

## World Renowned Gas Protection

- Made by MSA... Over 85 years of experience

## Reliable

- Optional internal pump with proven patented pump technology for accurate sampling
- Long run time for long or double shifts

## Easy-to-use

- One-button calibration for easy maintenance
- Large display for easy-to-read gas concentrations
- Bright alarm lights visible from all angles give superior warning
- Easy-to-change interchangeable NiMH or alkaline batteries for easy maintenance and flexibility
- Intuitive 2-button operation means simple training

## Durable

- Weather and dust resistant design with an IP 54 rating to stand up to the toughest environments
- Passes a 6-foot drop test to withstand tough abuse in the field

## Calibration and Records a Snap!

- Optional automated calibration system ensures safe operation and reduced technical training.

Prices effective January 1, 2007

**MSA**



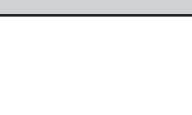










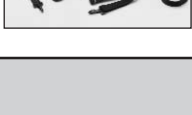
# Orion® FX Multigas Detector

## Assemble-To-Order System and Pricing Guide



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

- To generate your instrument configuration, select instrument options and mark them in the boxes to the right.
- To generate your instrument price, write in the price for each option in the space provided to the right and add to the base price of \$600 below.

<b>A. Combustible Sensor Options</b>		To choose to have an extremely fast combustible sensor installed in your new Orion FX Multigas Detector, choose selection F. For no combustible sensor, enter a "0."	<b>Combustible Sensor</b> None % LEL (Pentane, 0-100%)	<b>Code</b> 0 F	<b>Price</b> \$0.00 \$160.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>B. Oxygen Sensor Option</b>		To choose to have an oxygen sensor installed in your new Orion FX Multigas Detector, choose selection 1. For no oxygen sensor, enter a "0."	<b>Oxygen Sensor</b> None Oxygen (0-25%)	<b>Code</b> 0 1	<b>Price</b> \$0.00 \$150.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>C. Carbon Monoxide Sensor Option</b>		To choose to have a carbon monoxide sensor installed in your new Orion FX Multigas Detector, choose selection 1. For no carbon monoxide sensor, enter a "0."	<b>Carbon Monoxide Sensor</b> None Carbon monoxide (0-999 ppm)	<b>Code</b> 0 1	<b>Price</b> \$0.00 \$170.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>D. Hydrogen Sulfide Sensor Option</b>		To choose to have a hydrogen sulfide sensor installed in your new Orion FX Multigas Detector, choose selection 1. For no hydrogen sulfide sensor, enter a "0."	<b>Hydrogen Sulfide Sensor</b> None Hydrogen sulfide (0-200 ppm)	<b>Code</b> 0 1	<b>Price</b> \$0.00 \$170.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>E. Battery Pack Options</b>		You can choose between MSA's NiMH rechargeable batteries which will run your Orion FX Multigas Detector for up to 16 hours in pump mode and 20 hours in diffusion mode, or you can choose the convenience of alkaline batteries. For ultimate flexibility, choose "both!"	<b>Battery Pack</b> Standard NiMH rechargeable (comes with standard AC charger) Replaceable alkaline Both NiMH and alkaline	<b>Code</b> A B C	<b>Price</b> \$200.00 \$100.00 \$300.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/>
<b>F. Battery Charger Options</b>		If you order your Orion FX Multigas Detector with a rechargeable battery pack, the charger is included in the price. If you want the optional vehicular charger adapter, choose selection "1."	<b>Battery Charger</b> None/Standard AC charger Vehicular charger	<b>Code</b> 0 1	<b>Price</b> \$0.00 \$210.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>G. Sampling Methods</b>		The Orion FX Multigas Detector's patented Pulsecheck™ pump technology leads the industry. If you chose the built-in pump, operating directly off the instrument batteries, you are assured of an audible pump fault alarm and you do not need to maintain a second set of batteries. If you are ordering diffusion instruments, a calibration cap will be included to calibrate your instruments.	<b>Sampling Methods</b> None Integral, Pulsecheck pump Manual aspirator module	<b>Code</b> D P A	<b>Price</b> \$0.00 \$100.00 \$150.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/>
<b>H. Sampling Lines</b>		MSA's high-speed sampling lines are of the highest quality materials guaranteed to not alter sample concentration. Screw fittings with O-Ring couplings at each end ensure there are no leaks when the system is operating.	<b>Sampling Lines</b> None 3-foot coiled 5-foot coiled 10-foot 15-foot 25-foot	<b>Code</b> 0 1 2 3 4 5	<b>Price</b> \$0.00 \$45.00 \$50.00 \$35.00 \$45.00 \$50.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>I. Sampling Probes</b>		MSA's sampling probes are durable and comfortable to use. The built-in Water Stop filter ensures your sampling system is not contaminated with dirt and debris if the probe tip is dipped in water. You must order a probe if you order a sampling line as we strongly recommend you operate the instrument with this filter in place.	<b>Sampling Probe</b> None 1-foot straight 3-foot straight 3-foot, holes near tip 3-foot, holes near handle Hot gas probe	<b>Code</b> 0 1 2 3 4 5	<b>Price</b> \$0.00 \$113.00 \$125.00 \$140.00 \$140.00 \$162.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>J. Carrying Attachments</b>		While a high-strength, nylon clip is offered with the instrument at no extra charge, a swivel belt loop kit, which allows quick release from your belt with a half turn, is also available.	<b>Belt Clip</b> Standard nylon Swivel belt loop	<b>Code</b> 0 1	<b>Price</b> \$0.00 \$84.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/>
<b>K. Instrument Jacket</b>		For the highest levels of environmental and rough handling protection, you can order from a variety of jackets and boots for your Orion FX Multigas Detector.	<b>Instrument Jacket</b> None Black rubber boot Black leather case Orange cordora jacket Red rubber boot Black rubber boot/Orange cordora jacket	<b>Code</b> 0 B L C R D	<b>Price</b> \$0.00 \$75.00 \$90.00 \$45.00 \$75.00 \$120.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>L. Calibration Kits</b>		You can choose one of two calibration options for your Orion FX Multigas Detector. The flexible RP kit provides a constant flow regulator that is reused and provides the greatest accuracy. The squirt gas test kit provides a very economical means to verify instrument calibration.	<b>Calibration Kit Options</b> None RP Calibration Kit (includes gas) Squirt Gas Check Kit (includes gas)	<b>Code</b> 0 1 2	<b>Price</b> \$0.00 \$450.00 \$120.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/>
<b>M. Data Communications Options</b>		If you need to track the readings and operation of your Orion FX Multigas Detectors, consider ordering them with the optional built-in datalogging module. This option also provides STEL and TWA capabilities. This option required for Galaxy operation.	<b>Data Communications</b> None Orion link module Module and download software	<b>Code</b> 0 1 2	<b>Price</b> \$0.00 \$250.00 \$350.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/>
<b>N. Packaging Options and Carrying Cases</b>		You can further protect your Orion FX Multigas Detector with optional carrying cases. For ease of transport and handling, these cases can be even be ordered to accommodate calibration accessories. With the premium cases, a simple-to-understand training videotape is included at no extra charge.	<b>Packaging &amp; Carrying Cases</b> Standard shipping container only Black plastic case w/ space for cylinder, with video Heavy-duty case with video Large, heavy-duty case with video and space for 2 cylinders Orange plastic case w/ space for cylinder, with video	<b>Code</b> 0 1 2 3 4	<b>Price</b> \$0.00 \$90.00 \$120.00 \$190.00 \$90.00	<b>Selection</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>Price</b> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## Your Model Part Number

