



SERVICE BULLETIN SB-00088 REV 2

Date Released: April 4, 2024 - Rev 2 (figures and steps revised for clarity)
March 12, 2024 - Rev 1 (initial public release)
December 21, 2023 (initial release to beta testers)

Date Effective: March 12, 2024

Subject: Radiator Attachment Modification

Affected Models: RV-12iS
ELSA – All RV-12iS Firewall Forward kits shipped before December 20, 2023
SLSA – RV-12iS aircraft with serial numbers 12158 and earlier

Required Action: Optionally upgrade radiator attachment to oil cooler

Time of Compliance: Complete inspection in Step 1 before further flight

Supersedes Notice: N/A

Labor Required / SLSA Warranty Allowance: None

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:

Data from the field indicates that the RV-12iS radiator (EA RV-12iS RADIATOR) is susceptible to fatigue cracks in the lower coolant passage, which leads to coolant leaks. The damaged radiators returned to Van's all show evidence that the radiator contacted the cowling during operation (shown by wear spots through the black finish.) Insufficient dynamic balancing of the propeller (i.e. balance has never been checked or the propeller was removed and reinstalled without being rebalanced) is also likely a contributing factor, reducing service life. In several cases a contributing cause was missing or loose fasteners. Complying with this service bulletin will increase the fatigue life of radiators in typical service, but does not negate the need to dynamically balance the propeller.

Materials Required:

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

Purchase SB-00088 KIT

Method of Compliance:

Step 1: Inspect radiator/cooler for proper 1/2 in. gap from any part of the lower cowling as shown in KAI 37iS/U Rev. 2 or later. Also verify lateral alignment of coolers as shown in KAI 50iS/U. Any interference of the flanges around the coolers with the cowling in service will greatly decrease the service life of the coolers. Examples are shown in Figure 1 and Figure 2.

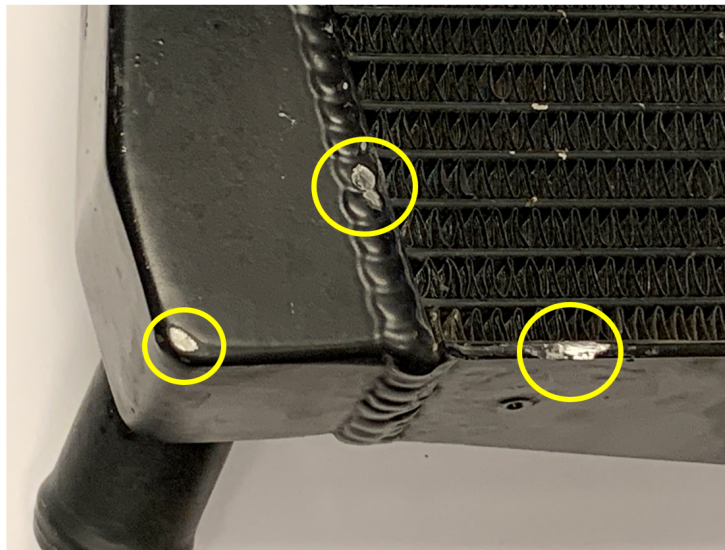


FIGURE 1: WEAR SPOTS

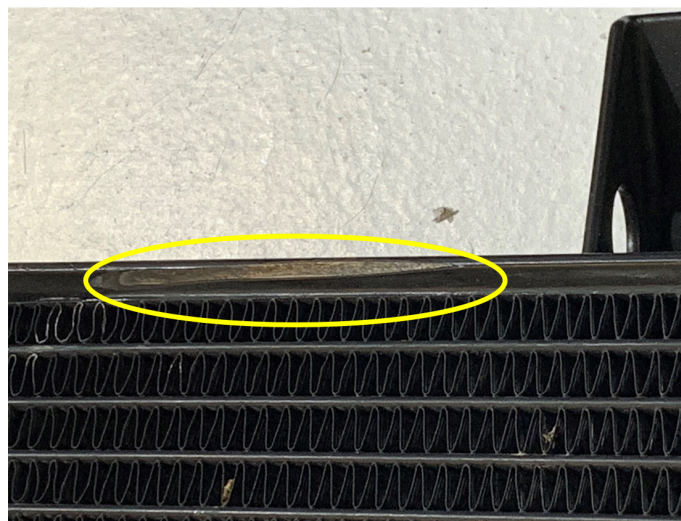


FIGURE 2: WEAR SPOTS

NOTE: Due to significant engine motion during engine start, and deflection of the engine mount isolators under high engine power operations, sufficient gaps are critical to provide adequate clearance during all modes of operation.

Step 2: Leaving the WD-01234 iS Radiator Mounting Bracket attached to the radiator, note the quantity of spacer washers on either side as seen in KAI 50iS/U.

