

14401 Keil Road NE, Aurora, Oregon, USA 97002 PHONE 503-678-6545 • FAX 503-678-6560 www.vansaircraft.com • info@vansaircraft.com

SERVICE BULLETIN 00041

Date Released:	December 30, 2021
Date Effective:	December 30, 2021
Subject:	HIC Module Strain Relief Inspection
Affected Models:	RV-12iS with Avionics Kits shipped before Sept. 2021
	SLSA RV-12iS aircraft: Serial Numbers 12075-12096
Required Action:	Inspect HIC module connections for intermittent electrical contact as described in this document. If intermittent contact is detected, install F-12334 and WH-00146.
Time of Compliance:	Inspect before further flight
	If no electrical contact issues are found: Re-inspect annually
	If electrical contact issues are found: Install F-12334 and WH-00146
Supersedes Notice:	N/A
Labor Required / SLSA Warranty Allowance: N/A	
Level of Certification:	SLSA: LSA Repairman Maintenance or A&P ELSA: Owner (certification not required) Check the rules of the local controlling authority/agency and the operating limitations for your aircraft.

Synopsis:

Intermittent and low fuel pressure readings have been reported in a small number of RV-12iS aircraft due to potentially loose contacts in the 8-pin Molex connector that attaches to the AV-60009 HIC Module. Complying with this service bulletin ensures that aircraft equipped with potentially affected parts are operating as intended.

Van's will be releasing an improved HIC module in the future, which will be included on all new RV-12iS aircraft and kits once released, and which will also be retrofittable to existing aircraft. The parts described in this bulletin should only be installed in the event intermittent fuel pump operation has been verified, as described in Steps 1-3.

Materials Required:

The following materials are required only if intermittent fuel pump operation is found, in order to complete the steps necessary to achieve compliance with this Service Bulletin. A limited number of the below referenced part are available to owners with flying aircraft where the issue has been confirmed via the test process described in this document. To obtain this part from Van's Aircraft, please call to verify the issue and place an order.

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Method of Compliance:

Step 1: Remove MFD (if installed) or co-pilot side instrument panel.

Step 2: Turn on Master Switch and both fuel pumps.

<u>Step 3:</u> While listening to the tone of the fuel pumps, grasp the harness bundle that is connected to the AV-60009 HIC module and wiggle the bundle/connector at the connection point. Refer to 42MiS/U for location of AV-60009 and related wire connections.

- If the pitch/tone of the fuel pumps remains constant, skip to Step 14.
- If the pitch/tone of the fuel pumps <u>changes</u>, proceed to Step 4.

<u>Step 4:</u> Disconnect and remove the AV-60009 HIC Module from the airplane. Refer to KAI 42MiS/U.

<u>Step 5:</u> Prepare the F-12334 Strain Relief by removing the upper tabs and riveting them to the F-12334 as shown using rivets called out in Figure 1. Adhere MS21266-1N Grommet Strip to the top of F-12334 using RTV as shown in Figure 4.



FIGURE 1: F-12334 STRAIN RELIEF PREPARATION

<u>Step 6:</u> Attach the F-12334 to the AV-60009 using the existing AV-60009 screws as shown in Figure 2.

Step 7: Install the AV-60009 onto the F-01202B-1 avionics deck per KAI 42MiS/U-03.



FIGURE 2: F-12334 ATTACHMENT TO AV-60009-1

<u>Step 8:</u> Remove the backshell from the ES-60012 8-pin Molex Housing. Label each wire number at least 3 inches back from connector using diagram in Figure 3.



FIGURE 3: ES-60012 PIN NUMBERING

NOTE: Cut as close to the housing as possible to reduce the amount of wire length removed.

<u>Step 9:</u> Cut all wires common to the ES-60012 8-pin Molex Housing shown in Figure 3. Strip the wires to achieve about 1/4" of bare wire. Note that wires #1-4 are 12 AWG, and wires #5-8 are 14 AWG.

<u>Step 10:</u> Crimp the butt slices from the loose wire ends of the WH-00146 to the bare wires. Reference Figure 3 to match the wire ends to the new connector wiring. Firmly pull on each wire on either side of the butt splice to ensure the crimps are firm and secure.

<u>Step 11:</u> Complete a continuity check for pins 1-4. Reference Table 1. Reference KAI 42MiS/U-14 for connector locations on the EMS Fuse Box. Simply touch your multimeter probe to the tip of the Molex contact. Do not insert the probe into the contact as it will cause irreparable damage.

Molex Pin Number	Continuity Check Location
1	EMS Fuse Box X3 Connector Pin 2
2	EMS Fuse Box X3 Connector Pin 3
3	EMS Fuse Box Generator A Ground
4	Airframe Ground

NOTE: For more information on general wiring practices, see Manual Section 5.

<u>Step 12:</u> Connect all wires to HIC Module and install PLASTIC TIE WRAP 5.5" for strain relief common to the F-12334 and WH-00146. Ensure wire routing is clear of F-12334 and no chaffing can occur. See Figure 4 for complete installation.



FIGURE 4: COMPLETE HIC MODULE INSTALL

<u>Step 13:</u> Turn on the master switch. Turn on each fuel pump switch individually and listen to verify each fuel pump turns on and generates proper operating fuel pressure.

<u>Step 14:</u> Make a logbook entry indicating compliance with service document per the requirements of the controlling authority/agency.

Place a copy of this notification in the back of the maintenance manual for your aircraft. Add the name and date of the service information to the Addendum Documents List at the front of the Maintenance Manual. If you are no longer in possession of this aircraft, please forward this information to the present owner/operator and immediately notify Van's Aircraft, Inc. via email at registrations@vansaircraft.com.

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