



SERVICE INSTRUCTION **SI0011**

EFFECTIVE DATE: This Service Instruction is effective March 26, 2008

SUBJECT: HEAT MUFFLER RETROFIT

MODELS AFFECTED: CC11-100 S/N CC11-00001 thru CC11-00047

PURPOSE: Heat Muffler Retrofit Installation

PARTS LIST:

<u>PART</u>	<u>DESCRIPTION</u>	<u>QTY</u>
SC54201-003	Swivel Stud	1
SC54400-001	Carburetor Box Assembly	1
SC56020-001	Cabin Heat Intake Assembly	1
SC56017-001	Cabin Heat Intake Flange Blank	1
SC57150-001	Heat Muffler Assembly, LH (Cabin Heat)	1
SC57250-001	Heat Muffler Assembly, RH (Carb Heat)	1
SP57001-001	4" Hose Clamps	5
AN363-440	Nut, Hi-Temp Lock	8
AN526C440R6	Screw, 4-40X3/8	8
AN936-A-416	Lock Washer, 1/4"	4
AN936-A-516	Lock Washer, 5/16"	2
AN960-4L	Washer	8
ABL4-2A	Pop rivet, fabric	AR
RM0006-001	2" SCAT Aero Duct	25"

INSTRUCTIONS:

1. Remove cowling.
2. Remove exhaust stack assemblies. Forward, Right-Hand intake elbow may need to be loosened.
3. Remove existing Heat Muffler Assemblies from exhaust stack assemblies. Remove flange of bulkhead as shown in Figure 1. REUSE duct clamps and portions of SCAT Aero Duct tube.



FIGURE 1: Remove Bulkhead and Install New Muffler Assembly

4. Remove and discard exhaust braces. Reinstall existing nuts on engine side with new lock washers (AN936-A-516).
5. Install Heat Muffler Assembly, RH (Carb Heat) on right-hand side (pilot's view) of engine. Mufflers should be located directly behind weld. See Figure 1. Ensure at least 1/8" clearance between muffler cut-out and exhaust stack, all the way around. Grind muffler assembly as needed. Secure with two (2) hose clamps (SP57001-001). See Figure 2. (Figures 2 and 3 do not show weld that will exist when retrofit is done in the field.)

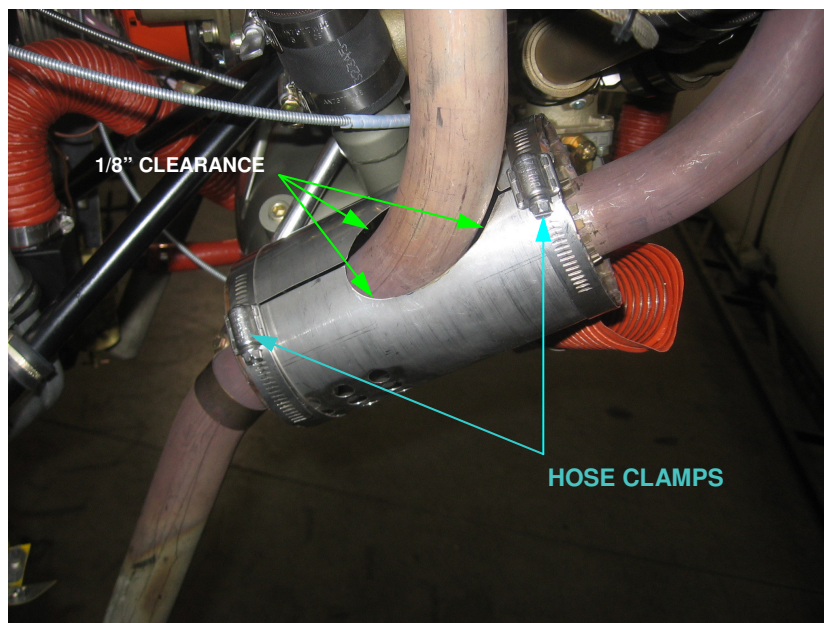


FIGURE 2: Heat Muffler Assembly, RH (Carb Heat)

6. Install Heat Muffler Assembly, LH (Cabin Heat) on left-hand side of engine. Ensure at least 1/8" clearance between muffler cut-out and exhaust stack all the way around. Secure with three (3) hose clamps (SP57001-001). See Figure 3.

