

SERVICE BULLETIN

NUMBER: SB 500-HSC-001
MODEL: Eclipse 500 - Hispano-Suiza Electronic Engine Control (EEC) p/n 48000-01
SUBJECT: FADEC Software Modification

1. Planning Information

A. Effectivity

(1) Aircraft

The intent of this Service Bulletin is to retrofit the new FADEC Software (V610F0400) when the Eclipse Aircraft Model EA500 Serial Numbers 000001 to 000038 are upgraded with the "Enhanced Performance Package".

(2) Spares

Up to the time of that upgrade to the "Enhanced Performance Package", the FADEC will continue to use the existing Software (V610F0308). Existing FADEC (EEC cards) can be modified with the new Software as needed for Spare purposes.

B. Reason

Eclipse Aviation Corporation is the supplier of the FADEC (EEC cards) to P&WC.

New FADEC Software has been developed to provide increased thrust above 20,000 ft in connection with the "Enhanced Performance Package" for Eclipse Aircraft Model EA500 Serial Number 000039 an up.

C. Description

The description of what this Service Bulletin accomplishes can be found in Attachment A.

D. Compliance

Eclipse Aviation Corporation considers this to be a *mandatory* modification that *must* be accomplished in concurrence with SB 500-99-001 to enable the "Enhanced Performance Package" modification.

Note: SB 500-99-001 can not be completed without also completing this SB (SB 500-HSC-001).

E. Weight and Balance Change

None.

F. Electrical Load Data Change

None.

G. Software Accomplishment Summary

The V610F040 Software upgrade details are described in Attachment A.

H. References

Hispano-Suiza Document # 48537 titled PW610 EEC, Software Modification Sheet

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I. Publications Affected

Aircraft Maintenance Manual P/N 06-117751.

Aircraft Flight Manual P/N 06-100106.

Illustrated Parts Catalog P/N 06-117752.

P&WC Illustrated Parts Catalog P/N 3059984 and PWC SB60018

J. Approval

This Service Bulletin is based on engineering data that is FAA-approved, and the modification herein complies with the applicable regulations.

2. Material Information

A. Materials

Existing EEC cards will be upgraded to the new Software.

B. Interchangeability/Intermixability of Parts

This new FADEC Software (V610F0400) is not to be intermixed with the previous Software either engines of the same aircraft.

This new FADEC Software (V610F0400) can only be retrofitted on EA500 aircraft Serial Numbers 000001 to 000038 in concurrence with the performance of EAC SB 500-99-001.

Specific Engine Serial Numbers will be addressed by the P&WC SB.

C. Part Re-identification

See Attachment A: Hispano-Suiza Document # 48537 Rev AH (modified by Eclipse) titled PW610 EEC, Software Modification Sheet

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3. Accomplishment Instructions

A. Procedure

See Attachment A: Hispano-Suiza Document # 48537 titled PW610 EEC, SW Modification Sheet (SMS).

B. Qualification of personnel

The reprogramming procedure must be accomplished by an EAC technician who is fully accredited by PWC for PW610 FADEC reprogramming. A designated (PWC DQCR authorized) EAC Quality Assurance representative will be required to review and signoff the reprogramming has been successfully performed.

C. Cost

This Service Bulletin must be accomplished at one of the Eclipse Aviation Service Centers, or other suitable facility/laboratory which has an Electrostatic Discharge protected environment.

Parts (if required) and Labor will be supplied at no charge to the aircraft owner by Eclipse Aviation Corporation.

4. Part Marking

Upon completion of the reprogramming of both EEC cards in the APC, the FADEC portion of the APC Software Configuration nameplate with the following:

**SP 2
V610F0400**

5. Record of Compliance


Upon completion of this Service Bulletin, the EAC technician shall complete the SMS (Attachment A), and the DQCR QA representative will be required to review and signoff the completed SMS and forward it to EAC QA Department.

Note: EAC QA Dept. will be responsible for forwarding the completed Software Modification Sheets to Hispano-Suiza.

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6. Attachment A

Hispano-Suiza Document # 48537 Rev AH titled PW610 EEC, Software Modification Sheet (modified by EAC).



Hispano-Suiza

SAFRAN Group

Title: PW610 EEC, Software Modification Sheet **Date:** 2007-01-26
Document # 48537 **Rev.** AH **Page:** 1 of 1

EEC P/N 48000 -503/-505/-507
 Strike Plate 11
 EEC P/N 48000 -301
 Strike Plate 4
 EEC P/N 48000 -01
 Strike Plate 2
FIND NUMBER/PVCS/PWC Software Version V610F0400
 Effective January 26, 2007

DATE: _____ **PWB S/N:** _____
PERFORMED BY: _____ **EEC S/N:** _____

- Upload software as per the Software Upload Procedure document 48536 or 48538.
- Record the 32-bit cyclical redundancy check (CRC-32) of the Bootstrap (BS), Operating System (OS), System Parameters (SP), Application Software (AS), and Communications Software (CS) in the spaces provided in the Modified Software Configuration table below, and attach completed form to the appropriate manufacturing traveller.

Support File Configuration				
Item	Part #	Release	File Name	File CRC-32
Boot Loader	48550	-501x02	b148550.sre	0x2B86E738
EEC Monitor Symbol Table	48481	-709x10	PW610.USI	0x4BF0854A

Modified Software Configuration					
Item	Part #	Release	File Name	Flash CRC-32	Flash CRC-32 Verified
BS	53558	-001x00	bs53558.sre	0xF4E3250C	
OS	48552	-001x00	os48552.sre	0x6E54B4E0	
SP	48558	-001x00	sp48558.sre	0x39B011CB	
AS	48556	-001x02	as48556.sre	0xCE1BDAEC	
CS	48562	-001x00	cs48562.sre	0xD3EFED24	

Previous Strike Plate #

- Upon completion of the software upload, for final assembly 48180 or end unit 48000, score the strike plate to reflect the number indicated on this Software Modification Sheet.
- If software modification is performed in the field return original copy of this sheet to the Attention of the Q.A. Department of Hispano-Suiza Canada, 2000 Fisher Drive, P.O. Box 4525, Peterborough, Ontario, Canada K9J 7B1.

APPROVALS		DATE	APPROVALS		DATE
Revision By:	I. NOZEMTSEV	2007-01-26	Mnfg. Mgr.:	B. BLOOMER	07/1/25
CADM:	E. MCPHERSON	2007/01/26	QA Mgr.:	V. LANG	07/01/26
V&V:	Y. HUYNH	2007-01-26	Eng. Mgr.:	A. DAHER/ENG	07/01/26
Proj. Eng.:	P. QUAD R. ENR	2007/01/26			

Hispano-Suiza Canada, Inc.



ALERT

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7. Notifying Eclipse Aviation

On completing this service bulletin, the operator/maintainer shall complete the attached *Compliance Record* and send it to Eclipse Aviation via regular mail, fax, or e-mail.

Mailing Address: Eclipse Aviation Corporation
ATTN: Customer Care
2503 Clark Carr Loop SE
Albuquerque, NM 87106

Fax: 1-505-241-8802

E-mail: customercare@EclipseAviation.com

