



SERVICE BULLETIN 00058

Date Released: October 19, 2022 (Rev 1 – Removed erroneous references to POH procedure)
October 3, 2022 (Initial Release)

Date Effective: October 19, 2022

Subject: HIC Module Replacement

Affected Models: RV-12iS with Avionics Kits shipped before August 2022
SLSA RV-12iS aircraft: Serial Numbers 12075-12122

Required Action: Replace AV-60009 or AV-60009-1 with AV-60009-2

Time of Compliance: At or before the next annual condition inspection

Supersedes Notice: SB-00041

Labor Required / SLSA Warranty Allowance: 2.5

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 number of RV-12iS aircraft due to potentially loose contacts in the 8-pin Molex connector that attaches to the AV-60009(-1) HIC Module. Complying with this service bulletin equips aircraft with a new AV-60009-2 HIC Module, which eliminates this 8-pin Molex connector.

NOTE: The term “Start Power” refers to the power provided to the fuse box (which in turn powers the fuel pumps) directly from the battery before starting the engine. The AV-60009 uses MOSFETs to switch Start Power on/off. After engine start, the fuse box is powered by Generator A, and start power is automatically disengaged. The circuitry included in previous versions of the AV-60009 (prior to AV-60009-2) did not automatically shut off start power after engine start, and therefore the fuel pumps would continue to run after engine shutdown.

NOTE: After installing the AV-60009-2, the fuel pumps WILL SHUT OFF after engine shut down. Start Power can be reengaged by cycling the master switch. In an emergency, the EMS Backup Power Switch must be turned on, which will ensure power is provided from the battery to the fuse box and fuel pumps. Please

review and operate using the emergency procedures listed in the RV-12iS POH after completing this service bulletin. Ensure the correct, up-to-date version of the POH is carried in the aircraft.

Materials Required:

The following materials are required to complete the steps necessary to achieve compliance with this Service Bulletin.

Purchase: Qty 1 SB-00058, which contains:

- 1 ea. AV-60009-2
- 1 ea. ES-796859-8
- 1 ea. TOOL-00114
- 4 ea. MS21042-06
- 4 ea. NAS1149FN632P
- 2 ea. AN526C632R6

Optionally, if wire length is too short, order wire harness extension WH-00146-1. See Step 7 below.

Method of Compliance:

Step 1: Remove the top cowl and disconnect the battery. Remove the canopy per KAI 39iS/U. Remove the F-01240-1 forward upper fuselage skin per KAI 29iS/U.

Step 2: Disconnect and remove the AV-60009(-1) HIC Module from the airplane. Refer to KAI 42MiS/U.

Step 3: Cut all zip ties restraining the ROTAX ECU harness. Remove the fasteners and move the ROTAX ECU out of the way as shown in Figure 1.

