

## OWNER'S SERVICE MANUAL NO. 05601 INSPECTION. MAINTENANCE AND RECHARGE

All fire extinguishers should be installed, inspected and maintained in accordance with the National Fire Protection Association standard titled "Portable Fire Extinguishers", NFPA-10 and the requirements of local authorities having jurisdiction.

When maintenance is indicated it should be performed by trained persons having proper equipment. Fire extinguishers are pressure vessels and must be treated with respect and handled with care. They are mechanical devices and require periodic maintenance to be sure that they are ready to operate properly and safely. Amerex strongly recommends that the maintenance of portable fire extinguishers be done by a trained professional – your local authorized Amerex Distributor.

Amerex Corporation makes original factory parts available to insure proper maintenance – use of substitute parts releases Amerex of its warranty obligations. Amerex parts have machined surfaces and threads that are manufactured to exacting tolerances. O-rings, hoses, nozzles, horns and all metal parts meet precise specifications and are subjected to multiple inhouse inspections and tests for acceptability. There are substitute parts available that are incorrectly labeled as UL component parts, some are advertised as Amerex type. None of these meet UL requirements and all of them void the Amerex extinguisher warranty and UL listing. DO NOT SUBSTITUTE.

#### WARNING

Do not use this extinguisher on Class C fires involving energized electrical equipment, Class D fires or any flammables that will react with water. Protect from freezing unless charged with an Amerex Model 506 Loaded Stream/Anti-freeze Charge.

**REFERENCES IN THIS MANUAL NFPA-10** Portable Fire Extinguishers AVAILABLE FROM National Fire Protection Association P. O. Box 9101 Quincy, MA 02269-9101

CGA C-1 Methods for Hydrostatic Testing of Compressed Gas Cylinders CGA C-6 Standard for Visual Inspection of Compressed Gas Cylinders Compressed Gas Association 1235 Jefferson Davis Hwy, Suite 501 Arlington, VA 22202

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### INSPECTING THE EXTINGUISHER

This extinguisher should be inspected at regular intervals (monthly or more often if circumstances require) to insure that it is ready for use.

INSPECTION (NFPA-10) A "quick check" should be made of the extinguisher for the following:

- 1. Located in designated place.
- 2. No obstructions to access or visibility.
- 3. Operating instructions on nameplate (label) and facing outward.
- 4. Seals and tamper indicators not broken or missing.
- 5. Determine fullness by weighing or "hefting".
- 6. Examine for obvious physical damage, corrosion, leakage or clogged nozzle.
- 7. Pressure gauge reading in the operable area.

### **MAINTENANCE – SERVICE PROCEDURE**

MAINTENANCE (NFPA-10) At least once a year (or more frequently if indicated by an inspection), maintenance should be performed. Maintenance is a "thorough check" of the extinguisher. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair or replacement. It will normally reveal the need for hydrostatic testing.

- 1. Clean extinguisher to remove dirt, grease or foreign material. Check to make sure that the instruction nameplate is securely fastened and legible. Inspect the cylinder for corrosion, abrasion, dents or weld damage. If any of these conditions are found and you doubt the integrity of the cylinder, hydrostatically test, using the proof pressure method and a suitable cage, in accordance with CGA Pamphlet C-1 and NFPA Pamphlet 10.
- 2. **NOTE**: When cleaning avoid use of solvents around the pressure gauge. They could seriously damage the plastic gauge face.
- 3. Inspect the extinguisher for damaged, missing or substitute parts. Only factory replacement parts are approved for use on Amerex fire extinguishers.
- 4. Weigh extinguisher and compare with weight printed on the Maintenance section of the nameplate (label). Recharge extinguisher if weight is not within the indicated allowable tolerances.
- 5. Check the date of manufacture on the extinguisher cylinder hanger loop or on the extinguisher nameplate. Cylinder must be hydrostatically tested every 5 years to the test pressure indicated on the label.