Remove the RV-12iS Radiator and trim as shown in Figure 3 and Figure 4.

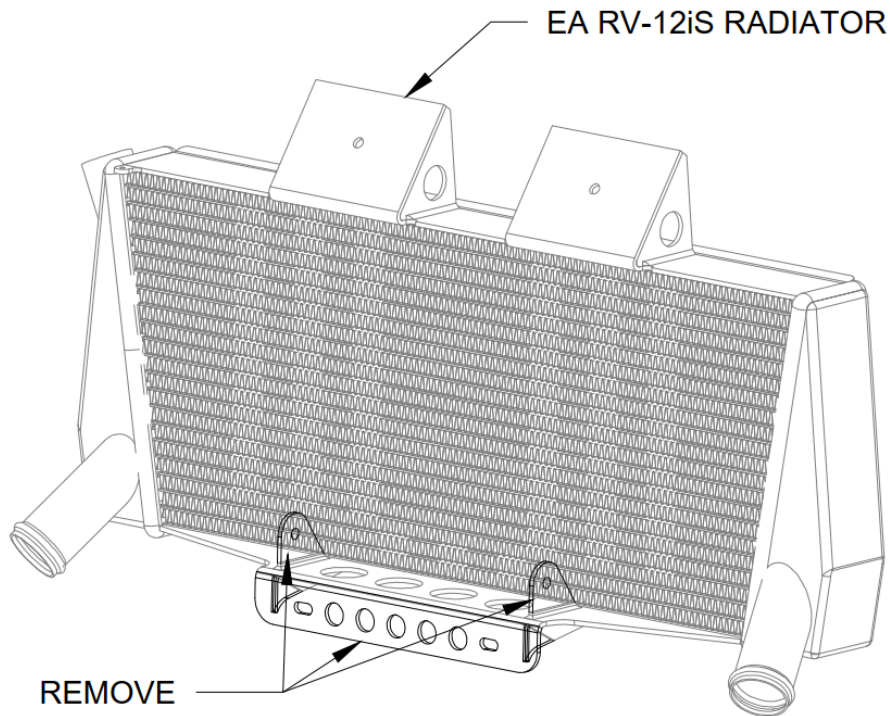


FIGURE 3: REMOVING MATERIAL

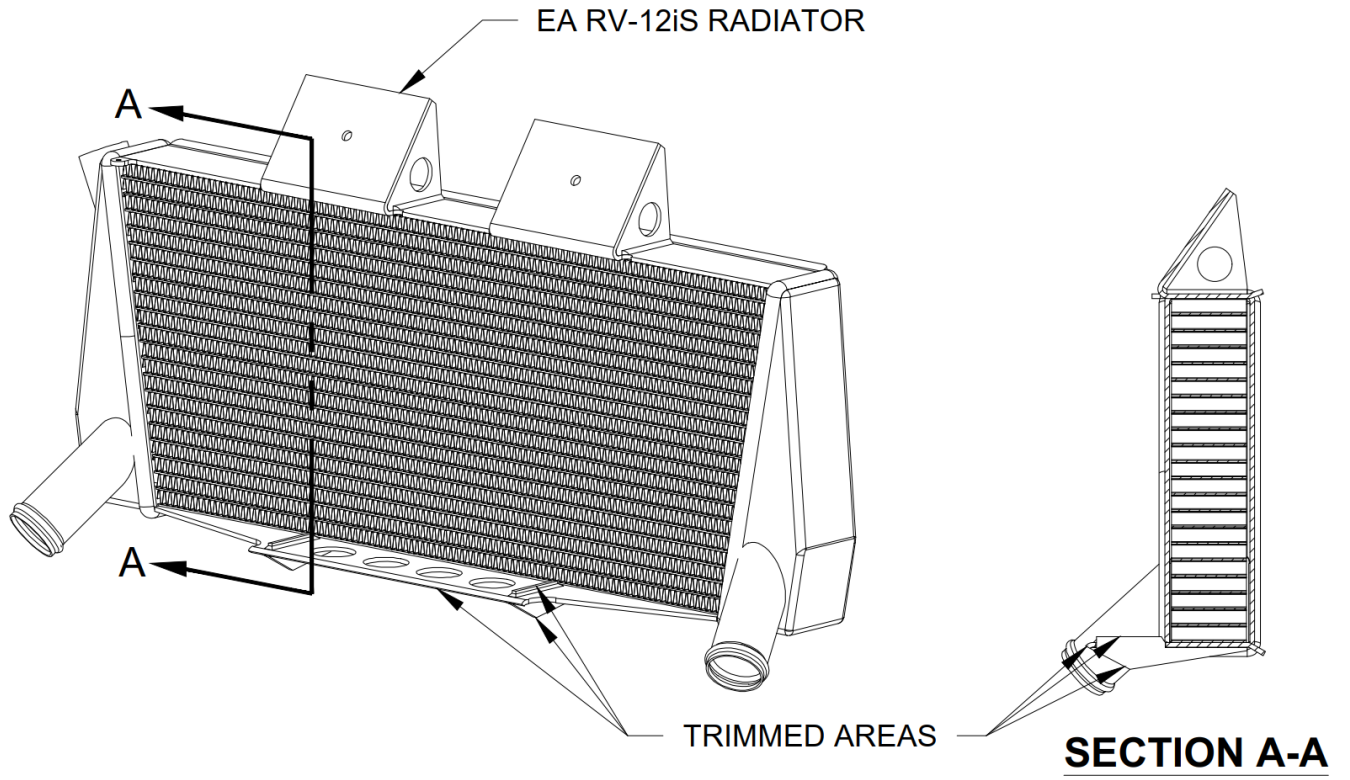


FIGURE 4: TRIMMED VIEW

Step 3: Prepare the FF-01249 Cooler Interconnect Bracket by machine countersinking and attaching nutplates using the hardware called out in Figure 5.

