



**MASS SYSTEMS
A UNIT OF AMERON GLOBAL, INC.
COMPONENT MAINTENANCE MANUAL**

**TO: HOLDERS OF THE PORTABLE WATER-SOLUTION FIRE EXTINGUISHER
COMPONENT MAINTENANCE MANUAL 26-20-02, DATED SEP 30/02.**

REVISION NO. 5 DATED MAY 1/03

HIGHLIGHTS

THIS PUBLICATION HAS BEEN REPRINTED IN ITS ENTIRETY. REPLACE ALL PREVIOUSLY ISSUED COPIES OF THE COMPONENT MAINTENANCE MANUAL

The highlights of the revision are outlined below. The pages have been revised and maintain the format of ATA 100 and the AECMA Simplified English guidelines.

Chapter/Section and Page No.	Description of Change	Effectivity
Title Page	Added revision date.	All models
Page RR-1	Added revision date.	All models
Page LEP-1	Added revision date. Revised affected page dates.	All models
Page 1	Revised paragraph 2.B to reflect “discharge range is 12 feet”	All models



A Unit of AMERON GLOBAL, INC.

PORTABLE WATER-SOLUTION

FIRE EXTINGUISHER

P/N M892480

COMPONENT MAINTENANCE MANUAL

WITH TECHNICAL PROPERTIES AND

ILLUSTRATED PARTS LIST

26-20-02

**T-1
JUN 15/01
Revised MAY 1/03**



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PMA PARTS NOTICE

MASS Systems recommends the component parts used in the repair and overhaul of reservoir assembly be MASS Systems manufactured component parts or FAA-PMA component parts that have formal after market authority by design compilation and test.



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INTRODUCTION

SCOPE

This Component Maintenance Manual covers the maintenance and overhaul procedures for the portable water-solution fire extinguisher. The portable water-solution fire extinguisher is used to extinguish fires in the cabin compartment.

MANUFACTURING ENTITY & PRODUCT SUPPORT

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In addition to our factory Product Support, Overhaul and Recharge stations are available worldwide.

USE MANUAL FOR SPECIFIC FUNCTIONS

This manual covers the following topics: Description and Operation, Technical Properties, Testing and Fault Isolation, Disassembly, Cleaning, Check, Repair, Assembly and Storage, Special Tools, Fixtures, and Equipment, and Illustrated Parts List.

Recommended tools, equipment, and materials are listed in each section and in the Special Tools, Fixtures, and Equipment section. Equivalent items may be used.

REVISION SERVICE

Revised pages will be issued when necessary throughout the service life of the portable water-solution fire extinguisher. The revised part of the page will be identified with a change bar or capital **R** in the left margin.

VERIFICATION

Testing and Fault Isolation	<u>July 2, 2001</u>
Disassembly	<u>July 2, 2001</u>
Assembly	<u>July 2, 2001</u>



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ABBREVIATIONS AND UNIT SYMBOLS

Abbreviations and unit symbols used in this manual are defined below.

Assy.	Assembly	kPag	Kilo Pascal-gauge (1 kPag = 0.15-psi)
ATA	Air Transport Association	Max	Maximum
CAA	Civil Aviation Authority	Min	Minimum
CAGE	Commercial and Government Entity	Mm	Millimeter (1 mm = 0.0394-inch)
Cfh	Cubic feet per hour	N·m	Newton-meter (1 N·m = 8.3 inch-pound)
CFR	Code of Federal Regulations	No.	Number
Cm	Centimeter (1 cm = 0.394-inch)	OD	Outside Diameter
DOT	Department of Transportation	Psig	Pounds per square inch-gauge
FAA	Federal Aviation Administration	Rev.	Revision
GN ₂	Nitrogen Gas	SB	Service Bulletin
ID	Inside Diameter	Scch/hour	Standard cubic centimeters per hour
IPL	Illustrated Parts List	Temp	Temperature
JAA	Joint Aviation Authorities	%	Percent
Kg	Kilogram (1 kg = 2.205-pounds)		



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SECTION 1: DESCRIPTION AND OPERATION

1. Description

- A. The Aircraft Portable Fire Extinguisher consists of a brass cylinder containing one and 3/8 quarts (44 ounces) of antifreeze extinguishing agent, a valve body, cartridge handle, and discharge lever assembly. The valve body, cartridge handle, and discharge lever assembly are located on the top end of the cylinder assembly as shown in Figure 1. A locking shoulder on the cartridge handle prevents the fire extinguisher from being accidentally discharged.
- B. The cylinder assembly is filled with antifreeze extinguishing agent. The valve body, cartridge handle, and discharge lever assembly are attached to the outlet port on the cylinder assembly.
- C. When completely assembled and fully charged with one and 3/8 quarts (44 ounces) of antifreeze extinguishing agent the fire extinguisher weight is less than 7 pounds.
- D. The fire extinguisher is provided without mounting brackets. Mounting brackets are available as separate items, and can be used to attach the fire extinguisher to the aircraft, adjacent to a hazardous area.

