

AIRBUS
CUSTOMER SERVICES DIRECTORATE
1 Rond Point Maurice Bellonte
31707 BLAGNAC CEDEX
FRANCE
Tel : (33) 5 61 93 33 33
Telex : AIRBU 530526F
Fax : (33) 5 61 93 42 51

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

MANDATORY MANDATORY MANDATORY

ATA SYSTEM: 27

**TITLE: FLIGHT CONTROLS - FLIGHT CONTROL DATA CONCENTRATOR
(FCDC) - INTRODUCE FCDC STD L26 M25 P16 ON BASIC A/C**

****CONF ALL**

MODIFICATIONS

MODIFICATION CLASSIFICATION					
MAJOR	204828S32944				
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.

REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES

This Service Bulletin consists in introducing new Flight Control Data Concentrator (FCDC) software Standard (STD) L26/M25/P16 which brings several improvements.

This Service Bulletin is published to enable operators of A340 with mechanical rudder control (MOD No. 49144S16279 not embodied) to apply the THALES AVIONICS Service Bulletin No. 87292337-27-035 which modifies the FCDCs.

In addition, considering pre-requisites of this Service Bulletin, its application entails:

- prior replacement of Flight Control Primary Computer (FCPC) 2K0 and 2K1 hardware by FCPC L25 standard (2K2 hardware) (refer to OIT 999.0020/16 and ISI 27.90.00045),
- prior upgrade of FWC up to L15 software standard (refer to ISI 27.90.00045),
- pin-programing and prior upgrade of SDAC up to C10 minimum software standard (refer to ISI 27.90.00045),
- change in FCPC interchangeability and mixability (refer to ISI 27.93.00007).

The new software standard can be embodied:

5 DATE: Jul 15/19

SERVICE BULLETIN No.: A340-27-4211

REVISION No.: 00 - Jul 15/19

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SERVICE BULLETIN
SUMMARY

- Either by replacement or reprogramming of the On Board Replaceable Modules (OBRMs)
- Or by replacement of the two FCDC units (1CE1 and 1CE2).

Accomplishment of this Service Bulletin brings the following advantages:

- FCDC capability for Stop Rudder Input Warning (SRIW) function which is expected to be mandated on A340 with mechanical rudder control (refer to ISI 27.90.00.045 for further information of SRIW function and associated pre-requisites).
- introduction of new maintenance messages related to force fighting monitoring (refer to TFU 27.95.00.045)
- new logics associated to "F/CTL LAWS REDUNDANCY LOST" ECAM warning,
- improvement of the logics associated to "USE MAN PITCH TRIM" warning (refer to TFU 27.95.00.045).

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

GENERAL EVALUATION

EVALUATION TABLE			
COMPLIANCE	MANDATORY (1)	CANCELS INSPECTION SB	NO
POTENTIAL AD	YES	A/C OPERATION AFFECTED	YES
RELIABILITY AFFECTED	NO	PAX COMFORT AFFECTED	NO
COST SAVING	NO	LROPS AFFECTED	NO
STRUCTURAL LIFE EXTN	NO	VENDOR SB INVOLVED	YES

NOTE (1): Service Bulletin must be accomplished.

MATERIAL PRICE INFORMATION

MATERIAL PRICE INFORMATION TABLE			
MATERIAL SET	QTY PER A/C	PRICE PER A/C (USD)	MAIN PARTS
Equipment BFEA01	1	See SB	FCDC
Equipment BFEA02	1	See SB	OBRM

EFFECTIVITY

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

01V	06Y	14S	15R	26L	31V	36L	39N	41N	65W	68M	74W	78U
83V	98W	ABD	AFR	AIB	ALD	ARG	AXY	BEL	BOE	CAL	D2F	DGA
DLH	EDW	F2I	GAF	HFM	HFY	IRC	IRM	KAC	KMF	M3R	MAU	MDG
MRJ	PAL	PUE	QQE	ROI	S3R	SAA	SAS	SFB	SLM	SWR	SYR	TAP
THT	THY	U6A	VCV									

CONCURRENT REQUIREMENTS

Accomplishment of this Service Bulletin requires the prior or simultaneous accomplishment of the following Service Bulletin(s):

Service Bulletin No. A340-27-4182
A340-27-4208
A340-27-4212
A340-31-4190

NOTE: Service Bulletin No. A340-27-4182 (FLIGHT CONTROLS - FLIGHT CONTROL DATA CONCENTRATOR (FCDC) - INSTALL NEW FCDC STD L22/M21/P12 ON LR A/C).

NOTE: Service Bulletin No. A340-27-4208 (FLIGHT CONTROLS - FCPC - INSTALL FCPC L25 2K2 A340 A/C).

NOTE: Service Bulletin No. A340-27-4212 (FLIGHT CONTROLS - FCPC REPLACE THE 2K0 AND 2K1 FCPC HARDWARE BY THE 2K2 FCPC HARDWARE).

NOTE: Service Bulletin No. A340-31-4190 (FLIGHT WARNING COMPUTER (FWC) - INSTALL L15 STD).

NOTE: Accomplish either Service Bulletin No. A340-27-4208 or A340-27-4212 as per effectivity specified in these Service Bulletins.

