

Honeywell

Honeywell International Inc.
21111 N. 19th Avenue
Phoenix, Arizona 85027-2708
U.S.A.
CAGE: 58960
Telephone: 800-601-3099 (Toll Free U.S.A./Canada)
Telephone: 602-365-3099 (International Direct)

Website: www.myaerospace.com

SERVICE BULLETIN

ALERT

NAVIGATION -(1) AIR DATA MODULE, (2) AIR DATA COMPUTER, (3) AIR DATA ATTITUDE HEADING REFERENCE SYSTEM, (4) DIGITAL AIR DATA COMPUTER - (1) Air Data Computer (ADC), PN 7014700-626, -914, PN 7024900-31304, PN 7030700-71701, -71703, -71704, (2) Air Data Module, PN 4071400-904, PN HG1153CA03, PN HG1153CA04, PN PG1152BC02, (3) Air Data Attitude Heading Reference System (ADAHRS), PN 065-00188-5103, -5502, (4) Digital Air Data Computer (DADC), PN 4040800-915; Inspection of Pressure Error and Remove Equipment if Necessary

Legal Notice

Export Control

This document contains technical data and is subject to U.S. export regulations. These commodities, technology, or software were exported from the United States in accordance with the export administration regulations. Diversion contrary to U.S. law is prohibited.

ECCN: 7E994.

Proprietary Information

Honeywell - Confidential

THIS COPYRIGHTED WORK AND ALL INFORMATION ARE THE PROPERTY OF HONEYWELL INTERNATIONAL INC., CONTAIN TRADE SECRETS AND MAY NOT, IN WHOLE OR IN PART, BE USED, DUPLICATED, OR DISCLOSED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF HONEYWELL INTERNATIONAL INC. ALL RIGHTS RESERVED.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Honeywell Materials License Agreement

The documents and information contained herein ("the Materials") are the proprietary data of Honeywell International Inc. and Honeywell Intellectual Properties Inc (collectively "Honeywell"). These Materials are provided for the exclusive use of Honeywell Service Centers; Honeywell-authorized repair facilities; operators of Honeywell aerospace products subject to an applicable product support agreement, their wholly owned-subsiaries or a formally designated third party service provider; and direct recipients of Materials from Honeywell's Aerospace Technical Publication Distribution. The terms and conditions of this License Agreement govern your use of these Materials, except to the extent that any terms and conditions of another applicable agreement with Honeywell regarding the operation, maintenance, or repair of Honeywell aerospace products conflict with the terms and conditions of this License Agreement, in which case the terms and conditions of the other agreement will govern. However, this License Agreement will govern in the event of a conflict between its terms and conditions and those of a purchase order or acknowledgement.

1. License Grant - If you are a party to an applicable product support agreement, a Honeywell Service Center agreement, or an authorized repair facility agreement, Honeywell hereby grants you a limited, non-exclusive license to use these Materials to operate, maintain, or repair Honeywell aerospace products only in accordance with that agreement.

If you are a direct recipient of these Materials from Honeywell's Aerospace Technical Publication Distribution and are not a party to an agreement related to the operation, maintenance or repair of Honeywell aerospace products, Honeywell hereby grants you a limited, non-exclusive license to use these Materials to maintain or repair the subject Honeywell aerospace products only at the facility to which these Materials have been shipped ("the Licensed Facility"). Transfer of the Materials to another facility owned by you is permitted only if the original Licensed Facility retains no copies of the Materials and you provide prior written notice to Honeywell.

2. Rights In Materials - Honeywell retains all rights in these Materials and in any copies thereof that are not expressly granted to you, including all rights in patents, copyrights, trademarks, and trade secrets. No license to use any Honeywell trademarks or patents is granted under this License Agreement.

3. Confidentiality - You acknowledge that these Materials contain information that is confidential and proprietary to Honeywell. You agree to take all reasonable efforts to maintain the confidentiality of these Materials.

4. Assignment And Transfer - This License Agreement may be assigned to a formally designated service designee or transferred to a subsequent owner or operator of an aircraft containing the subject Honeywell aerospace products. However, the recipient of any such assignment or transfer must assume all of your obligations under this License Agreement. No assignment or transfer shall relieve any party of any obligation that such party then has hereunder.

5. Copies of Materials - Unless you have the express written permission of Honeywell, you may not make or permit making of copies of the Materials. Notwithstanding the foregoing, you may make copies of only portions of the Material for your internal use. You agree to return the Materials and any copies thereof to Honeywell upon the request of Honeywell.

6. Term - This License Agreement is effective until terminated as set forth herein. This License Agreement will terminate immediately, without notice from Honeywell, if you fail to comply with any provision of this License Agreement or will terminate simultaneously with the termination or expiration of your applicable product support agreement, authorized repair facility agreement, or your formal designation as a third party service provider. Upon termination of this License Agreement, you will return these Materials to Honeywell without retaining any copies and will have one of your authorized officers certify that all Materials have been returned with no copies retained.