2. Operation

- A. Carbon dioxide charge from the pressure cartridge within the cartridge handle provides the force necessary to expel the antifreeze extinguishing agent through the valve assembly to the fire source. Twisting the cartridge handle in the direction indicated by the arrows on the cartridge handle causes the carbon dioxide pressure cartridge to be punctured, releasing the carbon dioxide charge to pressurize the cylinder assembly.
- B. The antifreeze extinguishing agent is contained in the cylinder assembly until the discharge lever is manually squeezed, allowing the pressure within the cylinder assembly to force the antifreeze extinguishing agent out through the valve assembly. The time of discharge is between 30 and 45 seconds at 70°F temperature; the minimum discharge range is 12 feet.



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3. Technical Properties

A. Technical properties are provided in Table 1.

TABLE 1. Technical Properties

PROPERTY	SPECIFICATION
Hydrostatic (proof) pressure	300 psig
Burst pressure	500 psig minimum
Ambient temperature range	-40°F to +140°F
Weight of antifreeze extinguishing agent	One and 3/8 quarts (44 ounces)
Weight of charged assembly	6.5-pounds minimum 7.0-pounds maximum
Container Material	Brass
Container capacity	102 cubic inches
Discharge time at 70°F	30 seconds minimum 45 seconds maximum
Discharge distance (horizontal stream)	12 feet for at least ¾ of the total agent
Force to turn cartridge handle	15 inch-pounds maximum
Force to depress discharge lever	3 pounds maximum



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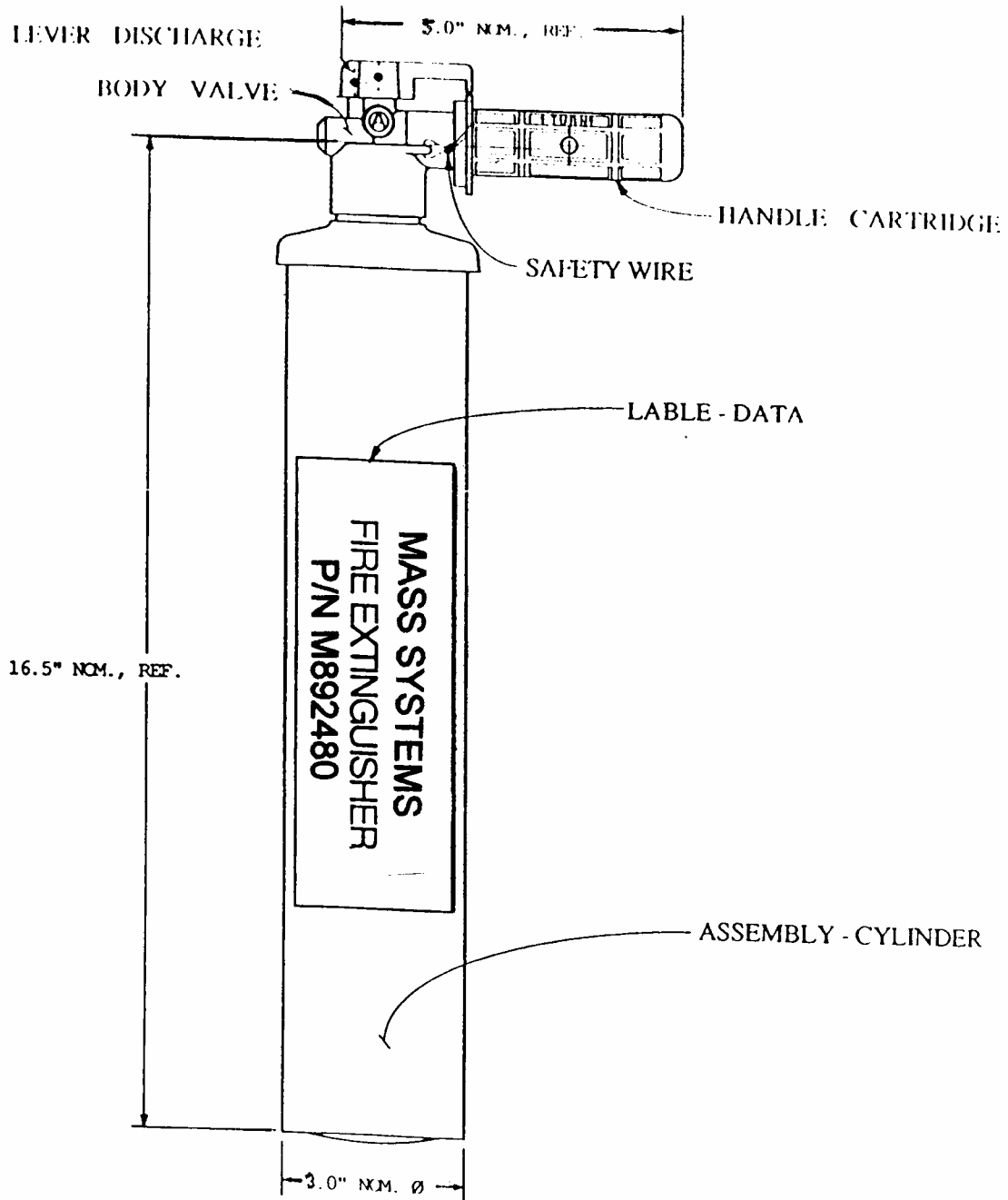


