

**SUBJECT: PC-12, PC-12/45 and PC-12/47 Aircraft - New Honeywell SG465 Symbol Generator to Address Autopilot Disconnects**

To all Customers, Operators and Service Centers:

Date: Apr 01/11

This Service Letter is issued to draw attention to the following information:

**Honeywell Service Bulletin (SB) SG 465 - Modification of Symbol Generator**

Some PC-12, PC-12/45 and PC-12/47 aircraft have suffered from autopilot disconnects in smooth air. The Symbol Generator Vendor (Honeywell) recommends that if customers experience uncommanded disconnects, they should upgrade the Symbol Generators (SG) to MOD 9 standard using the Honeywell Service Bulletin SB SG 465.

The SB gives the necessary data and instructions to modify the SG.

Pilatus also recommends that customers who experience uncommanded autopilot disconnects in smooth air should embody Honeywell Service Bulletin SB SG 465.

Please be aware that the Pilatus part number will change with Mod. 9:

PC12 aircraft MSN 101 to 120: from P/N 975.96.32.401 (pre Mod 9) to P/N 975.96.32.403 (post Mod 9)

PC12 aircraft MSN 121 to 999: from P/N 975.96.32.402 (pre Mod 9) to P/N 975.96.32.404 (post Mod 9)

Operators requiring further information on this subject, please contact one of the addresses given below:

PILATUS AIRCRAFT LTD.,  
CUSTOMER SUPPORT MANAGER,  
CH-6371 STANS,  
SWITZERLAND.

General Aviation  
Tel : + 41 41 619 6208  
Fax: + 41 41 619 7311  
eMail: SupportPC12@pilatus-aircraft.com

PILATUS BUSINESS AIRCRAFT LTD.,  
PRODUCT SUPPORT DEPARTMENT,  
11755 AIRPORT WAY,  
BROOMFIELD, CO 80021.  
USA

Tel : 303 465 9099  
Fax: 303 465 6040  
eMail: Productsupport@PilBal.com

PILATUS AUSTRALIA (Pty.) LTD.,  
17 James Schofield Drive,  
Adelaide Airport SA 5950,  
AUSTRALIA

Tel : +61 (08) 8234 4433  
Fax: +61 (08) 8234 4499  
Free Call: 1800 445 007  
eMail: SupportPC12@pilatus.com.au

Attachment: Honeywell Service Bulletin SB SG 465.

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# Honeywell

Honeywell International Inc.  
23500 W. 105th Street  
Olathe, Kansas 66061-8425  
U.S.A.  
CAGE: 22373  
Telephone: (800) 601-3099 (Toll Free U.S.A./Canada)  
Telephone: (602) 365-3099 (International Direct)  
Telephone: 00-800-601-30999 (EMEA Toll Free)  
Telephone: 420-234-625-500 (EMEA Direct)

Web site: [www.myaerospace.com](http://www.myaerospace.com)

## SERVICE BULLETIN

**INDICATING/RECORDING SYSTEMS - SG 465 SYMBOL GENERATOR (SYMBOL GENERATOR) - Hardware Modification (MOD) 9 to the SG 465 Symbol Generator Units, PN 066-04021-0104, -0105, -0204, -0205, -0402 thru -0405, -0502 thru -0505, -1106 thru -1116, -1160, -1206, -1207, -1406 thru -1416, -1506, -1507, and -5000; Autopilot Disconnect**

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ECCN: 7E994, NLR Eligible.

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## Transmittal Information

ATA Number SG 465-31-19 (Publication Number D201010000064)

### 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 Jan 2011

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### 1. Planning Information

#### A. Effectivity

- (1) This service bulletin is applicable to the symbol generator, PN 066-04021-0104, -0105, -0204, -0205, -0402 thru -0405, -0502 thru -0505, -1106 thru -1116, -1160, -1206, -1207, -1406 thru -1416, -1506, -1507, and -5000, Serial Number 6364 and lower, without hardware MOD 9 installed.

#### B. Concurrent Requirements

- (1) Not applicable.

