



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

MANDATORY SERVICE BULLETIN

THE FRACTURE OF A FUEL DIAPHRAGM STUD IN FUEL SERVOS

DOCUMENT: AFS-SB6

REVISION: 2

ISSUED: APRIL 6, 2011

PAGE: 1 OF 13

Engineering aspects of this Bulletin are FAA approved.

1. APPLICABILITY

This Service Bulletin applies to RSA-5AB1, RSA-5AD1, RSA-10AD1, RSA-10DB1, RSA-10DB2, RSA-10ED1 and RSA-10ED2 fuel servos overhauled or manufactured by AVStar Fuel Systems (AVStar) between May 21, 2010 and October 19, 2010. It also applies to fuel servos of any make (AVStar, Bendix, Precision, etc.) overhauled by others using AVStar Value Kits (P/N's AVK-5AB1, AVK-5AD1, AVK-10AD1, AVK-10ED1 and AVK-10ED2) and/or Fuel Diaphragms (P/Ns AV2541801 and AV2541803) purchased from AVStar between May 21, 2010 and October 19, 2010. A list of serial numbers of servos and lot numbers of the diaphragm assemblies affected by this Bulletin are included as Attachments A and B and further can be found on our website at www.avstardirect.com.

2. REASON FOR PUBLICATION

There has been a report of a possible failure after 19 hours of an RSA-10ED1 fuel servo overhauled by AVStar that may involve the fuel diaphragm assembly. This report involved an aircraft that lost power and crashed. The fuel diaphragm assemblies being investigated are limited to those AVStar fuel diaphragm assemblies manufactured between May 21, 2010 and October 19, 2010 and further limited to the lot numbers and/or servo serial numbers shown in Attachments A and B.

3. SAFETY FIRST

AVStar is committed to its customer's safety through technical innovation. AVStar has no authority to compel owners to act responsibly and take prudent action to insure their and others safety, but the company believes compliance with this MANDATORY SERVICE BULLETIN is important and will insure a safer product.



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4. COMPLIANCE

THE POSSIBILITY EXISTS OF SERVO FAILURE WITHOUT WARNING WITH THE POTENTIAL OF A TOTAL LOSS OF POWER. IT IS RECOMMENDED THAT FLIGHTS BE LIMITED TO DELIVERING THE AIRCRAFT TO A SERVICE FACILITY.

If the fuel servo is an affected unit that was overhauled by AVStar, or if it contains an affected AVStar fuel diaphragm assembly installed by another facility, the servo is to be removed from the aircraft and returned to AVStar for immediate inspection and repair.

5. EVIDENCE OF COMPLIANCE

After replacement of the affected fuel diaphragm assembly, compliance with this service bulletin will be noted on the servo data tag by adding the mark SB6 as shown in Figs 3 and 4 below.



Fig 3



Fig 4



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6. WARRANTY STATEMENT

Affected units must be returned directly to AVStar for repair or replacement at AVStar's discretion upon validation and approval of Claim Form AFS-900-F98 and the assignment of a Return Material Authorization (RMA) number (See Claim Process below). In the event that a Value Kit or a separately purchased fuel diaphragm assembly from the affected lots was used to overhaul a fuel servo, AVStar will also repair or replace the servo as described above. There will be no charge to the customer for repair of the diaphragm assembly or replacement of the affected unit. However, in the event that AVStar elects to repair the diaphragm assembly rather than to replace the unit and evaluation of the unit indicates that additional repairs above and beyond those to the diaphragm assembly are required in order to insure airworthiness, the customer will be contacted and standard rates will apply.

Unused fuel diaphragms included in Value Kits from the affected lots will be replaced at no charge.



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The Customer has the following options for reimbursement of removal and installation labor:

OPTION 1: AVStar will offer a removal and installation labor allowance in accordance with the following table at a maximum of \$75 USD per hour. No other claims for financial compensation will be reimbursed. Customers selecting this option do so instead of the reimbursement under Options 2 or 3.