Figure 1. Fire Extinguisher



SECTION 101: TESTING AND FAULT ISOLATION

1. General

- A. MASS Systems recommends the following functional test period and a mandatory hydrostatic (proof) pressure test period.
- (1) Recommendation for scheduled functional test shall be within 30 months after original or last test date for cylinder assemblies in continuous service or storage. Cylinder assemblies for which 30 months have elapsed from the original or last test date and which have not been retested should be functionally tested.
 - (2) Mandatory hydrostatic (proof) pressure test shall be performed 5 years after original or last hydrostatic (proof) pressure test date.
- B. This section contains the procedures and safeguards required for testing and troubleshooting the cylinder assembly. Prior to performing hydrostatic (proof) pressure tests, visual check and leak test must be performed and necessary repairs must be accomplished.

2. Testing

A. Functional Test

- (1) Fill the cylinder assembly (120) with 44 ounces of clean water.
- (2) Assemble the valve assembly to the cylinder assembly (120).
- (3) Operate the fire extinguisher.
- (4) Using 1-inch crow, measure force to turn cartridge handle (10), must be 15 inch-pounds maximum.
- (5) Using force scale, measure force to depress discharge lever (80), must be 3 pounds maximum.
- (4) The discharge time is between 30 and 45 seconds at 70° F temperature and shall cover a minimum range of 12 feet.
- (5) No visible leakage is permissible at the valve body (100) and cylinder assembly (120) connection.



B. Proof Pressure Tests

WARNING: PERFORM THIS HYDROSTATIC (PROOF) PRESSURE TESTING IN A SUITABLE SAFETY CHAMBER AND IN AN AREA FREE OF UN-AUTHORIZED PERSONNEL.

- (1) Remove overflow tube (115) from the cylinder assembly (120) and fill cylinder assembly with water.
- (2) Apply 175 psig pressure to the cylinder assembly (120) and check for leaks along the seams.

NOTE: Check all seams with a soap solution. Visually inspect for air bubbles that indicate leaks.

- (3) Hydrostatic (proof) pressure test the cylinder assembly (120) at 300 psig for one minute and visually check for leaks or deformation. **RELEASE PRESSURE AND DRAIN CYLINDER.** Metal stamp the date (month and year) of the test on the cylinder assembly (120) dome immediately under the previous test date after performing the hydrostatic (proof) pressure test.

Table 101. Fault Isolation and Corrective Action

FAULT	PROBABLE CAUSE	CORRECTIVE ACTION
Cylinder assembly (120) is nicked, dented, or damaged	Improper handling.	Refer to inspection, rejection criteria. Perform hydrostatic (proof) pressure test on cylinder assembly (120).
Cylinder assembly (120) leakage	Loose or defective valve assembly.	Tighten or repair valve assembly.
	Defective o-ring (60) neck seal.	Replace o-ring (60) neck seal.
	Damaged or defective seat stem (85).	Repair or replace seat stem (85).
Deformation of cylinder assembly (120)	Over-pressurization.	Replace fire extinguisher.
	Cylinder assembly (120) walls deteriorated or deformed.	Replace fire extinguisher.



SECTION 301: DISASSEMBLY

1. **General**

- A. Disassemble the fire extinguisher only to extent necessary to effect repairs.
- B. Refer to the IPL Figure 1 in Illustrated Parts List for parts locations, and disassemble in order given.

2. Procedure

WARNING: DO NOT DISASSEMBLE THE FIRE EXTINGUISHER FURTHER UNTIL THE EXTINGUISHING AGENT HAS BEEN DISCHARGED OR SEVERE INJURY TO PERSONNEL CAN OCCUR.

- A. Discharge the fire extinguisher.
- B. Disassemble the cylinder assembly (120) from the valve assembly.

- (1) Remove the broken seal and copper seal wire (-5).

WARNING: MAKE CERTAIN THAT THE FIRE EXTINGUISHER IS COMPLETELY DISCHARGED BEFORE ATTEMPTING FURTHER DISASSEMBLY.

- (2) Unscrew the cylinder assembly (120) from the valve body (100). The maintenance data label (110), manufacturing data label (105), and handle position labels (15) need not be removed unless damaged. Removal of the overflow tube (115) is performed only if the overflow tube (115) is loose, wobbly, or defective; or if hydrostatic (proof) pressure testing is to be performed.
- (3) Unscrew the cartridge handle (10) from the valve body (100).
- (4) Remove the used pressure cartridge (25) and the cartridge spring (20) from inside the cartridge handle (10). Discard the used pressure cartridge (25).

