



A Unit of AMERON GLOBAL, INC.

FIRE EXTINGUISHER, SINGLE OUTLET

69 CUBIC-INCH (1,13 LITER)

P/N 53100-1

SUPPLEMENT TO
COMPONENT MAINTENANCE MANUAL 26-22-02
TECHNICAL PROPERTIES AND
ILLUSTRATED PARTS LIST

26-22-02

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FEB 20/09
SUPPLEMENT 53100-1



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PMA PARTS NOTICE

MASS Systems, A Unit of Ameron Global, Inc. will provide full warranty on all fire extinguishers provided the component parts used in the repair and overhaul process have formal after market FAA-PMA authority for use on the fire extinguisher application.



LIST OF EFFECTIVE PAGES

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TECHNICAL PROPERTIES

Table 1

PROPERTY	SPECIFICATION
Description Part Number Customer Part Number Nomenclature Complies With	53100-1 609-325-711-101 Fire Extinguisher, Single Outlet MIL-C-22284 and DOT-SP 10440-1000
Functional Properties Internal Volume Extinguishing Agent Pressurizing Gas	69 cubic inches (1,13 liter) Bromotrifluoromethane (CBrF ₃) Halon 1301 Nitrogen (N ₂)
Pressure Data At 70°F (21°C) Charge Pressure Hydrostatic Test Pressure * Burst Pressure Leakage Rate Safety Relief	600 to 625 psig (4137 to 4309 kPag) 2000 psig (13790 kPag) 3000 psig (20685 kPag) minimum 1.0 x 10 ⁻⁶ scc/second maximum 1580 to 1950 psig (10894 to 13445 kPag)
Ambient Temperature Range	-65°F to +160°F (-54°C to +71°C)
Weight Data Empty Fire Extinguisher ** Extinguishing Agent (full charge) Nitrogen Charge Charged Fire Extinguisher ** Allowable weight deviation – actual weight versus weight marked on identification plate	2.69 pounds (1,22 kg) maximum 2.70 to 2.80 pounds (1,22 to 1,27 kg) 0.07 pound (0,03 kg) 5.56 pounds (2,52 kg) maximum Minus 0.10 pound (0,05 kg)

* The fire extinguisher hydrostatic test interval is every 5 years. If 5 years have not elapsed, hydrostatic test can be waived Per CFR Title 49, section 180.205.

For the aircraft with passenger seating configurations of Nine-Seats or Less the CFR Title 49, section 180.205 applies, per FAA Order 8300-10 (Amended 9-4-02), paragraphs 3.A., B., and C.

For the aircraft with passenger seating configurations of Ten-Seats or More the CFR Title 49, section 180.205 applies, per FAA Order 8300-10 (Amended 9-4-02), paragraphs 3.A., B., and D.

** Weight includes the discharge outlet valve (Item 20).
 Weight does not include the cartridge (Item 5).



PROPERTY	SPECIFICATION
Cartridge Data, Single Bridgewire Voltage Current Rating – All-Fire No-Fire Test Current Bridgewire Resistance Electrical Connector Mates With Maximum Life (from manufacture date) Classification Torque Lockwire Size	16 to 30 VDC 3.5 amps minimum for 50 milliseconds 1.0 amps or 1.0 watt for 5 minutes 20 milliamps maximum continuous 0.9 to 1.1 Ohm D38999/26WA98SN 15 years Total (12-years max. service) 1.4s, UN0323 90 to 100 inch-pounds (10,2 to 11,3 N·m) 0.032 inch (0,81 mm)
Temperature Compensated Pressure Switch Data At 70°F (21°C) Voltage Rating Current Rating Actuates Closed – Decreasing Pressure Connector Pins Press-To-Test Electrical Connector Electrical Connector Mates With Orientation to Horizontal Centerline	28 VDC nominal 0.5 amps nominal Below 460 psig (3172 kPag) Open between Pins 2 and 3 with pressure Closes between Pins 2 and 3 D38999/20WA35PN D38999/26WA35SN 30 ±2 degrees
Outlet Disc Data Burst Pressure Data at 70°F (21°C)	1580 to 1950 psig (10894 to 13445 kPag)
Filler Valve Data Thread Size Torque Lockwire Size	0.500-20 UNF-2A 110 to 130 inch-pounds (12,4 to 14,7 N·m) 0.032 inch (0,81 mm)
Outlet Fitting Data Thread Size Torque Lockwire Size	AS4396S08 (0.750-16 UNJF-3A) 25 to 30 foot-pounds (33,9 to 40,7 N·m) 0.032 inch (0,81 mm)



ASSEMBLY (INCLUDING STORAGE)

The Nitrogen gas charge pressure for the actual temperature of the fire extinguisher is listed in Table 701 and Table 702.

