

Service Bulletin SB 2X-34-08 R1

Issued: 21 May 2004

Revised: 06 May 2005

Model SR20 and SR22

ATA 34-10: Flight Environmental Data/Pitot-Static Systems OAT Probe Ground Wire Installation

COMPLIANCE

Optional: Accomplishment of this Service Bulletin is at the owner's option.

This Service Bulletin was revised to include a procedure for verifying that the OAT probe is adequately grounded and to provide instructions for improving the conductivity of the connector backshell.

Operators who have successfully complied with the original release of this Service Bulletin, dated 21 May 2004, need take no further action.

EFFECTIVITY

Note: Installation of the OAT Probe Ground Wire in accordance with Cirrus Design Drawing Number 70074-001 satisfies the requirements of this Service Bulletin.

Cirrus Design SR20 serial numbers 1005 thru 1424 with Avidyne FlightMax EX5000 and Engine Monitoring.

Cirrus Design SR22 serial numbers 0002 thru 0964 with Avidyne FlightMax EX5000 and Engine Monitoring.

APPROVAL

FAA approval has been obtained on all technical data in this Service Bulletin that affects type design.

PURPOSE

The Outside Air Temperature (OAT) temperature sensor probe may become statically charged due to precipitation static. This condition results in the buildup of static electricity that could cause the sensor interface to shutdown temporarily.

Installation of ground wire will relieve static electricity buildup on the OAT probe thereby reducing the likelihood of sensor interface shutdown.

DESCRIPTION

This Service Bulletin contains instructions for the installation of ground wire to the OAT probe for the Avidyne engine instrument system.

WARRANTY INFORMATION

Cirrus Design will cover parts and labor costs for this Service Bulletin if the work is accomplished within the standard airplane warranty period and the work is accomplished at an authorized Cirrus Design Service Center or at the Cirrus Design factory. The Warranty Claim Form must be properly filled out and submitted to Cirrus Design in order to obtain a warranty credit.

Cirrus Design Corporation

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MANPOWER REQUIREMENTS

Approximately 1.5 manhours are required.

OTHER PUBLICATIONS AFFECTED

SR20 Illustrated Parts Catalog (p/n 12138-001)
 SR22 Illustrated Parts Catalog (p/n 13774-001)
 SR20 Airplane Maintenance Manual (p/n 12137-001)
 SR22 Airplane Maintenance Manual (p/n 13773-001)
 SR20 Wiring Manual (p/n 12129-001)
 SR22 Wiring Manual (p/n 13775-001)

WEIGHT AND BALANCE

N/A

MATERIAL INFORMATION

The following parts are required to comply with this Service Bulletin. Parts can be obtained from Cirrus Design Spare Part Sales or an authorized Cirrus Design Service Center. Order Kit p/n 70074-001.

Item No.	Description	P/N or Spec.	Supplier	Quantity
1	Service Bulletin	SB 2X-34-08 R1	Cirrus Design	1
2	Ground Wire	17074-001	Cirrus Design	1