Allowance (Hr)	Normally Aspirated			Turbo		TIO & TGIO-541	Heli Normally Aspirated		Heli Turbo	S/charged	IO-360	IO-540		TIO-540				
	4 Cyl	6 Cyl	8 Cyl	4 Cyl	6 Cyl		4 Cyl	6 Cyl				L2A	AB1A5	AC1A5	AF1B	AH1A	AJ1A	AE2A
	2.5	2.5	1.5	2.5	2.5		2.0	2.5				2.5	2.5	2.5	2.0	2.0	2.0	2.5

OPTION 2: AVStar will offer a renewed Limited Warranty for each affected unit. The renewed Warranty shall be for 48 months or 900 engine hours from the date the repaired unit is returned (based on shipping date). This is a not a 48 month addition to the standard Limited Warranty. Customers selecting this option do so instead of the reimbursement under Options 1 or 3.

OPTION 3: AVStar will offer a \$300 credit towards the customer's next servo overhaul. The credit will be valid for a 10 year period from the date the repaired unit is returned (based on shipping date). Customers selecting this option do so instead of the reimbursement under Options 1 or 2.

The customer must select the desired Option on Claim Form AFS-900-F98 before signing and returning it to AVStar.



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CLAIM PROCESS:

1. Complete Claim Form AFS-900-F98 (see Attachment C).
2. Submit to –
AVStar Fuel Systems, Inc.
1365 Park Lane South
Jupiter, FL 33458
Tel: (561) 575-1560
Fax: (561) 575-0795
Email: sb@avstardirect.com
3. Return the affected unit or fuel diaphragm assembly under the assigned RMA. The unit must be returned according to the packing and shipping instructions in the RMA.

No warranty consideration will be made until the customer has complied with the above claim process. However, requested special arrangements (made in writing) may be made for international customers. All other terms and conditions of AVStar's Limited Warranty Policy shall apply.

7. ATTACHMENTS

- A. Model, Part Number and Serial Number of affected servos
- B. Lot numbers of affected fuel diaphragm assemblies
- C. Claim Form AFS-900-F98



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ATTACHMENT A: Model, Part Number and Serial Number of affected servos

Model	Part Number	Serial Number
RSA-5AD1	2524054-10	4143
RSA-5AD1	2524243-11	10121
RSA-5AD1	2524450-9	10926
RSA-5AD1	2524450-8	11710
RSA-5AD1	2524145-12	13011
RSA-10ED1	2524556-9	15517
RSA-5AD1	2524054-11	17640
RSA-5AD1	2524550-8	18653
RSA-5AD1	2524145-12	18970
RSA-5AD1	2524297-10	19758
RSA-10AD1	2524163-15	20748
RSA-5AD1	2524590-7	23147
RSA-10AD1	2524163-13	24367
RSA-5AD1	2524450-9	27299
RSA-5AD1	2524450-9	27312
RSA-5AD1	2524590-8	27890
RSA-10AD1	2524163-13	31853
RSA-10ED1	2524273-12	34763
RSA-5AD1	2524213-10	35210
RSA-5AD1	2524054-10	35862
RSA-10ED1	2524273-12	36004
RSA-5AD1	2524590-7	36039
RSA-10ED1	2524273-12	37244
RSA-5AD1	2524590-8	37694
RSA-5AD1	2524590-8	38283
RSA-5AD1	2524450-9	40315
RSA-5AD1	2524590-8	43301
RSA-5AD1	2524550-8	45341
RSA-5AD1	2524590-8	47100
RSA-5AD1	2524147-13	47391
RSA-5AD1	2524905-2	49636
RSA-5AD1	2524054-11	51728
RSA-5AD1	2524054-10	54841
RSA-10ED1	2524582-8	55878

Any questions regarding Service Bulletin are to be directed to AVStar Fuel Systems, Inc. at www.avstardirect.com, or call (561) 575-1560