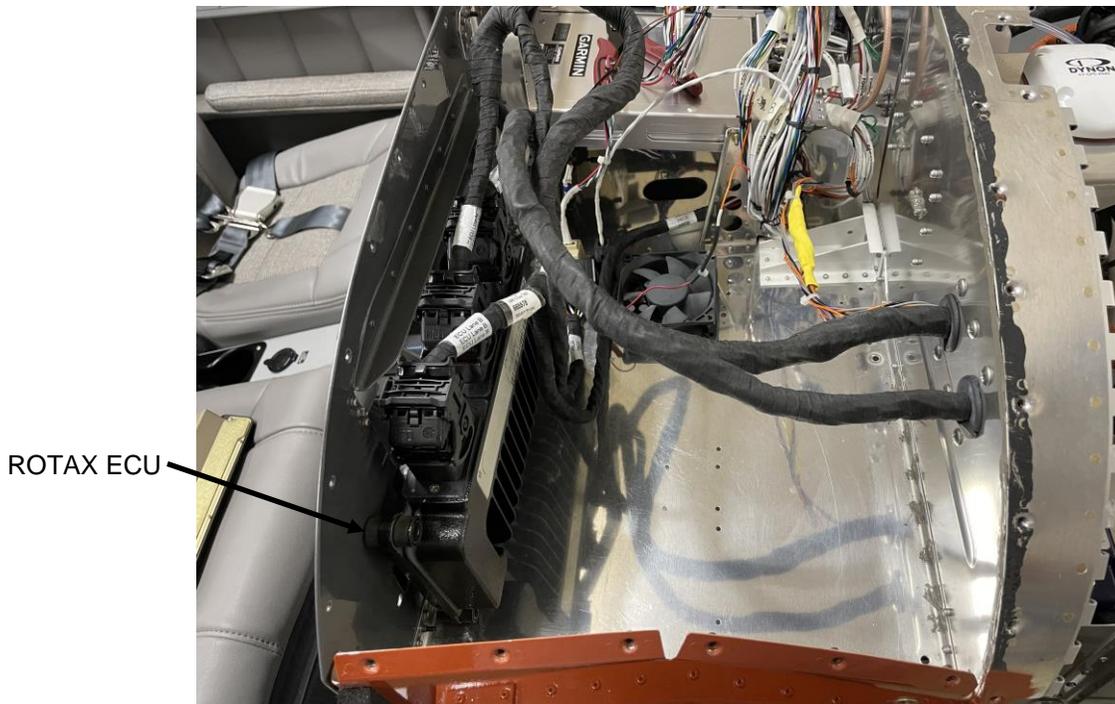


FIGURE 1: ROTAX ECU REMOVED FROM F-01202B-1 PANEL BASE

Step 4: Place TOOL-00114 drill template onto the F-01202B-1 Panel Base and fasten using hardware noted in Figure 2. Match-Drill as shown in Figure 2. The #27 holes are overlapping with existing holes to create a slot. After drilling, some additional filing may be required to fit the AV-60009-2.