- 6. Visually inspect the pressure gauge:
  - a. If bent, damaged or improper gauge, depressurize and replace
  - b. If pressure is low, check for leaks
  - c. If over pressurized (overcharged), reduce to 100 psi (690 kPa) by depressing the valve lever and check for leaks.
- 7. Inspect the footstand (base). If cracked or broken replace with proper footstand.
- 8. Check ring pin for freedom of movement by breaking the seal and removing the pin. Replace the ring pin if bent or if removal is difficult.
- 9. Inspect discharge lever for dirt or corrosion that might impair freedom of movement. Inspect carrying handle for proper installation. If lever, handle or rivets are damaged or distorted, replace with proper Amerex part(s).
- 10. Remove hose assembly, inspect hose assembly for damage, replace as necessary. Blow air through hose assembly to insure passage is clear of foreign material.
- 11. Examine the air pressurizing valve (Schrader) for damage. The cap should be in place to prevent leaking. Inspect the valve assembly for corrosion or damage to hose thread connections. Replace valve assembly or component parts as necessary following the proper depressurization and recharge procedures.
- 12. Install hose and nozzle assembly.
- 13. Install new tamper seal and record service data on the extinguisher inspection tag.
- 14. Rehang the extinguisher on the wall hanger bracket making sure that it fits the hanger bracket properly replace the bracket if necessary. Note: When a Loaded Stream/Anti-freeze charge is used to freeze protect this extinguisher, a complete discharge and maintenance is required annually. Use only the Amerex Model 506 charge and follow the instructions printed on the carton. Reuse of the 506 charge is permitted if the charge is reclaimed in a clean pail and the freeze point is verified. To verify the freeze point, pour the loaded stream solution into a 300 ml graduated container and check the specific gravity with a hydrometer. A minimum specific gravity of 1.330 will assure freeze protection to -40°F. A lower specific gravity means that the charge should be replaced.

#### RECHARGE

RECHARGING (NFPA-10) The replacement of the extinguishing agent and includes the expellant for this type of extinguisher.

#### WARNING:

- a. Before attempting to recharge be sure this extinguisher is completely depressurized.
- b. Use a regulated pressurizing source (either air or nitrogen). Set the regulator no more than 25 psi (175 kPa) higher than the gauge operating pressure.
- c. Check and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the extinguisher gauge for this purpose.
- d. Never leave an extinguisher connected to a regulator of a high pressure source for an extended period of time. A defective regulator could cause the cylinder to rupture due to excessive pressure.

#### **RECHARGING PROCEDURE**

- 1. Complete the "Maintenance-Service Procedure", items 1 thru 10.
- 2. Discharge all remaining pressure and water (or anti-freeze solution) making sure that there is no remaining pressure.
- 3. Remove the valve assembly and disassemble by removing downtube assembly (use a wrench on the brass retainer, not the plastic tube), spring and valve stem from the valve assembly. Remove the collar o-ring from the valve assembly.
- 4. Thoroughly rinse all parts with clean water and wipe dry with a soft cloth. Blow the valve out with air or nitrogen. Inspect the spring replace parts if worn or damaged. Replace valve stem and collar o-ring. Lubricate the collar o-ring and small o-ring on the valve stem with Visilox V-711 (do not lubricate the valve stem seal). Inspect the downtube. If it is cracked, deformed or does not have a threaded brass spring retainer replace the downtube. Inspect downtube o-ring, replace if necessary.
- 5. Rinse the cylinder with clean water and inspect the interior following CGA Visual Inspection Standard, Pamphlet C-6.
- Firmly replace the plastic fill tube and fill cylinder with clean water until it overflows (2 ½ gallons [9 ½ liters]).

#### NOTE: THE AMEREX WARRANTY DOES NOT COVER STAINLESS STEEL EXTINGUISHERS FILLED WITH WATER WHICH CONTAINS IN EXCESS OF 40 PPM OF CHLORIDES. IN MANY AREAS WATER INCLUDES HIGH LEVELS OF CHLORIDES.

- Install a "Verification of Service" collar around neck of cylinder. Install valve assembly to the cylinder and properly align. CAUTION: Hand-tighten the valve collar nut to 100-125 in. lbs. max (1.15 1.44 KG/m). Over-tightening with a wrench will damage the valve.
- 8. Remove cap from the air pressurizing valve on the side of the valve body and pressurize with 100 psi (690 kPa) using air or nitrogen. NOTE: A 02141 fill adapter may also be used by installing to the female valve outlet (where the hose assembly attaches). The pressure regulator should be set to no more than 125 psi (862 kPa). Replace pressure valve cap. The cap must be in place to insure that the valve will not leak.
- 9. Check the collar, gauge, cylinder welds and valve orifice for leaks using a leak detection fluid or a solution of soapy water. Remove leak detection fluid from the valve assembly by blowing out with air and wipe exterior of the extinguisher to dry.
- 10. Install hose assembly into the operating valve.
- 11. Install ring pin with ring facing front of the extinguisher. Install new tamper seal. Record recharge date and attach new recharge tag.
- 12. Weigh assembled extinguisher and confirm that the total weight is within the allowable tolerances indicated in the Maintenance section on the extinguisher nameplate.