REFERENCES / REPERCUSSIONS

TFU	27.95.00.045
OEB	None
AOT	None
SIL	None
ISI	27.90.00045 27.93.00007
LINE MAINTENANCE AFFECTED	No
LIFE LIMIT	None
OTHER	OIT 999.0020/16

NATURE OF THE WORK

AIRCRAFT	NO
EQUIPMENT	YES

MANPOWER

Task 274211-831-801-001: OPTION 1 - Upgrade by Replacement of FCDCs on Aircraft	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

Task 274211-831-802-001: OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

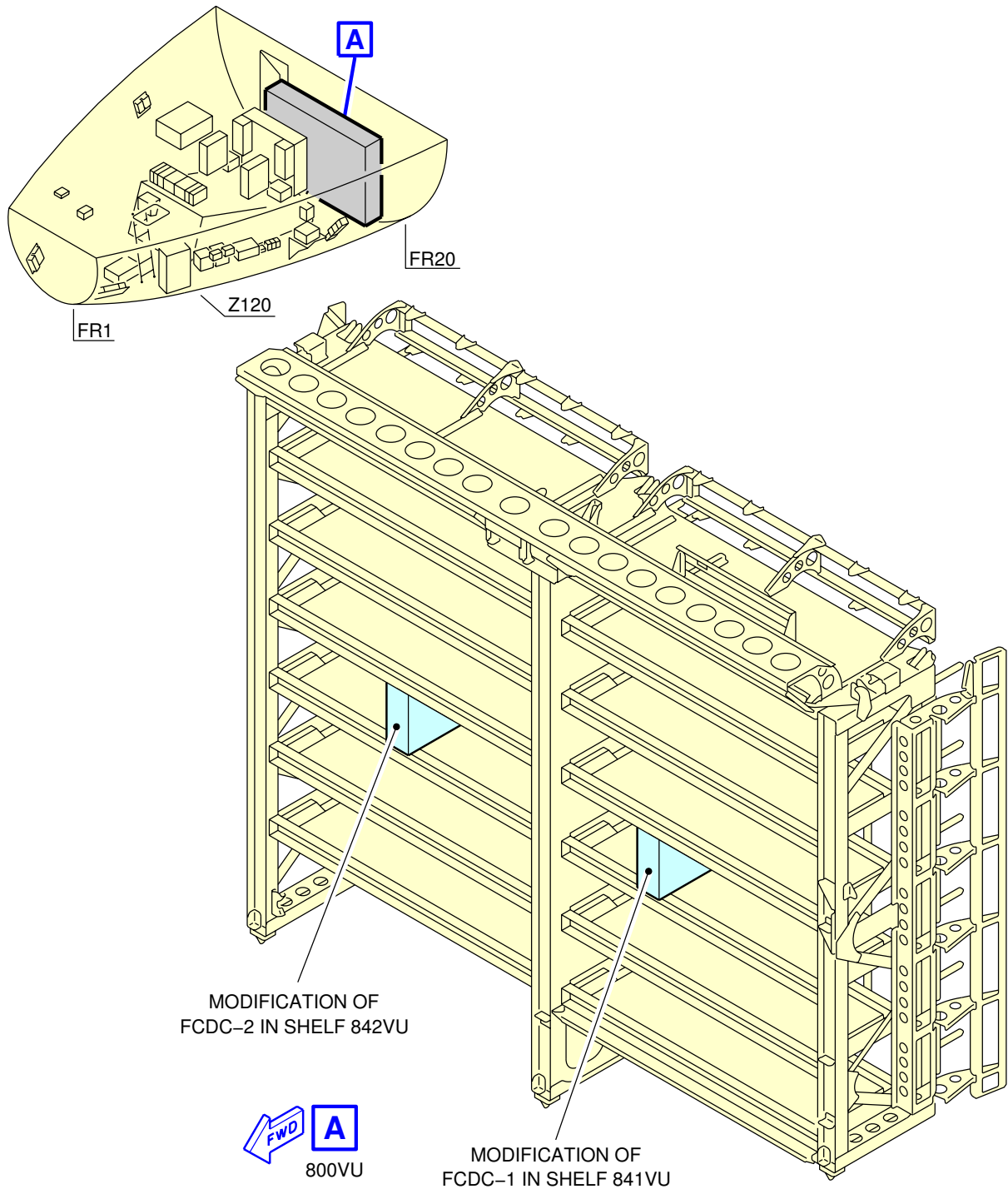
SERVICE BULLETIN
SUMMARY

Task 274211-831-803-001: OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50
Additional manhours related to Vendor SB; refer to:	
Reprogram and re-identify the OBRMs in accordance with VSB on Bench	THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035

APPENDICES

Appendix 01 - Glossary

****CONF ALL**



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Figure A-FSAAA - Sheet 01



SERVICE BULLETIN
SUMMARY

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CUSTOMER SERVICES DIRECTORATE
1 Rond Point Maurice Bellonte
31707 BLAGNAC CEDEX
FRANCE
Tel : (33) 5 61 93 33 33
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MANDATORY MANDATORY MANDATORY

ATA SYSTEM: 27

**TITLE: FLIGHT CONTROLS - FLIGHT CONTROL DATA CONCENTRATOR
(FCDC) - INTRODUCE FCDC STD L26 M25 P16 ON BASIC A/C**

MODIFICATION No.: 204828S32944

This document contains AIRBUS PROPRIETARY INFORMATION and shall at all times remain the property of AIRBUS; no intellectual property right or licence is granted by AIRBUS in connection with any information contained in it. It is delivered on the express condition that said document and the information contained in it shall be treated as confidential, shall not be used for any purpose other than that for which it is hereby delivered. It shall not be disclosed in whole or in part to third parties and shall not be duplicated in any manner (except for the purposes of performing the tasks described hereunder and provided that any recipient of such document shall comply with the conditions herein), without AIRBUS prior written consent.

1. PLANNING INFORMATION

****CONF ALL**

A. EFFECTIVITY

NOTE: This Service Bulletin is not applicable to aircraft on which MOD No. 49144S16279 (FLIGHT CONTROLS - ELECTRICAL FLIGHT CONTROL SYSTEM (EFCS) - INSTALL RUDDER FLY-BY WIRE ON A330/A340) is embodied.

NOTE: This modification is applicable by Service Bulletin only.

(1) Models

340-211 340-212 340-213 340-311 340-312 340-313

(2) Effectivity by MSN

0002 0004 0009 0014 0020 0022 0026 0029 0031 0038 0041 0043-0044 0046-0047
0051 0056 0058 0061 0063 0074-0076 0078-0081 0084 0089-0091 0093-0094 0101
0104 0114-0115 0117 0123 0125-0126 0128 0134-0135 0139 0145-0146 0149
0151-0152 0156 0158-0159 0163-0164 0166-0168 0170 0174-0175 0178-0180
0185-0186 0190 0192-0194 0197 0199 0201-0202 0204 0207-0208 0210 0212-0215
0217 0221 0233 0236-0237 0242-0243 0245-0246 0252 0257 0260 0264 0268 0270
0274 0278 0280 0282 0292 0297 0302 0304 0307 0310 0318-0319 0321 0325 0327
0329 0331-0332 0335 0347 0352 0354-0355 0367 0373-0374 0377-0379 0381 0385

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SERVICE BULLETIN

0387 0390 0395 0399 0402 0406 0411 0413 0415 0424 0430 0433-0435 0438
 0446-0447 0450 0459 0467 0470 0474 0483 0528 0538 0541 0545-0546 0554 0556
 0559 0561-0562

(3) Effectivity by Operator

The Operator/MSN relationship is provided for information only and is correct at the time of issue in accordance with the information available to AIRBUS. Any future changes resulting from transfer of an aircraft from one operator to another will not be reflected in this list unless the Service Bulletin is revised for another reason.

OPERATOR	MSN
01V	0146
06Y	0139 0149
14S	0058 0152 0402 0411 0415
15R	0151
26L	0125 0134 0145 0217 0221 0329
31V	0093
36L	0406
39N	0168 0174
41N	0009
65W	0029 0208
68M	0078 0377
74W	0047 0051
78U	0175 0179
83V	0280
98W	0014 0022
ABD	0210
AFR	0186 0207 0245 0246 0260
AIB	0192 0243 0264
ALD	0156 0159 0178
ARG	0063 0074 0080 0123 0126 0170 0193
AXY	0374
BEL	0335 0354
BOE	0554
CAL	0433 0541
D2F	0128
DGA	0075 0081
DLH	0135 0158 0213 0233 0252 0297 0304 0321 0325 0327 0347 0352 0379 0390 0434 0447
EDW	0556 0559 0561 0562
F2I	0038 0043 0084 0094 0114 0117 0214 0237 0302 0307 0310
GAF	0274 0355
HFM	0163 0166 0185 0236 0367 0483
HFY	0190 0202
IRC	0002
IRM	0020 0056 0164 0282 0292
KAC	0089 0090 0101 0104

OPERATOR	MSN
KMF	0278 0318 0387
M3R	0061
MAU	0076 0194 0268
MDG	0319
MRJ	0257
PAL	0332 0474
PUE	0212 0215 0399 0459
QQE	0026 0528
ROI	0199 0201
S3R	0004 0204
SAA	0197 0378
SAS	0167 0413 0424 0430 0435 0450 0467 0470
SFB	0046
SLM	0242
SWR	0538 0545 0546
SYR	0381
TAP	0041 0044 0079 0091
THT	0385 0438 0446
THY	0115 0180 0270 0331
U6A	0373 0395
VCV	0031

(4) Configuration by MSN

MSN	CONFIGURATION
0002 0004 0009 0014 0020 0022 0026 0029 0031 0038 0041 0043 0044 0046 0047 0051 0056 0058 0061 0063 0074 0075 0076 0078 0079 0080 0081 0084 0089 0090 0091 0093 0094 0101 0104 0114 0115 0117 0123 0125 0126 0128 0134 0135 0139 0145 0146 0149 0151 0152 0156 0158 0159 0163 0164 0166 0167 0168 0170 0174 0175 0178 0179 0180 0185 0186 0190 0192 0193 0194 0197 0199 0201 0202 0204 0207 0208 0210 0212 0213 0214 0215 0217 0221 0233 0236 0237 0242 0243 0245 0246 0252 0257 0260 0264 0268 0270 0274 0278 0280 0282 0292 0297 0302 0304 0307 0310 0318 0319 0321 0325 0327 0329 0331 0332 0335 0347 0352 0354 0355 0367 0373 0374 0377 0378 0379 0381 0385 0387 0390 0395 0399 0402 0406 0411 0413 0415 0424 0430 0433 0434 0435 0438 0446 0447 0450 0459 0467 0470 0474 0483 0528 0538 0541 0545 0546 0554 0556 0559 0561 0562	001

(5) Configuration definition

**CONF 001

Config. 001 is valid for all the aircraft given in the effectivity of this Service Bulletin as a standard configuration.

(6) Material Effectivity

MATERIAL	QTY PER A/C	SEE NOTES
Equipment BFEA01	1	(1)
Equipment BFEA02	1	(2)
Reidentified part set REIDA01	1	(3)
Reidentified part set REIDA02	1	(4)

NOTE (1): Equipment BFEA01 is applicable to TASK 274211-831-801 001 OPTION 1 - Upgrade by Replacement of FCDCs on Aircraft .

NOTE (2): Equipment BFEA02 is applicable to TASK 274211-831-802 001 OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft .

NOTE (3): Reidentified part set REIDA01 is applicable to TASK 274211-831-803 001 OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench .

NOTE (4): Reidentified part set REIDA02 is applicable to TASK 274211-831-802 001 OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft .

B. CONCURRENT REQUIREMENTS

Accomplishment of this Service Bulletin requires the prior or simultaneous accomplishment of the following Service Bulletin(s):

Service Bulletin No. A340-27-4182
A340-27-4208
A340-27-4212
A340-31-4190

NOTE: Service Bulletin No. A340-27-4182 (FLIGHT CONTROLS - FLIGHT CONTROL DATA CONCENTRATOR (FCDC) - INSTALL NEW FCDC STD L22/M21/P12 ON LR A/C).

NOTE: Service Bulletin No. A340-27-4208 (FLIGHT CONTROLS - FCPC - INSTALL FCPC L25 2K2 A340 A/C).

NOTE: Service Bulletin No. A340-27-4212 (FLIGHT CONTROLS - FCPC REPLACE THE 2K0 AND 2K1 FCPC HARDWARE BY THE 2K2 FCPC HARDWARE).

NOTE: Service Bulletin No. A340-31-4190 (FLIGHT WARNING COMPUTER (FWC) - INSTALL L15 STD).

