

**FOR PLANNING PURPOSES**

# SERVICE BULLETIN

SERVICE BULLETIN NO: 34-018

REF NO: 224

MODIFICATION NO: EC-08-0754

ATA CHAPTER: 34

## NAVIGATION - ATTITUDE AND DIRECTION UPGRADE THE AIR DATA, ATTITUDE AND HEADING REFERENCE SYSTEM (ADAHRS) TO .192 STANDARD

### 1. Planning Information

#### A. Effectivity

PC-12/47E aircraft MSN 545 and MSNs 1001 thru 1100.

This modification will be incorporated during production on MSNs 1101 and subsequent.

This Service Bulletin supersedes Service Bulletin 34-015.

#### B. Concurrent Requirements

Service Bulletin 45-001 (Upgrade the Honeywell Primus Apex Software to Build 5) must be done prior to or at the same time as this Service Bulletin.

#### C. Reason

##### (1) Problem:

The operation of the PC-12/47E equipped with PRIMUS APEX and the KSG 7200 ADAHRS, Honeywell P/N 065-00188-5101 (Pilatus P/N 985.99.12.101) was limited to Geographical Latitudes where the horizontal magnetic field strength was above 80 mGs (8000nT). In areas with horizontal field strength less than 80 mGs, no magnetic heading was provided by the PRIMUS APEX system. Furthermore under this configuration, track data was also not provided by the APEX system. As a result of this, no navigation information could be provided to the crew above these latitudes.

##### (2) Solution:

With the software updated ADAHRS KSG 7200, Honeywell P/N 065-00188-5102 S/W MOD 02/02 (Pilatus P/N 985.99.12.192), Primus APEX automatically provides calculated magnetic track in flight, when the horizontal magnetic field strength is less than 80 mGs (8000nT) and still within the coverage of the Magnetic Variation look up table. Also, the ADAHRS provides the value of the true track when operating outside this coverage. If desired, the crew can also manually select a true North reference before the automatic switch occurs.

**D. Description**

This Service Bulletin gives the data and instructions necessary to do the Honeywell Service Bulletin KSG 7200-34-02. This can be downloaded from the Honeywell WebPage or requested from Pilatus (Refer to contacts at Para. 2.A.).

**NOTE:** Replacement of ADAHRS unit with a Honeywell 065-00188-5102 (SW MOD 02/02) (Pilatus P/N 985.99.12.192) unit is an alternative way to comply with this Service Bulletin. However, availability of parts through SPEX as well as the International Trade Restrictions are the limiting factor.

**E. Compliance**

Recommended.

**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 7200-34-02

**H. Weight and Balance**

Not affected.

**I. Electrical load Data:**

Not changed

**J. Software:**

The software in the ADAHRS unit is upgraded to SW MOD 02/02.

**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 7200-34-02

**L. Publications Affected**

Remove TR No. 6 from the AFM Rev. No. 7.

Remove TR No. 1 from the AFM Supplement No. 3.

**M. Interchangeability of Parts:**

One way interchangeable. A pre-Service Bulletin 34-018 ADAHRS unit must not be installed in a post-Service Bulletin 34-018 aircraft.

**2. Material Information**

**A. Material - Price and Availability**

Operators shall get in contact with their local Honeywell Representative to order replacement parts.

Please note that the KSG 7200 ADAHRS (P/N 065-00188-5101 or -5102) installed on the PC-12/47E falls under International Trade Restrictions and is regulated by the United States Department of Commerce export compliance rules.

Should you require further information please contact your Authorized Pilatus Service Center or:

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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.