#### C. Reason

- (1) Small intermittent voltage drops have been found to occur on the attitude direction indicator (ADI) valid output on the symbol generator. These voltage drops cause the autopilot to turn off.

#### D. Description

- (1) A summary of the work necessary to do this modification is given below:
- The symbol generator is disassembled and the input/output (I/O) board is removed.
  - One capacitor is added to the I/O board.
  - The symbol generator is assembled.
  - The hardware modification is identified on the symbol generator.
  - A test is done on the symbol generator.

#### E. Compliance

- (1) This modification is optional. The operator can make the decision if this modification is necessary.

#### F. Approval

- (1) This service bulletin includes approved modification instructions from the manufacturer. The configuration created by this modification is approved by the applicable regulatory agency.

#### G. Manpower

- (1) This modification can be completed in the approximate times that follow:
- 3.0 hour(s) for the labor to do the modification and test of the symbol generator.

#### H. Weight and Balance

- (1) Not applicable.

#### I. Electrical Load Data

- (1) Not applicable.

#### J. Software Accomplishment Summary

- (1) Not applicable.

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## **K. References**

- (1) To find, see, and download Honeywell Technical Publications, go to <http://portal.honeywell.com/wps/portal/aero>.
- (2) The document(s) that follow(s) is/are necessary to complete this modification. Unless specified differently, you can use subsequent revisions.
  - Maintenance Manual (MM), Publication Number 006-05232-0001, SG 464/465 Maintenance Manual, Revision 1 with Temporary Revision 05232-1.

## **L. Other Publications Affected**

- (1) MM, Publication Number 006-05232-0001, SG 464/465 Maintenance Manual, will be revised because of this service bulletin.
- (2) This service bulletin has no effect on the test procedure.

## **M. Interchangeability or Intermixability of Parts**

- (1) Not applicable.



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**2. Material Information**

**A. Material - Price and Availability**

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

Honeywell  
Global Customer Care Center  
Telephone: (800) 601-3099 (Toll Free U.S.A./Canada)  
Telephone: (602) 365-3099 (International Direct)  
Telephone: 00-800-601-30999 (EMEA Toll Free)  
Telephone: 420-234-625-500 (EMEA Direct)

- (2) This modification can be done for customers with the problem identified in Paragraph 1.C. There will be no cost to approved customers if completed within 18 months from the release of this service bulletin.
- (3) This modification can be performed at the Honeywell Olathe Repair Center or authorized service center.

**B. Industry Support Information**

- (1) Not applicable.

**C. Material Necessary for Each Component**

- (1) The parts identified in Table 2 are necessary to do this service bulletin.

**Table 2. Operator-Purchased Material**

New PN	Keyword/ Nomenclature	Old PN	Qty	List Price	Instructions/ Disposition Codes
53500110-283 <sup>1</sup>	Capacitor, 10 microfarad (uF), 16 volts (V)	None	1	Not applicable (N/A)	N/A

NOTE:

1. Component of PN 200-07707-0021.

**Table 3. Instructions/Disposition Codes**

Code	Description
N/A	N/A

- (2) No operator-supplied material item(s) are specified as necessary to do this service bulletin.

**D. Material Necessary for Each Spare**

- (1) Same as Paragraph 2.C.

**E. Reidentified Parts**

- (1) Not applicable.

**F. Tooling - Price and Availability**

- (1) Not applicable.

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### 3. Accomplishment Instructions

#### A. **General Information**

- (1) Obey the precautions.
- (2) Refer to the SG 464/465 Maintenance Manual MM, Publication Number 006-05232-0001, for procedures and precautions. Use all CAUTIONS and WARNINGS. Refer to the IPL in the MM for the location of the parts, unless specified differently.
- (3) Keep all hardware for use in assembly unless specified differently.
- (4) Obey standard established shop practices during modification of the symbol generator unless specified differently.

#### B. **Disassembly**

- (1) Disassemble the symbol generator and remove the I/O board (200-07707-0021, IPL Figure 6-5). Refer to the instructions in the Disassembly section of the MM.