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RSA-5AD1	2524054-11	55976
RSA-5AD1	2524054-11	56017
RSA-5AD1	2524054-11	56869
RSA-10ED1	2524273-12	56963
RSA-10ED1	2524273-12	58153
RSA-5AD1	2524054-11	58950
RSA-5AD1	2524450-9	59779
RSA-10ED1	2524500-9	61438
RSA-5AD1	2524054-11	62352
RSA-10AD1	2524163-15	62439
RSA-10ED1	2524273-12	63114
RSA-5AD1	2524054-10	63834
RSA-5AD1	2524450-9	65906
RSA-5AD1	2524450-9	65951
RSA-5AD1	2524682-8	66456
RSA-5AD1	2524450-9	67459
RSA-10ED1	2524273-12	68116
RSA-10ED2	2524791-6	69673
RSA-5AD1	2524213-10	69915
RSA-10ED1	2524500-9	70706
RSA-5AD1	2524054-10	71201
RSA-10ED1	2524500-8	72078
RSA-10ED1	2524500-8	77459
RSA-10ED1	2524500-9	77528
RSA-5AD1	2524213-11	77945
RSA-5AD1	2524450-9	78337
RSA-10ED1	2524273-12	78829
RSA-10ED1	2524273-11	79040
RSA-10AD1	2524163-15	81485
RSA-10AD1	2524163-15	81493
RSA-10AD1	2524163-15	81504
RSA-5AD1	2524054-11	82235
RSA-5AD1	2524213-11	997411
RSA-10ED1	2524500-9	70017104
RSA-10AD1	2524757-7	70022001
RSA-10ED1	2524500-9	70027507
RSA-5AD1	2524054-11	70050502



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RSA-5AD1	2524450-9	70054102
RSA-5AD1	2549050-1	70080709
RSA-10ED1	2524500-9	70090105
RSA-10ED1	2524273-12	70091005
RSA-5AD1	2524054-11	70122706
RSA-5AD1	2524054-11	70129709
RSA-5AD1	2576536-2	70134206
RSA-5AD1	2576536-2	70141008
RSA-5AD1	2576536-2	70144804
RSA-5AD1	2524752-7	70147603
RSA-10ED1	2524273-12	70155003
RSA-5AD1	2576536-2	70156707
RSA-10ED1	2524500-9	70157203
RSA-5AD1	2524054-11	70162308
RSA-10ED1	2524500-9	70166004
RSA-5AD1	2576536-2	70176203
RSA-5AD1	2576536-2	70181608
RSA-5AD1	2524054-11	70185408
RSA-5AD1	2576536-2	70191803
RSA-10ED1	2576562-1	70193507
RSA-10ED1	2576554-1	70193607
RSA-5AD1	2576544-2	70194101
RSA-5AD1	2576536-2	70198302
RSA-5AD1	2524054-11	70204204
RSA-10ED1	2524273-12	70210808
RSA-10ED1	2524273-12	70216501
RSA-10ED1	2576554-2	70223303
RSA-10ED1	2576546-1	70225006
RSA-5AD1	2576544-3	70227101
RSA-5AD1	2576536-2	70229809
RSA-5AD1	2524297-10	70233107
RSA-5AD1	2576524-2	70233501
RSA-5AD1	2576536-2	70237609
RSA-5AD1	2576536-2	70245107
RSA-5AD1	2576536-2	70245509
RSA-5AD1	2576536-2	70248507
RSA-5AD1	2576536-2	70258309