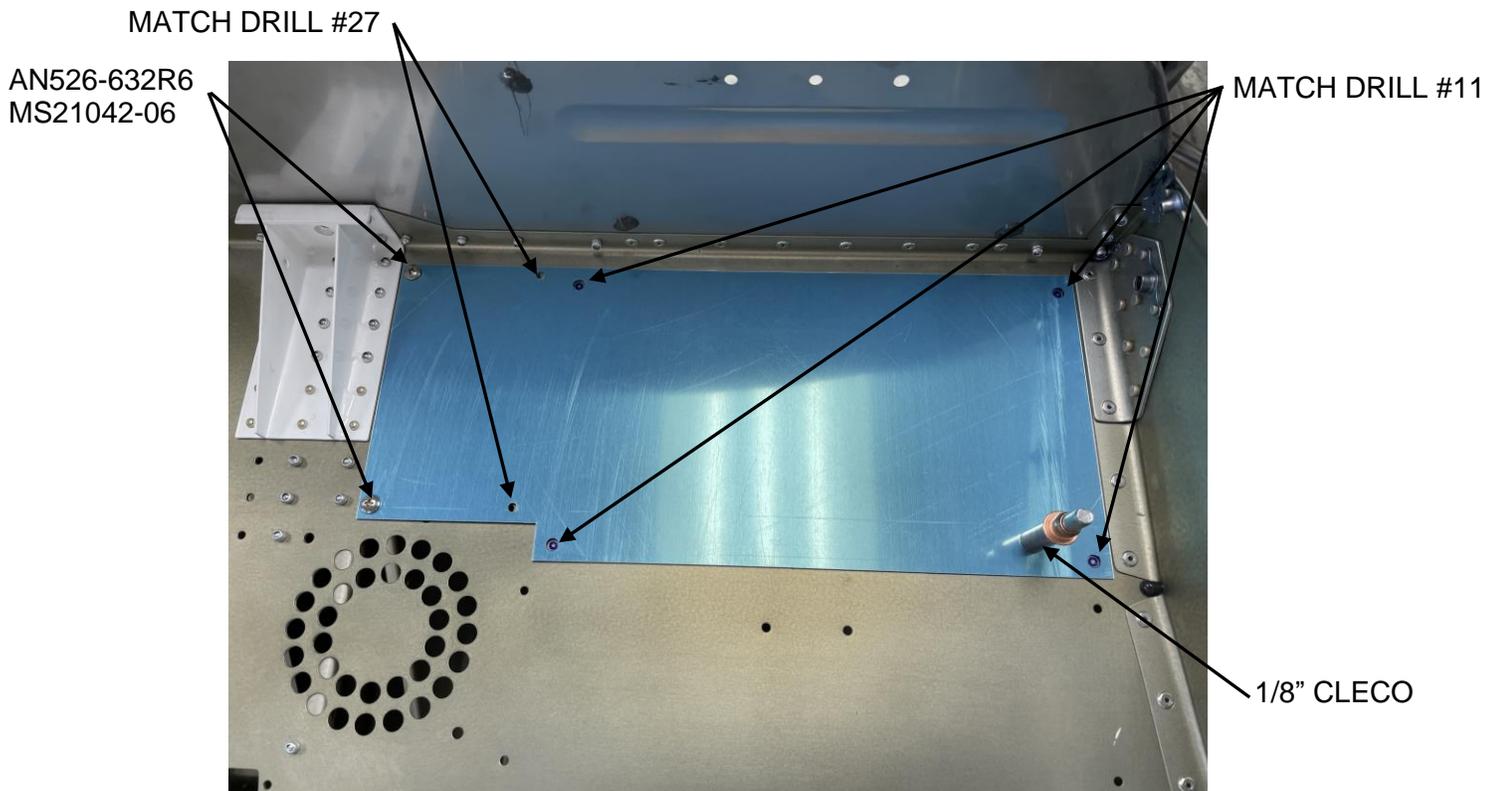


FIGURE 2: TOOL-00114 INSTALLED ON F-01202B-1 PANEL BASE

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

Step 5: Remove the backshell from the ES-60012 8-pin Molex connector. Cut all wires common to the ES-60012 8-pin Molex connector. Strip the wires to achieve about 1/4" of bare wire.

Step 6: Install the AV-60009-2 onto the F-01202B-1 Panel Base per KAI 42MiS/U-03.

Step 7: Route the bare wires to the termination point on the AV-60009-2 to ensure that the wires are long enough to pass through the strain relief and terminate to ES-796859-8. If more wire length is required, order WH-00146-1.

Step 8: If WH-00146-1 is not required, skip this step. Crimp the butt splices (provided on the WH-00146-1) onto the wires of the main aircraft harness per Table 1.

Step 9: Insert the bare wires into the receptacle and tighten down the respective clamping screw. Reference Table 1 and Figure 3 to match the aircraft harness wire number to the ES-796859-8 pin number. Firmly pull on each wire to ensure the crimps are firm and secure.

TABLE 1: MAIN AIRCRAFT HARNESS WIRE NUMBERS

ES-796859-8 Pin Number	Dynon Wire Number	Garmin Wire Number
1	F6268	F7017
2	F6267	F7016
3	F6266	F7015
4	F6265	F7014
5	K6256	K6256
6	K6257	K6257
7	K6254	K7022
8	K6253	K7023

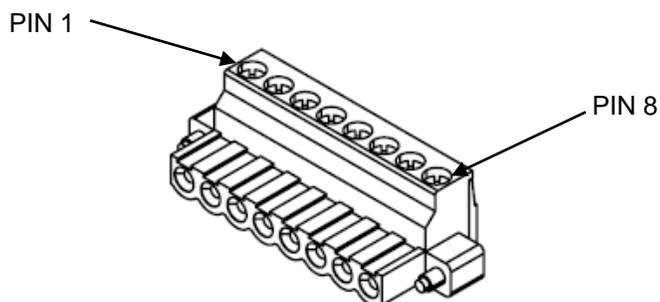


FIGURE 3: ES-796859-8 PIN NUMBERS

Step 10: Complete a continuity check for pins 5-8. Reference Table 2 and KAI 42MiS/U-14 for connector locations on the EMS Fuse Box.

