

# 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](http://www.myaerospace.com)

## SERVICE INFORMATION LETTER

**Primus Apex/Primus Epic Flight Management System (FMS) - Incorrect Course Deviation Indicator (CDI) Spin on Flying TEARDROP HOLD with FMS Mode Lateral Navigation/Navigation (LNAV/NAV) Disengaged**

### 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

COPYRIGHT BY HONEYWELL INTERNATIONAL INC. ("HONEYWELL"). ALL RIGHTS RESERVED. THIS DOCUMENT AND ALL INFORMATION CONTAINED HEREIN ARE THE CONFIDENTIAL AND PROPRIETARY INFORMATION OF HONEYWELL AND CONTAIN HONEYWELL TRADE SECRETS. NEITHER THIS DOCUMENT NOR THE INFORMATION CONTAINED HEREIN MAY, IN WHOLE OR IN PART, BE USED, DUPLICATED, OR DISCLOSED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF HONEYWELL.

PLEASE REVIEW THE TERMS OF THIS AGREEMENT CAREFULLY BEFORE USING THIS DOCUMENT, AS BY USING IT, YOU ACKNOWLEDGE THAT YOU HAVE REVIEWED THIS AGREEMENT AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS.

# Honeywell

## SERVICE INFORMATION LETTER

### Honeywell Materials License Agreement

This document and the information contained herein (“the Materials”) are the proprietary data of Honeywell. These Materials are provided for the exclusive use of Honeywell-authorized Service Centers; Honeywell-authorized repair facilities; owners of a Honeywell aerospace product that is the subject of these Materials (“Honeywell Product”) that have entered into a written agreement with Honeywell relating to the repair or maintenance of Honeywell Product; and direct recipients of Materials from Honeywell via <https://myaerospace.honeywell.com/wps/portal/> that own a Honeywell Product. The terms and conditions of this Honeywell Materials License Agreement (“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 maintenance or repair of a Honeywell Product and that is the subject of the Materials 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 these terms and conditions and those of a purchase order or acknowledgement. Your access or use of the Materials represents your acceptance of the terms of this License Agreement.

1. License Grant - If you are a party to an applicable written agreement with Honeywell relating to the repair or maintenance of the subject Honeywell Product, subject to your compliance with the terms and conditions of this License Agreement, Honeywell hereby grants you, and you accept, a limited, personal, non-transferrable, non-exclusive license to use these Materials only in accordance with that agreement.

If you are a direct recipient of these Materials from Honeywell’s MyAerospace Technical Publication website and are not a party to an agreement related to the maintenance or repair of the subject Honeywell Product, subject to your compliance with the terms and conditions of this License Agreement, Honeywell hereby grants you, and you accept, a limited, personal, non-transferrable, non-exclusive license to use a single copy of these Materials to maintain or repair only the subject Honeywell Product installed or intended to be installed on the aircraft you own and/or operate and 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, the transferee accepts all of your obligations and liabilities under this License Agreement, and you provide prior written notice to Honeywell with the name and address of the transferee. You agree not to use these Materials for commercial purposes.

2. Restrictions on Use - You may not sell, rent, lease or lend the Materials, except for lending your Materials for the maintenance or repair of the subject Honeywell Product you own to someone solely acting on your behalf. You may not use the Materials to reverse engineer any Honeywell product, hardware or software, and may not decompile or disassemble software provided under this License Agreement, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation. You may not create derivative works or modify the Materials in any way. You agree that Materials shall only be used for the purpose of the rights granted herein. The Material furnished hereunder may be subject to U.S. export regulations. You will adhere to all U.S. export regulations as published and released from time to time by the U.S. Government. You may not design or manufacture a Honeywell part or detail of a Honeywell part, to create a repair for a Honeywell part, design or manufacture any part that is similar or identical to a Honeywell part, compare a Honeywell part or design of a Honeywell part to another part design, or apply for FAA PMA or other domestic or foreign governmental approval to manufacture or repair a Honeywell part.

3. 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. The Materials are licensed and not sold under this License Agreement. No license to use any Honeywell trademarks or patents is granted under this License Agreement.

4. Changes - Honeywell reserves the right to change the terms and conditions of this License Agreement at any time, including the right to change or impose charges for continued use of the Materials. Honeywell may add, delete or otherwise modify any portion of the Materials (“Updated Materials”) at any time. You agree to stop using outdated Materials upon issuance of any Updated Materials.

