

Service Bulletin No: 34-022

Ref No: 239

Modification No: EC-09-0328

ATA Chapter: 34

**NAVIGATION - ATTITUDE AND DIRECTION****UPGRADE THE AIR DATA, ATTITUDE AND HEADING REFERENCE SYSTEM (ADAHRS) TO -205 STANDARD****1. Planning Information****A. Effectivity**

All PC-12/47E aircraft MSN 545 and MSN 1001 thru 1180.

This modification will be incorporated during production on MSN 1181 and subsequent.

ADAHRS KSG 7200 Honeywell P/N 065-00188-5102, S/W MOD 02/02 (Pil P/N 985.99.12.192) held as stock.

**B. Concurrent Requirements**

None

**C. Reason****(1) Problem:**

PC-12/47E equipped with the KSG 7200 ADAHRS, Honeywell P/N 065-00188-5102 (SW MOD 02/02), Pilatus P/N 985.99.12.192:

Field reports have indicated that the possibility exists that both Primary Flight Displays (PFD) could indicate a roll attitude offset of up to 10 degrees in the same direction if an accelerated turn onto the active runway is performed immediately followed by takeoff. In addition, annunciated heading splits have been reported.

Additionally, if the aircraft is operating in geographical latitudes with low horizontal magnetic field strength, incorrect heading may be displayed if the ADAHRS switches from GPS track to magnetometer heading while the aircraft is on the ground.

**(2) Solution:**

Install an updated ADAHRS KSG 7200, Honeywell P/N 065-00188-5103 (Pilatus P/N 985.99.12.205)

or

update existing ADAHRS KSG 7200, Honeywell P/N 065-00188-5102 (Pilatus P/N 985.99.12.192) to the latest standard using Honeywell Service Bulletin KSG 7200-34-09.

The algorithms have been updated to prevent roll offset indications on both PFDs after takeoff and to prevent annunciated heading splits.

The automatic switch setting from magnetometer heading to GPS track (and vice versa) has been reduced from 80/95 mGauss to 60/75 mGauss. In addition, the slewing on

ground has been improved so that the correct GPS track (TRK) or magnetometer heading (HDG) is displayed without any delay.

**D. Description**

This Service Bulletin gives the data and instructions necessary to:

- Do the Honeywell Service Bulletin KSG 7200-34-09 to update the ADAHRS software
- or
- Replace an installed ADAHRS unit with a Honeywell 065-00188-5103 (Pilatus P/N 985.99.12.205) unit.

**E. Compliance**

Mandatory.

Compliance time one year from the date of issue of this Service Bulletin.

**F. Approval**

The technical content of this document is approved under the authority of DOA No. EASA. 21J. 357.

PILATUS advises Operators/Owners to check with their local Airworthiness Authorities for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

**G. Manpower**

<b>Task</b>	<b>Man-hours</b>
Preparation	1.0
Software upload and test	3.5
Close up	1.5
<b>TOTAL MAN-HOURS</b>	<b>6.0</b>

**NOTE:** Refer also to the Honeywell Service Bulletin KSG 7200-34-09

**H. Weight and Balance**

Not affected.

**I. Electrical load Data:**

Not changed

**J. Software:**

The software in the ADAHRS unit is upgraded to SW ID 03/01.

**K. References**

Aircraft Maintenance Manual (AMM): 12-B-34-25-00-00A-903A-A, 12-B-34-25-01-00A-920A-A

Honeywell Service Bulletin KSG 7200-34-09

**L. Publications Affected**

Remove TR No. 11 and TR No. 13 from the AFM.

**M. Interchangeability of Parts:**

One way interchangeable. A pre-Service Bulletin 34-022 ADAHRS unit must not be installed in a post-Service Bulletin 34-022 aircraft.

**2. Material Information****A. Material - Price and Availability**

Operators shall contact Honeywell, Olathe to order replacement parts. Fax Purchase Orders to + 1 913 712 1335.

**NOTE:** It is absolutely imperative that you include the following note on your PO to receive the correct serial tags: **Honeywell CSR please add this mandatory message to AS400 pick ticket notes: Requires Unit Serial Tags for KSG 7200 serial number xxxx.**

Please note that the KSG 7200 ADAHRS (P/N 065-00188-5102 or -5103) installed on the PC-12/47E falls under International Trade Restrictions and is regulated by the United States Department of Commerce export compliance rules.

If you want more information about this modification, please contact us as follows:

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Operators are requested to advise Pilatus Aircraft Ltd, of the Manufacturer's Serial Number (MSN) and the flying hours of aircraft which are affected by this Service Bulletin.

**B. Warranty**

Honeywell agrees to cover the costs for parts and labor of affected aircraft on approval of a warranty claim, provided the work is accomplished by an appropriately rated Honeywell Service Center within 12 months of the issue date of this Service Bulletin. A properly completed warranty claim may be filed by accessing the Honeywell Aerospace web page at: <https://portal.honeywell.com/wps/portal/aero/serviceprograms/warranty> and selecting the Bendix King logo.