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RSA-5AD1	2576536-2	70258401
RSA-5AD1	2524450-9	70261505
RSA-5AD1	2576536-2	70262409
RSA-5AD1	2576568-1	70267804
RSA-5AD1	2576536-2	70268006
RSA-10ED1	2524273-12	70271904
RSA-10ED1	2576554-2	70276607
RSA-5AD1	2576536-2	70277808
RSA-5AD1	2576536-2	70278709
RSA-5AD1	2576536-2	70280708
RSA-5AD1	2576536-2	70283304
RSA-5AD1	2576536-2	70283305
RSA-5AD1	2576536-2	70285102
RSA-5AD1	2576536-2	70285309
RSA-5AD1	2576536-2	70288203
RSA-5AD1	2576536-2	70288703
RSA-10AD1	2576630-4	70369801
RSA-10AD1	2576630-4	70382005
RSA-10AD1	2576630-4	70382107
RSA-10ED1	2576554-2	70392806
RSA-10ED1	2524273-12	70427704
RSA-5AD1	2576536-2	70523707
RSA-5AD1	2576536-2	70523709
RSA-10AD1	2576630-4	70664609
RSA-5AD1	2576536-2	70692709
RSA-5AD1	2576536-2	70709802
RSA-5AD1	2524054-11	70741105
RSA-5AD1	2576536-2	70742402
RSA-10ED1	2576546-3	70744606
RSA-5AD1	2576536-2	70773203
RSA-5AD1	2576586-1	70773909
RSA-10ED1	2524500-9	70784109
RSA-5AD1	2576536-2	70821407
RSA-10ED1	2576562-4	70879504
RSA-5AD1	2576586-1	70882910
RSA-10AD1	2576630-4	70885610
RSA-5AD1	2576586-1	70949408



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Model	Part Number	Serial Number
RSA-10AD1	2576630-4	70949509
RSA-5AD1	2576536-2	70979007
RSA-10ED1	2524500-9	87171200
RSA-10AD1	2524757-7	87361603
RSA-10ED1	2576562-4	770268101
RSA-5AD1	2576536-2	70A89708
RSA-10ED1	2576546-3	70AA0406
RSA-5AD1	2576536-2	70AJ4906
RSA-10ED1	2576546-3	70AM0309
RSA-10ED1	2576562-4	70AU0208
RSA-5AD1	2576536-2	70AU7110
RSA-5AD1	2576536-2	70AW2608
RSA-10ED1	2524273-12	70B08310
RSA-5AD1	2576544-3	70BM3207
RSA-10ED1	2524500-9	70CE4106
RSA-5AD1	2576536-2	70CJ8106
RSA-5AD1	2576586-1	70CM2106
AVX-5VA1	AVX3015006-1	AV014090
AVX-5VA1	AVX3015006-1	AV014091
AVX-5VA1	AVX3015006-1	AV014092
AVX-5VA1	AVX3015006-1	AV014103
AVX-5VA1	AVX3015008-1	AV014224
RSA-10ED1	61M26612-Y	AV101358
RSA-10ED1	AV2576554-3	AV106683
RSA-10ED1	AV2576554-3	AV106684
RSA-5AD1	AV2576536-2	AV117671
RSA-5AD1	AV2576544-3	AV1176716
RSA-5AD1	AV2576544-3	AV1176717
RSA-5AD1	AV2576544-3	AV1176718
RSA-5AD1	AV2576544-3	AV1176719
RSA-5AD1	AV2576536-2	AV117672
RSA-5AD1	AV2576544-3	AV1176720
RSA-5AD1	AV2524450-9	AV1176721
RSA-5AD1	AV2524450-9	AV1176722
RSA-5AD1	AV2524450-9	AV1176723
RSA-5AD1	AV2524450-9	AV1176724
RSA-5AD1	AV2524450-9	AV1176725