C. Disassemble Valve Assembly

- (1) Remove the retainer ring (30) from the valve body (100), then remove the piercing pin assembly (35) from the valve body (100). Remove and discard the o-rings (40 and 45) from the grooves of the piercing pin assembly (35).



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- (2) Remove the check (50) from the valve body (100).
- (3) Remove the siphon hose (55). Remove the o-ring (60) from the valve body (100). Hold the discharge lever (80) stationary, and using a screwdriver unscrew the check valve assembly (65).
- (4) Drive out the groove pin (70) and remove the discharge lever (80) and the stem assembly (85) from the valve body (100). Remove and discard the o-ring (95). Remove the stem spring (90).
- (5) Drive out the groove pin (75) to separate the discharge lever (80) from the seat stem (85).



SECTION 401: CLEANING

1. General

- A. This section describes cleaning requirements and specifies cleaning materials to be used. Equivalent materials may be used.
- B. Cleaning of the assembly is limited to removal of foreign materials.

2. Materials

- A. Cleaning materials are listed in Table 401. Equivalent items may be used. Substitute materials, if used, must not leave a residue on cleaned surfaces.

Table 401. Cleaning Materials

NOMENCLATURE	SPECIFICATION NUMBER	SOURCE (CAGE)*
Alcohol, Isopropyl	Federal Specification TT-I-735	Commercially available

3. Procedure

WARNING: ISOPROPYL ALCOHOL IS COMBUSTIBLE AND HARMFUL, OR FATAL IF SWALLOWED. KEEP FROM HEAT OR OPEN FLAME. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID BREATHING SOLVENT MIST OR VAPOR. USE IN VENTILATED AREAS.

- A. Clean the metal parts using cleaning solvent or equivalent and a soft bristle brush only.

WARNING: ALWAYS DIRECT COMPRESSED AIR AWAY FROM PERSONNEL. WEAR EYE PROTECTION.

- B. Dry the metal parts with clean, dry compressed air using a maximum pressure of 20 psig, or dry with clean, lint-free cloth.
- C. Wipe the nonmetallic components clean with a dry, clean, lint-free cloth.



SECTION 501: CHECK

1. General

- A. This section describes inspections and checks required to determine the condition of the fire extinguisher prior to and following repairs, recharging, and assembly.

2. Inspection

- A. Visually inspect the fire extinguisher for deformation, dents, weld cracks, loose or missing components, and service life. Repair or replace damaged or loose components. Perform hydrostatic (proof) pressure testing if the cylinder assembly (120) service life has reached five-years since last test.

WARNING: DAMAGED CYLINDER ASSEMBLIES (120) CAN CAUSE INJURY OR DEATH. IF EXPERIENCED INSPECTION PERSONNEL ARE NOT AVAILABLE TO CONDUCT TESTS, RETURN CYLINDER ASSEMBLIES (120) TO A DOT CERTIFIED TEST FACILITY FOR HYDROSTATIC (PROOF) TEST INSPECTION.

- B. Visually inspect the cylinder assembly (120) for evidence of over-pressurization or other damage.

NOTE: If doubt exists about the cylinder assembly (120) service condition, perform hydrostatic (proof) pressure test following visual examination.

- (1) Inspect the cylinder assembly (120) exterior for bulging, dents, distortion, weld cracks, or other damage or deformation. If doubt exists about the cylinder assembly (120) condition, condemn and replace the cylinder assembly (120).
- (2) Use a mirror and light to inspect interior of the cylinder assembly (120) for debris, oil, and other foreign matter.

WARNING: DEBRIS REMOVED BY COMPRESSED AIR CAN CAUSE BLINDNESS OR OTHER SERIOUS INJURY. WEAR SAFETY FACE SHIELD AND DIRECT AIR FLOW AWAY FROM PERSONNEL WHEN PURGING THE CYLINDER ASSEMBLIES (120).

- (3) Purge the cylinder assembly (120) interior with clean, dry, oil-free air at a maximum pressure of 20 psig.



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- (4) Visually check the cylinder assembly (120) interior for defects. Replace the fire extinguisher with any of the following:

NOTE: A decrease of 0.005-inch from original wall thickness is cause for rejection.

- (a) Cracks
 - (b) Elongated pits of any length
 - (c) Extensive localized pitting
 - (d) Bulging or dents
 - (e) Corrosion
 - (f) Fire damage or evidence of prolonged exposure to heat.
- (5) Inspect all mating and seating surfaces for nicks, dents, and radial scratches.
- (6) Refer to TESTING AND TROUBLESHOOTING for functional test procedure and hydrostatic (proof) pressure test procedure when any inspection or check requirement has not been met.