7. Remedies - Honeywell reserves the right to pursue all available remedies and damages resulting from a breach of this License Agreement.

8. Limitation of Liability - Honeywell does not make any representation regarding the use or sufficiency of the Materials. THERE ARE NO OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, (i) WARRANTIES ARISING FROM COURSE OF

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

PERFORMANCE, DEALING, USAGE, OR TRADE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED, OR (ii) WARRANTIES AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES, EVEN IF HONEYWELL HAS BEEN ADVISED OF ANY SUCH INFRINGEMENT. IN NO EVENT WILL HONEYWELL BE LIABLE FOR ANY INCIDENTAL DAMAGES, CONSEQUENTIAL DAMAGES, SPECIAL DAMAGES, INDIRECT DAMAGES, LOSS OF PROFITS, LOSS OF REVENUES, OR LOSS OF USE, EVEN IF INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THESE LIMITATIONS AND EXCLUSIONS WILL APPLY REGARDLESS OF WHETHER LIABILITY ARISES FROM BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE), BY OPERATION OF LAW, OR OTHERWISE.

9. Controlling Law - This License shall be governed and construed in accordance with the laws of the State of New York without regard to the conflicts of laws provisions thereof. This license sets forth the entire agreement between you and Honeywell and may only be modified by a writing duly executed by the duly authorized representatives of the parties.

Safety Advisory

WARNING: BEFORE THE MATERIALS CALLED OUT IN THIS PUBLICATION ARE USED, KNOW THE HANDLING, STORAGE AND DISPOSAL PRECAUTIONS RECOMMENDED BY THE MANUFACTURER OR SUPPLIER. FAILURE TO OBEY THE MANUFACTURERS' OR SUPPLIERS' RECOMMENDATIONS CAN RESULT IN PERSONAL INJURY OR DISEASE.

This publication describes physical and chemical processes which can make it necessary to use chemicals, solvents, paints, and other commercially available materials. The user of this publication must get the Material Safety Data Sheets (OSHA Form 174 or equivalent) from the manufacturers or suppliers of the materials to be used. The user must know the manufacturer/supplier data and obey the procedures, recommendations, warnings and cautions set forth for the safe use, handling, storage, and disposal of the materials.

Warranty/Liability Advisory

WARNING: HONEYWELL ASSUMES NO RESPONSIBILITY FOR ANY HONEYWELL EQUIPMENT WHICH IS NOT MAINTAINED AND/OR REPAIRED IN ACCORDANCE WITH HONEYWELL'S PUBLISHED INSTRUCTIONS AND/OR HONEYWELL'S FAA/SFAR 36 REPAIR AUTHORIZATION. NEITHER DOES HONEYWELL ASSUME RESPONSIBILITY FOR SPECIAL TOOLS AND TEST EQUIPMENT FABRICATED BY COMPANIES OTHER THAN HONEYWELL.

WARNING: INCORRECTLY REPAIRED COMPONENTS CAN AFFECT AIRWORTHINESS OR DECREASE THE LIFE OF THE COMPONENTS. INCORRECTLY FABRICATED SPECIAL TOOLING OR TEST EQUIPMENT CAN RESULT IN DAMAGE TO THE PRODUCT COMPONENTS OR GIVE UNSATISFACTORY RESULTS.

Copyright - Notice

Copyright 2012 Honeywell International Inc. All rights reserved.

Honeywell is a registered trademark of Honeywell International Inc.

All other marks are owned by their respective companies.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Transmittal Information

ATA Number ADM/ADC/ADAHRS-34-01 (Publication Number D201210000088)

Summary

This is the INITIAL release.

Revision History

This service bulletin has had no revision(s) as shown in Table 1.

Table 1. Revision History

Revision Number	Revision Date
0	6 Nov 2012

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

1. Planning Information

A. Effectivity

(1) This service bulletin is applicable to the equipment identified below. Refer to Table 2 thru Table 14 for the serial numbers of the equipment. Use the part number of the equipment to find the applicable table.

