



PILATUS AIRCRAFT LTD. CH-6371 STANS, SWITZERLAND

SERVICE LETTER

SUBJECT: LITEF GMBH SERVICE BULLETINS (SB): 141450-0000-840-014 AND 142185-0000-840-016

To all Customers and Operators:

Date: Jun 29/07

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

LITEF GMBH SB NOS: 141450-0000-840-014 AND 142185-0000-840-016 - IMPROVEMENTS TO THE HEADING LINEARITY OF THE ATTITUDE AND HEADING REFERENCE SYSTEM (AHRS).

Customers with LITEF LCR-92 and LCR-93 AHRS operating in the Southern Thailand, Malaysia and Singapore area have reported heading errors of up to 4 degrees. This has been found to be caused by the high horizontal field strength in this area. The LITEF SBs give instructions to send the AHRS units for modification to correct the problem.

LITEF SB No.141450-0000-840-014 relates to LITEF LCR-92 AHRS. The SB lists the part numbers affected and gives details of the modification.

LITEF SB No.142185-0000-840-016 relates to LITEF LCR-93 AHRS. The SB lists the part numbers affected and gives details of the modification.

Pilatus fully supports the content of LITEF SB Nos.141450-0000-840-014 and 142185-0000-840-016 as the modification improves the accuracy of the AHRS.

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
Government
Tel: + 41 41 619 6226
Fax: + 41 41 619 6170
eMail: snolan@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
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PILATUS AUSTRALIA (Pty.) LTD.,
17 James Schofield Drive,
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AUSTRALIA

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eMail: info@pilatus.com.au

Attachments:

LITEF SB No.141450-0000-840-014
LITEF SB No.142185-0000-840-016

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SERVICE LETTER

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LITEF

GmbH

SERVICE BULLETIN

No.: 141450-0000-840-014

“Heading linearity improvement”

ATTITUDE and HEADING REFERENCE SYSTEM (AHRS)

LCR-92 Part No.

124210-2022

141852-1022

141852-2022

141852-3022

Originally issued: November 24, 2006

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SUBJECT: LITEF LCR-92 Attitude and Heading Reference System Part Numbers 124210-2022 and 141852-X022, optional conversion to **MOD 1** for heading linearity improvement.

I. PLANNING INFORMATION

A. Effectivity

This service Bulletin applies to LITEF LCR-92 Attitude and Heading Reference System Part Numbers 124210-2022 and 141852-X022, which utilize the KMT 112 flux valve as MSU.

B. Reason

Customers observed a degradation of heading accuracy in areas of high horizontal field strength. This is the area between latitude 10° S to 20° N and longitude 60° E to 135° E. The center of the areas includes Southern Thailand, Malaysia and Singapore.

Investigation has demonstrated that a field saturation effect leads to this degradation, which can result in a heading errors of up to 4 degrees.

This effect can only occur in the area described above.

C. Description

For the above mentioned AHRS Part Numbers the Interface Module P/N 125814-2000 will be upgraded to P/N 125814-2001 or if the AHRS contains Interface Module P/N 117986-2001 or 117986-2002, it will be upgraded to P/N 117986-2003.

D. Compliance

This change is not mandatory.

The change will be introduced into new production at the next available possibility.

For AHRS under repair the Interface Module will be upgraded on demand.

There is no requirement to retrofit AHRS Systems that are currently in service, as long as the effect described above is not observed.

However, for aircraft in world-wide service or in service in the above mentioned region, LITEF recommends to contact Customer Service for an upgrade.

E. Approval

This Service Bulletin is approved for incorporation into the TSO certified AHRS units under the authority of the LBA approval No.DE.21G.0104. Further airworthiness approvals may be required for aircraft installation purposes and are the responsibility of the operator.

F. Manpower

This change can only be completed at LITEF GmbH, Factory Service Center, Freiburg, Germany or MASCO Service Corp. Wichita, KS, USA. No additional manpower is required.

G. Dimensions, Weight and Balance

No Change

H. Reference

None

I. Other Publications Affected

None

J. Interchangeability and Identification

LITEF LCR-92 units that have this change incorporated will be marked and identified with **MOD 1** on the modification label

The change does not affect any normal operational procedures.

Units which have implemented the modification described herein are fully interchangeable and can replace and be used with units without this modification.

