

Aero Vent Cabin Ventilation System

Model Applicability:

Cessna Aircraft Company Models:

172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172Q,
P172D, R172E, R172F, R172G, R172H, R172J, R172K, 172RG
175, 175A, 175B, 175C.

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Section 1.0

Introduction

This manual describes the installation of Aero Vent cabin ventilation system mounted on the windshield post to replace the stock wing root cabin ventilation system. The installation must be accomplished in accordance with AC43.13-1B and 2A.

Section 2.0

Aero Vent Installation

2.1 Right Side Installation.

- a. Remove existing vent tube from right side of aircraft. Remove interior door post cover from right side of aircraft, retain hardware for use in re-installation of Aero Vent. It may also be necessary to remove the right side sun visor as well as other interior pieces that may interfere with the installation.
- b. Note, If the aircraft is equipped with an electronic Outside Air Temperature (OAT) probe, proceed to 2.1(c).
 - 1) Remove original OAT probe from vent tube while retaining all hardware for re-installation. Remove 2 ¼" scat tube from right side vent post assembly. Locate the OAT locator label on the slight flat spot near the upper air gasper. This label gives a general location for the OAT probe, the installer may locate the OAT probe in another suitable location.
 - 2) Drill a hole in the indicated position large enough for the OAT probe.
 - 3) Trial fit the OAT probe in the hole. The end of the probe must extend into the air box and/or into the oval 2 ¼" scat tube so accurate readings can be achieved.
 - 4) If your OAT probe does not correctly center in the oval scat tube mount flange, there are two round hard rubber washers provided in the kit to rectify this. Drill a hole in the center of each washer to fit on the OAT probe. Sand a bevel on one side of each washer and install on the OAT probe. These bevels will change the entry angle of the OAT probe to center with the oval scat tube mount hole. Trial fit again to the vent post assembly. One washer goes on each side of the vent post assembly, bevel side down, to change the angle of the probe mount. Rotate and sand the washer as necessary to obtain proper alignment.
 - 5) Mount OAT probe.
 - 6) Reinstall oval end of 2 ¼" scat tube to the vent post assembly. Tighten clamp.
- c. Trial fit the vent post assembly to the aircraft, trim as necessary to fit the post and windshield. As there are replacement windshields installed in many aircraft in the field and there are variations in each installation and in each windshield, extra material was left on the vent post assembly to accommodate these variations. Proceed slowly and trial fit often to ensure a good fit. Confirm there will be no interference between the Aero Vent Assembly and any wiring and / or cables routed through the door post area. Locate and drill mounting holes.
- d. Attach the trim extrusion to the vent post assembly adjacent to the windshield area similar to the original trim.
- e. Slip a 2 1/4" hose clamp over the open end of the 2 ¼ "vent scat tubing. While holding the vent post assembly near its final mounting position install the open end of the scat tube to the factory Cessna fresh air inlet tube in the wing root of the aircraft. Tighten clamp.
- f. To complete the installation, install vent post assembly to aircraft using hardware retained from old post cover. Reinstall visors or any other parts removed in 2.1 (a). Install base trim if required using existing hardware, trim if necessary.

2.2 Left side installation.

- a. Repeat steps 2.1 (a) (c) (d) (e) (f) and instruction below to complete left side installation.

Slip the open end of the 2 ¼ " scat tube running from the stall horn adapter over the aircraft's stall horn. Do not attach the scat tubing to the stall horn.

If the aircraft is equipped with a post light attached to the left post cover, it may be reinstalled onto the new post cover in the same manner. All wiring must conform to AC43.13-1B Chapter 11.

Section 3.0

Specifications and Paperwork

Complete FAA Form 337 and log book entry for return to service. Place a copy of the Supplemental Type Certificate and Instructions for continued Airworthiness with aircraft records.

Weight and Balance Information:

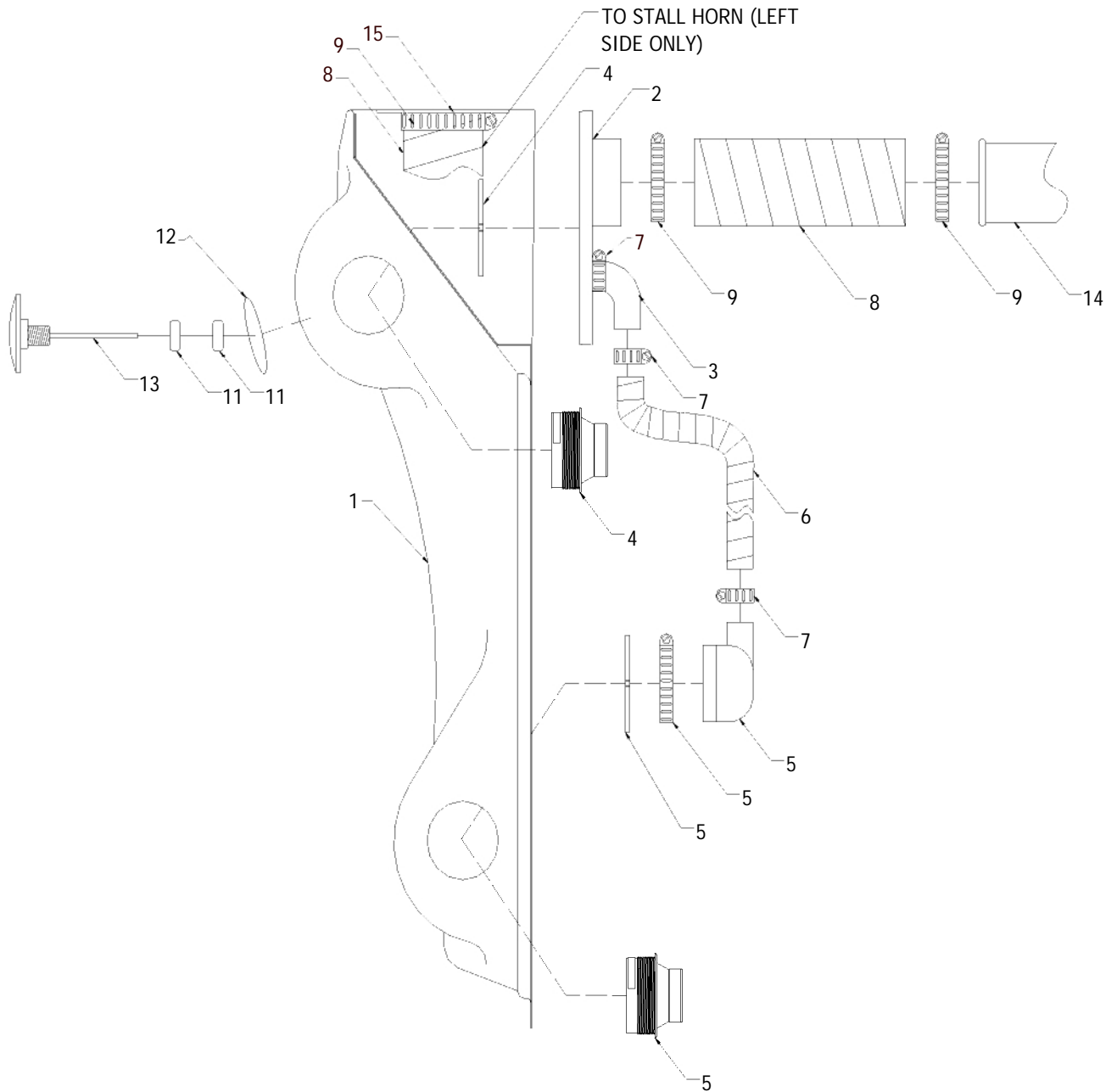
Weight of post covers and vent tubes removed – 1.5 pounds

Weight of Aero Vent System Installed – 1.9 pounds

Weight change +0.4 pounds – negligible.

Section 4.0

Figure A.



Section 5.0

PARTS LIST

Item No.	Part Number	Nomenclature	Units Per Assembly
	AV2000L	POST COVER ASSEMBLY – LEFT (NOT SHOWN)	
	AV2000R	POST COVER ASSEMBLY – RIGHT	
1	AV201L	POST COVER – LEFT (NOT SHOWN)	1
1	AV201R	POST COVER - RIGHT	1
2	AV202L	POST AIRBOX COVER – LEFT (NOT SHOWN)	1
2	AV202R	POST AIRBOX COVER – RIGHT	1
3	AV232	ELBOW – 90°	1
4	AV301	GASPER – 2" DISC STYLE W/O PLENUM	1
5	AV300	GASPER – 2" DISC STYLE W/PLENUM	1
6	AV231	DUCT; SCAT - .875" x 16"	1
7	AV241	CLAMP – .875"	3
8	AV230	DUCT; SCAT - 2.25" X 6"	2
9	AV240	CLAMP – 2.25"	3
10	AV260	EXTRUSION - 18" (NOT SHOWN)	1
11	AV262	WASHER – RUBBER	2
12	AV270-B	LABEL – OAT PROBE LOCATION	1
13	AS EQUIPPED	CESSNA FACTORY ORIGINAL OAT PROBE	
14	AS EQUIPPED	CESSNA FACTORY ORIGINAL AIR DUCT	
15	AV204	STALL HORN ADAPTER (LEFT SIDE ONLY)	1
16	AV203L	BASE TRIM – LEFT (Not Shown)	1
16	AV203R	BASE TRIM – RIGHT (Not Shown)	1

Section 6.0

Instructions for Continued Airworthiness

Preflight Inspection

- a. Inspect Aero Vent assembly for proper attachment. If hardware is missing or worn it should be replaced.
- b. Inspect air gaspers for proper function. If gasper is worn or broken, it should be replaced.
- c. If an OAT thermometer is installed in the post cover, check for security and attachment.

Annual Inspection or 200 hours, whichever comes first.

- a. Remove Aero Vent post cover, inspect attachment and condition of all scat tubing. If scat tubing or hose clamps are worn they should be replaced.
- b. Inspect attachment of all air gaspers.
- c. Inspect Aero Vent assembly for proper attachment. If hardware is missing or worn it should be replaced.
- d. Inspect air gaspers for proper function. If gasper is worn or broken, it should be replaced.
- e. Inspect condition of post cover. If cracks are found the cover they may be stop drilled. If more than three cracks are found, the cover should be replaced. If a crack runs from an attachment hole to the edge of the cover, the cover should be replaced.
- f. If an OAT thermometer is installed in the post cover, check for security and attachment.
- g. Check for any interference between the Aero Vent assembly and any wiring and/or cables located in the door post area. If any abrasion is found the Aero Vent assembly can be adjusted to allow for proper clearance.