Temperature versus Charge Pressure - PSIG
Table 701

TEMP °F	PRESSURE - PSIG		TEMP °F	PRESSURE PSIG	
	MIN	MAX		MIN	MAX
60	563	588	80	639	664
61	567	592	81	644	669
62	571	596	82	648	673
63	574	599	83	652	677
64	578	603	84	656	681
65	581	606	85	660	685
66	585	610	86	665	690
67	589	614	87	669	694
68	593	618	88	673	698
69	596	621	89	678	703
70	600	625	90	682	707
71	604	629	91	686	711
72	608	633	92	691	716
73	612	637	93	695	720
74	615	640	94	700	725
75	619	644	95	705	730
76	623	648	96	709	734
77	627	652	97	714	739
78	631	656	98	719	744
79	635	660	99	723	748
			100	728	753



Temperature versus Charge Pressure - KPAG
Table 702

TEMP °C	PRESSURE - KPAG		TEMP °C	PRESSURE KPAG	
	MIN	MAX		MIN	MAX
15,6	3882	4054	26,7	4406	4578
16,1	3909	4082	27,2	4440	4613
16,7	3937	4109	27,8	4468	4640
17,2	3958	4130	28,3	4495	4668
17,8	3985	4158	28,9	4523	4695
18,3	4006	4178	29,4	4551	4723
18,9	4033	4206	30,0	4585	4757
19,4	4061	4233	30,6	4613	4785
20,0	4089	4261	31,1	4640	4813
20,6	4109	4282	31,7	4675	4847
21,1	4137	4309	32,2	4702	4875
21,7	4164	4337	32,8	4730	4902
22,2	4192	4364	33,3	4764	4937
22,8	4220	4392	33,9	4792	4964
23,3	4240	4413	34,4	4826	4999
23,9	4268	4440	35,0	4861	5033
24,4	4295	4468	35,6	4888	5061
25,0	4323	4495	36,1	4923	5095
25,6	4351	4523	36,7	4957	5130
26,1	4378	4551	37,2	4985	5157
			37,8	5019	5192



SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

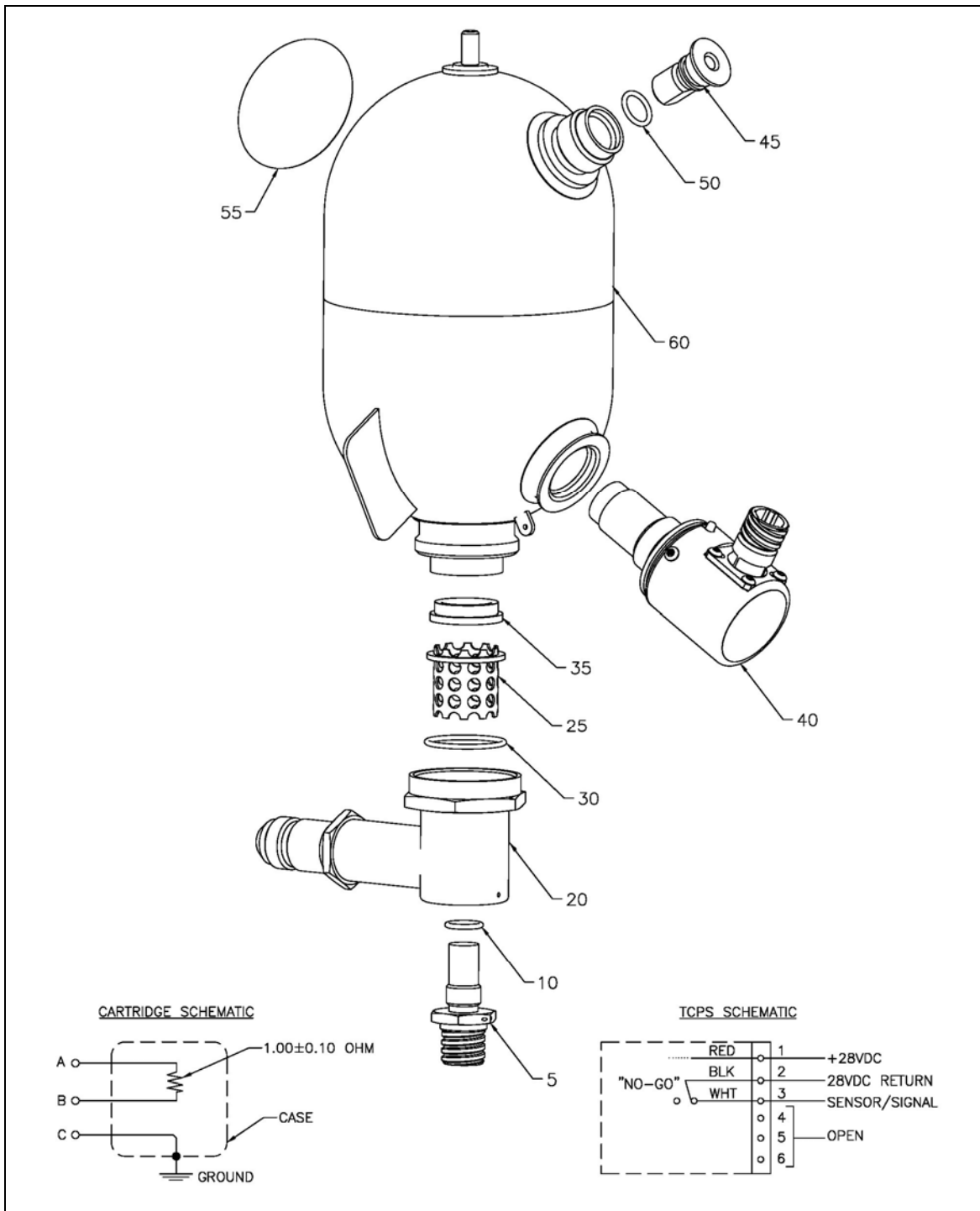
Special tools, fixtures, and test equipment required for maintenance of the fire extinguisher are listed in Table 901. Equivalent items may be substituted.

**Special Tools, Fixtures, and Equipment
Table 901**

NOMENCLATURE	PART OR SPECIFICATION NUMBER	SOURCE (CAGE)
Cap, Hydrostatic Test, Discharge Boss	91021	MASS Systems, A Unit of Ameron Global, Inc. (0FRR4)
Cradle, Fire Extinguisher	91033-60	
Outlet Safety Cap	27319-1	
Resurfacing Tool, Discharge Boss	91044-1, -2	
Charging Fixture	23540-1	
Discharge Tool	91097-1	
Resurfacing Tool, Discharge Boss	91044-1, -2	
Safety Chamber, Cartridge	91035-2	
TCPS Test Box	91900-1	
Welding Fixture	91100-1	MASS Systems, A Unit of Ameron Global, Inc. (0FRR4)



ILLUSTRATED PARTS LIST



**Fire Extinguisher Exploded View
 IPL Figure 1001**

26-22-02



ILLUSTRATED PARTS LIST

Fire Extinguisher P/N 53100-1 IPL Table 1001

FIG. ITEM NO.	PART NUMBER	AIRLINE PART NO.	NOMENCLATURE							EFF	UNITS PER ASSY
			1	2	3	4	5	6	7		
1 -1	53100-1		FIRE EXTINGUISHER, 69-CUBIC INCH (CUST. P/N 609-325-711-101)								RF
5	30600-12		.	CARTRIDGE							1
10	NAS1612-5		.	.	O-RING (SCD SU01254-5)						1
-15	24626-1		.	.	TAG, CAUTION						1
20	53120-1		.	OUTLET VALVE, DISCHARGE							1
25	22740-1		.	.	SCREEN WELDMENT						1
30	MS28775-023		.	.	O-RING (SCD SU01251-23)						1
35	M33440018-3		.	DISC, OUTLET							1
40	33000-4		.	SWITCH, TEMPERATURE COMPENSATED PRESSURE							1
45	M35200525		.	FILL VALVE							1
50	MS28775-013		.	O-RING (SCD SU01251-13)							1
55	53115-1		.	PLATE, IDENTIFICATION							1
60	53110-1		.	WELDMENT CONTAINER							1

- Item not illustrated