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MANDATORY MANDATORY MANDATORY

ATA SYSTEM: 22

TITLE: AUTO FLIGHT - AUTO FLIGHT - FCU - DEFINE AND INSTALL HARDWARE FCU STD H6.0 WITH ENHANCED ENCODER MANUFACTURING PROCESS

MODIFICATION No.:

116233L48546

CONF 002

107456L42463

ATA SYSTEM: 22

TITLE: AUTO FLIGHT - AUTO FLIGHT - FCU - DEFINE AND INSTALL HARDWARE FCU STD H6.0 WITH ENHANCED ENCODER MANUFACTURING PROCESS

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REVISION TRANSMITTAL SHEET

This page transmits Revision No. 01 of Service Bulletin No. A350-22-P016.

A. ADDITIONAL WORK

No physical additional work is required by this revision for aircraft modified by the original issue of this Service Bulletin.

Additional work consists in updating the operational documentation and is required by this revision for aircraft concerned by CONF 002 which have accomplished this Service Bulletin at original issue.

Unless otherwise stated by an Airworthiness Directive, AIRBUS recommends the additional work to be accomplished within one year after the Rev. 01 of this Service Bulletin.

B. REASON

Revision No. 01 issued to create a new configuration 002 to add MOD No. 107456L42463 for aircraft fitted with FCU standard H4.

C. CHANGES

CONF 001

SUMMARY	
REASON	Objective/Action paragraph updated to integrate FCU standard H4.
MATERIAL PRICE INFORMATION	
Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU	Procurement address updated.
PLANNING INFORMATION	
APPLICABILITY	Applicability updated.
Configuration definition	CONF 001 updated to move aircraft MSN 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0014 and 0015 fitted with FCU standard H4 into CONF 002.
REASON	Objective/Action paragraph updated to integrate FCU standard H4.
INDUSTRY SUPPORT INFORMATION	Sentences updated.
MATERIAL INFORMATION	
LIST OF EXISTING PARTS	Note related to parts re-identified added. Note related to interchangeability added.
ACCOMPLISHMENT INSTRUCTIONS	
Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB	
PROCEDURE	
A350-A-22-XX-P016-02001-720A-A Installation	MP task related to standard practice added.

of the Reidentified Flight Control Unit	
PREPARATION FOR TEST	Uppercase removed.
CLOSE-UP	Uppercase removed.
Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU	
PREPARATION	
A350-A-22-XX-P016-02001-540A-A Job Set-up	Uppercase removed.
PROCEDURE	
A350-A-22-XX-P016-01001-720A-A Installation of the Post-Mod Flight Control Unit	SD task related to identification of zones added.
CLOSE-UP	Uppercase removed.

CONF 002

SUMMARY	
MODIFICATIONS	MOD No. 107456L42463 added.
PLANNING INFORMATION	
APPLICABILITY	Applicability updated.
Configuration definition	CONF 002 created for aircraft MSN 0006, 0007, 0008, 0009, 0010, 0011, 0012, 0013, 0014 and 0015 fitted with FCU standard H4.
INDUSTRY SUPPORT INFORMATION	Sentences updated.
ACCOMPLISHMENT INSTRUCTIONS	
Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB	CONF 002 created.
Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU	CONF 002 created.
Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin	Task for additional work added for CONF 002.

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D. FILING INSTRUCTIONS

This Service Bulletin has been generated electronically and is reissued as a complete document. Replace the complete document.

Put this Revision Transmittal Sheet in front of the Service Bulletin.

E. HISTORY OF PREVIOUS REVISIONS

No previous revision

F. REVISION SEQUENCE

ORIGINAL: Jun 24/21

REVISION No. : 01 - Oct 12/21

ATA SYSTEM: 22

TITLE: AUTO FLIGHT - AUTO FLIGHT - FCU - DEFINE AND INSTALL HARDWARE FCU STD H6.0 WITH ENHANCED ENCODER MANUFACTURING PROCESS

SUMMARY

This summary is for information only and is not approved for modification of the aircraft.

A. MODIFICATIONS

CONF 001

MODIFICATION CLASSIFICATION	
MAJOR	116233L48546
MINOR	None

NOTE: As per EASA IR 21, a minor change is one that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics affecting the airworthiness of the product. All other changes are major changes.

CONF 002

MODIFICATION CLASSIFICATION	
MAJOR	116233L48546
MINOR	107456L42463

NOTE: As per EASA IR 21, a minor change is one that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics affecting the airworthiness of the product. All other changes are major changes.

NOTE: This modification is related to an airworthiness issue and has been re-classified and confirmed by EASA as minor in accordance with EU Part 21.A.91. As such, this is handled by Airbus under the Design Organisation Approval ref. EASA.21J.031.

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B. REASON

(1) History

The aim of this new Flight Control Unit (FCU) standard H6.0 is to prevent any encoder uncommanded turn on A350 model aircraft.

(2) Objective/Action

This Service Bulletin is published to advise A350 aircraft operators of the issue of THALES AVIONICS S.A. Service Bulletin No. C31006A-22-005.

This Service Bulletin requires the installation of a new FCU standard H6.0 with enhanced encoder manufacturing process in place of FCU standard H4 installed by MOD No. 100077L42177 or standard H5.0 installed by MOD No. 107456L42463 to solve defective DC/DC converter.

(3) Advantages

The new FCU standard H6.0 will benefit from the modification of the encoder production and control process in order to correct the ALT encoder unstable position that lead to uncommanded ALT change.

(4) Operational/Maintenance Consequences

This Service Bulletin cancels red Operations Engineering Bulletin No. 8 (AFS CP ALTITUDE KNOB USE).

The Operational/Maintenance Consequences of this Service Bulletin are covered by the update of the affected publications detailed in "PLANNING INFORMATION".

This Service Bulletin has an impact on flight operations documentation; consult AirbusWorld and refer to MOI 116233L48546 described in Technical Follow-up (TFU) 22.81.00011.

C. GENERAL EVALUATION

EVALUATION TABLE			
COMPLIANCE	MANDATORY	COST SAVING	NO
A/C OPERATION AFFECTED	YES	VENDOR SB	YES
CANCELS INSPECTION SB	NO	ETOPS AFFECTED	NO
PAX COMFORT AFFECTED	NO	POTENTIAL AD	YES
RELIABILITY AFFECTED	NO	STRUCTURAL LIFE EXTENSION	NO
LIFE LIMIT	NO	LINE MAINTENANCE AFFECTED	NO

NOTE: Service Bulletin must be accomplished.

D. MAINTENANCE CONFIGURATION

CONF 001

No specific aircraft maintenance configuration required.

CONF 002

No specific aircraft maintenance configuration required.

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E. MATERIAL PRICE INFORMATION

CONF 001

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

No material

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MATERIAL PRICE INFORMATION TABLE			
MATERIAL SET	QTY PER A/C	PRICE PER A/C	MAIN PARTS
Equipment	See SB	See Note	FCU

NOTE: Price information to be obtained from the given supplier.

CONF 002

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

No material

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MATERIAL PRICE INFORMATION TABLE			
MATERIAL SET	**QTY PER A/C**	**PRICE PER A/C**	**MAIN PARTS**
Equipment	See SB	See Note	FCU

NOTE: Price information to be obtained from the given supplier.

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

No material

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F. APPLICABILITY

This Service Bulletin is applicable to this (these) operator(s):

36V 67J 82W 96U A1L AAR AFL AFR AZU BAW CAL CCA CES CHH CPA CRK CSC CSN DAL DLH ETD ETH EVE F2I FBU FIN FJI FWI GAF HVN IBE JAL KAY LHT MAS MAU PAL QTR SAS SIA TAM THA THY VIR WFL

G. CONCURRENT REQUIREMENTS

None

H. NATURE OF THE WORK

CONF 001

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

AIRCRAFT	NO
EQUIPMENT	YES

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

AIRCRAFT	NO
EQUIPMENT	YES

CONF 002

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

AIRCRAFT	NO
EQUIPMENT	YES

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

AIRCRAFT	NO
EQUIPMENT	YES

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

AIRCRAFT	NO
EQUIPMENT	NO

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I. MANPOWER

CONF 001

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

MANPOWER		
TOTAL MAN-HOURS		4.50 h
ELAPSED TIME (HOURS)		4.50 h
Additional man-hours related to Vendor SB; refer to:		
Replace the Optical Encoders	Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005	BENCH

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MANPOWER	
TOTAL MAN-HOURS	4.50 h
ELAPSED TIME (HOURS)	4.50 h

CONF 002

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

MANPOWER	
TOTAL MAN-HOURS	4.50 h
ELAPSED TIME (HOURS)	4.50 h
Additional man-hours related to Vendor SB; refer to:	
Replace the Optical Encoders	Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MANPOWER	
TOTAL MAN-HOURS	4.50 h
ELAPSED TIME (HOURS)	4.50 h

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

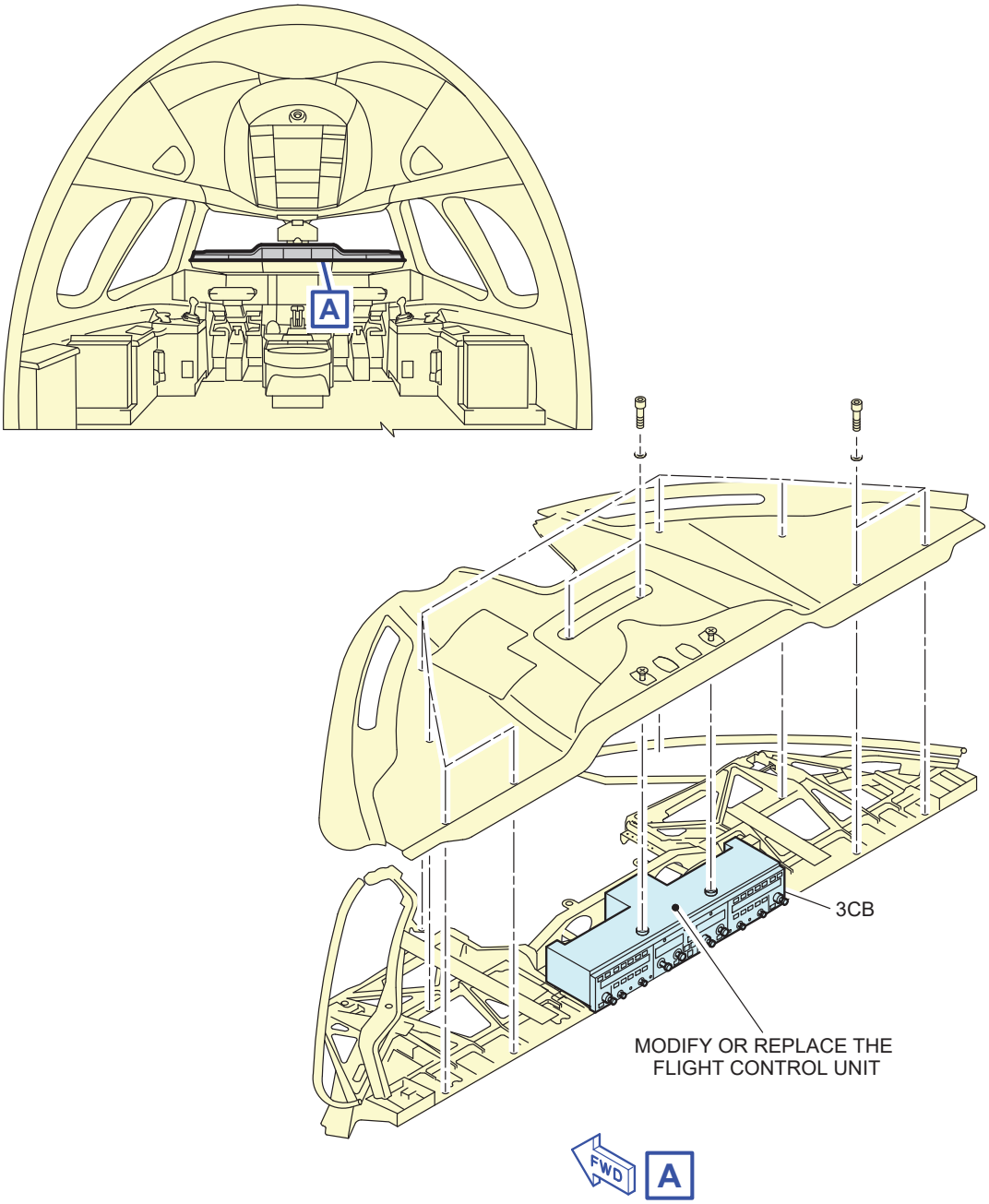
(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

MANPOWER	
TOTAL MAN-HOURS	0.25 h
ELAPSED TIME (HOURS)	0.25 h

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J. GENERAL OVERVIEW

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ICN-A350-A-22XXP016-A-FAPE3-05VD0-A-001-01

Figure ICN-A350-A-22XXP016-A-FAPE3-05VD0-A-001-01 Fig.SA Sol.AA SHEET 1/1

ATA SYSTEM: 22

TITLE: AUTO FLIGHT - AUTO FLIGHT - FCU - DEFINE AND INSTALL HARDWARE FCU STD H6.0 WITH ENHANCED ENCODER MANUFACTURING PROCESS

1. PLANNING INFORMATION

A. APPLICABILITY

(1) Models

ON A/C 0065, 0071, 0088, 0102, 0110, 0118, 0125, 0141, 0161, 0169, 0188, 0206, 0215, 0225, 0229, 0233, 0241, 0252, 0258, 0262, 0266, 0274, 0286, 0290, 0296, 0298, 0306, 0315, 0319, 0326, 0330, 0332, 0336, 0340, 0342, 0346, 0350, 0356, 0362, 0368, 0372, 0374, 0380, 0382, 0386, 0388, 0399, 0402, 0415, 0420, 0426, 0432, 0434, 0446, 0482

350-1041

ON A/C 0005-0058, 0060-0064, 0066-0070, 0072-0087, 0089-0101, 0103-0107, 0109, 0111-0117, 0119-0124, 0126-0130, 0132-0138, 0140, 0142-0151, 0153-0155, 0157-0160, 0162-0165, 0167, 0168, 0170, 0172-0187, 0189-0193, 0195-0205, 0207-0214, 0216-0221, 0223, 0224, 0226-0228, 0230-0232, 0234-0240, 0243-0251, 0254-0257, 0259-0261, 0263-0265, 0267-0269, 0271-0273, 0276-0282, 0284, 0285, 0287, 0289, 0291-0295, 0297, 0299-0303, 0305, 0307-0314, 0316, 0318, 0320-0325, 0327-0329, 0331, 0333-0335, 0337-0339, 0341, 0343-0345, 0347-0349, 0351, 0352, 0354, 0355, 0357-0359, 0363-0366, 0369-0371, 0373, 0375, 0376, 0378, 0379, 0381, 0383, 0385, 0387, 0389-0392, 0394-0398, 0400, 0401, 0403-0408, 0410-0414, 0416-0419, 0421-0423, 0425, 0427, 0428, 0431, 0433, 0435, 0436, 0439, 0442, 0443, 0445, 0447, 0448, 0451, 0452, 0454, 0455, 0458, 0464, 0465, 0468, 0469, 0472, 0474-0476, 0479, 0481, 0484, 0488, 0491, 0497, 0499

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(2) Applicability by MSN

0005-0058 0060-0107 0109-0130 0132-0138 0140-0151 0153-0155 0157-0165 0167-0170 0172-0193 0195-0221 0223-0241 0243-0252 0254-0269 0271-0274 0276-0282 0284-0287 0289-0303 0305-0316 0318-0352 0354-0359 0362-0366 0368-0376 0378-0383 0385-0392 0394-0408 0410-0423 0425-0428 0431-0436 0439 0442 0443 0445-0448 0451 0452 0454 0455 0458 0464 0465 0468 0469 0472 0474-0476 0479 0481 0482 0484 0488 0491 0497 0499

(3) MSN by configuration

CONF 001

MSN	CONFIGURATION
0005 0016 0017 0018 0019 0020 0021 0022 0023 0024 0025 0026 0027 0028 0029 0030 0031 0032 0033 0034 0035 0036 0037 0038 0039 0040 0041 0042 0043 0044 0045 0046 0047 0048 0049 0050 0051 0052 0053 0054 0055 0056 0057 0058 0060 0061 0062 0063 0064 0065 0066 0067 0068 0069 0070 0071 0072 0073 0074 0075 0076 0077 0078 0079 0080 0081 0082 0083 0084 0085 0086 0087 0088 0089 0090 0091 0092 0093 0094 0095 0096 0097 0098 0099 0100 0101 0102 0103 0104 0105 0106 0107 0109 0110 0111 0112 0113 0114 0115 0116 0117 0118 0119 0120 0121 0122 0123 0124 0125 0126 0127 0128 0129 0130 0132 0133 0134 0135 0136 0137 0138 0140 0141 0142 0143 0144 0145 0146 0147 0148 0149 0150 0151 0153 0154 0155 0157 0158 0159 0160 0161 0162 0163 0164 0165 0167 0168 0169 0170 0172 0173 0174 0175 0176	001

MSN	CONFIGURATION
0177 0178 0179 0180 0181 0182 0183 0184 0185 0186 0187 0188 0189 0190 0191 0192 0193 0195 0196 0197 0198 0199 0200 0201 0202 0203 0204 0205 0206 0207 0208 0209 0210 0211 0212 0213 0214 0215 0216 0217 0218 0219 0220 0221 0223 0224 0225 0226 0227 0228 0229 0230 0231 0232 0233 0234 0235 0236 0237 0238 0239 0240 0241 0243 0244 0245 0246 0247 0248 0249 0250 0251 0252 0254 0255 0256 0257 0258 0259 0260 0261 0262 0263 0264 0265 0266 0267 0268 0269 0271 0272 0273 0274 0276 0277 0278 0279 0280 0281 0282 0284 0285 0286 0287 0289 0290 0291 0292 0293 0294 0295 0296 0297 0298 0299 0300 0301 0302 0303 0305 0306 0307 0308 0309 0310 0311 0312 0313 0314 0315 0316 0318 0319 0320 0321 0322 0323 0324 0325 0326 0327 0328 0329 0330 0331 0332 0333 0334 0335 0336 0337 0338 0339 0340 0341 0342 0343 0344 0345 0346 0347 0348 0349 0350 0351 0352 0354 0355 0356 0357 0358 0359 0362 0363 0364 0365 0366 0368 0369 0370 0371 0372 0373 0374 0375 0376 0378 0379 0380 0381 0382 0383 0385 0386 0387 0388 0389 0390 0391 0392 0394 0395 0396 0397 0398 0399 0400 0401 0402 0403 0404 0405 0406 0407 0408 0410 0411 0412 0413 0414 0415 0416 0417 0418 0419 0420 0421 0422 0423 0425 0426 0427 0428 0431 0432 0433 0434 0435 0436 0439 0442 0443 0445 0446 0447 0448 0451 0452 0454 0455 0458 0464 0465 0468 0469 0472 0474 0475 0476 0479 0481 0482 0484 0488 0491 0497 0499	

CONF 002

MSN	CONFIGURATION
0006 0007 0008 0009 0010 0011 0012 0013 0014 0015	002

CONF ALL

(4) Configuration definition

CONF 001

Configuration 001

CONF 001 is applicable for aircraft on which FCU standard H5.0 is installed (MOD No. 107456L42463 is embodied).

CONF 001 retrofits following modifications: 116233L48546.

CONF 002

Configuration 002

CONF 002 is applicable for aircraft on which FCU standard H4 is installed (MOD No. 107456L42463 is not embodied).

CONF 002 retrofits following modifications: 107456L42463, 116233L48546.

CONF ALL

B. CONCURRENT REQUIREMENTS

None

C. REASON

(1) History

The aim of this new Flight Control Unit (FCU) standard H6.0 is to prevent any encoder uncommanded turn on A350 model aircraft.

(2) Objective/Action

This Service Bulletin is published to advise A350 aircraft operators of the issue of THALES AVIONICS S.A. Service Bulletin No. C31006A-22-005.

This Service Bulletin requires the installation of a new FCU standard H6.0 with enhanced encoder manufacturing process in place of FCU standard H4 installed by MOD No. 100077L42177 or standard H5.0 installed by MOD No. 107456L42463 to solve defective DC/DC converter.

(3) Advantages

The new FCU standard H6.0 will benefit from the modification of the encoder production and control process in order to correct the ALT encoder unstable position that lead to uncommanded ALT change.

(4) Operational/Maintenance Consequences

This Service Bulletin cancels red Operations Engineering Bulletin No. 8 (AFS CP ALTITUDE KNOB USE).

The Operational/Maintenance Consequences of this Service Bulletin are covered by the update of the affected publications detailed in "PLANNING INFORMATION".

This Service Bulletin has an impact on flight operations documentation; consult AirbusWorld and refer to MOI 116233L48546 described in Technical Follow-up (TFU) 22.81.00011.

D. DESCRIPTION

NOTE: To accomplish this Service Bulletin, you have two options.

To accomplish this Service Bulletin it is necessary to:

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

1 Removal of the Flight Control Unit

CONF 001

2 Replace the Optical Encoders

CONF 002

2 Replace the Optical Encoders

CONF ALL

3 Installation of the Reidentified Flight Control Unit

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

CONF 001

1 Removal of the Pre-Mod Flight Control Unit

CONF 002

1 Removal of the Pre-Mod Flight Control Unit

CONF 001

2 Installation of the Post-Mod Flight Control Unit

CONF 002

2 Installation of the Post-Mod Flight Control Unit

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

1 Update the Operational Documentation

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E. COMPLIANCE

(1) Classification

MANDATORY: Service Bulletin must be accomplished.

(2) Accomplishment Timescale

This Service Bulletin has been classified Mandatory. It is expected that an Airworthiness Directive (AD) published by the European Union Aviation Safety Agency (EASA) will be issued to confirm this classification. The accomplishment timescale, which has not yet been defined, will be given in the AD.

F. APPROVAL

The technical content of this document is approved under the authority of the Design Organisation Approval ref. EASA.21J.031.

If an aircraft listed in the applicability has a modification or repair embodied that is not of AIRBUS origin, and which affects the content of this Service Bulletin, the operator is responsible for obtaining approval by its airworthiness authority for any adaptation necessary before incorporation of the Service Bulletin.

G. MANPOWER

CONF 001

The manpower estimates given in this Service Bulletin are based on the direct labor cost to do the work. These estimates assume that the work will be done by experienced personnel, and may need to be revised upwards to suit operator’s circumstances. The estimates do not include the time to prepare, plan or inspect the work. Manufacture and procurement of parts and tools, drying times for paints, sealants, etc., and general administration work are also not included.

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

PREPARATION		
Job Set-up	0.50 h	
PROCEDURE		
Removal of the Flight Control Unit	1.00 h	
Installation of the Reidentified Flight Control Unit	1.50 h	
PREPARATION FOR TEST		
None		
TEST		
Test the Flight Control Unit	1.00 h	
CLOSE-UP		
Close-up	0.50 h	
TOTAL MAN-HOURS	4.50 h	
ELAPSED TIME (HOURS)	4.50 h	

Additional man-hours related to Vendor SB; refer to:		
Replace the Optical Encoders	Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005	BENCH

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

PREPARATION		
Job Set-up	0.50 h	
PROCEDURE		
Removal of the Pre-Mod Flight Control Unit	1.00 h	
Installation of the Post-Mod Flight Control Unit	1.50 h	
PREPARATION FOR TEST		
None		
TEST		
Test the Flight Control Unit	1.00 h	
CLOSE-UP		
Close-up	0.50 h	
TOTAL MAN-HOURS	4.50 h	
ELAPSED TIME (HOURS)	4.50 h	

CONF 002

The manpower estimates given in this Service Bulletin are based on the direct labor cost to do the work. These estimates assume that the work will be done by experienced personnel, and may need to be revised upwards to suit operator’s circumstances. The estimates do not include the time to prepare, plan or inspect the work. Manufacture and procurement of parts and tools, drying times for paints, sealants, etc., and general administration work are also not included.

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

PREPARATION		
Job Set-up	0.50 h	
PROCEDURE		
Removal of the Flight Control Unit	1.00 h	
Installation of the Reidentified Flight Control Unit	1.50 h	
PREPARATION FOR TEST		
None		
TEST		
Test the Flight Control Unit	1.00 h	
CLOSE-UP		
Close-up	0.50 h	
TOTAL MAN-HOURS	4.50 h	
ELAPSED TIME (HOURS)	4.50 h	
Additional man-hours related to Vendor SB; refer to:		
Replace the Optical Encoders	Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005	

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

PREPARATION		
Job Set-up	0.50 h	
PROCEDURE		
Removal of the Pre-Mod Flight Control Unit	1.00 h	
Installation of the Post-Mod Flight Control Unit	1.50 h	
PREPARATION FOR TEST		
None		
TEST		
Test the Flight Control Unit	1.00 h	
CLOSE-UP		
Close-up	0.50 h	
TOTAL MAN-HOURS	4.50 h	
ELAPSED TIME (HOURS)	4.50 h	

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

PREPARATION		
None		
PROCEDURE		
Update the Operational Documentation	0.25 h	
PREPARATION FOR TEST		
None		
TEST		
None		
CLOSE-UP		
None		
TOTAL MAN-HOURS	0.25 h	
ELAPSED TIME (HOURS)	0.25 h	

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H. WEIGHT AND BALANCE

Not changed

I. ELECTRICAL LOAD DATA

Not changed

J. REFERENCES

CONF 001

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

ELECTRICAL STANDARD PRACTICES (ESP)	
A350-A-20-55-XX-01ZZZ-042Z-A	

INTRODUCTION (INTRO)	
A350-A-00-61-04-11ZZZ-018Z-D	

MAINTENANCE PROCEDURE (MP)	
A350-A-22-81-12-00ZZZ-520Z-A A350-A-22-81-12-00ZZZ-720Z-A	A350-A-24-41-XX-00ZZZ-170Z-A

OPERATION ENGINEERING BULLETIN (OEB)	
8	

SYSTEM DESCRIPTION (SD)	
A350-A-06-3X-XX-01ZZZ-04CZ-A	

TECHNICAL FOLLOW UP (TFU)	
22.81.00011	

VENDOR SERVICE BULLETIN (VSB)	
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005	

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

ELECTRICAL STANDARD PRACTICES (ESP)	
A350-A-20-55-XX-01ZZZ-042Z-A	

INTRODUCTION (INTRO)	
A350-A-00-61-04-11ZZZ-018Z-D	

MAINTENANCE PROCEDURE (MP)	
A350-A-22-81-12-00ZZZ-520Z-A A350-A-22-81-12-00ZZZ-720Z-A	A350-A-24-41-XX-00ZZZ-170Z-A

OPERATION ENGINEERING BULLETIN (OEB)	
8	

SYSTEM DESCRIPTION (SD)	
A350-A-06-3X-XX-01ZZZ-04CZ-A	

TECHNICAL FOLLOW UP (TFU)	
22.81.00011	

VENDOR SERVICE BULLETIN (VSB)	
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005	

CONF 002

(1) Modification of the FCU

(a) Task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

ELECTRICAL STANDARD PRACTICES (ESP)
A350-A-20-55-XX-01ZZZ-042Z-A

INTRODUCTION (INTRO)
A350-A-00-61-04-11ZZZ-018Z-D

MAINTENANCE PROCEDURE (MP)	
A350-A-22-81-12-00ZZZ-520Z-A	A350-A-24-41-XX-00ZZZ-170Z-A
A350-A-22-81-12-00ZZZ-720Z-A	

OPERATION ENGINEERING BULLETIN (OEB)
8

SYSTEM DESCRIPTION (SD)
A350-A-06-3X-XX-01ZZZ-04CZ-A

TECHNICAL FOLLOW UP (TFU)
22.81.00011

VENDOR SERVICE BULLETIN (VSB)
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

(b) Task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

ELECTRICAL STANDARD PRACTICES (ESP)
A350-A-20-55-XX-01ZZZ-042Z-A

INTRODUCTION (INTRO)
A350-A-00-61-04-11ZZZ-018Z-D

MAINTENANCE PROCEDURE (MP)	
A350-A-22-81-12-00ZZZ-520Z-A	A350-A-24-41-XX-00ZZZ-170Z-A
A350-A-22-81-12-00ZZZ-720Z-A	

OPERATION ENGINEERING BULLETIN (OEB)
8

SYSTEM DESCRIPTION (SD)
A350-A-06-3X-XX-01ZZZ-04CZ-A

TECHNICAL FOLLOW UP (TFU)
22.81.00011

VENDOR SERVICE BULLETIN (VSB)
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

(2) Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

(a) Task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

ELECTRICAL STANDARD PRACTICES (ESP)
A350-A-20-55-XX-01ZZZ-042Z-A

OPERATION ENGINEERING BULLETIN (OEB)
8

TECHNICAL FOLLOW UP (TFU)
22.81.00011

VENDOR SERVICE BULLETIN (VSB)
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

CONF ALL

K. PUBLICATION AFFECTED

AIRCRAFT FAULT ISOLATION (AFI)

FLIGHT CREW OPERATING MANUAL (FCOM)

FLIGHT MANUAL (FM)

MAINTENANCE ILLUSTRATED PART DATA (MIPD)

MODIFICATION OPERATIONAL IMPACT (MOI)

OPERATION ENGINEERING BULLETIN (OEB)

This Service Bulletin has an impact on flight operations documentation. Refer to ISI 00.00.00135 paragraph "Flight Operations Products" for further information on the update of affected Flight Operations Products.

Technical queries should be addressed through TechRequest on AirbusWorld using "Technical Data/Support to report Service Bulletins" form.

L. INDUSTRY SUPPORT INFORMATION

Industry support terms for the equipment must be negotiated with the equipment supplier.

Modification of removed equipment should be negotiated directly with the Vendor as per instructions given in Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.

Refer to Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005 for the industry support terms of the Vendor Service Bulletin parts and labor.

2. MATERIAL INFORMATION

A. MATERIAL APPLICABILITY

CONF 001

Material for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

MATERIAL	QTY	SEE NOTES
Referenced consumables	See SB	
Re-identified parts	See SB	
Interchangeable parts	See SB	

Material for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MATERIAL	QTY	SEE NOTES
Referenced consumables	See SB	
Equipment	See SB	
Interchangeable parts	See SB	

CONF 002

Material for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

MATERIAL	QTY	SEE NOTES
Referenced consumables	See SB	
Re-identified parts	See SB	
Interchangeable parts	See SB	

Material for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

MATERIAL	QTY	SEE NOTES
Referenced consumables	See SB	
Equipment	See SB	
Interchangeable parts	See SB	

No material for task set A350-A-22-XX-P016-01000-93EA-A Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

CONF ALL

B. TOOLING

No tools

C. CONSUMABLES

CONF 001

Referenced consumables for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

To accomplish this service bulletin it is necessary to use the consumable materials listed in the subsequent referenced task:

Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

Referenced consumables for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

To accomplish this service bulletin it is necessary to use the consumable materials listed in the subsequent referenced task:

Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

CONF 002

Referenced consumables for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

To accomplish this service bulletin it is necessary to use the consumable materials listed in the subsequent referenced task:

Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

Referenced consumables for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

To accomplish this service bulletin it is necessary to use the consumable materials listed in the subsequent referenced task:

Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

CONF ALL

D. LIST OF NEW PARTS

CONF 001

Equipment for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

Procurement address	F9111	THALES AVS FRANCE SAS 75 – 77 Avenue Marcel Dassault 33700 MERIGNAC France Phone: +33 5 24 44 77 40 Internet: www.thalesgroup.com
NOTE(S)		
Vendor parts are to be procured from the address given above.		

ITEM	PART No.	QTY (UM)	KEYWORD	DRAWING	SEE NOTES
	C31006AD01 (F9111)	1	FCU		(1) (2) (3)
NOTE(S)					
(1): Procurement terms for the equipment must be negotiated with the equipment supplier.					
(2): Refer to the Thales Service Bulletin No. Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005 for the equipment modification sales terms.					
(3): The components listed above are not an AIRBUS Kit, the required parts must be ordered as necessary through the given channel.					

CONF 002

Equipment for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

Procurement address	F9111	THALES AVS FRANCE SAS 75 – 77 Avenue Marcel Dassault 33700 MERIGNAC France Phone: +33 5 24 44 77 40 Internet: www.thalesgroup.com
NOTE(S)		

Vendor parts are to be procured from the address given above.

ITEM	PART No.	QTY (UM)	KEYWORD	DRAWING	SEE NOTES
	C31006AD01 (F9111)	1	FCU		(1) (2) (3)
NOTE(S)					
(1): Procurement terms for the equipment must be negotiated with the equipment supplier.					
(2): Refer to the Thales Service Bulletin No. Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005 for the equipment modification sales terms.					
(3): The components listed above are not an AIRBUS Kit, the required parts must be ordered as necessary through the given channel.					

CONF ALL

E. LIST OF EXISTING PARTS

CONF 001

Re-identified parts for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

ITEM	NEW PART No.	KEYWORD	ITEM	OLD PART No.	SEE NOTES
	C31006AD01	FCU		C31006AC01	(1)
NOTE(S)					
(1): Parts are re-identified in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.					

CONF 002

Re-identified parts for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

ITEM	NEW PART No.	KEYWORD	ITEM	OLD PART No.	SEE NOTES
	C31006AD01	FCU		C31006AB01	(1)
NOTE(S)					
(1): Parts are re-identified in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.					

CONF 001

Interchangeable parts for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

DESCRIPTION	OLD PART No.	NEW PART No.	INT	SEE NOTES
FCU-FLIGHT CONTROL UNIT	C31006AC01	C31006AD01	01	(1)
NOTE(S)				
For definitions of interchangeability codes in column INT. refer to ATA (CSDD Chapter 2).				
(1): The interchangeability possibilities are for new or modified parts introduced by the accomplishment of this Service Bulletin.				

Interchangeable parts for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

DESCRIPTION	OLD PART No.	NEW PART No.	INT	SEE NOTES
FCU-FLIGHT CONTROL UNIT	C31006AC01	C31006AD01	01	(1)
NOTE(S)				
For definitions of interchangeability codes in column INT. refer to ATA (CSDD Chapter 2).				
(1): The interchangeability possibilities are for new or modified parts introduced by the accomplishment of this Service Bulletin.				

CONF 002

Interchangeable parts for task set A350-A-22-XX-P016-01000-93AA-A Option 1: Modify the FCU by VSB

DESCRIPTION	OLD PART No.	NEW PART No.	INT	SEE NOTES
FCU-FLIGHT CONTROL UNIT	C31006AB01	C31006AD01	01	(1)
NOTE(S)				
For definitions of interchangeability codes in column INT. refer to ATA (CSDD Chapter 2).				
(1): The interchangeability possibilities are for new or modified parts introduced by the accomplishment of this Service Bulletin.				

Interchangeable parts for task set A350-A-22-XX-P016-01000-93AB-A Option 2: Replace the FCU

DESCRIPTION	OLD PART No.	NEW PART No.	INT	SEE NOTES
FCU-FLIGHT CONTROL UNIT	C31006AB01	C31006AD01	01	(1)
NOTE(S)				
For definitions of interchangeability codes in column INT. refer to ATA (CSDD Chapter 2).				
(1): The interchangeability possibilities are for new or modified parts introduced by the accomplishment of this Service Bulletin.				

CONF ALL

3. ACCOMPLISHMENT INSTRUCTIONS

Task set A350-A-22-XX-P016-01000-93AA-A (A350-A-22-XX-P016-01ZZZ-93AZ-A)

Option 1: Modify the FCU by VSB

WARNING: MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

CAUTION: ALWAYS OBEY THE PRECAUTIONS THAT FOLLOW TO KEEP ELECTRICAL WIRING IN A SATISFACTORY CONDITION (ELECTRICALLY AND MECHANICALLY SERVICEABLE). WHEN YOU DO A MAINTENANCE WORK, REPAIRS OR MODIFICATIONS, ALWAYS KEEP ELECTRICAL WIRING, COMPONENTS AND THE WORK AREA AS CLEAN AS POSSIBLE. TO DO THIS:

- **PUT PROTECTION, SUCH AS PLASTIC SHEETING, CLOTHS, ETC., AS NECESSARY ON WIRING AND COMPONENTS.**
- **REGULARLY REMOVE ALL SHAVINGS, UNWANTED MATERIAL AND OTHER CONTAMINATION.**

THESE PRECAUTIONS WILL DECREASE THE RISK OF CONTAMINATION AND DAMAGE TO THE ELECTRICAL WIRING INSTALLATION.
IF THERE IS CONTAMINATION, REFER TO Ref. ESP A350-A-20-55-XX-01ZZZ-042Z-A.

NOTE: The accomplishment instructions of this Service Bulletin include procedures given in other documents or in other sections of the Service Bulletin. When the words “refer to” are used and the operator has a procedure accepted by the local authority he belongs to, the accepted alternative procedure can be used. When the words “in accordance with” are used then the given procedure must be followed.

NOTE: The access and close-up instructions, not comprising return to service tests, in this Service Bulletin do not constitute or affect the technical intent of the Service Bulletin. Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the Service Bulletin is met within the set parameters.

NOTE: Manual titles given in the accomplishment instructions are referred to by acronyms. Refer to paragraph 1.J., References, for the definition of acronyms.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an Airworthiness Directive (AD). The paragraphs 3.C. and 3.E. in these accomplishment instructions are Required for Compliance (RC) and must be done to comply with the AD. To allow more flexibility, the rule "refer to" and "in accordance with" will apply to these paragraphs 3.C. and 3.E. Other paragraphs are recommended and may be deviated from, done as part of other actions or done with accepted methods different from those given in the Service Bulletin, as long as the RC paragraphs can be done and the aircraft can be put back into a serviceable condition.

NOTE: This Service Bulletin contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.
For any deviations to the instructions, including Required for Compliance paragraph contained herein, contact AIRBUS for further instructions and approval.

NOTE: Discarded parts must be managed at the operator's discretion.

A. TASK SET ASSOCIATED INFORMATION

Task Manpower

CONF 001

TOTAL MAN-HOURS	4.50 h

CONF 002

TOTAL MAN-HOURS 4.50 h

CONF 001

ELAPSED TIME (HOURS) 4.50 h

CONF 002

ELAPSED TIME (HOURS) 4.50 h

CONF 001

Additional man-hours related to Vendor SB; refer to:
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

CONF 002

Additional man-hours related to Vendor SB; refer to:
THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

CONF ALL

B. PREPARATION

(1) Task A350-A-22-XX-P016-01001-540A-A (A350-A-22-XX-P016-01ZZZ-540Z-A)
Job Set-up

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	0.50 h
Minimum Number of person	1
Elapsed Time	0.50 h

Referenced Information

Manuals/Drawings	References/Sheets
INTRO	A350-A-00-61-04-11ZZZ-018Z-D
MP	A350-A-22-81-12-00ZZZ-520Z-A A350-A-24-41-XX-00ZZZ-170Z-A

Procedure

NOTE: For the basic Aircraft configuration, refer to Ref. INTRO A350-A-00-61-04-11ZZZ-018Z-D “Maintenance Procedure - Introduction”.

(a) Make sure that the aircraft is electrically grounded, refer to Ref. MP A350-A-24-41-XX-00ZZZ-170Z-A.

(b) Do the job set-up procedure as specified in the removal of the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-520Z-A.

C. PROCEDURE

(1) Task A350-A-22-XX-P016-01001-520A-A (A350-A-22-XX-P016-01ZZZ-520Z-A)
Removal of the Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.00 h
Minimum Number of person	1
Elapsed Time	1.00 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-520Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

2 Tag all the parts you must remove and retain to make the subsequent installation easier.

(b) Remove the flight control unit (FIN 3CB) from the cockpit, refer to Ref. MP A350-A-22-81-12-00ZZZ-520Z-A.

FIN 3CB		
1	FCU-FLIGHT CONTROL UNIT	Retain

NOTE: Retained for modification.

CONF 001

(2) Task A350-A-22-XX-P016-02001-920A-C (A350-A-22-XX-P016-02ZZZ-920Z-C) Replace the Optical Encoders

Job Set-Up Information

Manpower/Resources/Skills

Man-hours	
Minimum Number of person	
Elapsed Time	
Skills	Avionics (Instrument)

Material necessary to do the job

Re-identified Part Set					
ITEM	**NEW PART No.**	**KEYWORD**	**ITEM**	**OLD PART No.**	**SEE NOTES**
	C31006AD01	FCU		C31006AC01	(1)
NOTE(S)					
(1): Parts are re-identified in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.					

Referenced Information

Manuals/Drawings	References/Sheets
VSB	THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

Procedure

(a) Modify the flight control unit (FIN 3CB) in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.

(b) After the modification:

FIN 3CB
1 FCU-FLIGHT CONTROL UNIT C31006AC01
Becomes:

FIN 3CB
1 FCU-FLIGHT CONTROL UNIT C31006AD01

CONF 002

(2) Task A350-A-22-XX-P016-02002-920A-A (A350-A-22-XX-P016-02ZZZ-920Z-A) Replace the Optical Encoders

Job Set-Up Information

Manpower/Resources/Skills

Man-hours	
Minimum Number of person	
Elapsed Time	
Skills	Avionics (Instrument)

Material necessary to do the job

Re-identified Part Set					
ITEM	**NEW PART No.**	**KEYWORD**	**ITEM**	**OLD PART No.**	**SEE NOTES**
	C31006AD01	FCU		C31006AB01	(1)
NOTE(S)					
(1): Parts are re-identified in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.					

Referenced Information

Manuals/Drawings	References/Sheets
VSB	THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

Procedure

(a) Modify the flight control unit (FIN 3CB) in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.

(b) After the modification:

FIN 3CB
1 FCU-FLIGHT CONTROL UNIT C31006AB01
Becomes:

FIN 3CB
1 FCU-FLIGHT CONTROL UNIT C31006AD01

CONF ALL

(3) Task A350-A-22-XX-P016-02001-720A-A (A350-A-22-XX-P016-02ZZZ-720Z-A) Installation of the Reidentified Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.50 h
Minimum Number of person	1
Elapsed Time	1.50 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Install the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-720Z-A.

D. PREPARATION FOR TEST

None

E. TEST

(1) Task A350-A-22-XX-P016-01001-300A-A (A350-A-22-XX-P016-01ZZZ-300Z-A) Test the Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.00 h
Minimum Number of person	1
Elapsed Time	1.00 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Manuals/Drawings	References/Sheets
VSB	THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Do the test procedures in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005.

NOTE: For the modified FCU, make sure these requirements are met in accordance with Ref. THALES AVS FRANCE SAS (F9111) VSB C31006A-22-005:
- Front Face Assembly is reidentified
- RFID FCU is correctly programmed
- FCU keying code does not change
- Part Number Label is replaced.

(c) This Service Bulletin requires the accomplishment of Tests given in other topics which are referenced in the table below:

Service Bulletin Subtask	Ref. Task A350-A-22-XX-P016-02ZZZ-720Z-A
Maintenance Procedure	Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

F. CLOSE-UP

(1) Task A350-A-22-XX-P016-01001-740A-A (A350-A-22-XX-P016-01ZZZ-740Z-A) Close-up

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	0.50 h
Minimum Number of person	1
Elapsed Time	0.50 h

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A

Procedure

(a) Make sure that the work areas are clean and clear of tools and other items of equipment.

(b) Do the close-up procedure as specified in the installation of the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-720Z-A.

(c) Put the aircraft back to its initial configuration.

G. ADMINISTRATIVE

(1) Task A350-A-22-XX-P016-01001-90AA-A (A350-A-22-XX-P016-01ZZZ-90AZ-A) Administrative

Procedure
Confirm in the applicable aircraft records that you have completed all the work defined in this Service Bulletin task set as required.

Task set A350-A-22-XX-P016-01000-93AB-A (A350-A-22-XX-P016-01ZZZ-93AZ-A)
Option 2: Replace the FCU

WARNING: MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

CAUTION: ALWAYS OBEY THE PRECAUTIONS THAT FOLLOW TO KEEP ELECTRICAL WIRING IN A SATISFACTORY CONDITION (ELECTRICALLY AND MECHANICALLY SERVICEABLE). WHEN YOU DO A MAINTENANCE WORK, REPAIRS OR MODIFICATIONS, ALWAYS KEEP ELECTRICAL WIRING, COMPONENTS AND THE WORK AREA AS CLEAN AS POSSIBLE. TO DO THIS:
- **PUT PROTECTION, SUCH AS PLASTIC SHEETING, CLOTHS, ETC., AS NECESSARY ON WIRING AND COMPONENTS.**
- **REGULARLY REMOVE ALL SHAVINGS, UNWANTED MATERIAL AND OTHER CONTAMINATION.**

THESE PRECAUTIONS WILL DECREASE THE RISK OF CONTAMINATION AND DAMAGE TO THE ELECTRICAL WIRING INSTALLATION.
IF THERE IS CONTAMINATION, REFER TO Ref. ESP A350-A-20-55-XX-01ZZZ-042Z-A.

NOTE: The accomplishment instructions of this Service Bulletin include procedures given in other documents or in other sections of the Service Bulletin. When the words “refer to” are used and the operator has a procedure accepted by the local authority he belongs to, the accepted alternative procedure can be used. When the words “in accordance with” are used then the given procedure must be followed.

NOTE: The access and close-up instructions, not comprising return to service tests, in this Service Bulletin do not constitute or affect the technical intent of the Service Bulletin. Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the Service Bulletin is met within the set parameters.

NOTE: Manual titles given in the accomplishment instructions are referred to by acronyms. Refer to paragraph 1.J., References, for the definition of acronyms.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an Airworthiness Directive (AD). The paragraphs 3.C. and 3.E. in these accomplishment instructions are Required for Compliance (RC) and must be done to comply with the AD. To allow more flexibility, the rule "refer to" and "in accordance with" will apply to these paragraphs 3.C. and 3.E. Other paragraphs are recommended and may be deviated from, done as part of other actions or done with accepted methods different from those given in the Service Bulletin, as long as the RC paragraphs can be done and the aircraft can be put back into a serviceable condition.

NOTE: This Service Bulletin contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.
For any deviations to the instructions, including Required for Compliance paragraph contained herein, contact AIRBUS for further instructions and approval.

NOTE: Discarded parts must be managed at the operator's discretion.

A. TASK SET ASSOCIATED INFORMATION

Task Manpower

CONF 001		
	TOTAL MAN-HOURS	4.50 h
CONF 002		
	TOTAL MAN-HOURS	4.50 h

CONF 001

ELAPSED TIME (HOURS)	4.50 h

CONF 002

ELAPSED TIME (HOURS)	4.50 h

CONF ALL

B. PREPARATION

(1) Task A350-A-22-XX-P016-02001-540A-A (A350-A-22-XX-P016-02ZZZ-540Z-A)
Job Set-up

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	0.50 h
Minimum Number of person	1
Elapsed Time	0.50 h

Referenced Information

Manuals/Drawings	References/Sheets
INTRO	A350-A-00-61-04-11ZZZ-018Z-D
MP	A350-A-22-81-12-00ZZZ-520Z-A A350-A-24-41-XX-00ZZZ-170Z-A

Procedure

NOTE: For the basic Aircraft configuration, refer to Ref. INTRO A350-A-00-61-04-11ZZZ-018Z-D “Maintenance Procedure - Introduction”.

(a) Make sure that the aircraft is electrically grounded, refer to Ref. MP A350-A-24-41-XX-00ZZZ-170Z-A.

(b) Do the job set-up procedure as specified in the removal of the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-520Z-A.

C. PROCEDURE

CONF 001

(1) Task A350-A-22-XX-P016-02001-520A-A (A350-A-22-XX-P016-02ZZZ-520Z-A)
Removal of the Pre-Mod Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.00 h
Minimum Number of person	1
Elapsed Time	1.00 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-520Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Remove the flight control unit (FIN 3CB) from the cockpit, refer to Ref. MP A350-A-22-81-12-00ZZZ-520Z-A.

FIN 3CB

1	FCU-FLIGHT CONTROL UNIT	C31006AC01	Discard

CONF 002

(1) Task A350-A-22-XX-P016-02002-520A-A (A350-A-22-XX-P016-02ZZZ-520Z-A) Removal of the Pre-Mod Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.00 h
Minimum Number of person	1
Elapsed Time	1.00 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-520Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Remove the flight control unit (FIN 3CB) from the cockpit, refer to Ref. MP A350-A-22-81-12-00ZZZ-520Z-A.

FIN 3CB

1	FCU-FLIGHT CONTROL UNIT	C31006AB01	Discard

CONF 001

(2) Task A350-A-22-XX-P016-01001-720A-A (A350-A-22-XX-P016-01ZZZ-720Z-A) Installation of the Post-Mod Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.50 h
Minimum Number of person	1
Elapsed Time	1.50 h
Skills	Avionics (Instrument)

Material necessary to do the job

Equipment					
ITEM	**PART No.**	**QTY (UM)**	**KEYWORD**	**DRAWING**	**SEE NOTES**
	C31006AD01	1	FCU		(1)
NOTE(S)					
(1): The components listed above are not an AIRBUS Kit, the required parts must be ordered as necessary through the given channel.					

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Install the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-720Z-A.

FIN 3CB

1 FCU-FLIGHT CONTROL UNIT C31006AD01

CONF 002

(2) Task A350-A-22-XX-P016-01002-720A-A (A350-A-22-XX-P016-01ZZZ-720Z-A) Installation of the Post-Mod Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.50 h
Minimum Number of person	1
Elapsed Time	1.50 h
Skills	Avionics (Instrument)

Material necessary to do the job

Equipment					
ITEM	**PART No.**	**QTY (UM)**	**KEYWORD**	**DRAWING**	**SEE NOTES**
	C31006AD01	1	FCU		(1)
NOTE(S)					
(1): The components listed above are not an AIRBUS Kit, the required parts must be ordered as necessary through the given channel.					

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A
SD	A350-A-06-3X-XX-01ZZZ-04CZ-A

Procedure

(a) Standard Practice(s) given in this procedure:

1 For identification of zones, refer to Ref. SD A350-A-06-3X-XX-01ZZZ-04CZ-A.

(b) Install the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-720Z-A.