# Honeywell

## SERVICE INFORMATION LETTER

5. 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.
6. Assignment And Transfer - This License Agreement may be assigned to a service center approved and formally designated as a service center by Honeywell, provided, however, that you retain no copies of the Materials in whole or in part. However, the recipient of any such assignment or transfer must assume all of your obligations and liabilities under this License Agreement. No assignment or transfer shall relieve any party of any obligation that such party then has hereunder. Otherwise, neither this License Agreement nor any rights, licenses or privileges granted under this License Agreement, nor any of its duties or obligations hereunder, nor any interest or proceeds in and to the Materials shall be assignable or transferable (in insolvency proceedings, by merger, by operation of law, by purchase, by change of control or otherwise) by you without Honeywell's written consent.
7. Copies of Materials - Unless you have the express written permission of Honeywell, you may not make or permit making of copies, digital or printed, of the Materials. You agree to return the Materials and any such copies thereof to Honeywell upon the request of Honeywell.
8. 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 agreement with Honeywell relating to the repair or maintenance of the subject Honeywell Product. Upon termination of this License Agreement, you will return these Materials to Honeywell without retaining any copies, in whole or in part, and will have one of your authorized officers certify that all Materials have been returned with no copies retained.
9. Audit Rights - Honeywell, through its authorized representatives, with no less than thirty (30) calendar days notice from Honeywell, has the right during normal business hours during the term of this License Agreement and for three (3) years thereafter to visit you and have access to the inside and outside of your facility for the purpose of inspecting, observing and evaluating your compliance under this License Agreement.
10. Remedies - Honeywell reserves the right to pursue all available remedies and damages resulting from a breach of this License Agreement.
11. Limitation of Liability - Honeywell makes no representations or warranties 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 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, INDEMNITY, TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE), BY OPERATION OF LAW, OR OTHERWISE.
12. Controlling Law - This License Agreement shall be governed and construed in accordance with the laws of the State of New York without regard to the conflict of laws provisions thereof.
13. Severability - In the event any provision of this License Agreement is determined to be illegal, invalid, or unenforceable, the validity and enforceability of the remaining provisions of this License Agreement will not be affected and, in lieu of such illegal, invalid, or unenforceable provision, there will be added as part of this License Agreement one or more provisions as similar in terms as may be legal, valid and enforceable under controlling law.
14. Integration and Modification - This License Agreement and all attachments set forth the entire agreement and understanding between the parties on the subject matter of the License Agreement and merges all prior

11 May 2016

Revision 2, 24 Feb 2017

Page 3

Publication Number D201603000059

© Honeywell International Inc. Do not copy without express permission of Honeywell.

# **Honeywell**

## **SERVICE INFORMATION LETTER**

discussions and negotiations among them. This License Agreement may be modified only by a duly-authorized representative of Honeywell.

### **Copyright - Notice**

Copyright 2016, 2017 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 INFORMATION LETTER

### Transmittal Information

Publication Number D201603000059

### Summary

This revision is a FULL replacement. This revision includes the changes that follow:

- Changed Table 2.
- Changed the content and format to agree with Honeywell processes in effect at the time of the release of this revision.

### Revision History

This service information letter has had two revision(s) as shown in Table 1.

**Table 1. Revision History**

Revision Number	Revision Date
0	11 May 2016
1	30 Jun 2016
2	24 Feb 2017

# Honeywell

## SERVICE INFORMATION LETTER

Blank Page

# Honeywell

## SERVICE INFORMATION LETTER

1. **General Information**

A. **Effectivity**

(1) This service information letter is applicable to the units identified in Table 2.

