R-0-1 |
| 10156463    | Fire Service | Large  | Large        | Rubber          | G1FP-F-L-1-L-R-0-1 |



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.



**ID 0105-169-MC / Feb 2014**  
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**MSA Corporate Center**  
1000 Cranberry Woods Drive  
Cranberry Township, PA 16066 USA  
Phone 724-776-8600  
[www.MSAFire.com](http://www.MSAFire.com)

**U.S. Customer Service Center**  
Phone 1-877-MSA-FIRE  
Fax 1-877-672-3930

**MSA Canada**  
Phone 1-877-MSA-FIRE  
Fax 1-800-967-0398

**MSA Mexico**  
Phone 1-877-672-3473  
Fax 011 52 55 5359 4330

**MSA International**  
Phone 724-776-8626  
Toll Free 1-800-672-7777  
Fax 724-741-1559  
Email [msa.international@msasafety.com](mailto:msa.international@msasafety.com)

**Offices and representatives worldwide**  
For further information: