OWNER'S MANUAL

FORM: OM-264 021B 2015–01

For Miller® Selec-O-Gas™ Flowmeter H1240

1. Safety Symbol Definitions

	DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text. Fsafe1 2013-10		Have only trained and qualified persons install, operate, or service this unit. Read the safety information at the beginning of these instructions and in each section. Call your distributor if you do not understand the directions. Oxysafe2 2013-10
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury**.** The possible hazards are shown in the adjoining symbols or explained in the text. Fsafe2 2013-10		Cylinders contain gas under high pressure and can explode if damaged. Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, and sparks. Always secure cylinder to running gear, wall, or other stationary support. Oxysafe1 2013-10
NOTICE 	*Indicates statements not related to personal injury.* *Indicates special instructions.* Fsafe3 2013-10		Welding sparks can cause fire or explosion. Move flammables away. Do not weld on closed tanks or barrels, or on containers that have held combustibles – they can explode. Clean tanks or barrels properly. Oxysafe4 2013-10
	Arc rays can burn eyes and skin – wear a welding helmet with correct filter, and cover exposed skin with nonflammable clothing. Oxysafe5 2013-10		Build-up of gas can injure or kill. Shut off compressed gas supply when not in use. Always ventilate confined spaces or use approved air-supplied respirator. Oxysafe3 2013-10

CALIFORNIA PROPOSITION 65 WARNINGS

Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)

This product contains chemicals, including lead, known to the state of California to cause cancer, birth defects, or other reproductive harm. *Wash hands after use.*

Fsafe4 2013-10

2. Safety Precautions – Read Before Using

Do not use this equipment unless you are trained in its proper use or are under competent supervision. Follow the procedures described in this booklet every time you use the equipment. Failure to follow these instructions may cause fire, explosion, asphyxiation, property damage, or personal injury. This equipment must be used in accordance with all Federal, State, and local regulations as well as DOT (Department of Transportation) and CGA (Compressed Gas Association) regulations. Contact your gas supplier for more information on the proper use of compressed gases.

Do not use this equipment with gases and pressures other than those for which it is intended. Inspect all equipment before use. Do not use damaged, defective, or improperly adjusted equipment. Do not use if grease or oil is present on equipment or if equipment is damaged. Have equipment cleaned/repaired by a qualified person.

Use the correct type hose connection for the specific gas service as listed in Section 3.

Inspect equipment before use. Do not use if grease or oil is present on equipment or if equipment is damaged. Have equipment cleaned/repaired by a qualified person.

Use an approved oil-free leak detection fluid to locate possible leaks. PTFE tape is an acceptable pipe thread sealant. If other sealing materials are preferred, those materials must be compatible with the gas that is being used in the system.

Check every connection and joint from the cylinder valve to the torch tip with an approved leak detection solution. If leaks are detected, eliminate them before proceeding. If leaks cannot be eliminated, do not put the equipment into service until it has been repaired or replaced.

Always purge gas from the system before lighting torch to prevent a possible mixed-gas explosion. Purge gas in a well ventilated area and away from flame or sparks.

3. Introduction

These flowmeters are designed to accurately measure and control the flow of a variety of gases. All units are tested at the factory to insure conformance with rigid quality standards.

Four different scales are provided on the flowmeter tube to accurately show the flow in cubic feet per hour of three specific gases: argon, helium, and carbon dioxide. The fourth scale is a general scale for use with a wide range of non corrosive gases such as acetylene, air, butane, hydrogen, MAPP®, natural gas, nitrogen, oxygen, propane, etc. This general scale reads from 1 to 10 and specific flow rates for any of these gases can be found by making reference to the conversion chart in Section 4.

Acetylene

Acetylene flow rates are based on 15 psig (103 kPa) inlet pressure to the flowmeter.

Do not use acetylene above 15 psig (103 kPa) flowing.

When used for acetylene, the flowmeter regulator must be readjusted from 30 psig (207 kPa) to 15 psig (103 kPa). To reset outlet pressure, remove plug in regulator bonnet to access the recessed adjustment screw. Turn adjustment screw counterclockwise to obtain an outlet pressure of 15 psig (103 kPa) as indicated on a test gauge at the regulator (not the flowmeter outlet).