NOTE: Accomplish either Service Bulletin No. A340-27-4208 or A340-27-4212 as per effectivity specified in these Service Bulletins.

C. REASON

(1) History

This Service Bulletin consists in introducing new Flight Control Data Concentrator (FCDC) software Standard (STD) L26/M25/P16 which brings several improvements.

(2) Objective/Action

This Service Bulletin is published to enable operators of A340 with mechanical rudder control (MOD No. 49144S16279 not embodied) to apply the THALES AVIONICS Service Bulletin No. 87292337-27-035 which modifies the FCDCs.

In addition, considering pre-requisites of this Service Bulletin, its application entails:

- prior replacement of Flight Control Primary Computer (FCPC) 2K0 and 2K1 hardware by FCPC L25 standard (2K2 hardware) (refer to OIT 999.0020/16 and ISI 27.90.00045),
- prior upgrade of FWC up to L15 software standard (refer to ISI 27.90.00045),
- pin-programing and prior upgrade of SDAC up to C10 minimum software standard (refer to ISI 27.90.00045),
- change in FCPC interchangeability and mixability (refer to ISI 27.93.00007).

The new software standard can be embodied:

- Either by replacement or reprogramming of the On Board Replaceable Modules (OBRMs)
- Or by replacement of the two FCDC units (1CE1 and 1CE2).

(3) Advantages

Accomplishment of this Service Bulletin brings the following advantages:

- FCDC capability for Stop Rudder Input Warning (SRIW) function which is expected to be mandated on A340 with mechanical rudder control (refer to ISI 27.90.00.045 for further information of SRIW function and associated pre-requisites).
- introduction of new maintenance messages related to force fighting monitoring (refer to TFU 27.95.00.045)
- new logics associated to "F/CTL LAWS REDUNDANCY LOST" ECAM warning,
- improvement of the logics associated to "USE MAN PITCH TRIM" warning (refer to TFU 27.95.00.045).

(4) Operational/Maintenance Consequences

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

D. DESCRIPTION

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

To accomplish this Service Bulletin it is necessary to :

Task 274211-831-801-001: OPTION 1 - Upgrade by Replacement of FCDCs on Aircraft

- (1) Replace the FCDCs (1CE1 and 1CE2) in the Electronics Rack 800VU

Task 274211-831-802-001: OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft

- (1) Replace the OBRMs
- (2) Re-identify the two FCDCs (1CE1 and 1CE2)

Task 274211-831-803-001: OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench

- (1) Remove the OBRMs
- (2) Reprogram and re-identify the OBRMs in accordance with VSB on Bench
- (3) Install the OBRMs
- (4) Re-identify the two FCDCs (1CE1 and 1CE2)

E. COMPLIANCE

- (1) Classification

MANDATORY: Service Bulletin must be accomplished.

- (2) Accomplishment Timescale

This Service Bulletin has been classified Mandatory. Accomplishment of this Service Bulletin must be done within 4 years after issuance of this Service Bulletin. It is expected that an Airworthiness Directive (AD) published by the European Aviation Safety Agency (EASA) will be issued to confirm this classification. It is anticipated that the AD will confirm the thresholds given but reference should be made to the AD for confirmation of the mandated accomplishment timescale.

F. APPROVAL

The technical content of this document is approved under the authority of Design Organisation Approval No. EASA.21J.031.

If an aircraft listed in the effectivity 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

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.

Task 274211-831-801-001: OPTION 1 - Upgrade by Replacement of FCDCs on Aircraft	
Get Access	0.50
On Aircraft	
Replace the FCDCs (1CE1 and 1CE2) in the Electronics Rack 800VU	1.00
Tests	0.50
Close-Up	0.50
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

Task 274211-831-802-001: OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft	
Get Access	0.50
On Aircraft	
Replace the OBRMs	0.50
Re-identify the two FCDCs (1CE1 and 1CE2)	0.50
Tests	0.50
Close-Up	0.50
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

Task 274211-831-803-001: OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench	
Get Access	0.50
On Aircraft	
Remove the OBRMs	0.25
Install the OBRMs	0.25
Re-identify the two FCDCs (1CE1 and 1CE2)	0.50
Tests	0.50
Close-Up	0.50
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

Additional manhours related to Vendor SB; refer to:	
Reprogram and re-identify the OBRMs in accordance with VSB on Bench	THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035

H. WEIGHT AND BALANCE

Not Changed

I. ELECTRICAL LOAD DATA

Not Changed

J. REFERENCES

Aircraft Maintenance Manual (AMM)	06-20-00 06-31-53 12-34-24 20-15-00 20-16-00 24-00-00 27-95-34 27-96-00 45-10-00 52-41-00
ATA Common Support Data Dictionary (CSDD), Chapter 2	
Elec. Std. Practices Manual (ESPM)	20-55-00
Service Bulletin (SB)	A340-27-4182 A340-27-4208 A340-27-4212 A340-31-4190
Vendor Service Bulletin (VSB)	THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035

K. PUBLICATION AFFECTED

Flight Crew Operating Manual (FCOM)	
Flight Manual (FM)	
Illustrated Parts Catalog (IPC)	27-93-34 27-95-34
Trouble Shooting Manual (TSM)	27-10-00 27-93-00 27-94-00 27-95-00

This Service Bulletin has an impact on flight operations documentation. Refer to ISI 00.00.00135 '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. INTERCHANGEABILITY/MIXABILITY

The interchangeability/mixability possibilities are for new or modified parts introduced by the accomplishment of this Service Bulletin.

DESCRIPTION	OLD PART N°	NEW PART N°	INT	MIXABILITY	SEE NOTES
FCDC	87292337V04L14	87292337V04L15	03	NO	(1)
OBRMs	87093732V01L14	87093732V01L15	03	NO	(1)

NOTE: For definitions of interchangeability codes in column INT., refer to ATA Common Support Data Dictionary (CSDD), Chapter 2.

NOTE: Only the mixability configuration(s) and condition(s) stated in this Service Bulletin are approved.