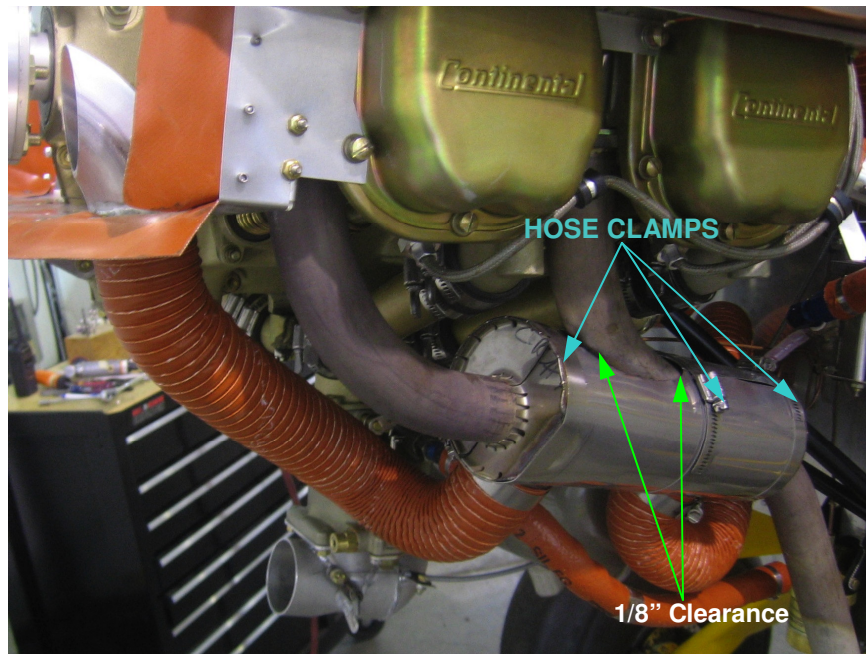


FIGURE 3: Heat Muffler Assembly, LH (Cabin Heat)

7. Remove existing Carburetor Box Assembly. Replace existing Carb Heat Swivel Stud with new stud (SC54201-003). Install USING existing hardware. See Figure 5.



FIGURE 4: New Carburetor Box Assembly

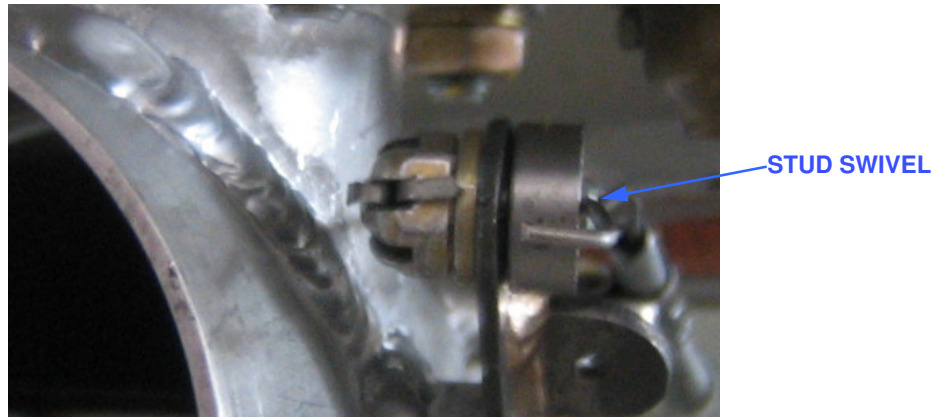


FIGURE 5: Stud Swivel Installation

8. Install new Carburetor Box Assembly (SC54400-001) with existing gasket and hardware except using new lock washers (AN936-A-416). Ensure free operation of carb heat arm. Rig carb heat cable to allow 1/8 – 1/4 inch clearance between control knob and instrument panel. See Figure 6.