### TROUBLESHOOTING GUIDE

<u>WARNING</u>: Determine the source of a leak before the extinguisher is depressurized. THE EXTINGUISHER MUST BE COMPLETELY DEPRESSURIZED BEFORE ANY ATTEMPT IS MADE TO DEVALVE IT AND CORRECT ANY LEAKAGE PROBLEM. To depressurize – hold the extinguisher in an inverted position and slowly squeeze the discharge handle. Some liquid remaining in the downtube will be discharged so care should be taken in the area used for depressurization. Thoroughly clean all valve parts after depressurization and valve removal.

	PROBLEM	CORRECTIVE ACTION		
1.	Leak at collar o-ring	Remove valve assembly, clean collar thoroughly and install new o-ring. Lubricate the o-ring with Visilox V-711.		
2.	Leak through valve	Install new valve stem assembly. Check valve seat for scratches or foreign matter.		
3.	Leak around gauge threads	Remove gauge* and reinstall using Teflon tape on the gauge threads.		
4.	Defective gauge	Remove defective gauge* and install a new P/N 06479 gauge using Teflon tape on the gauge threads.		
5.	Leak in the cylinder	Contact Amerex if under warranty, otherwise mark "Rejected" and return to owner.		
	* Pressure gauge threads are coated with a special epoxy at the factory. For easy removal, soak the valve assembly in hot water (180°F) for two to four minutes. Remove gauge with a thin 7/16" open end wrench			



# > PARTS LIST for 2 ½ GALLON STAINLESS STEEL STORED PRESSURE WATER EXTINGUISHER (BRASS VALVE) MODEL 240

ITEM	PART	DESCRIPTION	STD. PKG.	
<b>NO.</b>	NO. 13281	DESCRIPTION Valve Ass'y – 240	<b>PKG.</b> 1	
-			24	
2	06978	Hose Gasket (O-Ring) Hose & Nozzle Ass'y	24	
4	06999 00155		1	
4	00155	Pressure Valve & Cap Ass'y – 240 only	I	
4A	00158	Cap only for Pressure Valve – 240 only	1	
5	00160	Ring Pin, Stainless Steel	24	
5A	00532	Chain (Nylon) for Ring Pin	24	
6	01387	Lock Wire Seal (Yellow)	500	
7	07762	Lever & Rivet	1	
7A	01563	Rivet Only for Lever	24	
8	09020	Handle & Rivets	1	
8A	01564	Rivet Only for Handle (2 required)	24	
9	06479	Gauge 100 psi (Stainless Steel Tube)	1	
10	05240	Collar O-ring	24	
		Collar O-ring (Bulk Bag)	100	
11	06093	Valve Stem Ass'y	6	
		Valve Stem Ass'y (Bulk Bag)	96	
12	05243	Valve Stem O-Ring	24	
13	00383	Spring	6	
14	02595	Fill Tube	1	
15	05690	O-Ring–Downtube/Retainer	12	
16	15943	Downtube/Retainer Ass'y – 240	1	
17	03576	Foot Stand w/clip (Black) - 240	1	
18	03181	Hydrotest Adapter	1	
19	01007	Wall Bracket	6	
20	02141	Pressurizing Adapter	1	
$\times$	01928	Model 506 Loaded Stream anti-	1	
		freeze charge – Model 240 only		
$\times$	06247	Visilox Lubricant (5 oz. tube)	1	
$\mathbf{X}$	04488	Adhesive (footstand) 3 oz. tube	1	
NOTE: ALL VALVE ASSEMBLIES INCLUDE NEW VALVE BODY, GAUGE, KNURLED NUT, LEVER & HANDLE AND PRESSURE VALVE				
		PART NOT PICTURED		