- ADC:
 - PN 7014700-626 (Table 2)
 - PN 7014700-914 (Table 3)
 - PN 7024900-31304 (Table 4)
 - PN 7030700-71701 (Table 5).
 - PN 7030700-71703 (Table 6)
 - PN 7030700-71704 (Table 7).
- ADM:
 - PN 4071400-904 (Table 8)
 - PN HG1153CA03 (Table 9)
 - PN HG1153CA04 (Table 10)
 - PN PG1152BC02 (Table 11).
- ADAHRS:
 - PN 065-00188-5103 (Table 12)
 - PN 065-00188-5502 (Table 13).
- DADC:
 - PN 4040800-915 (Table 14)

Table 2. ADC, PN 7014700-626, Serial Numbers (Embraer 140/145)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
03036850	04097519	05057652	98071938	98122373

Table 3. ADC, PN 7014700-914, Serial Numbers (Cessna Excel)

Serial Number
02076454

Table 4. ADC, PN 7024900-31304, Serial Numbers (Cessna XLS)

Serial Number
04090901

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Table 5. ADC, PN 7030700-71701, Serial Numbers (Embraer Legacy 600)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
11042731	12012770	12032786	12042792	12042799
11112764	12022775	12032787	12042797	12062805
12012769	12022778	12032789	12042798	12062809

Table 6. ADC, PN 7030700-71703, Serial Numbers (Cessna 560XLS)

Serial Number
05060573

Table 7. ADC, PN 7030700-71704, Serial Numbers (Learjet 40/45)

Serial Number	Serial Number	Serial Number	Serial Number
03110048	11102761	11112766	12042793
11102760	11102763	11122768	12042794

Table 8. ADM, PN 4071400-904, Serial Numbers (Boeing 777)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
35523840	35525377	35526542	35526895	35527348	35529654
35524958	35525451	35526543	35526897	35528065	35532746
35525376	35526308	35526595	35527326	35528640	35532823

Table 9. ADM, PN HG1153CA03, Serial Numbers (Agusta AW139, Dassault F900/F2000)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
11104995	11115072	12035321	12045364	12045389	12055441
11115070	12035318	12035329	12045375	12055428	-/-

Table 10. ADM, PN HG1153CA04, Serial Numbers (Gulfstream G450/550)

Serial Number
11115082

Table 11. ADM, PN PG1152BC02, Serial Numbers (Airbus A318/319/320/321/330/340)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
1110V633	1112W181	1112W311	1201W448	1201W634	1202W877
1111V887	1112W185	1112W313	1201W459	1201W636	1202W880
1111V956	1112W186	1112W317	1201W463	1201W639	1202W881
1111W021	1112W187	1112W318	1201W470	1201W640	1202W887

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Table 11. ADM, PN PG1152BC02, Serial Numbers (Airbus A318/319/320/321/330/340) (Cont)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
1111W022	1112W191	1112W329	1201W474	1201W641	1202W893
1112W040	1112W194	1112W334	1201W475	1201W649	1202W894
1112W044	1112W199	1112W338	1201W483	1201W666	1202W901
1112W062	1112W200	1112W344	1201W486	1201W667	1202W906
1112W072	1112W205	1112W350	1201W489	1201W668	1202W917
1112W079	1112W210	1112W353	1201W506	1201W683	1202W919
1112W082	1112W216	1112W358	1201W511	1201W684	1202W927
1112W083	1112W219	1112W360	1201W517	1201W688	1202W928
1112W086	1112W228	1112W370	1201W518	1201W704	1202W935
1112W087	1112W231	1112W371	1201W530	1201W710	1202W936
1112W089	1112W240	1112W378	1201W534	1201W726	1202W944
1112W097	1112W241	1112W379	1201W536	1201W756	1202W945
1112W098	1112W244	1112W391	1201W546	1201W779	1202W946
1112W103	1112W245	1112W392	1201W557	1201W788	1202W947
1112W105	1112W252	1112W395	1201W559	1201W790	1202W950
1112W112	1112W260	1112W399	1201W568	1201W797	1202W953
1112W123	1112W262	1112W400	1201W571	1201W799	1202W994
1112W124	1112W270	1112W401	1201W572	1201W823	1202X008
1112W146	1112W277	1112W410	1201W577	1201W825	1202X064
1112W167	1112W289	1201W425	1201W594	1201W829	1202X067
1112W169	1112W294	1201W432	1201W600	1201W838	-/-
1112W176	1112W297	1201W434	1201W622	1201W839	-/-
1112W178	1112W299	1201W442	1201W626	1202W843	-/-
1112W179	1112W307	1201W443	1201W633	1202W856	-/-

Table 12. ADAHRS, PN 065-00188-5103, Serial Numbers (Pilatus PC-12/47E, Viking DHC-6-400)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
KSG7200-B1187	KSG7200-B1807	KSG7200-B1839	KSG7200-B1874	KSG7200-B1900
KSG7200-B1192	KSG7200-B1810	KSG7200-B1844	KSG7200-B1875	KSG7200-B1901
KSG7200-B1305	KSG7200-B1814	KSG7200-B1849	KSG7200-B1876	KSG7200-B1902
KSG7200-B1337	KSG7200-B1815	KSG7200-B1850	KSG7200-B1879	KSG7200-B1904