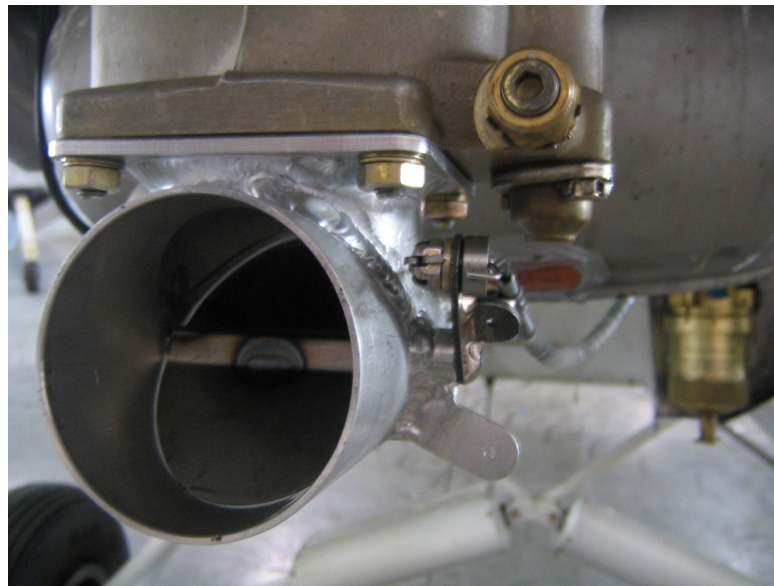


FIGURE 6: Carb Heat Cable Attachment

9. Cut a 2" to 2 1/8" hole in left-hand side of front baffle in accordance with Figure 7, location can be +/- .5 inches to clear existing rivets. Rivets on front edge of baffle may need to be removed to fit Cabin Heat Intake Assembly under Silicone Baffle. (See Figure 7)

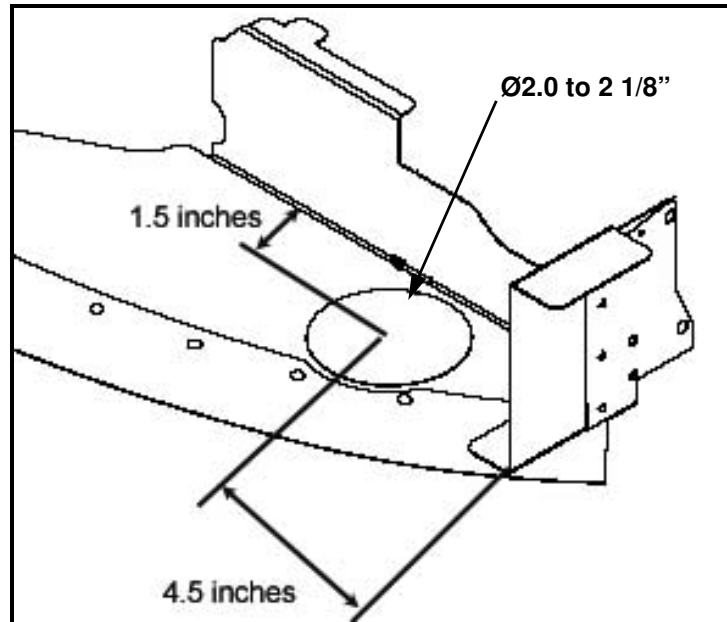


FIGURE 7: Cabin Heat Intake Location on Front Baffle

10. Install Cabin Heat Intake Assembly (SC56020-001) with four (4) each screws (AN526C440R6), washers (AN960-4L), and Hi-Temp Lock Nuts (AN363-440). Replace any rivets removed in Step 9 with ABL4-2A rivets. See Figure 8.

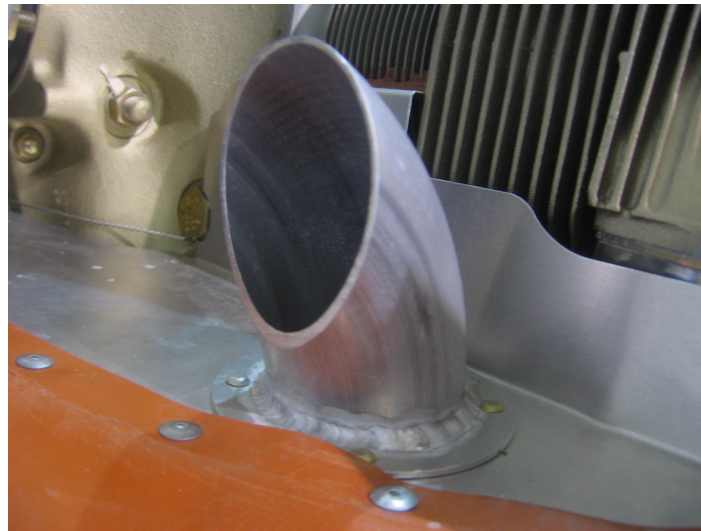


FIGURE 8: Cabin Heat Intake Assembly on Front Baffle

11. Install Cabin Heat Intake Flange Blank (SC56017-001) on right-hand side of aft baffle. Use four (4) each screws (AN526C440R6), washers (AN960-4L), and Hi-Temp Lock Nuts (AN363-440). See Figure 9.