Step 4: Remove and discard the nutplates on the RV-12iS Oil Cooler as seen in KAI 50iS/U to allow the FF-01249 to be riveted to the RV-12iS Oil Cooler as shown in Figure 5.

Install the FF-01249 bracket using the hardware called out in Figure 5.

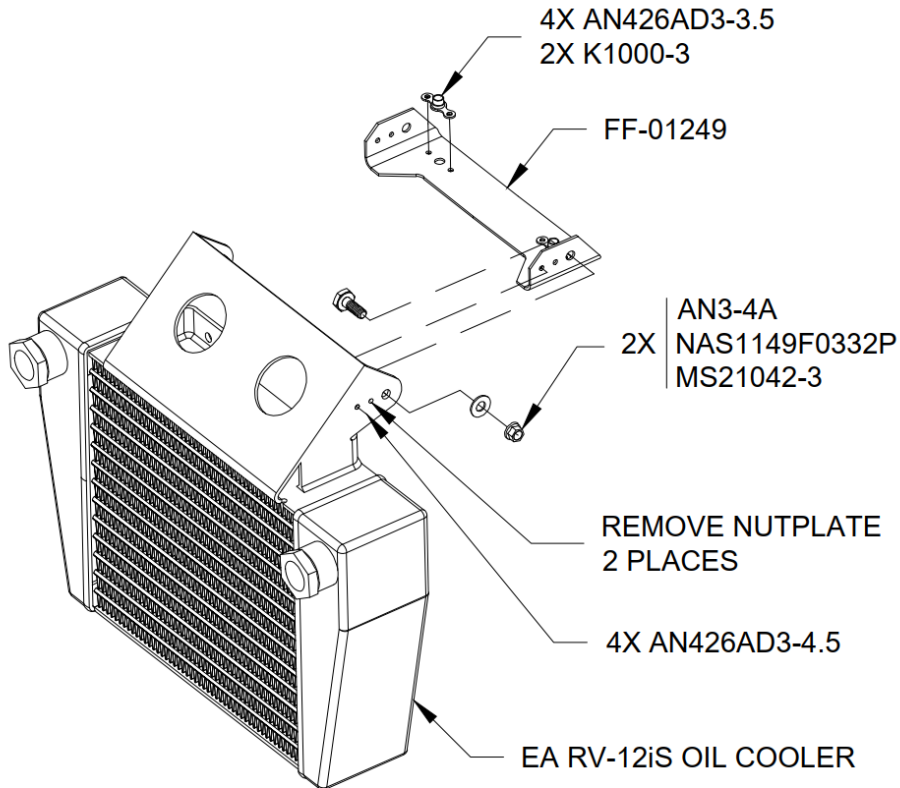
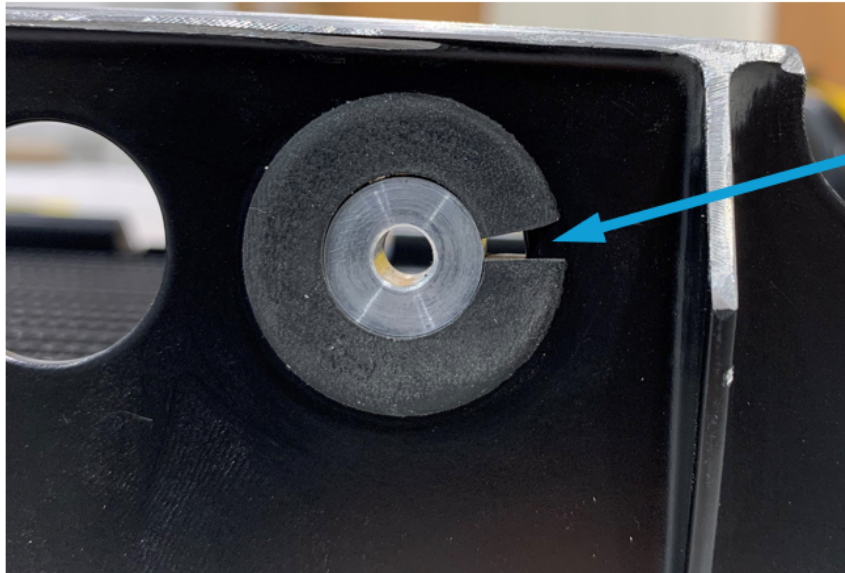