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Table 12. ADAHRS, PN 065-00188-5103, Serial Numbers (Pilatus PC-12/47E, Viking DHC-6-400) (Cont)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
KSG7200-B1376	KSG7200-B1816	KSG7200-B1851	KSG7200-B1883	KSG7200-B1905
KSG7200-B1379	KSG7200-B1819	KSG7200-B1852	KSG7200-B1884	KSG7200-B1910
KSG7200-B1397	KSG7200-B1822	KSG7200-B1853	KSG7200-B1885	KSG7200-B1912
KSG7200-B1408	KSG7200-B1823	KSG7200-B1854	KSG7200-B1887	KSG7200-B1914
KSG7200-B1653	KSG7200-B1824	KSG7200-B1856	KSG7200-B1889	KSG7200-B1916
KSG7200-B1748	KSG7200-B1826	KSG7200-B1864	KSG7200-B1891	KSG7200-B1921
KSG7200-B1770	KSG7200-B1832	KSG7200-B1865	KSG7200-B1892	KSG7200-B1922
KSG7200-B1800	KSG7200-B1836	KSG7200-B1871	KSG7200-B1894	KSG7200-B1923
KSG7200-B1801	KSG7200-B1837	KSG7200-B1872	KSG7200-B1895	KSG7200-B1929
KSG7200-B1802	KSG7200-B1838	KSG7200-B1873	KSG7200-B1898	KSG7200-B1930

Table 13. ADAHRS, PN 065-00188-5502, Serial Numbers (Bell 429)

Serial Number	Serial Number	Serial Number	Serial Number	Serial Number
KSG7200-B1099	KSG7200-B1806	KSG7200-B1831	KSG7200-B1866	KSG7200-B1903
KSG7200-B1108	KSG7200-B1808	KSG7200-B1840	KSG7200-B1867	KSG7200-B1906
KSG7200-B1194	KSG7200-B1809	KSG7200-B1841	KSG7200-B1868	KSG7200-B1908
KSG7200-B1382	KSG7200-B1811	KSG7200-B1845	KSG7200-B1869	KSG7200-B1909
KSG7200-B1440	KSG7200-B1812	KSG7200-B1846	KSG7200-B1870	KSG7200-B1913
KSG7200-B1452	KSG7200-B1813	KSG7200-B1847	KSG7200-B1878	KSG7200-B1917
KSG7200-B1474	KSG7200-B1818	KSG7200-B1855	KSG7200-B1880	KSG7200-B1924
KSG7200-B1652	KSG7200-B1820	KSG7200-B1858	KSG7200-B1881	KSG7200-B1925
KSG7200-B1660	KSG7200-B1821	KSG7200-B1859	KSG7200-B1882	KSG7200-B1926
KSG7200-B1754	KSG7200-B1825	KSG7200-B1860	KSG7200-B1893	-/-
KSG7200-B1804	KSG7200-B1827	KSG7200-B1861	KSG7200-B1896	-/-
KSG7200-B1805	KSG7200-B1830	KSG7200-B1863	KSG7200-B1897	-/-

Table 14. DADC, PN 4040800-915, Serial Numbers (Boeing 767)

Serial Number	Serial Number	Serial Number
35519835	35525873	35532353

B. Concurrent Requirements

- (1) No other modification must be done before the test given in this service bulletin.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

C. Reason

(1) Problem

- (a) A potential problem has been found with the pressure sensor(s) used within the equipment listed in Paragraph 1.A.(1) that may impact the accuracy of the pressure sensor measurements over the life of the product.
- (b) If present, the defect will result in the pressure sensor providing a lower pressure reading than the actual pressure. The magnitude of the error will grow with time and is dependent on the calendar time from the factory calibration and not the operating time.
- (c) Errors in the pressure sensor measurements may impact other aircraft systems using the pressure measurements. The primary concern is the impact on the air data system and the associated airspeed and altitude computations. An error in the static pressure measurement will result in a higher indicated altitude than the actual altitude. An error on the static pressure measurement will also result in a higher indicated airspeed than actual airspeed. An error in the pitot pressure sensor will result in a lower indicated airspeed than actual airspeed.

(2) Analysis

- (a) The error in the pressure sensor measurement is a result of a leak within the pressure sensor's vacuum reference that is compared with the actual applied pressure.
- (b) The errors in the air data system airspeed computations have the most significant impact at low airspeeds and decrease with increasing airspeed. The altitude computations have the most significant impact at high altitudes (including reduced vertical separation minimum (RVSM) airspace) and increase with altitude. Fundamentally, the airspeed errors decrease with an increase in actual airspeed and the altitude errors grow with an increase in altitude.