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Model	Part Number	Serial Number
RSA-5AD1	AV2576536-2	AV117673
RSA-5AD1	AV2576536-2	AV117674
RSA-5AD1	AV2576536-2	AV117675
RSA-5AD1	AV2576536-2	AV119661
RSA-5AD1	AV2576544-3	AV1196616
RSA-5AD1	AV2576544-3	AV1196617
RSA-5AD1	AV2576544-3	AV1196618
RSA-5AD1	AV2576544-3	AV1196619
RSA-5AD1	AV2576536-2	AV119662
RSA-5AD1	AV2576544-3	AV1196620
RSA-5AD1	AV2524450-9	AV1196621
RSA-5AD1	AV2524450-9	AV1196622
RSA-5AD1	AV2524450-9	AV1196623
RSA-5AD1	AV2524450-9	AV1196624
RSA-5AD1	AV2524450-9	AV1196625
RSA-5AD1	AV2576536-2	AV119663
RSA-5AD1	AV2576536-2	AV119664
RSA-5AD1	AV2576536-2	AV119665



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ATTACHMENT B: Lot numbers of affected Fuel Diaphragms and Value Kits

Name	Part Number	Lot Number
Diaphragm	AV2541801	L100515
Diaphragm	AV2541803	L100515
Diaphragm	AV2541801	L100672
Diaphragm	AV2541803	L100672
Diaphragm	AV2541801	L100758
Diaphragm	AV2541803	L100758

Name	Part Number	Qty	Lot Number
Value Kit	AVK-10AD1	1	011975
Value Kit	AVK-10AD1	1	014298
Value Kit	AVK-10AD1	1	014698
Value Kit	AVK-10ED1	4	013757
Value Kit	AVK-10ED1	4	014413
Value Kit	AVK-10ED1	4	014685
Value Kit	AVK-10ED2	1	014405
Value Kit	AVK-5AD1	18	013859
Value Kit	AVK-5AD1	6	014078
Value Kit	AVK-5AD1	6	014208
Value Kit	AVK-5AD1	2	014450
Value Kit	AVK-5AD1	5	014461
Value Kit	AVK-5AD1	1	014638
Value Kit	AVK-5AD1	5	014744
Value Kit	AVK-5AD1	5	014798
Value Kit	AVK-5AD1	2	014802



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ATTACHMENT C:

Claim Form AFS-900-F98

AVSTAR FUEL SYSTEMS, INC.
1365 Park Lane South
Jupiter, FL 33458
(561) 575-1560 (561) 575-0795 Fax
sb@avstardirect.com
www.avstardirect.com

Customer Information:

Customer Name: _____
Company Name: _____
Address: _____
City: _____ State: _____ Country: _____
Tel. No: _____ Fax No: _____ email: _____

Aircraft Information:

Make: _____ Model: _____ Year: _____ Total Time: _____
"N" Number: _____ Engine Model: _____ Total Time on Engine: _____
Aircraft Use: Personal _____ Business _____ (Selection will not affect Warranty)

Unit Information:

Name: Fuel Servo Model Number: _____ Part Number: _____ Serial Number: _____
Date Installed: _____ Hours in Service: _____ Date Removed: _____
Reason for Claim: RETURNED FOR FUEL DIAPHRAGM REPLACEMENT PER SERVICE BULLETIN AFS SB6

INSTRUCTIONS

Complete ALL INFORMATION on this form and return by fax to (561) 575-0795 or email: sb@avstardirect.com to receive a Return Material Authorization Form.

Select Option below.

OPTION 1: (Labor reimbursement) Custom _____
OPTION 2: (Warranty extension) Custom _____
OPTION 3: (Service Credit) Custom _____

(A valid receipt for labor incurred will be required for reimbursement if Option 1 is selected.)

If an affected servo or fuel diaphragm assembly is in stock and unused, it must be returned to AVStar for repair.

A RETURN MATERIAL AUTHORIZATION FORM WILL NOT BE PROVIDED UNTIL ALL INFORMATION IS RECEIVED AND VERIFIED. AFTER RECEIPT OF THE RETURN MATERIAL AUTHORIZATION FORM, THE AFFECTED UNIT OR DIAPHRAGM SHALL BE RETURNED BY FOLLOWING THE PACKAGING AND SHIPPING INSTRUCTIONS STATED ON THE RETURN MATERIAL AUTHORIZATION FORM.