C. Visually inspect components as follows:

- (1) Check all the springs for deformation. Check the spring (20) for 1.480- to 1.500-inch free height. Check the spring (90) for 0.730- to 0.750-inch free height.
- (2) Inspect the piercing pin assembly (35) for damage and tightness.
- (3) Check condition of the overflow tube (115).

WARNING: DEBRIS REMOVED BY COMPRESSED AIR CAN CAUSE BLINDNESS OR OTHER SERIOUS INJURY. WEAR SAFETY FACE SHIELD AND DIRECT AIR FLOW AWAY FROM PERSONNEL WHEN CHECKING THE PORTING OF THE VALVE BODY (100).

- (4) Inspect that valve body (100) is clear of obstructions. Blow compressed air (20 psig) through the porting to insure it is clear.



SECTION 601: REPAIR

1. General

- A. This section describes acceptable repair procedures that can be performed on the cylinder assembly (120) and specifies items that must be replaced in lieu of attempting repairs.

2. Definitions

REPAIRABLE: An item that can be restored to useful condition by grinding, crimping, threading or replacement of one or more components.

REPLACEABLE: An item that can be repaired by removal and replacement with a new component.

NONREPAIRABLE An item that cannot be restored to useful service by replacement of components or by any other standard repair method.

DAMAGED: An item that has incurred damage through mishandling or misuse or has been deformed or broken when struck by a foreign object.

DEFECTIVE: An item that fails due to structural, electrical, or mechanical malfunction during normal operation.

EXPENDED: An item that has been used and cannot be used again without recharging or replacing contents or components.

3. Procedures

- A. Repair damaged threads as follows:

- (1) Select tap or die of correct thread size. Lubricate thread cutting area with cutting oil.
- (2) Screw selected tap or die into or onto threads to be repaired. Repair damaged threads and remove tap or die.
- (3) Thoroughly clean oil and cuttings from the repaired threads.
- (4) Using an appropriate thread gauge, check threads for proper major, minor, and pitch diameters as specified in MIL-S-8879. Reject the repaired part if threads are uneven, chipped, or have incorrect diameters.



4. Replacement

- A. Refer to the ASSEMBLY Section for reassembly procedures.
- B. Repair to the detail components of the Aircraft Fire Extinguishers is not practical and is not recommended.
- C. Replace all damaged, defective, expended, and non-repairable items. Replace all preformed o-rings (items 40, 45, 60, and 95) and check (50).
- D. Replace broken or cracked discharge lever (80).
- E. Replace the pressure cartridge (25) if the weight is less than the weight stamped on the pressure cartridge (25). Replace the pressure cartridge (25) if corroded or damaged, or if the pressure cartridge (25) is expended. Discharge defective cartridges and discard.
- F. Replace the labels (15, 105, and 110) if deteriorated.

5. Retest

- A. When repairs are complete, recharge, and retest.



SECTION 701: ASSEMBLY

1. General

A. This section describes the assembly procedures, defines the order of assembly, and lists materials required to assemble components. Always assemble components in specified order. Disregard the assembly instructions for components that have not been disassembled or removed. Refer to Illustrated Parts List (IPL) section for parts required and location.

B. Functional Test

A functional test is recommended prior to the following assembly to assure proper operation. Refer to Testing and Fault Isolation section.

2. Materials

A. Materials required for assembly are listed in Table 701. Equivalent items may be used.

Table 701. Assembly Materials

NOMENCLATURE	SPECIFICATION NUMBER	SOURCE (CAGE)*
Extinguishing Agent	M3923	MASS Systems 0FRR4
Lubricant	MIL-G-7711	Commercially available
Lubricant	MIL-G-4343	Commercially available

3. Assembly Procedure

WARNING: DIRECT COMPRESSED AIR FLOW AWAY FROM PERSONNEL. DEBRIS MOVED BY AIR FLOW CAN CAUSE BLINDNESS OR SERIOUS INJURY. WEAR EYE PROTECTION.

A. **Preparation**

Clean interior of cylinder assembly (120) using clean, dry, oil-free air at a pressure of 20 psig.



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WARNING: TO AVOID POSSIBLE INJURY CAUSED BY BURSTING THE CYLINDER ASSEMBLIES (120), PERFORM HYDROSTATIC (PROOF) TESTING BEFORE ASSEMBLY.