(3) Purpose

- (a) The purpose of this service bulletin is to provide operators with specific instructions to permit continued operation of the equipment listed in Paragraph 1.A.(1). These instructions include specific pressure error thresholds and associated actions and time frame for subsequent action. These instructions are designed to ensure that equipment in the field that has unacceptable errors is removed from service in the quickest possible manner while minimizing the disruption to operators.
- (b) Provide a formal list of parts that must be tested to ensure that they are not impacted by the problem specified in Paragraph 1.C.(1).

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

(4) **Action**

(a) Operators must perform one of the following actions for the equipment listed in Paragraph 1.A.(1).

1 Perform the tests for the corresponding aircraft type as defined in Paragraph 3 and provide the data back to Honeywell as defined in Paragraph 4.A. These tests have been designed considering that a pressure error greater than 0.7 millibar (mB) presents an unacceptable error for the airspeed and/or altitude computations and requires immediate action.

OR

2 Remove the equipment and return it to Honeywell for formal testing and repair (if applicable).

OR

3 Perform a complete pitot-static certification test every 30 days in accordance with the specific aircraft manufacturer's maintenance manual.

D. Description

(1) A summary of the work necessary to do this test is given below.

(a) An indicated altitude test is to be performed.

(b) A pressure sensor test is to be performed.

(c) The pressure error is calculated and used to make a decision about what to do with the equipment.

E. Compliance

(1) This test is mandatory because it has potential effect on aircraft safety. Do this test as soon as possible.

F. Approval

(1) This service bulletin includes approved test instructions from the manufacturer. The actions specified by this test are approved by the applicable regulatory agency.

(2) The Accomplishment Instructions section of this service bulletin has been approved by the FAA on November 6, 2012.

G. Manpower

(1) This test can be completed in the approximate time that follows:

- 2.0 hour(s) for the labor to do the test of the equipment.

H. Weight and Balance

(1) None.

I. Electrical Load Data

(1) Not changed.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

J. Software Accomplishment Summary

(1) Not applicable.

K. References

(1) To find, see, and download Honeywell Technical Publications, go to www.myaerospace.com.

(2) The applicable Aircraft Maintenance Manual (AMM) can possibly be necessary to complete this test. Refer to the instructions for the specific aircraft type in Paragraph 3.

L. Other Publications Affected

(1) Not applicable.

M. Interchangeability or Intermixability of Parts

(1) Not applicable.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

2. Material Information

A. **Material - Price and Availability**

- (1) Speak to Honeywell personnel at the location identified below for the necessary documentation, applicable labor prices, and supply times.

Honeywell

Aerospace Contact Team

Telephone: 800-601-3099 (Toll Free U.S.A./Canada)

Telephone: 602-365-3099 (International Direct)

- (2) This test can be done at a Honeywell service center or Honeywell-authorized repair location. There will be no cost to approved customers.

B. **Industry Support Information**

- (1) The maximum labor hours that will be reimbursed by Honeywell to do this test are given below. Reimbursement will not be more than Honeywell's applicable reimbursement labor rate or as specified in the agreement or contract.

- 2.0 hour(s) for the labor to do the test.

- (2) Warranty claims should be sent by email to AerospaceWarranty@honeywell.com.

C. **Material Necessary for Each Component**

- (1) Not applicable.

D. **Material Necessary for Each Spare**

- (1) Not applicable.

E. **Reidentified Parts**

- (1) Not applicable.

F. **Tooling - Price and Availability**

- (1) Only usual aircraft maintenance equipment is necessary to do this service bulletin. An order must not be sent to Honeywell for the necessary equipment as part of this service bulletin.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

3. Accomplishment Instructions

A. General Information

WARNING: TO AVOID INJURY TO PERSONNEL, BE AWARE THAT VOLTAGES ARE PRESENT IN THE UNIT AND IN THE TEST EQUIPMENT. VOLTAGES AS LOW AS 28 VOLTS CAN CAUSE SERIOUS INJURY UNDER SOME CONDITIONS. DO NOT BE MISLED BY THE TERM “LOW VOLTAGE.”

CAUTION: THE EQUIPMENT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE ITEMS. USE INDUSTRY APPROVED PRECAUTIONS.

CAUTION: THIS EQUIPMENT CONTAINS MOISTURE-SENSITIVE PARTS. SPECIAL HANDLING IS NECESSARY.

- (1) Obey the precautions.
- (2) Obey standard established practices during inspection of the equipment unless specified differently.
- (3) Do the instructions in the applicable paragraph specified in Table 15. Use the aircraft type to find the correct instructions. If your aircraft type is not identified in Table 15, refer to Paragraph 1.C.(4)(a)2, Paragraph 1.C.(4)(a)3, or contact the applicable OEM for FAA approved alternate means of compliance.