A compass swing should be performed after installation of modified systems to take full advantage of the improved heading performance.

MD 902 helicopters, which have incorporated a modification in accordance with work instruction DAS-MD902-WI-001 must remove the external resistors, because the change is now incorporated in the system. A compass swing is not necessary in this case.

II. MATERIAL INFORMATION

A. Price and Availability

Price and availability on request.

B. Service Contact Information

Address all requests or correspondence to:

LITEF GmbH
Product Support
Commercial Avionics
Loerracher Str. 18
79115 FREIBURG
Germany
Phone ++49-761-4901-291
Fax ++49-761-4901-572
ahrs.support@litef.de

Or

LITEF Field Service in the United States
c/o MASCO Service Corp.
319A South Hydraulic
Wichita, KS 67211
U.S.A.
Phone 316-263-6100
Fax 316-263-9490
ahrs.support@litef.de

C. Warranty

This Service Bulletin does not affect the standard warranty of the unit from date of purchase. For units out of warranty, this change will be covered for ninety (90) days.

LITEF

GmbH

SERVICE BULLETIN

No.: 142185-0000-840-016

“Heading linearity improvement”

ATTITUDE and HEADING REFERENCE SYSTEM (AHRS)

LCR-93 Part No.

142185-1000

142185-2000

142185-3000

142185-3010

Originally issued: November 24, 2006

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SUBJECT: LITEF LCR-93 Attitude and Heading Reference System Part Numbers 142185-1000, -2000 and -30XX, optional conversion to **MOD 10** for heading linearity improvement.

I. PLANNING INFORMATION

A. Effectivity

This service Bulletin applies to LITEF LCR-93 Attitude and Heading Reference System Part Numbers 142185-1000, 142185-2000 and 142185-30XX, which utilize the KMT 112 flux valve as MSU.

B. Reason

Customers observed a degradation of heading accuracy in areas of high horizontal field strength. This is the area between latitude 10° S to 20° N and longitude 60° E to 135° E. The center of the area includes Southern Thailand, Malaysia and Singapore.

Investigation has demonstrated that a field saturation effect leads to this degradation, which can result in a "Heading Plausibility Error" indication under certain maneuvers, which may cause the heading flag to be set in flight.

This effect can only occur in the area described above.

C. Description

For the above mentioned AHRS Part Numbers the Interface Module P/N 125814-2000 will be upgraded to P/N 125814-2001 or if the AHRS contains Interface Module P/N 117986-2001 or 117986-2002, it will be upgraded to P/N 117986-2003.

D. Compliance

This change is not mandatory.

The change will be introduced into new production at the next available possibility.

For AHRS under repair the Interface Module will be upgraded on demand.

There is no requirement to retrofit AHRS Systems that are currently in service, as long as the effect described above is not observed.

However, for aircraft in world-wide service or in service in the above mentioned region, LITEF recommends to contact Customer Service for an upgrade.

E. Approval

This Service Bulletin is approved for incorporation into the TSO certified AHRS units under the authority of the LBA approval No. DE.21G.0104. Further airworthiness approvals may be required for aircraft installation purposes and are the responsibility of the operator.

F. Manpower

This change can only be completed at LITEF GmbH, Factory Service Center, Freiburg, Germany or MASCO Service Corp. Wichita, KS, USA. No additional manpower is required.

G. Dimensions, Weight and Balance

No Change

H Reference

None

I. Other Publications Affected

None

J. Interchangeability and Identification

LITEF LCR-93 units that have this change incorporated will be marked and identified with **MOD 10** on the modification label.

The change does not affect any normal operational procedures.

Units which have implemented the modification described herein are fully interchangeable and can replace and be used with units without this modification.

A compass swing should be performed after installation of modified systems to take full advantage of the improved heading performance.

II. MATERIAL INFORMATION

A. Price and Availability

Price and availability on request.

B. Service Contact Information

Address all requests or correspondence to:

LITEF GmbH
Product Support
Commercial Avionics
Loerracher Str. 18
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Or

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c/o MASCO Service Corp.
319A South Hydraulic
Wichita, KS 67211
U.S.A.
Phone 316-263-6100
Fax 316-263-9490
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C. Warranty

This Service Bulletin does not affect the standard warranty of the unit from date of purchase. For units out of warranty, this change will be covered for ninety (90) days.