



Foam Extinguishers

INSPECTION, MAINTENANCE & RECHARGE SERVICE MANUAL

NO. 05607

FOR

MODEL 254 6 LITRE AFFF FOAM WITH SPRAY NOZZLE

MODEL 250 2½ GALLON AFFF FOAM WITH ASPIRATED NOZZLE

MODEL 252 2½ GAKKIN FFFP (ALCOHOL RESISTANT) FOAM WITH ASPIRATED NOZZLE

***** RECHARGE FIRE EXTINGUISHERS IMMEDIATELY AFTER ANY USE! *****

WARNING

DO NOT USE THESE EXTINGUISHERS ON FIRES INVOLVING ENERGIZED ELECTRICAL EQUIPMENT (CLASS C HAZARDS), FLAMMABLE METALS (CLASS D HAZARDS) OR ANY FLAMMABLE THAT WILL REACT WITH WATER.

PROTECT FROM FREEZING!

All fire extinguishers should be installed, inspected and maintained in accordance with the National Fire Protection Association standard titled 'Portable Fire Extinguishers', NFA-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 and Fire Suppression Southern strongly recommend that the maintenance of portable fire extinguisher be done by a trained professional – your authorized Amerex Distributor.

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



REFERENCES IN THIS MANUAL

NFPA-10 Portable Fire Extinguishers

CGA C-1 Methods of Hydrostatic Testing of Compressed Gas Cylinders

CGA C-6 Standard for Visual Inspection of Compressed Gas Cylinders

AMEREX AND FIRE SUPPRESSION SOUTERN LTD DO NOT SERVICE, MAINTAIN OR RECHARGE FIRE EXTINGUISHERS. THIS MANUAL IS PUBLISHED AS A GUIDE TO ASSIST SERVICE PERSONNEL IN THE INSPECTION, MAINTENANCE AND RECHARGE OF AMEREX FIRE EXTINGUISHERS ONLY. NO INSTRUCTION MANUAL CAN ANTICIPATE ALL POSSIBLE MALFUNCTIONS THAT MAY BE ENCOUNTERED IN THE SERVICE OF FIRE EXTINGUISHERS. AMEREX AND FIRE SUPPRESSION SOUTHERN ASSUMES NO LIABILITY FOR SERVICE, MAINTENANCE OR RECHARGE OF FIRE BY PUBLISHING THIS MANUAL.

INSPECTION

This extinguisher should be INSPECTED at regular intervals (monthly or more often if circumstances dictate) to insure that it is ready for use. INSPECTION (NFPA 10 6.2) is a "quick check" that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. This is done by seeing that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent operation.

MAINTENANCE

At least once a year (or more frequently if indicated by an inspection) MAINTENANCE (NFPA 10 6.3) should be performed. MAINTENANCE is a "through 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.

MAINTENANCE/SERVICE PROCEDURE

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 C-6 and NFPA 10. **NOTE: When cleaning avoid the use of solvents around the pressure gauge they could seriously damage the plastic gauge face.**
2. Inspect the extinguisher for damaged, missing or substitute parts. Only factory replacement parts are approved for use on Amerex fire extinguishers.



3. Check the date when last recharged. **The foam charge must be replaced every three years with the proper Amerex charge (model 502 AFFF charge for models 250 and 254, model 504 FFFP charge for model 252).** If the extinguisher is to be hydro tested, do not reuse the charge even if within a three year cycle (the foaming action will make it almost impossible to get complete charge back into the extinguisher).
4. Weigh extinguisher and compare with weight printed on the maintenance section of the nameplate. Recharge if weight is not within the indicated allowable tolerances.
5. Check the date of manufacture on the extinguisher hanger loop. Cylinder must be hydrostatically tested every 5 years to the test pressure indicated on the nameplate.
6. Visually inspect the pressure gauge:
 - a. If bent, damaged or improper gauge, pressurize and replace
 - b. If pressure is low, check for leaks
 - c. If over-pressurized (overcharged), depressurized (discharge) and follow recharging instructions.
7. Inspect the Footstand (base). If cracked or broken replace with appropriate Footstand – see Parts List.
8. Inspect ring pin for freedom of movement. Replace if bent or if removal appears 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 parts.
10. Remove hose assembly. Inspect hose gasket (o-ring), hose and nozzle assembly for damage, replace as necessary. Blow air through hose & nozzle to insure passage is clear of foreign material.
11. 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 if broken 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.