Table 15. Location of Instructions

Aircraft Type	Location of Instructions
Boeing 777	Paragraph 3.B.
Gulfstream G450/550	Paragraph 3.C.
Pilatus PC-12/47E	Paragraph 3.D.

B. Boeing 777

(1) Indicated Altitude Test

- (a) Obtain barometric pressure reference from airfield (Automatic Terminal Information Service [ATIS]).
- (b) Obtain aircraft elevation.
- (c) Set barometric correction in altimeter.
- (d) Compare indicated altitude to aircraft elevation and ensure indicated altitude is within 75 feet (23 m) of aircraft elevation. If the indicated altitude exceeds 75 feet (23 m) of the aircraft elevation, refer to the applicable OEM AMM procedure for an inaccurate altitude reading.

(2) Pressure Sensor Test

NOTE: Performed at the maintenance access terminal (MAT) or portable MAT (PMAT) in the flight deck.

- (a) Ensure the aircraft is stationary and that the pressure sensors are isolated from wind (that is, winds less than 5 knots). Probe covers may be used, but caution should be used (that is, ensure that pitot heat is off). Ensure that power is applied to the ADMs and air data inertial reference unit (ADIRU).

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

- (b) To record the pressure readings from each pressure sensor (pitot and static), do the following step. Refer to TASK 45-10-00-760-801 in the applicable AMM.
- 1 On the maintenance access terminal, select ONBOARD MAINTENANCE from the initial MAT or PMAT menu.
 - 2 Select OTHER FUNCTIONS from the CMC system (CMCS) main menu.
 - 3 Select INPUT MONITORING from the other functions menu.
 - 4 Select GENERAL INPUT from the input monitoring main menu.
 - 5 Select CONTINUE.
 - 6 Put the cursor in a direct entry field.
 - 7 Use the MAT or PMAT keyboard to type the signal specifications identified in Table 16 into the direct entry field for each ADM.

Table 16. Boeing 777 MAT or PMAT Signal Specifications

Signal Source	Signal Specification
Left pitot ADM	L/629/FC L/FE0/0/2-3
Left static ADM	L/629/FC L/FE0/1/2-3
Right pitot ADM	L/629/FC R/FE0/2/2-3
Right static ADM	L/629/FC R/FE0/3/2-3
Center pitot ADM	L/629/FC C/FE0/4/2-3
Center static ADM	L/629/FC C/FE0/5/2-3

- 8 Put the cursor in a direct entry field.
- 9 Select UNITS.
- 10 Select CONTINUE if input/output module (IOM) selection page is displayed.
- 11 Select ENGINEERING.
- 12 Put the cursor in a direct entry field.
- 13 Use the MAT or PMAT keyboard to enter the values from Table 17 for each ENGINEERING UNITS parameter.

Table 17. Boeing 777 Engineering Units Parameter Values

Parameter	Value
Lower boundary (LWR BND)	-2048
Upper boundary (UPR BND)	2048
Sign bit	31
Most significant bit (MSB)	30

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Table 17. Boeing 777 Engineering Units Parameter Values (Cont)

Parameter	Value
Least significant bit (LSB)	13
Units	millibars

- 14 Return to Paragraph 3.B.(2)(b)6 to enter signal specification for another ADM until the last ADM input is complete.
- (c) To print out the ADM results from the flight deck printer, do the following steps. Refer to TASK 45-10-00-970-801 in the applicable AMM.
- 1 Select REPORT from the CMCS main menu.
 - 2 Select REPORT PAGE DATA from the report menu.
 - 3 Select SEND adjacent to printer.
- (d) To determine the action to take for each ADM, do the following steps.
- 1 Select the pressure sensor reading with the highest pressure reading and calculate the difference between the highest pressure reading and each of the other pressure readings:
 - Pressure error = highest pressure – pressure sensor reading.
 - 2 Compare the pressure error using the thresholds in Table 18. Based on the comparison, take the appropriate action within the time frame designated by Table 18.

Table 18. Boeing 777 Pressure Error Action Data

Pressure Error (mB)	Action	Time Frame
>0.70	Remove	Immediate
0.51 to 0.70	Retest	Less than 30 days
0.25 to 0.50	Retest	Less than 120 days
<0.25	None	Not applicable

- (e) To record the air data inertial reference system (ADIRS) system configuration, do the following steps. Refer to TASK 45-10-00-750-803 in the applicable AMM.
- 1 From the initial MAT or PMAT menu, select ONBOARD MAINTENANCE.
 - 2 Select LINE MAINTENANCE from the CMCS main menu.
 - 3 Select SYSTEM CONFIGURATION from the line maintenance main menu.
 - 4 Select ATA Chapter 34, ADIRS.
 - 5 Select CONTINUE.
- (f) Find all six ADMs on the display and read the configuration data (use the scroll bar to see all the data).