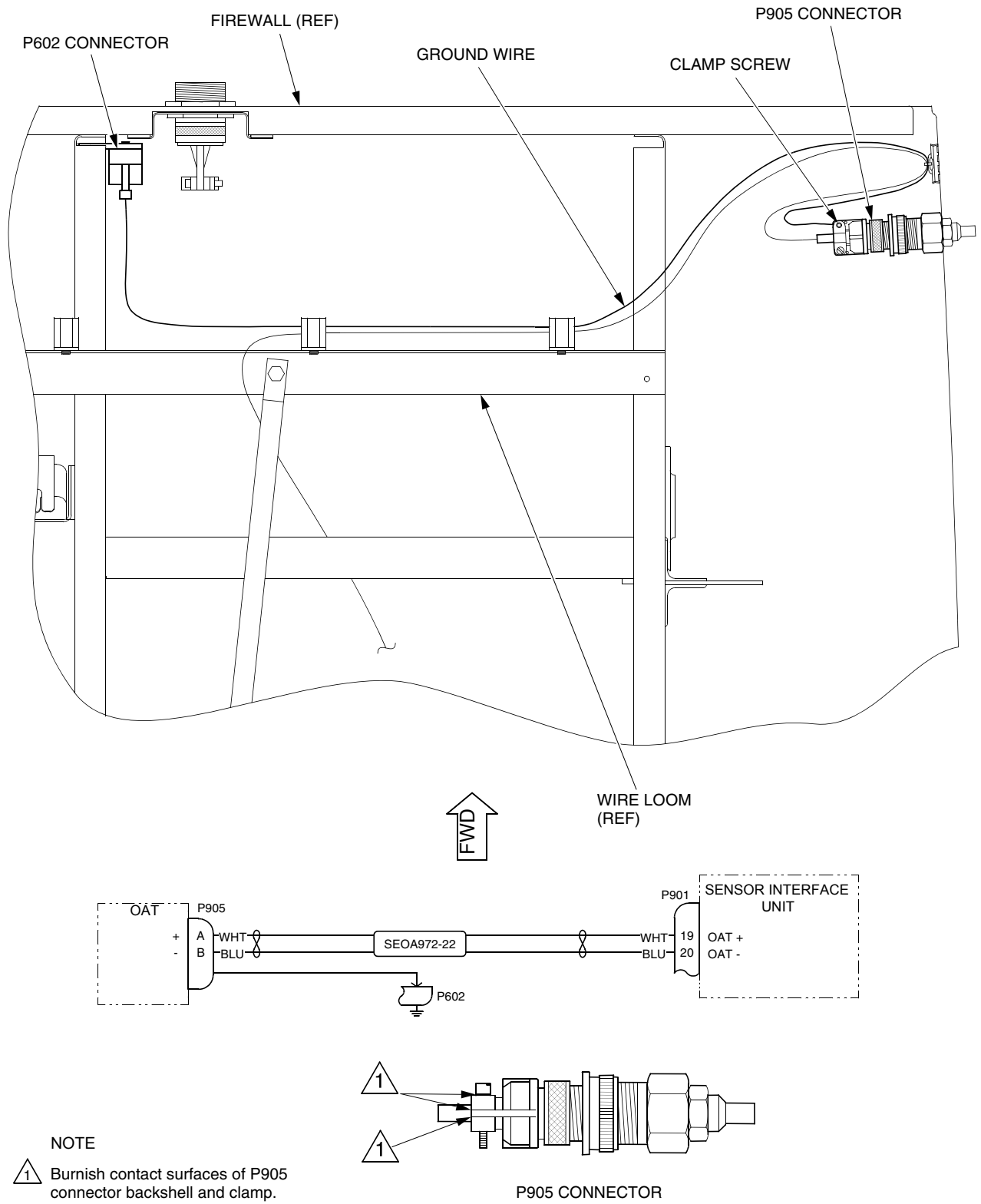
ACCOMPLISHMENT INSTRUCTIONS

A. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Cable Ties	-	Any Source	Secure ground wire to existing harnesses.
Insertion Tool	9099	Positronics Enterprises, Ltd. Springfield, MO 65806 800-641-4054	Install ground wire pin end.
Ohmmeter	-	Any Source	Measure resistance between OAT probe and aircraft ground.
Sandpaper	80-grit	Any Source	Burnish connector back-shell.

- B. Remove key from ignition.
- C. Ensure BATTERY and AVIONICS master switches are in OFF position.
- D. Remove glareshield. (Refer to AMM 25-10)
- E. Remove co-pilot's seat. (Refer to AMM 25-10)

- F. Remove RH kick plate. (Refer to AMM 25-10)
- G. Install ground wire. (See Figure 01)
 - 1. Locate OAT probe installed immediately forward of the passenger's door. (Refer to AMM 34-10)
 - 2. Remove clamp screw from P905 connector backshell of OAT probe.
 - 3. Attach terminal ring from ground wire to P905 connector backshell with clamp screw.
 - 4. Bundle ground wire to existing harnesses using adel clamps and cable ties where necessary.
 - 5. Disconnect P602 from firewall ground jack.
 - 6. Using insertion tool, connect pinned end of ground wire to P602 plug into any available pin receptacle.
 - 7. Reconnect P602 to firewall ground jack.
- H. Using Ohmmeter, verify resistance from OAT probe to aircraft ground is less than 2 Ohms.
 - 1. Position one Ohmmeter lead to tip of OAT probe and other lead to a suitable airplane ground such as the tailpipe.
 - 2. If resistance from OAT probe to aircraft ground is less than 2 Ohms, the OAT probe is adequately grounded and no further steps are necessary.
 - 3. If resistance from OAT probe to aircraft ground is greater than 2 Ohms, then perform the following steps:
 - a. Remove clamp screws securing ground wire and clamp to P905 connector backshell.
 - b. Using 80-grit sandpaper, burnish contact surfaces of P905 connector backshell and clamp. (See Figure 01)
 - c. Position clamp and ground wire terminal ring to P905 connector backshell and secure with clamp screws.
 - d. Repeat resistance measurement with Ohmmeter. If necessary, repeat burnishing steps until measured resistance from OAT probe to aircraft ground is less than 2 Ohms.
- I. Install RH kick plate. (Refer to AMM 25-10)
- J. Install co-pilot's seat. (Refer to AMM 25-10)
- K. Install glareshield. (Refer to AMM 25-10)
- L. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-34-08 R1 in Airplane Logbook.

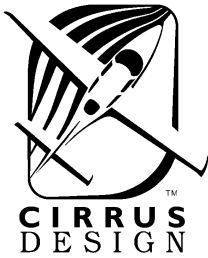


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Figure 01 - OAT Probe Ground Wire Installation

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Service Loop

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Title of Publication: OAT Probe Ground Wire Installation

Publication Part Number: SB 2X-34-08 R1
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Location of Publication Change Request:

Chapter Number: _____ Section Number: _____ Figure No (IPC or WM only): _____
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Evaluation:

Please rate the quality of this publication.

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Is this publication easy to understand?

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Are the Material and Accomplishment Instructions accurate?

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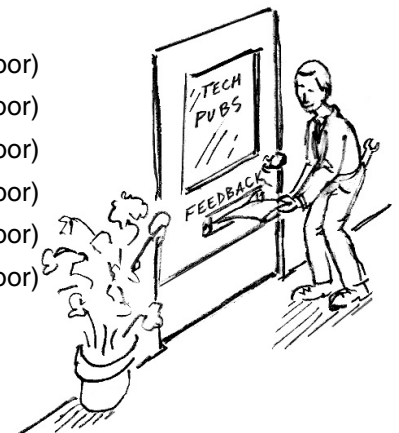
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