B. Assembly

- (1) Lubricate all o-rings (40, 45, 60, and 95), the rubber check (50), the check valve assembly (65), and the neck of the pressure cartridge (25) with lubricant MIL-G-7711.
- (2) Install the o-ring (40) into the internal groove in the piercing pin assembly (35). Install the o-ring (45) into the external groove of the piercing pin assembly (35). Install the check (50) onto the piercing pin assembly (35) and insert the piercing pin assembly (35) into the valve body (2).
- (3) Insert the o-ring (60) into the valve body (100).
- (4) Install the o-ring (95) onto the seat stem (85). Slip the stem spring (90) over the seat stem (85) and insert the seat stem (85) into the discharge lever (80). Press groove pin (75) into the discharge lever (80) and seat stem (85).
- (5) Insert the seat stem (85) with the discharge lever attached into the valve body (100). Press the groove pin (70) into the discharge lever (80) and the valve body (100).
- (6) Install the check valve assembly (65) onto the threads of the seat stem (85). Using a screwdriver, tighten the check valve assembly (65) until the bottom of the discharge lever (80) is parallel with the horizontal centerline of the valve body (100).
- (7) Temporarily install cartridge handle (10) onto valve body (100). Using a screwdriver, tighten the check valve assembly (65) until the bottom of the discharge lever (80) **lightly** touches the ring on the cartridge handle (10). Refer to Figure 701 for gap dimensions. Remove the cartridge handle (10).

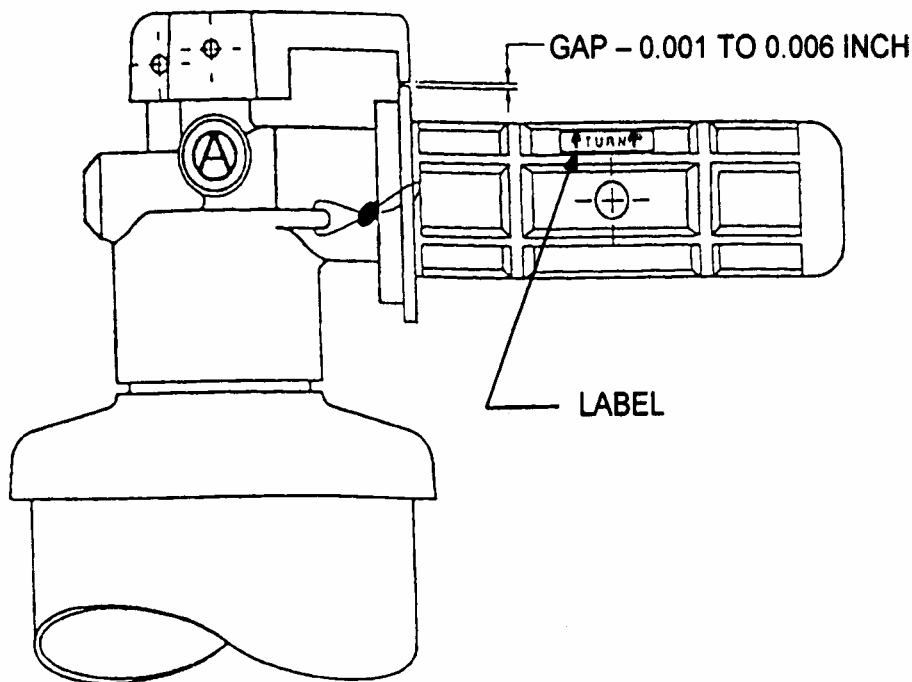
C. Assemble Cylinder Assembly to Valve Assembly (Refer to Figure 701).

- (1) If the overflow tube (115) was removed for hydrostatic testing, press it into cylinder assembly (120) neck until it bottoms.
- (2) Fill cylinder with one and 3/8 quarts (44 ounces) of extinguishing agent.
- (3) While depressing the discharge lever (80), install the check valve assembly (65) onto the cylinder assembly (120) and hand tighten only.



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- (4) Insert the cartridge spring (20) and the new pressure cartridge (25) into the cartridge handle (10). Apply lubricant MIL-G-4343 to the external threads of the valve body (100).
- (5) Turn the cartridge handle (10) into the valve body (100) until the discharge lever (80) and the ring on the cartridge handle (10) align; and the seal wire holes on the cartridge handle (10) align with the hole in the valve body (100).
- (6) Install both handle position labels (15) on the cartridge handle (10), if required. Refer to Figure 701.
- (7) Install the maintenance data label (110) and the manufacturing data label (105), if required. The maintenance data label (110) is located 180 degrees from the manufacturing data label (105). Refer to Figure 1.



Handle Gap Adjustment and Label Installation
Figure 701



SECTION 901: SPECIAL TOOLS, FIXTURES AND EQUIPMENT

1. General

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

Table 901. Special Tools, Fixtures and Equipment

NOMENCLATURE	SPECIFICATION NUMBER	SOURCE (CAGE)*
Alcohol, Isopropyl	Federal Specification TT-I-735	Commercially available
■ Crow Foot	1-inch	Commercially available
Extinguishing Agent	M3923	MASS Systems 0FRR4
■ Force Scale	0- to 10-pounds	Commercially available
Hydrostatic Test Setup	---	DOT approved hydrostatic test facility
Leak Test Setup	---	Customer supply
■ Lubricant	3451	Dow Corning 71984
■ Lubricant	3452	Dow Corning 71984

* Refer to the IPL, paragraph 2, for the address.