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

- (g) To print out the ADIRS system configuration report from the flight desk printer, do the following.
 - 1 Select REPORT.
 - 2 Select SEND adjacent to printer.
- (h) Obtain the ADM serial numbers and provide the Data Collection Form in Paragraph 4.A.

C. Gulfstream G450/550

(1) Indicated Altitude Test

- (a) Obtain barometric pressure reference from airfield (ATIS).
- (b) Obtain aircraft elevation.
- (c) On the display control panel, ensure that ADM 1 is displayed on pilot's primary flight display (PFD) and ADM 2 is displayed on copilot's PFD.
- (d) Set barometric correction in altimeter.
- (e) Compare indicated altitude to aircraft elevation and ensure indicated altitude is within 75 feet (23 m) of aircraft elevation. If the indicated altitude exceeds 75 feet (23 m) of the aircraft elevation, refer to the applicable OEM AMM procedure for an inaccurate altitude reading.
- (f) On display control panel, select pilot's PFD to display ADM 3.
- (g) Perform Paragraph 3.C.(1)(d) and Paragraph 3.C.(1)(e) to verify ADM 3 accuracy.

(2) Pressure Sensor Test

- (a) Ensure that the aircraft is stationary and that the pressure sensors are isolated from wind (that is, winds less than 5 knots). Probe covers may be used, but caution should be used (that is, ensure that pitot heat is off).
- (b) With power applied to the ADMs, record the pressure readings from each pressure sensor (pitot and static).
- (c) Select central maintenance computer (CMC) on a multifunction display (MFD).
- (d) Select System Diagnostics.
- (e) Select 34, Navigation.
- (f) Select 12, Air Data Application 1.
- (g) Select Data: ADA parameters (ADA1)
- (h) Comparison shall be made between the following parameters:
 - AIR DATA 1:
 - L STATIC PRESSURE
 - TOTAL PRESSURE
 - AIR DATA 2:

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

- R STATIC PRESSURE
- TOTAL PRESSURE
- AIR DATA 3:
 - AVG STATIC PRESSURE
 - TOTAL PRESSURE

1 Refer to Figure 1.



ID-418583

Figure 1. (Sheet 1 of 1) Gulfstream G450/550 Pressure Sensor Test

- (i) Select the pressure sensor reading with the highest pressure reading and calculate the difference between the highest pressure reading and each of the other pressure readings:

Pressure error = highest pressure – pressure sensor reading.
- (j) Compare the pressure error using the thresholds in Table 19. Based on the comparison, take the appropriate action within the time frame designated by Table 19.

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

Table 19. Gulfstream G450/550 Pressure Error Action Data

Pressure Error (mB)	Action	Time Frame
>0.70	Remove	Immediate
0.51 to 0.70	Retest	Less than 30 days
0.25 to 0.50	Retest	Less than 120 days
<0.25	None	Not applicable

D. Pilatus PC-12/47E

(1) Indicated Altitude Test

- (a) Obtain barometric pressure reference from airfield ATIS.
- (b) Obtain aircraft elevation.
- (c) On the display control panel, ensure that ADAHRS Channel A is displayed on pilot's PFD and ADAHRS Channel B is displayed on copilot's PFD.
- (d) Set barometric correction in altimeter.
- (e) Compare indicated altitude to aircraft elevation and ensure indicated altitude is within 75 feet (23 m) of aircraft elevation. If the indicated altitude exceeds 75 feet (23 m) of the aircraft elevation, refer to the applicable OEM AMM procedure for an inaccurate altitude reading.