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

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

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

Add Base Unit Price + \$600.00

Total Unit Price = \$

All Pricing is in US Dollars

# Kits/Approvals/Accessories and Replacement Parts

## OrionFX Multigas Detector Kits

		LEL	O <sub>2</sub>	CO	H <sub>2</sub> S	NiMH Battery & Charger	Internal Pump	10ft Line	1ft Probe	Orange Cordura Case	Calibration Kit	Black Economy Case	Boot	Price
Deluxe 4-gas, datalog	10056447	•	•	•	•	•	•	•	•	•	•	•	•	\$2,708.00
Deluxe 4-gas	10056441	•	•	•	•	•	•	•	•	•	•	•	•	\$2,358.00
Deluxe 3-gas H <sub>2</sub> S	10056442	•	•	•	•	•	•	•	•	•	•	•	•	\$2,188.00
Deluxe 3-gas CO	10056443	•	•	•	•	•	•	•	•	•	•	•	•	\$2,188.00
Industrial 4-gas	10056444	•	•	•	•	•	•	•	•	•	•	•	•	\$1,818.00
Industrial 4-gas, less jacket	10056448	•	•	•	•	•	•	•	•	•	•	•	•	\$1,773.00
Industrial 3-gas H <sub>2</sub> S	10056445	•	•	•	•	•	•	•	•	•	•	•	•	\$1,648.00
Industrial 3-gas CO	10056446	•	•	•	•	•	•	•	•	•	•	•	•	\$1,648.00

### Approvals

The Orion FX Multigas Detector has been designed to meet intrinsic safety testing requirements in certain hazardous atmospheres. The Orion FX Multigas Detector has been approved by UL for use in Class I, Division I, Groups A, B, C, and D. Please contact MSA at 1-800-MSA-2222 for the latest approvals on the OrionFX Multigas Detector.

	Part No.	Price
Power Supply		
NiMH battery with PCBA connector	10073663	\$265.00
Charger and Cradle	10073666	\$159.00
Upgrade Kit (Cradle, PCBA connector & Nut)	10073664	\$40.00
Alkaline Battery pack	10031092	\$215.00

Vehicle Battery Charger	Part No.	Price
Vehicle Battery Charger	10034276	\$225.00

Calibration Accessories	Part No.	Price
Calibration Kit, Model RP, less gas	477149	\$220.00
Gas Miser Demand Regulator	710288	\$320.00
Combination Regulator	711175	\$225.00
Gas Cylinders, 100 liters		
Mix: LEL, O <sub>2</sub> , CO	10010162	\$165.00
Mix: LEL, O <sub>2</sub>	478192	\$165.00
Gas Cylinders, 58 liters		
Mix: LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	804770	\$290.00
Mix: LEL, O <sub>2</sub> , H <sub>2</sub> S	804769	\$290.00
Gas Cylinders, 34 liters		
Mix: LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	711058	\$199.00
Calibration Cap	10020550	\$45.00

Prices above are suggested U.S. list prices only and may not apply in international markets. Prices subject to change without prior notification.

Sampling Accessories	Part No.	Price
Sample line, 3-foot coiled	10018118	\$51.00
Sample line, 5-foot coiled	710465	\$58.00
Sample line, 10-foot	497333	\$47.00
Sample line, 15-foot	497334	\$51.00
Sample line, 25-foot	497335	\$62.00
Probe, 1-foot	800332	\$117.00
Probe, 3-foot	800333	\$132.00

Protective Jackets	Part No.	Price
Orange Cordura	10020486	\$55.00
Black Leather	10020485	\$99.00

Replacement Sensors	Part No.	Price
Combustible (FX Version)	10055614	\$200.00
Oxygen	10025940	\$150.00
Carbon Monoxide	711306	\$200.00
Hydrogen Sulfide	711307	\$200.00

Belt Clips	Part No.	Price
Swivel Belt Loop Kit	710962	\$89.00

Protective Boots	Part No.	Price
Red Rubber	10025665	\$77.00
Black Rubber	10022036	\$77.00

Video	Part No.	Price
Care and Use Video	10020489	\$19.95

**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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