SECTION 1001: ILLUSTRATED PARTS LIST

1. Introduction

A. Purpose

This section provides illustrations and parts breakdown of all parts of the assembly shown on the title page that can be disassembled, repaired, replaced, and reassembled.

B. Explanation and Usage of Section

(1) Assembly Order Indenture System

The indenture system used in the parts list shows the relationship of one part to another. For a given item, the number of indentures depicts the relationship of the item to the next higher assembly as follows:

- | 1 | 2 | 3 |
|----------|--------------------------------------|------------------------------|
| | Assembly, End Item or Major Assembly | |
| • | Detail parts for subassembly | |
| | Subassembly | |
| | Attaching parts for subassembly | detail parts for subassembly |
| • | • | Detail parts for subassembly |

(2) Effectivity Code

Reference letters (A, B, C, etc.) are assigned in the EFF CODE column to each top assembly. The reference letter is shown for detail parts and subassemblies used on all top assemblies.

(3) Quantity Per Assembly

The UNITS PER ASSY column shows the total number of units required per assembly, per subassembly, and per sub-subassembly, as applicable. For bulk items, the letters AR indicate "as required". The letters REF indicate the item is listed for reference purposes.

(4) Parts Replacement Data

The interchangeability relationship between parts is identified in the NOMENCLATURE column of the parts list. A list of the terms used to show interchangeability and their definitions is as follows:



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<u>TERM</u>	<u>PARTS LIST</u>	<u>DEFINITION</u>
Optional	OPT	This part is optional to an interchangeable with other parts in the same item number variant group or other item number if designated.
Superseded by	SUPSD BY	The part in the part number column is replaced by and is not interchangeable with the item number shown in the notation.
Supersedes	SUPSDS	The part in the part number column replaces and is not interchangeable with the item number shown in the notation.
Replaced by	REPLD BY	The part in the part number column is replaced by and interchangeable with the item number shown in the notation.
Replaces	REPLS	The part in the part number column replaces and is interchangeable with the item number shown in the notation.

(5) Service Bulletin Incorporation

- (a) Except as indicated, the following assemblies, subassemblies, and detail parts subject to modification, deletion, addition, or replacement by an issued service bulletin are annotated to show both pre- and post-service bulletin configuration, and the term (PRE SB XXXX) in the nomenclature column designates the original configuration, and the term (POST SB XXXX) identifies assemblies and parts after the service bulletin modification has been completed.
- (b) Subassemblies and detail parts used on assemblies bearing the pre- or post-service bulletin notation will not carry the same notation themselves if the use code(s) assigned to them clearly reflects their pre- or post-service bulletin status.
- (c) Top assemblies subject to modification by a service bulletin without assignment of a new part number (no production equivalent of the modified assembly) are not annotated with pre or post-service bulletin information.