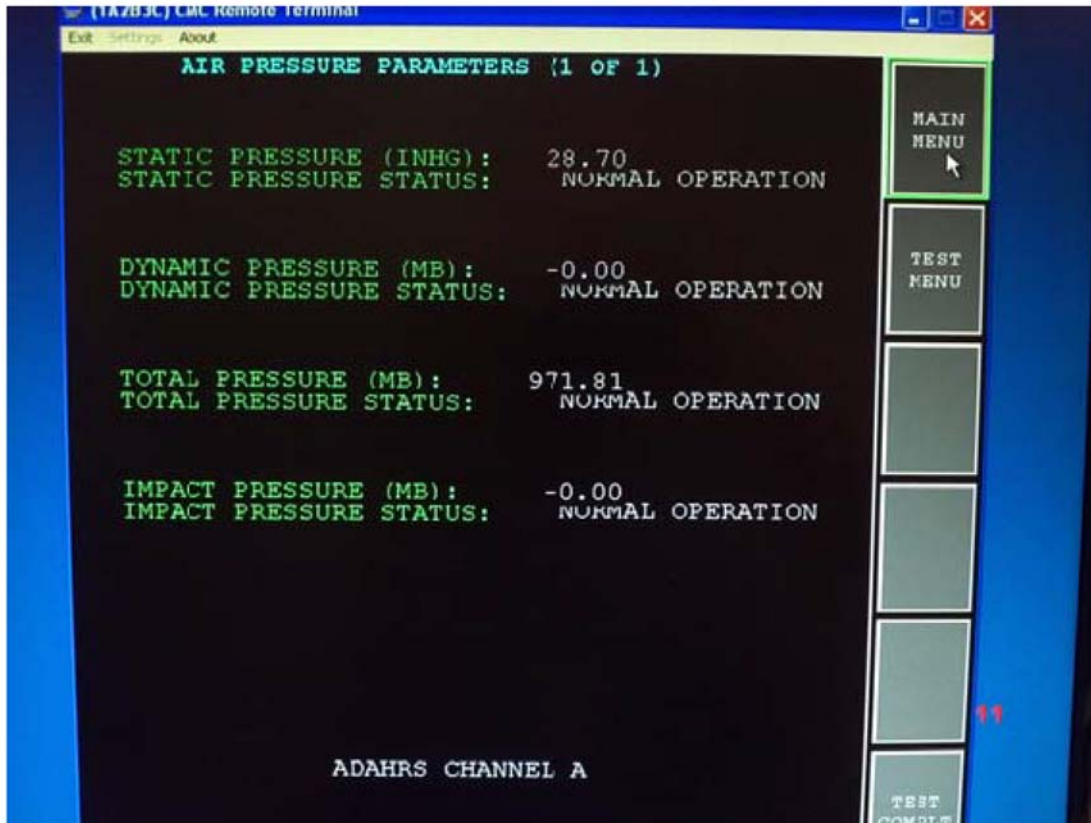
(2) Pressure Sensor Test

- (a) Ensure that the aircraft is stationary and that the pressure sensors are isolated from wind (that is, winds less than 5 knots). Probe covers may be used, but caution should be used (that is, ensure that pitot heat is off). Ensure that power is applied to the ADMs and ADIRU.
- (b) With power applied to the ADAHRS CHANNEL A and CHANNEL B, record the pressure readings from each pressure sensor (total and static).
- (c) Connect a remote terminal to the aircraft local area network (LAN) and start the CMC/RT program.
- (d) Select System Diagnostics.
- (e) Select 34, Navigation.
- (f) Select Air Data System A.
- (g) Select Data: AIR PRESSURE PARAMETERS Channel A.
- (h) Record the STATIC PRESSURE (INHG) and TOTAL PRESSURE (MB).
- (i) Select TEST COMPLT button on bottom right to return to select a system page.
- (j) Select Air Data System B.
- (k) Select Data: AIR PRESSURE PARAMETERS CHANNEL B.
- (l) Record the STATIC PRESSURE (INHG) and TOTAL PRESSURE (MB) (refer to Figure 2).

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS



ID-418584

Figure 2. (Sheet 1 of 1) Pilatus PC-12/47E Air Pressure Parameters

- (m) Convert the static pressure (inHg to mB) using the following conversion factor:
 - Static Pressure (mB) = Static Pressure (inHg) x 33.863879.
- (n) Calculate the difference between the average total pressure readings from ADAHRS CHANNEL A and ADAHRS CHANNEL B and the static pressure reading from each ADAHRS Channel:
 - Pressure error = average total pressure – static pressure sensor reading.
- (o) Compare the pressure error using the thresholds in Table 20. Based on the comparison, take the appropriate action within the time frame designated by Table 20.

Table 20. Pilatus PC-12/47E Pressure Error Action Data

Pressure Error (mB)	Action	Time Frame
>0.70	Remove	Immediate
0.51 to 0.70	Retest	Less than 30 days
0.25 to 0.50	Retest	Less than 120 days
<0.25	None	Not applicable

Honeywell

SERVICE BULLETIN

ADM/ADC/ADAHRS

4. Appendix

A. Appendix A, Data Collection Form

- (1) Collect the data as specified in Table 21 thru Table 24 during the test.

Table 21. Operator Contact Information

Name	
Phone Number	
Email	

Table 22. Aircraft Information

Aircraft Manufacturer's Serial Number	
Aircraft Type	
Date	
Time (UTC)	
Location (Airport Identification)	
Aircraft Elevation (feet)	

Table 23. Weather

Barometer Setting		mB/inHg
Wind		Knots
Temperature		°C/°F

Table 24. Test Data

Equipment Serial Number ¹	Indicated Altitude (feet) for Static Pressure Only	Pressure Measurement (mB/inHg)

NOTE:

1. For PC-12/47E, identify Channel A or Channel B.

- (2) Send the Data Collection Form to one of the locations identified below:

Email: AeroTechSupport@honeywell.com

Fax: 602-365-1871