



AVStar Fuel Systems, Inc.
1365 Park Lane South
Jupiter, FL 33458

FAA Repair Station V1RR580Y
www.avstardirect.com

SERVICE BULLETIN

ADJUSTMENT OF SERVO REGULATORS FITTED WITH AVSTAR DIAPHRAGMS

DOCUMENT: AFS-SB9

REVISION: ORIGINAL

ISSUED: DECEMBER 2, 2013

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Service Bulletins are advisory documents. They are NOT issued or approved by the FAA. Information contained in a Service Bulletin may or may not be incorporated entirely at the product owner's discretion.

1. APPLICABILITY

This Service Bulletin applies to all AVStar manufactured servos (RSA-5AD1, RSA-10AD1, or RSA-10ED1) plus any servo fitted with Fuel Diaphragms manufactured by AVStar. The Fuel Diaphragm part numbers are –

AV2541801

AV2541803

2. REASON FOR PUBLICATION

As a result of adjustment of the Servo Regulator outside of the overhaul process specified in the Field Service Manual there have been two (2) reports of the Fuel Diaphragm Stud partially unscrewing from the Diaphragm Hub. This is caused by excessive counterclockwise torque being applied to the servo stem outer Self Locking Nut.

3. TIMING AND INSTRUCTIONS FOR COMPLIANCE

3.1 IMMEDIATELY - If the Hex Plug (383493/AV383493) has been removed and Self Locking Nut (2539449/AV2539449) has been adjusted since the last servo overhaul

3.1.1 Return the servo to AVStar or an AVStar approved Service Center in order that the Fuel Diaphragm Assembly can be replaced

3.2 If field adjustment of the servo regulator setting is required, the following procedure is to be followed



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- 3.2.1 Remove all tie wire and Lead Seal (2039/AV2039) connecting Hex Plug (383493/AV383493) to the regulator cover assembly
- 3.2.2 Remove Hex Plug (383493/AV383493) and Rubber Coated Washer (2577258/AV2577258). Discard the washer as it must be replaced by a new one during reassembly.
- 3.2.3 Carefully and sparingly apply MEK (methyl ethyl ketone) to the Loctite securing Locknut (2539449/AV2539449) to the fuel diaphragm stem. Allow the MEK to soak into and soften the Loctite for approximately 2 minutes.
- 3.2.4 Apply a **clockwise “tightening” torque** of no more than 20 ounce-inches to the Locknut to break the Loctite bond. Do not turn the Locknut more than ¼ turn clockwise.
- 3.2.5 If the bond does not break, repeat step 3.2.3 and 3.2.4 until the nut turns.
- 3.2.6 Once the bond has been broken, remove Locknut (2539449/AV2539449) using **no more than** 12 ounce-inches of counterclockwise torque. Discard the Locknut which must be replaced during reassembly
- 3.2.7 All other procedural requirements are contained in the appropriate Field Service manual for the servo in question.

WARNING: MEK (methyl ethyl ketone) is a chemical that is dangerous to both personnel and property. Fumes can be harmful when inhaled. Use only in a well ventilated area and avoid prolonged and repeated contact with the skin.

4. REFERENCES

- 4.1 Field Service Manual – RSA-5AD1 (latest revision)
- 4.2 Field Service Manual – RSA-10AD1 (latest revision)



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4.3 Field Service Manual – RSA-10ED1 (latest revision)