FIGURE 5: COOLER INTERCONNECT BRACKET ATTACHMENT

Step 5: Cut the EA-00004 EPDM Isolator and install into outboard holes in the lower plate of the RV-12iS Radiator, 2 places.

Align the cuts to the outboard then insert the bushing AL-.197X.515X.268.

Expand the grommet to fill the hole and open a gap then secure grommets with RTV sealant in the gap.



GAP OUTBOARD
FILL WITH RTV

FIGURE 6: GROMMET AND BUSHING INSTALLATION

Step 6: Bolt the RV-12iS Radiator to the FF-01249 with the hardware shown in Figure 7. Resecure the FF-01231-1 Oil Cooler Mounting Bracket to the engine as shown in KAI 50iS/U.

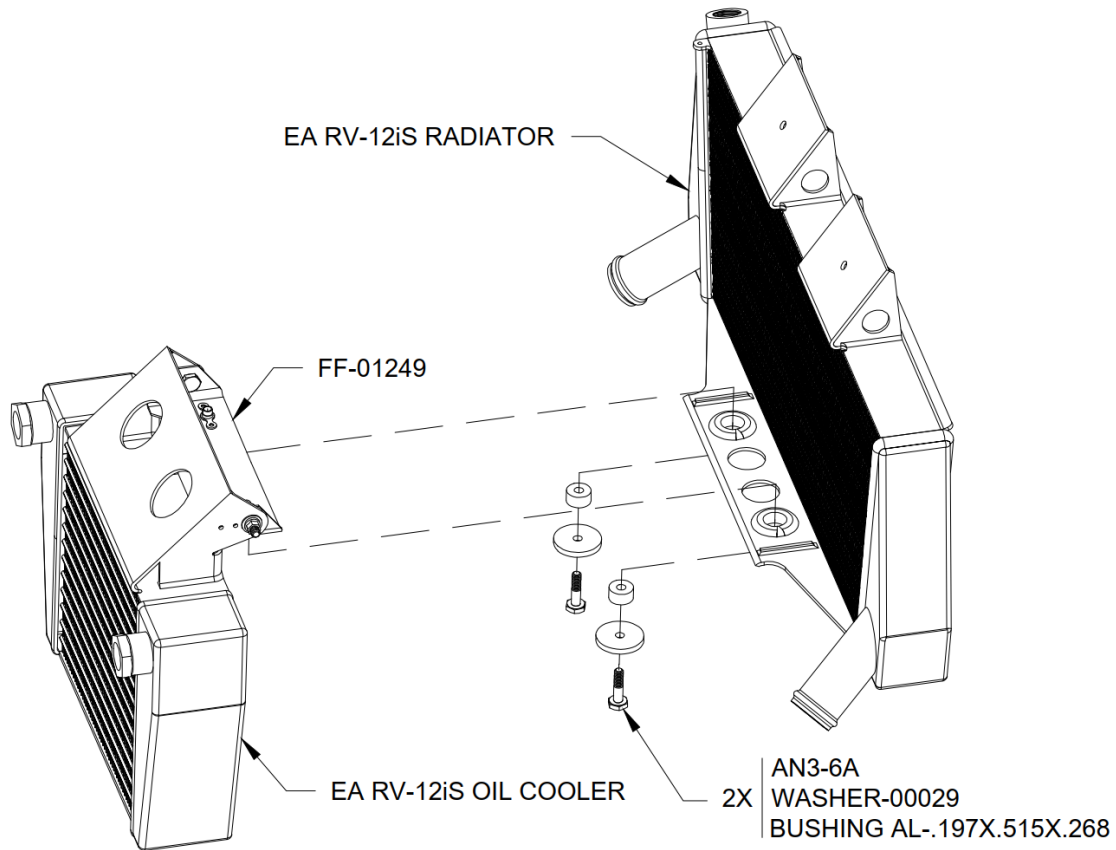


FIGURE 7: OIL COOLER ATTACHMENT

Step 7: Make a logbook entry indicating compliance with service letter 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.

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