#### C. **Modification**

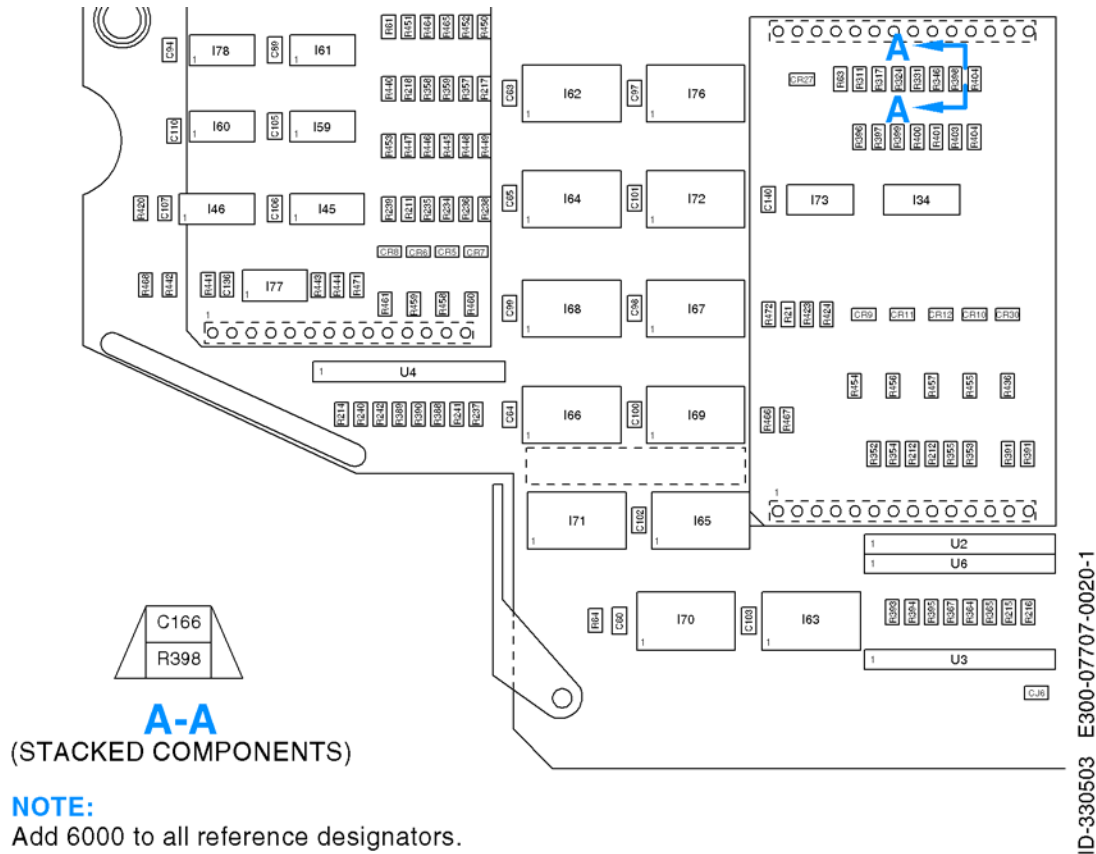
NOTE: The procedures in this section are for the I/O board, PN 200-07707-0021, only.

NOTE: Refer to Figure 1 to complete the work in this section.

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**Figure 1. (Sheet 1 of 1) I/O Board, PN 200-07707-0021, Lower Left Corner**

- (1) Remove Integrated Circuit, U6020, from the sockets. Do not discard U6020, it will be used again.
- (2) With solder, attach Capacitor, C6166, PN 53500110-283, on top of Resistor, R6398.
- (3) Replace U6020 in the location from which it was taken.

**D. Assembly**

- (1) Assemble the symbol generator. Refer to the instructions in the Assembly section of the MM.

**E. Modification Status Marking**

- (1) Use a permanent procedure to put an X or a permanent mark to identify hardware MOD 9 on the modification section of the symbol generator serial number tag.

**F. Testing**

- (1) Do a test of the symbol generator. Refer to the instructions in the TESTING AND ALIGNMENT section of the MM.