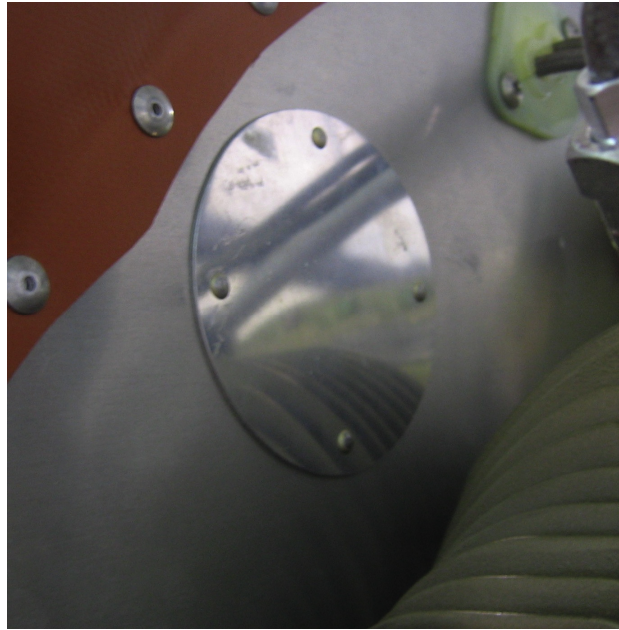


FIGURE 9: Cabin Heat Intake Flange Blank on Aft Baffle

12. Cut existing SCAT Aero Duct to needed lengths for Heat Muffler Assembly, LH (Cabin Heat) to Heat Intake and Heat Muffler Assembly, RH (Carb Heat) to Carburetor Box Assembly.
13. Connect SCAT Aero Duct tube from Intake Assembly to Heat Muffler Assembly, LH (Cabin Heat). Use existing clamps. Ensure all clamps do not interfere with cowl. See Figure 1.
14. Connect new 2" SCAT Aero Duct (RM0006-001) from Heat Muffler Assembly, LH (Cabin Heat) to Cabin Heat Box on firewall. Ensure clearance between fuel line and SCAT Aero Duct tube. See Figure 10.

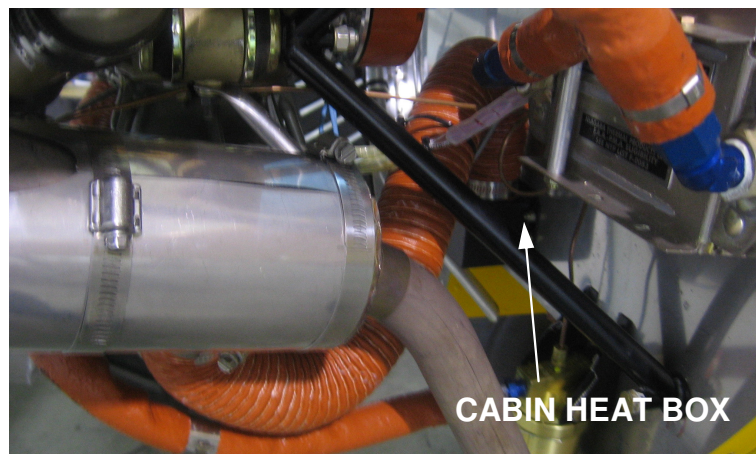


FIGURE 10: Cabin Heat Aero Scat Duct Routing



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15. Connect SCAT Aero Duct tube from Heat Muffler Assembly, RH (Carb Heat) to Carburetor Box Assembly. Use Hi-Temp RTV silicone between SCAT Aero Duct and oil pan.
16. Reinstall cowling. Ensure clearance of both Heat Muffler Assemblies and the Cowl.