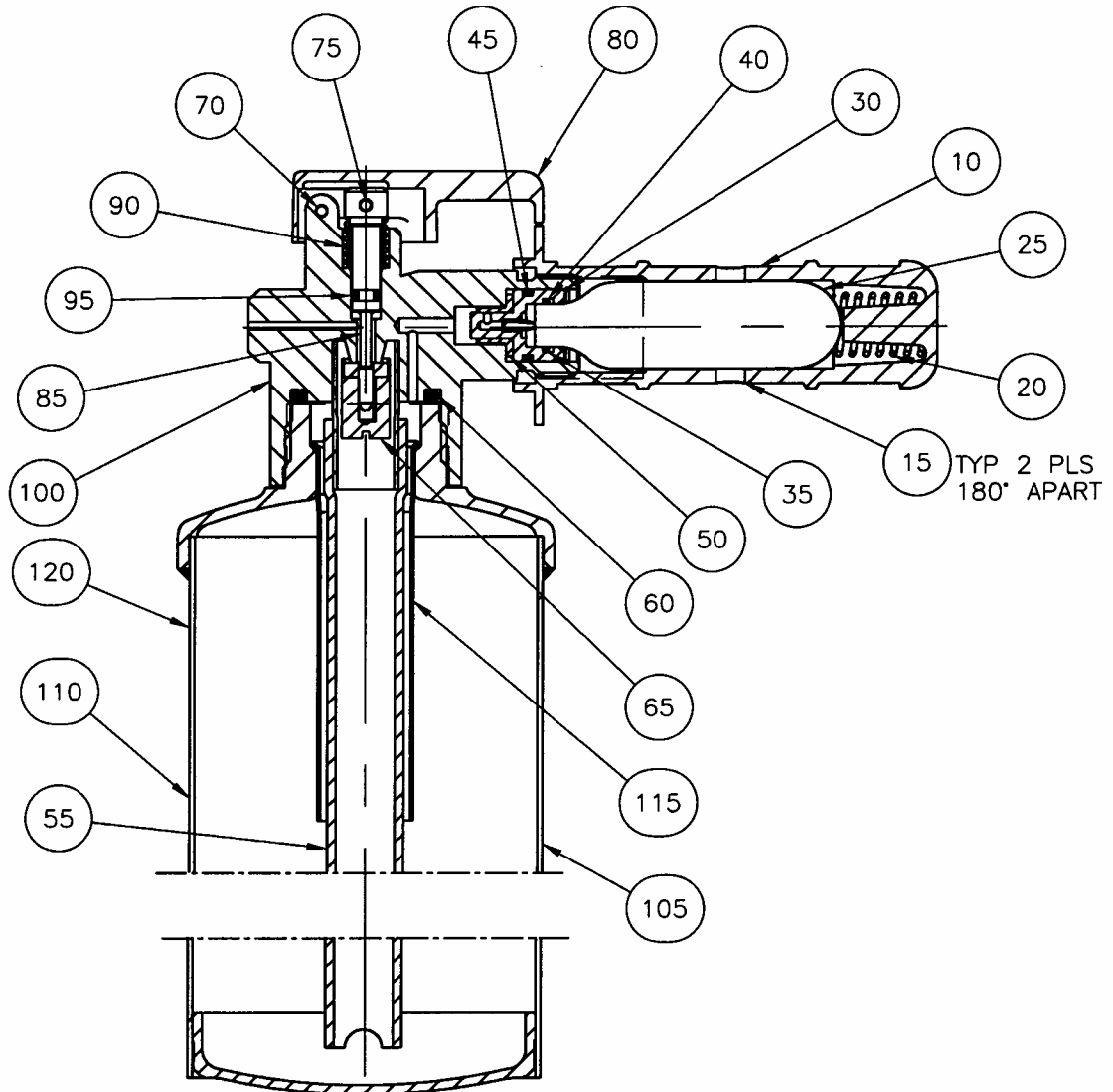


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- (6) Items Not Illustrated
 - (a) Items not illustrated are indicated by a dash (-) preceding the item number in the FIG & ITEM NO. column.
- (7) Alpha Variant Items Numbers
 - (a) Alpha variants A-Z (except the letters I and O) are assigned to existing items numbers when necessary to show:
 - 1) Added items
 - 2) Service Bulletin modifications
 - 3) Configuration differences
 - 4) Optional parts
- (8) Product Improvement Part (non-service bulletin)
 - (a) Alpha variant items numbers are shown on the exploded view when the appearance and location of the alpha variant item is the same as the basic item.

2.0 Manufacturer Name and Address

<u>Cage Code</u>	<u>Name and Address</u>	<u>Telephone</u> <u>TeleFAX</u>
0FRR4	MASS Systems, Inc. 4601 Littlejohn Street Baldwin Park, CA 91706-2285 U.S.A.	626-337-4640 FAX 626-337-1641 service@mass-systems.com
71984	Dow Corning Corporation 2200 West Salzburg Road Auburn, Michigan 48611-9517 U.S.A.	800-248-2481 FAX 989-496-5956
83504	Driv-Lok, Inc. 1140 Park Avenue Sycamore, IL 60178 U.S.A.	815-895-8161 FAX 815-895-4265



Illustrated Parts List - Fire Extinguisher
Figure 1



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Illustrated Parts List - Fire Extinguisher

FIG. ITEM NO.	PART NUMBER	AIRLINE PART NO.	NOMENCLATURE							EFF	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-1	M892480		FIRE EXTINGUISHER, PORTABLE WATER-SOLUTION								RF
-5	---		. COPPER WIRE, SOFT 0.014- TO 0.020-INCH DIA., LENGTH 6-INCH APPROX. (ALT - OA15262)								A/R
10	11004		. HANDLE, CARTRIDGE								1
15	11023		. LABEL, HANDLE POSITION								2
20	11008		. SPRING, CARTRIDGE								1
25	M1386		. CARTRIDGE, PRESSURE								1
30	RR-62		. RING, RETAINER								1
35	11014		. PIERCING PIN ASSEMBLY								1
40	3110-0012		. O-RING								1
45	3110-0014		. O-RING								1
50	11020		. CHECK								1
55	11024		. HOSE, SYPHON								1
60	3110-0214		. O-RING								1
65	11017		. CHECK VALVE ASSEMBLY								1
70	3/32X5/8		. GROOVE PIN, TYPE B.S.S. (83504) (ALT - 332625)								1
75	3/32X7/8		. GROOVE PIN, TYPE (83504) (ALT 332875)								1
80	11002		. LEVER, DISCHARGE								1
85	11005		. STEM, SEAT								1
90	11007		. SPRING, STEM								1
95	3110-0006		. O-RING								1
100	11003		. BODY, VALVE								1
105	52332		. LABEL, MANUFACTURING DATA								1
110	52333		. LABEL, MAINTENANCE DATA								1
115	11006		. TUBE, OVERFLOW								1
120	11010		. CYLINDER ASSEMBLY								1