**Table 2. Applicable Units**

Type	PN
Leonardo AW139	EB7030191-00105 (Phase 4) EB7030191-00107 (Phase 5) EB7030191-00108 (Phase 6) EB7030191-00109 (Phase 6) EB7030191-00110 (Phase 7 V1) EB7030191-00111 (Phase 7 V3) EB7030191-00112 (Phase 7 V4)
Cessna Sovereign	EB7031847-00105 (Phase 3) EB7031847-00106 (Phase 4) EB7031847-00108 (Phase 4.1) EB7031847-00109 (Phase 4.2) EB7031847-00111 (Phase 5) EB7031847-00114 (Phase 5.2)
Dassault Primus Epic F900	EB7036889-00112 (Load 21) EB7036889-00114 (Load 24.2, EASy II) EB7036889-00116 (Load 22.4) EB7036889-00117 (Load 26, EASy II) EB7036889-00118 (Load 26.2, EASy II) EB7036889-00119 (Load 28.2, EASy II)
Dassault Primus Epic F2000	EB7036889-00203 (Load 12) EB7036889-00205 (Load 14.2) EB7036889-00206 (Load 14.4) EB7036889-00207 (Load 16, EASy II) EB7036889-00208 (Load 16.2, EASy II) EB7036889-00209 (Load 18, EASy II) EB7036889-00210 (Load 16.4, EASy II)
Dassault F7X	EB7034843-00103 (Load 10.2) EB7034843-00102 (Load 10) EB7034843-00104 (Load 12, EASy II) EB7034843-00107 (Load 12.2, EASy II) EB7034843-00108 (Load 14.2, EASy II)
Embraer 170	PS7027709-00124 (Load 21.2) PS7027709-00126 (Load 21.4) PS7027709-00127 (Load 23.1) PS7027709-00128 (Load 21.5) PS7027709-00129 (Load 23.2)
Embraer 190	PS7027709-00214 (Load 23.1) PS7027709-00215 (Load 21.4) PS7027709-00216 (Load 21.5) PS7027709-00217 (Load 23.2)

# Honeywell

## SERVICE INFORMATION LETTER

**Table 2. Applicable Units (Cont)**

Type	PN
Embraer 170/190	PS7027709-00303 (Load 25.1.0.1) PS7027709-00302 (Load 25.2) PS7027709-00304 (Load 25.3) PS7037709-00305 (Load 25.4) PS7027709-00309 (Load 25.5.0.1) PS7027709-00310 (Load 25.6)
Gulfstream G350/450	EB7031236-00409 (Foxtrot) EB7031236-00410 (Delta) EB7031236-00411 (Echo) EB7031236-00414 (Foxtrot) EB7031236-00415 (Foxtrot SSEC) EB7031236-00416 (ASC 909/909A) EB7031236-00417 (ASC 910) EB7031236-00418 (ASC909B) EB7031236-00420 (ASC911) EB7031236-00421 (ASC912)
Gulfstream G550	EB7031236-00314 (Foxtrot) EB7031236-00315 (Delta) EB7031236-00316 (Echo) EB7031236-00317 (ASC 909) EB7031236-00319 (Foxtrot) EB7031236-00320 (Foxtrot) EB7031236-00321 (ASC 910) EB7031236-00322 (ASC909B) EB7031236-00323 (ASC911) EB7031236-00325 (ASC912)
Hawker 4000	EB7030192-001XX (Load 19) EB60000578-0114 (Load 20)
Pilatus PC-12NG	EB7037248-00103 (Build 6.2) EB7037248-00104 (Build 7.2) EB7037248-00106 (Build 8.3.3) EB60000487-0108 (Build 8.6) EB60000487-0111 (Build 8.8) EB60000487-00112 (Build 10.9)
Viking DHC6-400	EB7032889-00101 (Load 1.3) EB60002734-0104 (Load 4.4)

**B. Reason**

(1) **Purpose**

- (a) The purpose of this service information letter is to advise the operators of a CDI anomaly when flying any HOLD with a teardrop entry when LNAV/NAV is not engaged or in aircraft without a flight director.