RECHARGE

RECHARGING (NFPA 10 6.4) is the replacement of the extinguishing agent and also includes the expellant for this type of extinguisher.

THE FIRE EXTINGUISHING AGENT IN THIS EXTINGUISHER MUST BE COMPLETELY REPLACED EVERY THREE YEARS. Use only the Amerex Model 502 AFFF or Model 504 FFFP concentrate charge to retain the UL approval and manufacturer's warranty. Substitute charges could make the extinguisher less effective.

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 125 psi (862 kPa)
- 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 through 11
2. Empty extinguisher of all remaining pressure and AFFF or FFFP solution.
3. Remove the valve assembly and disassemble by removing downtube assembly, spring and valve stem assembly. Remove collar o-ring from the valve and plastic fill tube from the cylinder.
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 collar o-ring, valve stem and spring – replace parts if worn or damaged. 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 (see Parts List). Inspect downtube o-ring, replace if necessary.
5. Rinse cylinder with clean water and inspect the interior following CGA Visual Inspection Standard C-6.
6. Firmly replace the plastic fill tube on an accurate scale:
 - a. **Model 250 2½ gallon AFFF Premix**
 - b. Fill cylinder with 2.43 gals (9.20 litres) (20.24 lbs [9.18 kg]) of clean tap or distilled water. Continue with steps (e) and (f).
 - c. **Model 254 6 Litre AFFF Premix**
 - d. Fill cylinder with 1.52 gals (5.75 litres) (12.65 lbs [5.74]) of clean tap or distilled water.
 - e. Slowly add an Amerex Model 502 AFFF charge to the water. The liquid level should now be close to the bottom of the fill tube.
 - f. If necessary add water very slowly to bring the liquid to this level.



- g. **Model 252 2½ gal. FFFP Premix**
 - h. Fill cylinder with 2.2 gals (8.33 litres) (18.32 lbs [8.31kg]) of clean tap or distilled water.
 - i. Slowly add an Amerex Model 504 FFP charge to the water. The liquid level should now be close to the bottom of the fill tube.
 - j. If necessary add water very slowly to bring the liquid to this level.
7. Install a “Verification of Service” collar around the neck of the cylinder. Install valve assembly to the cylinder and properly align. Shake the extinguisher to assure a thorough mix of the foam solution.
- CAUTION: Hand tighten the valve 100-125 in. Lbs. Max (1.15 – 1.44 KG/m). Over-tightening will damage the valve.**
8. Install a P/N 02141 fill (pressurizing) adapter into the valve outlet (where the hose assembly attaches) and pressurize with 100 psi (690 kPa) using air or nitrogen. The pressure regulator should be set to no more than 125 psi (862 kPa). Remove fill adapter.
 9. Check the collar, gauge, cylinder welds and valve orifice for leaks using 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 and nozzle assembly.
 11. Install ring pin with ring facing front of 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. Install the extinguisher in its proper location. Check bracket for damage – replace if necessary.

TROUBLESHOOTING GUIDE

WARNING: 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. Be careful – a small amount of agent will be discharged. Thoroughly clean all valve parts after depressurization and valve removal.

Fire Suppression Southern Ltd

Amerex Fire Suppression Systems



	PROBLEM	CORRECTIVE ACTION
1.	Leak at collar o-ring	Remove valve assembly, clean collar (knurled) nut thoroughly and install new o-ring. Lubricate 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 cylinder	Contact Fire Suppression Southern Ltd if under warranty, otherwise mark 'REJECTED' and return to owner
6.	Broken Footstand	Install new P/N 03109 Footstand using Dow corning RTV-732 Silicone Rubber adhesive, Amerex P/N 04488

Pressure gauge threads are coated with a special epoxy at the factory. For easy removal soak the valve assembly (minus the downtube assembly) in hot water (180°F/82°C) for two to four minutes. Remove gauge with a 7/16" open end wrench.