TABLE 2: CONTINUITY CHECK LOCATIONS

Pin Number	Continuity Check Location
5	Airframe Ground
6	EMS Fuse Box Generator A Ground
7	EMS Fuse Box X3 Connector Pin 3
8	EMS Fuse Box X3 Connector Pin 2

NOTE: The new ES-796859-8 connector has two captive screws. After plugging in the connector, ensure the screws are tightened and a strain relief tie-wrap is installed.

Step 11: Attach all wires to the HIC Module and install a PLASTIC TIE WRAP 5.5" for strain relief between the wires and the F-12335 HIC Harness Strain Relief. Refer to Figure 4, and KAI 42MiS/U-13 or 42MiS/U-41.

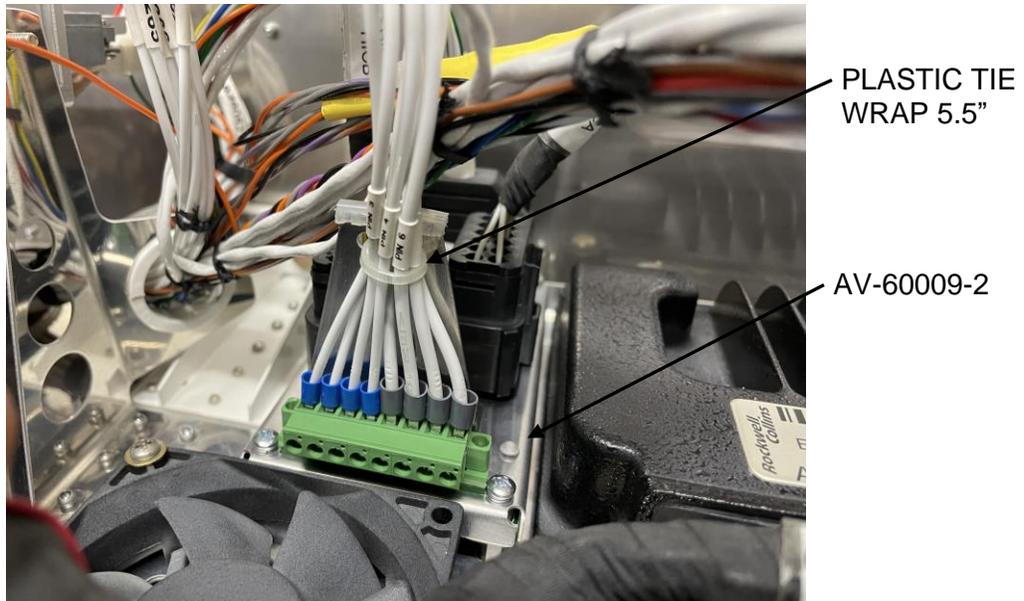


FIGURE 4: ATTACHING WIRES TO HIC MODULE

Step 12: Attach the ROTAX ECU to the F-01202B-1 Panel Base per KAI 46iS-08.

Step 13: Install the F-01240-1 Upper Forward Fuselage Skin per KAI 29iS/U. Install the canopy per KAI 39iS/U. Reconnect the battery and reinstall the top cowl.

Step 14: Turn on the master switch. Turn on each fuel pump switch individually and listen to verify each fuel pump turns on and generates the proper operating fuel pressure.

Step 15: Make a logbook entry indicating compliance with this service document per the requirements of the controlling authority/agency.

Step 16: 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. of the new owner's information via email at registrations@vansaircraft.com.

Information regarding establishing/transferring aircraft ownership, registration and licensing is available at: <https://www.vansaircraft.com/gr/transfer-of-ownership/>