4. Conversion Chart

☞ *The flow rates are specified in cubic feet per hour (scfh) and are based on gases supplied to the flowmeter at a pressure of 30 psig (207 kPa). The flowmeter regulators automatically provide this pressure to the flowmeters.*

General Scale Reading	Acetylene	Air	Argon	Butane	Carbon Dioxide	Helium	Hydrogen	MAPP®	Natural Gas	Nitrogen	Oxygen	Propane	Argon 75% Carbon Dioxide 25%
	Flow Rates In scfh (L/Hr)												
1	8.4 (237.9)	12.0 (339.8)	10.2 (288.8)	8.4 (237.9)	9.72 (275.2)	32.3 (914.6)	45.4 (1285.6)	9.9 (280.3)	14.6 (413.4)	12.2 (345.4)	11.4 (322.8)	9.6 (271.8)	10.1 (286)
2	13.5 (382.2)	20.0 (566.3)	17.0 (481.4)	14.0 (396.4)	16.2 (458.7)	53.8 (1523.4)	75.6 (2140.7)	16.5 (467.2)	24.2 (690.9)	20.4 (577.7)	19.0 (538)	16.0 (453)	16.8 (475.7)
3	18.9 (535.2)	27.1 (767.4)	23.1 (654.1)	18.9 (535.1)	21.9 (620.1)	72.9 (2064.2)	102.4 (2899.6)	22.4 (634.3)	33.1 (937.3)	27.6 (781.5)	25.7 (727.7)	21.7 (614.5)	22.8 (645.6)
4	25.2 (713.6)	34.5 (976.9)	29.4 (832.5)	24.1 (682.4)	27.9 (790)	92.8 (2627.8)	130.4 (3692.5)	28.5 (807)	42.1 (1192.1)	35.2 (996.7)	32.8 (928.8)	27.6 (781.5)	29.0 (821.1)
5	32.0 (906.1)	41.2 (1166.6)	35.1 (993.9)	28.8 (815.5)	33.3 (943)	110.8 (3137.5)	155.7 (4409)	34.1 (865.6)	50.3 (1424.3)	42.0 (1189.3)	39.1 (1107.1)	33.0 (934.5)	34.6 (979.7)
6	37.9 (1073.2)	48.0 (1359.2)	40.9 (1158.1)	33.6 (951.4)	38.8 (1098.7)	129.1 (3655.7)	181.4 (5136.7)	39.7 (1124.1)	58.6 (1659.3)	49 (1387.5)	45.6 (1291.2)	38.4 (1087.3)	40.0 (1144)
7	43.0 (1217.6)	54.0 (1529.1)	46.0 (1302.6)	37.8 (1070.3)	43.7 (1237.4)	145.2 (4111.6)	204.1 (5779.4)	44.6 (1262.9)	65.9 (1866)	55.1 (1560.2)	51.3 (1452.6)	43.2 (1223.2)	45.4 (1285.6)
8	48.0 (1359.2)	60.0 (1699)	51.1 (1447)	42.0 (1189.3)	48.6 (1376)	161.4 (4570.3)	226.8 (6422.2)	49.6 (1404.5)	73.2 (2072.8)	61.2 (1733)	57.0 (1614)	48.0 (1359.2)	50.5 (1430)
9	54.6 (1546.1)	66.0 (1868.9)	56.2 (1591.4)	46.2 (1308.2)	53.4 (1512)	177.5 (5026.2)	249.5 (7065)	54.6 (1546.1)	80.5 (2279.5)	67.3 (1905.7)	62.7 (1775.4)	52.8 (1495.1)	55.5 (1571.6)
10	59.8 (1693.3)	71.8 (2038.1)	61.1 (1730.1)	50.2 (1421.5)	58.1 (1645.2)	193.1 (5468)	271.4 (7685.1)	59.4 (1682)	87.6 (2480.5)	73.2 (2072.8)	68.2 (1931.2)	57.4 (1625.4)	60.4 (1710.3)
Specific Gravity	0.91	1	1.35	2.06	1.53	0.14	0.07	1.49	0.67	0.97	1.105	1.56	1.4