# Honeywell

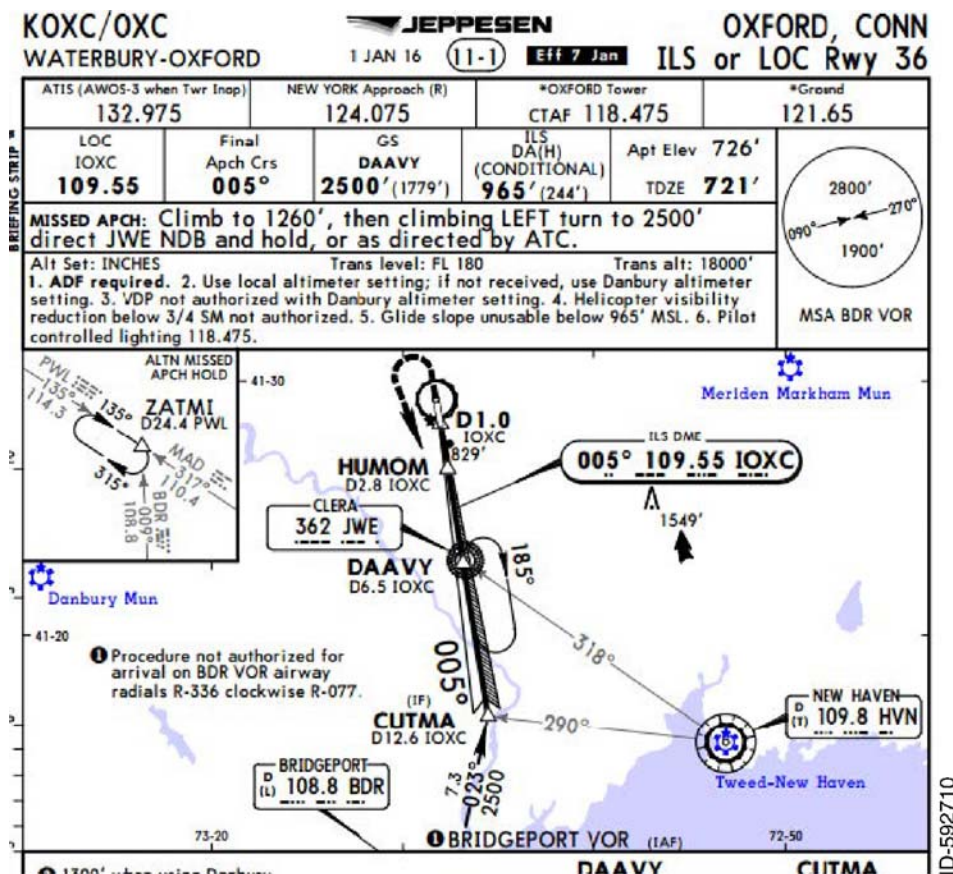
## SERVICE INFORMATION LETTER

**C. References**

- (1) To find, see, and download Honeywell Technical Publications, go to [www.myaerospace.com](http://www.myaerospace.com).

**D. Summary**

- (1) An operator with Primus Apex equipped aircraft (refer to Paragraph 1.A.) observed momentary incorrect rotation of the CDI after completing a teardrop entry into a HOLD. At first the CDI needle initially rotates in the correct direction but to an incorrect heading (should be 005 degrees in accordance with the chart). The CDI then rotated to the correct heading (005 degrees) but in the wrong rotation direction (was a right turn, CDI rotated left).
- (2) This incorrect rotation was observed with FMS mode LNAV/NAV disengaged.
- (3) For example, on flying missed approach for ILS36 at KOXC the teardrop entry into the HOLD after passing JWENB requires a turn to 30 degrees left from the outbound heading of 185, then a right turn back to 005 degrees as in accordance with the procedure. Refer to Figure 1.



**Figure 1. (Sheet 1 of 1) KOXC, ILS36 Procedure Chart**

- (4) When the teardrop entry is completed as the reversal to HOLD fix JWENB becomes active, the CDI needle rotates to the right to a heading of 210 briefly before rotating

# Honeywell

## SERVICE INFORMATION LETTER

to the left (in the wrong direction) back to the correct 005 heading. Refer to Figure 2 and Figure 3.



ID-592711

Figure 2. (Sheet 1 of 1) Incorrect Spin to 210 Degrees



ID-592712

Figure 3. (Sheet 1 of 1) Spin Back to Expected 005 Degrees

# Honeywell

## SERVICE INFORMATION LETTER

### E. Action

- (1) The observed incorrect rotation and initial incorrect heading are momentary and the final heading is correct.
- (2) This issue is limited to teardrop entries into a HOLD procedure when FMS mode LNAV/NAV is not engaged, or if no flight director is present. If it is the active flight director mode, the CDI will rotate in the correct direction to the correct heading.
- (3) If LNAV/NAV is not the active flight director mode and teardrop entry into a HOLD is performed, flight crews are encouraged to fly the procedure in accordance with the chart, noting that the final CDI heading will be correct.

### F. Contact Information

- (1) For technical assistance, please contact BendixKing Technical Support.  
BendixKing Technical Support  
Telephone: 855-250-7027 (Toll Free U.S.A./Canada)  
Telephone: 505-903-6148 (International Direct)  
E-mail: techsupport@bendixking.com