FIN 3CB

1 FCU-FLIGHT CONTROL UNIT C31006AD01

CONF ALL

D. PREPARATION FOR TEST

None

E. TEST

(1) Task A350-A-22-XX-P016-02001-300A-A (A350-A-22-XX-P016-02ZZZ-300Z-A)
Test the Flight Control Unit

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	1.00 h
Minimum Number of person	1
Elapsed Time	1.00 h
Skills	Avionics (Instrument)

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A

Procedure

(a) This Service Bulletin requires the accomplishment of Tests given in other topics which are referenced in the table below:

Service Bulletin Subtask	Ref. Task A350-A-22-XX-P016-01ZZZ-720Z-A
Maintenance Procedure	Ref. MP A350-A-22-81-12-00ZZZ-720Z-A

F. CLOSE-UP

(1) Task A350-A-22-XX-P016-02001-740A-A (A350-A-22-XX-P016-02ZZZ-740Z-A) Close-up

Job Set-Up Information

Working Area

Impacted Zone	Access / Work Location
210	

Manpower/Resources/Skills

Man-hours	0.50 h
Minimum Number of person	1
Elapsed Time	0.50 h

Referenced Information

Manuals/Drawings	References/Sheets
MP	A350-A-22-81-12-00ZZZ-720Z-A

Procedure

(a) Make sure that the work areas are clean and clear of tools and other items of equipment.

(b) Do the close-up procedure as specified in the installation of the flight control unit (FIN 3CB), refer to Ref. MP A350-A-22-81-12-00ZZZ-720Z-A.

(c) Put the aircraft back to its initial configuration.

G. ADMINISTRATIVE

(1) Task A350-A-22-XX-P016-02001-90AA-A (A350-A-22-XX-P016-02ZZZ-90AZ-A) Administrative

Procedure

Confirm in the applicable aircraft records that you have completed all the work defined in this Service Bulletin task set as required.

CONF 002

Task set A350-A-22-XX-P016-01000-93EA-A (A350-A-22-XX-P016-01ZZZ-93EZ-A)
Administrative - Additional Work for Aircraft modified by the Original Issue of this Service Bulletin

WARNING: MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

CAUTION: ALWAYS OBEY THE PRECAUTIONS THAT FOLLOW TO KEEP ELECTRICAL WIRING IN A SATISFACTORY CONDITION (ELECTRICALLY AND MECHANICALLY SERVICEABLE). WHEN YOU DO A MAINTENANCE WORK, REPAIRS OR MODIFICATIONS, ALWAYS KEEP ELECTRICAL WIRING, COMPONENTS AND THE WORK AREA AS CLEAN AS POSSIBLE. TO DO THIS:
- **PUT PROTECTION, SUCH AS PLASTIC SHEETING, CLOTHS, ETC., AS NECESSARY ON WIRING AND COMPONENTS.**
- **REGULARLY REMOVE ALL SHAVINGS, UNWANTED MATERIAL AND OTHER CONTAMINATION.**

THESE PRECAUTIONS WILL DECREASE THE RISK OF CONTAMINATION AND DAMAGE TO THE ELECTRICAL WIRING INSTALLATION.
IF THERE IS CONTAMINATION, REFER TO Ref. ESP A350-A-20-55-XX-01ZZZ-042Z-A.

NOTE: The accomplishment instructions of this Service Bulletin include procedures given in other documents or in other sections of the Service Bulletin. When the words “refer to” are used and the operator has a procedure accepted by the local authority he belongs to, the accepted alternative procedure can be used. When the words “in accordance with” are used then the given procedure must be followed.

NOTE: The access and close-up instructions, not comprising return to service tests, in this Service Bulletin do not constitute or affect the technical intent of the Service Bulletin. Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the Service Bulletin is met within the set parameters.

NOTE: Manual titles given in the accomplishment instructions are referred to by acronyms. Refer to paragraph 1.J., References, for the definition of acronyms.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an Airworthiness Directive (AD). The paragraphs 3.C. and 3.E. in these accomplishment instructions are Required for Compliance (RC) and must be done to comply with the AD. To allow more flexibility, the rule "refer to" and "in accordance with" will apply to these paragraphs 3.C. and 3.E. Other paragraphs are recommended and may be deviated from, done as part of other actions or done with accepted methods different from those given in the Service Bulletin, as long as the RC paragraphs can be done and the aircraft can be put back into a serviceable condition.

NOTE: This Service Bulletin contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.
For any deviations to the instructions, contact AIRBUS for further instructions and approval.

A. TASK SET ASSOCIATED INFORMATION

Task Manpower

TOTAL MAN-HOURS	0.25 h
ELAPSED TIME (HOURS)	0.25 h

B. PREPARATION

None

C. PROCEDURE

(1) Task A350-A-22-XX-P016-03002-90AA-A (A350-A-22-XX-P016-03ZZZ-90AZ-A) Update the Operational Documentation

Job Set-Up Information

Manpower/Resources/Skills

Man-hours	0.25 h
Minimum Number of person	1
Elapsed Time	0.25 h

Procedure

(a) No physical work on aircraft is required.

NOTE: Operational documentation will be updated after reporting of this Service Bulletin.

D. PREPARATION FOR TEST

None

E. TEST

None

F. CLOSE-UP

None

G. ADMINISTRATIVE

(1) Task A350-A-22-XX-P016-04002-90AA-A (A350-A-22-XX-P016-04ZZZ-90AZ-A) Administrative

Procedure

Confirm in the applicable aircraft records that you have completed all the work defined in this Service Bulletin task set as required.

CONF ALL
APPENDIX

A. REPORTING SHEET

TITLE:	AUTO FLIGHT - AUTO FLIGHT - FCU - DEFINE AND INSTALL HARDWARE FCU STD H6.0 WITH ENHANCED ENCODER MANUFACTURING PROCESS

MODIFICATION No.:	107456L42463 116233L48546

(1) SB Reporting status

This Service Bulletin will only be incorporated into affected customized Maintenance and Flight Operations Products if it is duly reported to Airbus.

(2) GENERAL information

The SB Reporting policy is published in ISI 00.00.00135. This document provides information regarding: the SB Reporting means and benefits, the update of customized Maintenance Products and customized Flight Operations Products.

If this Service Bulletin has an operational impact, refer to paragraph "Flight Operations Products" for further information on the update of affected Flight Operations Products.

(3) SB Reporting procedure

Standard practice to report SB is to use the online reporting application on AirbusWorld.

Refer to ISI 00.00.00179:

- For complete information on reporting means to Airbus, Question 2 "What are the standard practices for SB Reporting?"
- If this SB requires previous or simultaneous accomplishment of other SBs, Question 3 "What about the reporting of prerequisite Service Bulletins?"

NOTE: ISI 00.00.00179 covers all the frequently asked questions about SB Reporting. It is revised on a regular basis.

B. QUALITY PERCEPTION FORM

Use this form to tell us what is your perception of the quality of this Service Bulletin.

The reported data that you provide us will be used to analyse areas of difficulties and to take corrective action to further improve the quality of our Service Bulletin.

We thank you for the time you have taken in completing this form.

Quality rating of this SB	4	3	2	1
Quality rating of the Accomplishment Instructions	4	3	2	1
Quality rating of the Illustrations	4	3	2	1
Is this SB easy to understand ?	Y / N			

NOTE: Please rate on a scale of 1 to 4, with 4 being the highest score

If you have difficulties in the accomplishment of this SB please quote below the area(s) and give a short description of the issue.

	Planning		Material		Instructions
X	Applicability	X	Tooling	X	Preparation
X	Reason	X	List of Materials Operator Supplied	X	Mod/Inspection
X	Manpower	X	Kit content	X	Test
X	References	X	Re-identification	X	Close-up
X	Publication			X	Illustrations
X	Industry Support				

Comments :

Operator : Date :

Name/Title

Please return this form to :

AIRBUS
2, ROND POINT EMILE DEWOITINE
31700 BLAGNAC
FRANCE

Or via your Resident Customer Support Office.