

Maintenance is a "thorough check" of the system. It is intended to give maximum assurance that the system will operate effectively and safely. It includes a thorough examination and any necessary repair or replacement. It will normally reveal if there is a need for hydrostatic testing of the tank.

Maintenance shall be performed every 1000 hours or semi annually (whichever comes first). The fire suppression system including alarms, shutdown and associated equipment shall be thoroughly examined and checked for proper operation by the fire protection manufacturer, authorized distributor or their designee in accordance with this manual.

► SEMI-ANNUAL/1000 HOUR MAINTENANCE

► To provide maximum assurance that your Ansul A-101/LT-A-101 system will operate effectively and safely:

1. Check to see that the hazard has not changed.
2. Remove all cartridges, install safety shipping caps, and put in a safe place for future reinstalling.
- 3. Note the general appearance of the system components checking for mechanical damage or corrosion, and check that the components are securely fastened and all hose fittings are tight.
4. Check nameplates to make certain they are clean, readable, and properly attached.
5. Remove tank fill cap(s) and check that the agent tank is filled to approximately 3 in. (76 mm) from the bottom of the fill opening with Ansul FORAY dry chemical. Check the dry chemical for lumps. If lumps are present, drop one from a height of 4 in. (102 mm) onto a hard surface. If the lump does not break up completely, the dry chemical must be replaced.
6. Inspect threads on fill cap and on tank fill opening for nicks, burrs, or cross-threading.
7. Check fill cap gasket and quad ring for elasticity, cuts, or checking, and lightly coat them with an extreme temperature silicone grease, such as Dow Corning No. 4 or equal.
8. Disconnect bursting disc union and make certain the disc is free from wrinkles, dents or other deformities.
9. Examine the disc to ensure that it is not wrinkled, kinked, dented, or deformed in any way and then apply a thin coat of a good grade of extreme temperature silicone grease, such as Dow Corning No. 4 or equal, to the male threads and reconnect the bursting disc union. **NOTE:** Before reconnecting, if needed, blow all lines clear with dry air or nitrogen.
- 10. Check that the nozzle openings are not obstructed and that the nozzles are properly aimed and have not rotated out of position.
11. Make certain each nozzle has a blow-off cap (the opening of an F-1/2 nozzle can be packed with an extreme temperature silicone grease, such as Dow Corning No. 4 or equal, to avoid build-up of foreign material) and check that the caps are pliable and free of cuts and checks.
12. Unscrew the pneumatic actuator(s) from the cartridge receiver(s) and inspect all threaded areas for nicks, burrs, and cross threads.
- 13. Clean actuator(s) (Part No. 430221) as follows: (see Figure 1)
 - Using two wrenches, one positioned on the swivel nut, and one positioned on the bottom portion of the actuator, loosen the swivel nut and remove the top portion of the actuator.
 - Using a wooden dowel, push pin assembly and spring out of the actuator body.

- Remove the gasket from inside the cartridge thread port. Inspect, clean, apply a good grade of low temperature grease, such as Dow Corning No. 4, and reinstall the gasket. Replace if necessary.
- Remove the O-Rings from the pin assembly and swivel adaptor. Inspect, clean, apply a good grade of low temperature grease, such as Dow Corning No. 4, and reinstall the O-Rings. Replace if necessary.
- Apply a small amount of grease to the puncture pin shaft. There is a U-Cup guide inside the actuator body and when the pin is reinstalled into the body, the grease on the shaft will lubricate the U-Cup.
- Clean the inner surface of the actuator body and, using a small diameter wire, clean the vent hole. **Make certain not to scratch the inner surface.**
- Reinstall spring onto puncture pin shaft and insert into actuator body. Push pin down several times to allow grease to coat U-Cup. When positioned back in body, make certain the tip of the pin is above the gasket in the bottom of the actuator.
- Reinstall the actuator unto the cartridge. Hand tighten.
- Reinstall swivel adaptor in the correct position for the actuation lines and wrench tighten the swivel nut. Make certain all actuation and expellant lines are properly tightened into the actuator.
- Secure the assembly into the bracket.

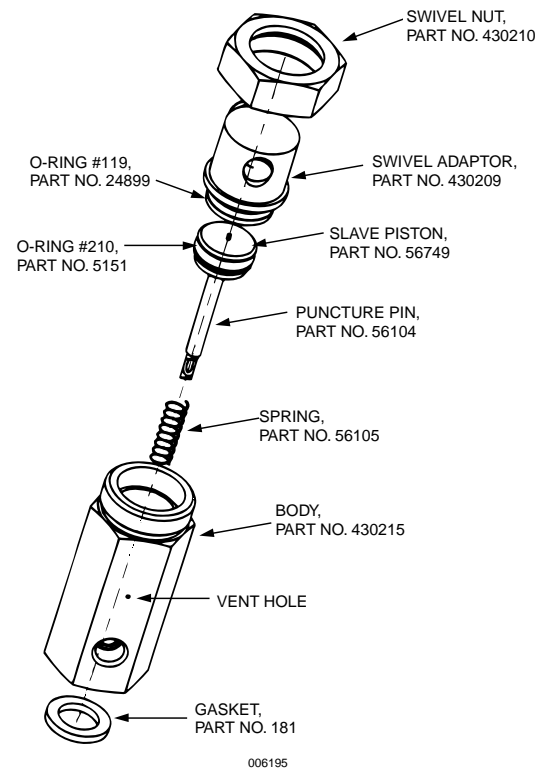


FIGURE 1

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SECTION VIII – MAINTENANCE

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REV. 1

▶ SEMI-ANNUAL MAINTENANCE (Continued)

14. Weigh the gas cartridge which was removed earlier. It must be +/- 1/2 oz. from the weight stamped on the cartridge. Weight cartridge with shipping cap removed.
15. Hand tighten the cartridge into the actuator.
16. Next, remove the gaskets from the manual remote actuators. Examine them for elasticity, cuts, and checking and lubricate them with a light coat of extreme temperature silicone grease, such as Dow Corning No. 4 or equal.
17. Inspect the threaded areas for nicks, burrs, or cross threading and clean them with a stiff bristle brush.
18. Make certain cartridge is removed. Pull the ring pin and operate the manual actuator to test the puncture lever for free movement.
19. Next, remove the puncture pin by disassembling the actuator and examine the pin to ensure it is sharp, straight, free of corrosion.
20. Lubricate the puncture pin O-ring and reassemble the actuator.
21. Insert ring pin and install visual seal, Part No. 197, to each actuator stem.
22. Weigh each actuator cartridge. Weight must be +/- 1/4 oz. from weight stamped on cartridge. Weight cartridge with shipping cap removed.
23. Install cartridge into each remote actuator. Hand tighten.
24. Refer to appropriate manual for detailed maintenance instructions if the system contains an automatic CHECKFIRE Detection System.
25. After all actuation devices are re-armed, record date of maintenance and inform personnel that the system is back in operation.

12-YEAR MAINTENANCE EXAMINATION

At the 12-year maintenance examination, along with completing the semi-annual maintenance requirements, some A-101 components require hydrostatic testing.

The components requiring hydrostatic testing are:

- Tank – 600 psi (40.8 bar) hydro pressure.
- Actuation hose – 1000 psi (69 bar) hydro pressure
- Cartridges – After properly discharging cartridge, return to Ansul for hydrotesting

See appropriate hydrotest requirements in NFPA 17, "Standard For Dry Chemical Extinguishing Systems," and Ansul Technical Bulletin No. 50, "Hydrostatic Retest Requirements for Ansul portables, Wheeled Units, and Pre-Engineered Vessels," Form No.

▶ F-81301.