NOTE (1): When the old PN is removed, it may be replaced:

- with the old PN,
- with the new PN only if the complete set of old PN is replaced with a set of new PN.

When the new PN is removed, it must be replaced with the new PN.

M. SPARES

FCDC

87292337V04L14

The parts listed here must not be installed anymore on aircraft which have accomplished this Service Bulletin or which have the equivalent production modification embodied.

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2. MATERIAL INFORMATION****CONF ALL****A. MATERIAL - PRICE AND AVAILABILITY**

(1) Procurement Addresses

Vendor parts are to be procured from:

Equipment BFEA01 Equipment BFEA02	THALES AVS FRANCE SAS 105, avenue du General Eisenhower BP 63647 31036 TOULOUSE CEDEX 1 FRANCE Tel: +33 5 61 19 76 95 Fax: +33 5 61 19 68 20 E-mail: retrofit@fr.thalesgroup.com
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(2) Price and Availability

Equipment BFEA01

For option 1: Procurement terms for the equipment must be negotiated with the equipment supplier.

Equipment BFEA02

For option 2: Procurement terms for the equipment must be negotiated with the equipment supplier.

Reidentified part set REIDA01

For option 3: Refer to the THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035 for the equipment modification sales terms.

B. INDUSTRY SUPPORT INFORMATION

This Service Bulletin is the subject of an AIRBUS monitored retrofit campaign.

For the organization of this retrofit, you are kindly requested to contact AIRBUS retrofit management department: monitored.retrofit@airbus.com.

For option 1: Industry support terms for the equipment must be negotiated with the equipment supplier.

For option 2: Industry support terms for the equipment must be negotiated with the equipment supplier.

For option 3: Modification of removed equipment should be negotiated directly with THALES AVS FRANCE SAS as per instructions given in Service Bulletin No. 87292337-27-035.

Refer to the THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035 for the industry support terms of the Vendor Service Bulletin parts and labor.

C. LIST OF COMPONENTS

No Kit

D. LIST OF MATERIALS - OPERATOR SUPPLIED

(1) Consumable Materials

None

(2) Components

None

(3) Equipment

Equipment BFEA01

ITEM	NEW PART N°	QTY (UM)	KEYWORD	ITEM	OLD PART N°	INT	SEE NOTES
	87292337V04L15	2	FCDC		87292337V04L14	03	

NOTE: For definitions of interchangeability codes in column INT., refer to ATA Common Support Data Dictionary (CSDD), Chapter 2.

NOTE: The above list of components is not an AIRBUS Kit, the required parts shall be ordered as necessary through the given channel.

Equipment BFEA02

ITEM	NEW PART N°	QTY (UM)	KEYWORD	ITEM	OLD PART N°	INT	SEE NOTES
	87093732V01L15	2	OBRM		87093732V01L14	03	

NOTE: For definitions of interchangeability codes in column INT., refer to ATA Common Support Data Dictionary (CSDD), Chapter 2.

NOTE: The above list of components is not an AIRBUS Kit, the required parts shall be ordered as necessary through the given channel.

NOTE: The FCPC reidentification labels are supplied in equipment BFEA02.

E. PARTS TO BE RE-IDENTIFIED BY OPERATOR

Reidentified part set REIDA01

ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	87093732V01L15	OBRM		87093732V01L14	
	87292337V04L15	FCDC		87292337V04L14	

NOTE: Parts are re-identified in accordance with the THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035.

Reidentified part set REIDA02

ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	87292337V04L15	FCDC		87292337V04L14	

F. TOOLING

(1) Tooling - Price and Availability

None

(2) Tools

To accomplish TASK 274211-831-803 001 OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench , it is necessary to use the tools listed in THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035.

(3) Special Tools

None

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3. ACCOMPLISHMENT INSTRUCTIONS

Task 274211-831-801-001 - OPTION 1 - Upgrade by Replacement of FCDCs on Aircraft

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 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 ESPM 20-55-00.

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 contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.

For any deviations to the instructions, including RC paragraph contained herein, contact AIRBUS for further instructions and approval.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an AD. The paragraphs 3.C. and 3.D. in these accomplishment instructions are 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.D. 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: Discarded parts must be managed at the operator's discretion.

Task Associated Data

Zone	
120	
Modified FIN	
1CE1 1CE2	
Access	
Door	811
Manpower	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

A. GENERAL

(1) Subtask 274211-910-001-001 - Standard Practices

Manpower Resources	
Skills	NON SPECIFIC
References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001 06-31-53, Page Block 001

- (a) For the FR identification, refer to AMM 06-31-53, Page Block 001.
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.

(2) Subtask 274211-839-001-001 - Administrative

Manpower Resources	
Skills	NON SPECIFIC

Write in the applicable aircraft records that you have done all the work given in this Service Bulletin.

B. PREPARATION

(1) Subtask 274211-941-001-001 - Job Set-up

Manpower Resources	
Skills	NON SPECIFIC
References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-860-802 Task 27-95-34-000-801 Task 45-10-00-860-814

NOTE: For the basic Aircraft configuration, refer to AMM Chapter 'Introduction -

Aircraft status for maintenance' in Manual Front Matter section.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-860-802.
- (b) Check appropriate FCPC pre-required configuration:
 - Make sure that these circuit breakers are closed:

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCPC1 NORM	7CE1	C66	
742VU	FCPC1 STBY	11CE	K67	
721VU	FCPC2 STBY	28CE	X13	
722VU	FCPC2 NORM	7CE2	V41	
721VU	FCPC3 STBY COM	7CE6	R20	(1)
721VU	FCPC3 STBY MON	7CE5	R19	(1)
722VU	FCPC3	7CE3	V42	(1)
722VU	FCPC3	7CE4	V38	(1)

NOTE (1): For aircraft part of Service Bulletin No. A340-27-4158 effectivity, the location of CBs depends on associated aircraft configuration.

- Do the procedure to get access to the SYSTEM REPORT/TEST F/CTL: EFCS page, refer to AMM Task 45-10-00-860-814.

NOTE: The actions and results of this procedure occur the MCDU you use.

NOTE: This test is for system 1. For other system(s), use the indications between the parentheses.

NOTE: You can launch this test when the EIVMU is deactivated.

ACTION	RESULT
1. Push the line key adjacent to the EFCS1(2) indication.	- The EFCS1(2) menu page comes into view.
2. Push the line key adjacent to the LRU IDENT indication.	- The LRU IDENTIFICATION page comes into view.

- Make sure that the PN shown on the LRU IDENTIFICATION page is LA2K2B1002C0000 for the three FCPCs 2CE1, 2CE2 and 2CE3.

NOTE: If the PN of FCPC is not the same, you must remove the concerned FCPC and return it to the shop (refer to interchangeability conditions of pre-requisite Service Bulletin No. A340-27-4208 or Service Bulletin No. A340-27-4212).

- (c) Do the job set-up procedure as specified in the removal of the FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-000-801.

D. TEST

(1) Subtask 274211-700-001-001 - Test

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-95-34-400-801

(a) Job Set-up:

- 1 Remove the safety clips and tags and close the circuit breakers as specified after the installation of the FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-400-801.

(b) Procedure:

- 1 Do the test procedure as specified after the installation of the FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-400-801.

E. CLOSE-UP

(1) Subtask 274211-942-001-001 - Close-up

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-95-34-400-801

- (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 FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-400-801.
- (c) Put the aircraft back to its initial configuration.

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Task 274211-831-802-001 - OPTION 2 - Upgrade by Replacement of FCDC OBRMs on Aircraft

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 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 ESPM 20-55-00.

CAUTION: REFER TO AMM 20-15-00, PAGE BLOCK 201 FOR ELECTROSTATIC DISCHARGE PRECAUTIONS.

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 contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.

For any deviations to the instructions, including RC paragraph contained herein, contact AIRBUS for further instructions and approval.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an AD. The paragraphs 3.C. and 3.D. in these accomplishment instructions are 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.D. 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: Discarded parts must be managed at the operator's discretion.

Task Associated Data

Zone	
120	
Modified FIN	
1CE1 1CE2	
Access	
Door	811
Manpower	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50

A. GENERAL

(1) Subtask 274211-910-002-001 - Standard Practices

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001 06-31-53, Page Block 001 Task 20-16-00-912-801 24-00-00, Page Block 001

- (a) For the FR identification, refer to AMM 06-31-53, Page Block 001.
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.
- (c) For the circuit breaker location, refer to AMM 24-00-00, Page Block 001.
- (d) For circuit breaker safety practices, refer to AMM Task 20-16-00-912-801.

(2) Subtask 274211-839-002-001 - Administrative

Manpower Resources	
Skills	NON SPECIFIC

Write in the applicable aircraft records that you have done all the work given in this Service Bulletin.

B. PREPARATION

(1) Subtask 274211-941-002-001 - Job Set-up

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-860-802 Task 27-95-34-000-801 Task 45-10-00-860-814 Task 52-41-00-010-801

NOTE: For the basic Aircraft configuration, refer to AMM Chapter 'Introduction - Aircraft status for maintenance' in Manual Front Matter section.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-860-802.
- (b) Check appropriate FCPC pre-required configuration:
 - Make sure that these circuit breakers are closed:

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCPC1 NORM	7CE1	C66	
742VU	FCPC1 STBY	11CE	K67	
721VU	FCPC2 STBY	28CE	X13	
722VU	FCPC2 NORM	7CE2	V41	
721VU	FCPC3 STBY COM	7CE6	R20	(1)
721VU	FCPC3 STBY MON	7CE5	R19	(1)
722VU	FCPC3	7CE3	V42	(1)
722VU	FCPC3	7CE4	V38	(1)

NOTE (1): For aircraft part of Service Bulletin No. A340-27-4158 effectivity, the location of CBs depends on associated aircraft configuration.

- Do the procedure to get access to the SYSTEM REPORT/TEST F/CTL: EFCS page, refer to AMM Task 45-10-00-860-814.

NOTE: The actions and results of this procedure occur the MCDU you use.

NOTE: This test is for system 1. For other system(s), use the indications between the parentheses.

NOTE: You can launch this test when the EIVMU is deactivated.

ACTION	RESULT
1. Push the line key adjacent to the EFCS1(2) indication.	- The EFCS1(2) menu page comes into view.
2. Push the line key adjacent to the LRU IDENT indication.	- The LRU IDENTIFICATION page comes into view.

- Make sure that the PN shown on the LRU IDENTIFICATION page is LA2K2B1002C0000 for the three FCPCs 2CE1, 2CE2 and 2CE3.

NOTE: If the PN of FCPC is not the same, you must remove the concerned FCPC and return it to the shop (refer to interchangeability conditions of pre-requisite Service Bulletin No. A340-27-4208 or Service Bulletin No. A340-27-4212).

- (c) Open the avionics-compartment access door 811, refer to AMM Task 52-41-00-010-801.
- (d) Do the job set-up procedure as specified in the removal of the FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-000-801 without the circuit breakers opening part.

NOTE: The circuit breakers will be managed in another subtask to allow the BITE test of the Electrical Flight Control System (EFCS).

C. PROCEDURE

(1) Subtask 274211-960-002-001 - Replace the OBRMs

Work Zones and Access Panels			
	Zone	Access/Work location	
	120	Access	Door 811
		Work location	Electrical panel 800VU

Manpower Resources	
Manhours	0.50
Minimum number of person	1
Subtask elapsed time	0.50
Skills	NON SPECIFIC

Material necessary to do the job

Equipment BFEA02				
ITEM	NEW PART N°	QTY (UM)	KEYWORD	SEE NOTES
	87093732V01L15	2	OBRM	

NOTE: The above list of components is not an AIRBUS Kit, the required parts shall be ordered as necessary through the given channel.

NOTE: The FCPC reidentification labels are supplied in equipment BFEA02.

References	
Aircraft Maintenance Manual (AMM)	Task 27-96-00-740-807

(a) Job Set-up:

- 1 Remove the safety clip(s) and/or tag(s) and close/unlock this (these) circuit breaker(s):

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCDC 1	6CE1	L76	
722VU	FCDC 2	6CE2	T40	

(b) After replacement of the OBRMs:

- 1 After power-up, make sure that on the EWD, there is no ECAM warning messages related to the FCDC (FINs 1CE1 and 1CE2).
- 2 Do the BITE test of the EFCS (Ground Scanning), refer to AMM Task 27-96-00-740-801 to make sure that there is no failure on the FCDC.

NOTE: If the test shows a class 1 fault message related to a computer modified for the aircraft by the replacement of the OBRM(s) in the shop, you must:

- Remove the computer
- Return it to the shop.

- 3 Do the BITE test of the EFCS (LRU IDENT), refer to AMM Task 27-96-00-740-807 and make sure that the new PN of the two FCDCs (FINs 1CE1 and 1CE2) is 87292337V04L15.

NOTE: Print the LRU IDENTIFICATION page (if the printer is not available, a visual check is acceptable).

E. CLOSE-UP

(1) Subtask 274211-942-002-001 - Close-up

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-95-34-400-801 Task 52-41-00-410-801

- (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 FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-400-801.
- (c) Close the avionics-compartment access door 811, refer to AMM Task 52-41-00-410-801.
- (d) Put the aircraft back to its initial configuration.

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Task 274211-831-803-001 - OPTION 3 - Upgrade by Reprogramming of FCDC OBRMs in accordance with VSB on Bench

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 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 ESPM 20-55-00.

CAUTION: REFER TO AMM 20-15-00, PAGE BLOCK 201 FOR ELECTROSTATIC DISCHARGE PRECAUTIONS.

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 contains the instructions for the on-aircraft maintenance necessary to ensure the continued airworthiness of the aircraft.

For any deviations to the instructions, including RC paragraph contained herein, contact AIRBUS for further instructions and approval.

NOTE: This Service Bulletin is classified mandatory or expected to be classified mandatory by an AD. The paragraphs 3.C. and 3.D. in these accomplishment instructions are 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.D. 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.

Task Associated Data

Zone	
120	
Modified FIN	
1CE1 1CE2	
Access	
Door	811
Manpower	
TOTAL MANHOURS	2.50
ELAPSED TIME (HOURS)	2.50
Additional manhours related to Vendor SB; refer to:	
THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035	

A. GENERAL

(1) Subtask 274211-910-003-001 - Standard Practices

Manpower Resources	
Skills	NON SPECIFIC
References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001 06-31-53, Page Block 001 Task 20-16-00-912-801 24-00-00, Page Block 001

- (a) For the FR identification, refer to AMM 06-31-53, Page Block 001.
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.
- (c) For the circuit breaker location, refer to AMM 24-00-00, Page Block 001.
- (d) For circuit breaker safety practices, refer to AMM Task 20-16-00-912-801.

(2) Subtask 274211-839-003-001 - Administrative

Manpower Resources	
Skills	NON SPECIFIC

Write in the applicable aircraft records that you have done all the work given in this Service Bulletin.

B. PREPARATION

(1) Subtask 274211-941-003-001 - Job Set-up

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-860-802 Task 27-95-34-000-801 Task 45-10-00-860-814 Task 52-41-00-010-801

NOTE: For the basic Aircraft configuration, refer to AMM Chapter 'Introduction - Aircraft status for maintenance' in Manual Front Matter section.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-860-802.
- (b) Check appropriate FCPC pre-required configuration:
 - Make sure that these circuit breakers are closed:

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCPC1 NORM	7CE1	C66	
742VU	FCPC1 STBY	11CE	K67	
721VU	FCPC2 STBY	28CE	X13	
722VU	FCPC2 NORM	7CE2	V41	
721VU	FCPC3 STBY COM	7CE6	R20	(1)
721VU	FCPC3 STBY MON	7CE5	R19	(1)
722VU	FCPC3	7CE3	V42	(1)
722VU	FCPC3	7CE4	V38	(1)

NOTE (1): For aircraft part of Service Bulletin No. A340-27-4158 effectivity, the location of CBs depends on associated aircraft configuration.

- Do the procedure to get access to the SYSTEM REPORT/TEST F/CTL: EFCS page, refer to AMM Task 45-10-00-860-814.

NOTE: The actions and results of this procedure occur the MCDU you use.

NOTE: This test is for system 1. For other system(s), use the indications between the parentheses.

NOTE: You can launch this test when the EIVMU is deactivated.

ACTION	RESULT
1. Push the line key adjacent to the EFCS1(2) indication.	- The EFCS1(2) menu page comes into view.
2. Push the line key adjacent to the LRU IDENT indication.	- The LRU IDENTIFICATION page comes into view.

- Make sure that the PN shown on the LRU IDENTIFICATION page is LA2K2B1002C0000 for the three FCPCs 2CE1, 2CE2 and 2CE3.

NOTE: If the PN of FCPC is not the same, you must remove the concerned FCPC and return it to the shop (refer to interchangeability conditions of pre-requisite Service Bulletin No. A340-27-4208 or Service Bulletin No. A340-27-4212).

- (c) Open the avionics-compartment access door 811, refer to AMM Task 52-41-00-010-801.
- (d) Do the job set-up procedure as specified in the removal of the FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-000-801 without the circuit breakers opening part.

NOTE: The circuit breakers will be managed in another subtask to allow the BITE test of the Electrical Flight Control System (EFCS).

C. PROCEDURE

(1) Subtask 274211-020-001-001 - Remove the OBRMs

Work Zones and Access Panels			
	Zone	Access/Work location	
	120	Access	Door 811
		Work location	Electrical panel 800VU

Manpower Resources	
Manhours	0.25
Minimum number of person	1
Subtask elapsed time	0.25
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-96-00-740-807

- (a) Before reprogramming the OBRMs:

- 1 After power-up, make sure that on the EWD, there is no ECAM warning messages related to the FCDC (FINs 1CE1 and 1CE2).
- 2 Make sure that these circuit breakers are closed:

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCDC 1	6CE1	L76	
722VU	FCDC 2	6CE2	T40	
721VU	PRINTER	1TP	D02	

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- 3** Do the BITE test of the EFCS (LRU IDENT), refer to AMM Task 27-96-00-740-807 and make sure that the old PN of the two FCDCs (FINs 1CE1 and 1CE2) is 87292337V04L14.

NOTE: Print the LRU IDENTIFICATION page (if the printer is not available, a visual check is acceptable).

- 4** Open, safety/lock and tag this (these) circuit breaker(s):

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCDC 1	6CE1	L76	
722VU	FCDC 2	6CE2	T40	

- 5** Remove the OBRMs from the FCDCs (FINs 1CE1 and 1CE2):

2 OBRMs 87093732V01L14 Retain

NOTE: Retained for modification.

- (2) Subtask 274211-470-001-001 - Reprogram and re-identify the OBRMs in accordance with VSB on Bench**

Material necessary to do the job

Reidentified part set REIDA01					
ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	87093732V01L15	OBRM		87093732V01L14	

NOTE: Parts are re-identified in accordance with the THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035.

References	
Vendor Service Bulletin (VSB)	THALES AVS FRANCE SAS 87292337-27-035

- (a) Reprogram and re-identify the OBRMs of FCDCs (FINs 1CE1 and 1CE2) as described in THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035.

- (b) After modification:

2 OBRMs 87093732V01L14

becomes

2 OBRMs 87093732V01L15

- (3) Subtask 274211-420-001-001 - Install the OBRMs**

Work Zones and Access Panels			
	Zone	Access/Work location	
	120	Access	Door 811
		Work location	Electrical panel 800VU

Manpower Resources	
Manhours	0.25
Minimum number of person	1
Subtask elapsed time	0.25
Skills	NON SPECIFIC

(a) Install the modified OBRMs to the FCDC (FINs 1CE1 and 1CE2).

(4) Subtask 274211-831-003-001 - Re-identify the two FCDCs (1CE1 and 1CE2)

Work Zones and Access Panels			
	Zone	Access/Work location	
	120	Access	Door 811
		Work location	Electrical panel 800VU

Manpower Resources	
Manhours	0.50
Minimum number of person	1
Subtask elapsed time	0.50
Skills	NON SPECIFIC

Material necessary to do the job

Reidentified part set REIDA01					
ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	87292337V04L15	FCDC		87292337V04L14	

NOTE: Parts are re-identified in accordance with the THALES AVS FRANCE SAS Service Bulletin No. 87292337-27-035.

(a) Re-identify the two FCDCs (FINs 1CE1 and 1CE2).

FIN 1CE1

1 FCDC 87292337V04L14

becomes

FIN 1CE1

1 FCDC 87292337V04L15

and

FIN 1CE2

1 FCDC 87292337V04L14

becomes

FIN 1CE2

1 FCDC 87292337V04L15

NOTE: If necessary, the responsible Quality Inspector can put his own sticker and his own control seal on the front face to confirm the replacement of the OBRMs.

D. TEST

(1) Subtask 274211-700-003-001 - Test

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-96-00-740-801 Task 27-96-00-740-807

(a) Job Set-up:

- 1 Remove the safety clip(s) and/or tag(s) and close/unlock this (these) circuit breaker(s):

PANEL	DESIGNATION	FIN	LOCATION	SEE NOTES
742VU	FCDC 1	6CE1	L76	
722VU	FCDC 2	6CE2	T40	

(b) After replacement of the OBRMs:

- 1 After power-up, make sure that on the EWD, there is no ECAM warning messages related to the FCDC (FINs 1CE1 and 1CE2).
- 2 Do the BITE test of the EFCS (Ground Scanning), refer to AMM Task 27-96-00-740-801 to make sure that there is no failure on the FCDC.

NOTE: If the test shows a class 1 fault message related to a computer modified for the aircraft by the replacement of the OBRM(s) in the shop, you must:

- Remove the computer
- Return it to the shop.

- 3 Do the BITE test of the EFCS (LRU IDENT), refer to AMM Task 27-96-00-740-807 and make sure that the new PN of the two FCDCs (FINs 1CE1 and 1CE2) is 87292337V04L15.

NOTE: Print the LRU IDENTIFICATION page (if the printer is not available, a visual check is acceptable).

E. CLOSE-UP**(1) Subtask 274211-942-003-001 - Close-up**

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 27-95-34-400-801 Task 52-41-00-410-801

- (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 FCDC (FINs 1CE1 and 1CE2), refer to AMM Task 27-95-34-400-801.
- (c) Close the avionics-compartment access door 811, refer to AMM Task 52-41-00-410-801.
- (d) Put the aircraft back to its initial configuration.

****CONF ALL**

ACRONYM	FULL FORM
AD	Airworthiness Directive
BITE	Built-In Test Equipment
ECAM	Electronic Centralized Aircraft Monitoring
EFCS	Electrical Flight Control System
EIVMU	Engine Interface and Vibration Monitoring Unit
EWD	Engine/Warning Display
FCDC	Flight Control Data Concentrator
FR	Frame
LRU	Line Replaceable Unit
MCDU	Multipurpose Control and Display Unit
OBRM	On Board Replaceable Module
PN	Part Number
RC	Required for Compliance

**TITLE: FLIGHT CONTROLS - FLIGHT CONTROL DATA CONCENTRATOR
(FCDC) - INTRODUCE FCDC STD L26 M25 P16 ON BASIC A/C**

MODIFICATION No.: 204828S32944

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.

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.

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 Bulletin?"

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



SERVICE BULLETIN
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 Bulletins.

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

(Please rate on a scale of 1 to 4, with 4 being the highest score)

- 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			

If you have had 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 Effectivity	X Kit content	X Preparation
X Reason	X List of Materials Operator Supplied	X Mod/Inspection
X Manpower	X Industry support	X Test
X References	X Re-identification	X Close-Up
X Publication	X Tooling	X Illustrations

Comments:

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Or via your Resident Customer Support Office.