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Amerex Fire Suppression Systems

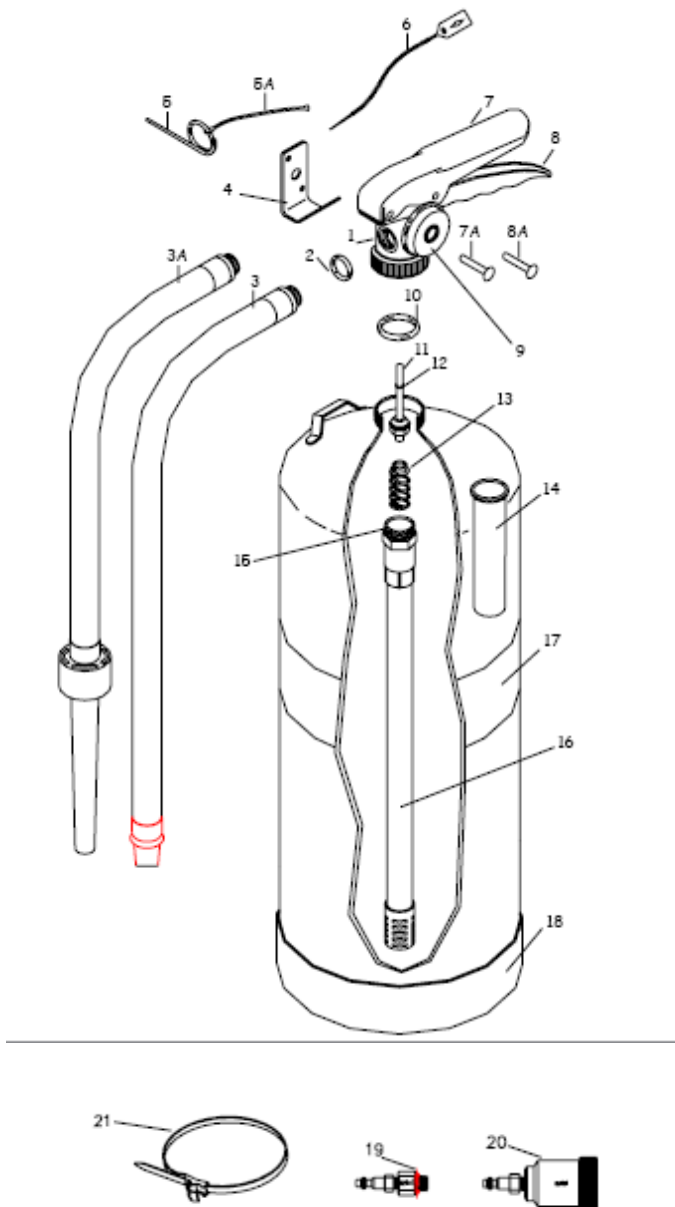


PARTS LIST

Model 254 6 Liter AFFF Foam

Model 250 2 ½ Gallon AFFF Foam

Model 252 2 ½ Gallon FFFP Foam



Item No.	Part No.	Description	Std. Pkg.
1	14345	Valve Asy. - 250, 252, 254	1
2	06978	Hose Gasket (o-ring)	24
3	13162	Hose & Spray Nozzle Asy - 254	1
3A	07000	Hose & Aspirated Noz. Asy - 250	1
	06982	Hose & Aspirated Noz. Asy - 252	
4	01007	Wall Bracket	6
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	100 PSI Gauge (SS Tube)	6
10	05240	Collar O-Ring	24
11	06093	Valve Stem Assembly	6
		Valve Stem Assembly (bulk bag)	96
12	05243	Valve Stem O-Ring	24
13	00383	Spring	6
14	02595	Fill Tube	1
15	05690	Downtube O-Ring	12
16	02581	Downtube/Retainer Asy - 254	1
	02209	Downtube/Retainer Asy - 250,252	
17		Nameplate (label) non-UL Specify Extinguisher Model No.	1
18	03776	Foot Stand w/Post (Black) - 250,252	1
	03109	Foot Stand (Black) 254	
19	02141	Pressurizing Adapter	1
20	03181	Hydrotest Adapter	1
21	14776	Strap & Clip Model 254	1
⊗	02117	Mod. 502 AFFF Premix Charge - Model 250, 254	12
⊗	06981	Mod. 504 FFFP Premix Charge - Mod. 252	12
⊗	04488	Adhesive (Foot Stand) 3 oz. Tube	1
⊗	06247	Visilox Lubricant 5 oz. Tube	1
NOTE: All valve Assemblies Include New Valve Body, Gauge, Knurled Nut, Lever & Handle			