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ATA SYSTEM: 49

**TITLE: AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING -
MODIFY ELECTRONIC CONTROL BOX (ECB) SOFTWARE FOR
HONEYWELL APU 131-9A.**

MODIFICATION No.: 155015G0840 155095G0889

This page transmits Revision No.02 of Service Bulletin No.A320-49-1107

ADDITIONAL WORK

****CONF ALL**

No additional work is required by this revision for aircraft modified by any previous issue.

REASON

Revision No. 02 issued to:

- include the Part Number (PN) 3888394-221205 in paragraph D (1) (c) - Test of the Tasks 491107-831-942-001 and 491107-831-944-001, in reference to the SBIT No. 15-0086,
- update effectivity.

CHANGES

The main changes of this revision are:

- the PN 3888394-221205 included in paragraph D (1) (c) - Test of the Tasks 491107-831-942-001 and 491107-831-944-001,
- to add additional information in paragraph C. Reason in case the total accumulated value of APU hours/cycles exceeds 16383, to refer to the TFU No. 49.73.00.003 for mitigation procedure,
- effectivity updated,
- minor changes applied.

FRONT MATTER		
AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING - MODIFY ELECTRONIC CONTROL BOX (ECB) SOFTWARE FOR HONEYWELL APU 131-9A.	CONFIGURATION UPDATED	R
SUMMARY		
REASON/DESCRIPTION/OPERATIONAL CONSEQUENCES	REASON UPDATED	R
GENERAL EVALUATION	GENERAL EVALUATION TABLE UPDATED	R
EFFECTIVITY	OPERATOR LIST UPDATED	R
MANPOWER	MANPOWER UPDATED	R
PLANNING INFORMATION		
EFFECTIVITY	EFFECTIVITY RELATED INFORMATION UPDATED	R
Configuration definition		
CONF 001	CONFIGURATION DEFINITION UPDATED	R
Material Effectivity	MATERIAL EFFECTIVITY UPDATED MATERIAL SET QUANTITY UPDATED MATERIAL SET UPDATED	R
REASON		
History	HISTORY UPDATED	R
Objective/Action	OBJECTIVE/ACTION UPDATED	R
Advantages	ADVANTAGES UPDATED	R
Operational/Maintenance Consequences	OPERATIONAL/MAINTENANCE CONSEQUENCES UPDATED	R
MANPOWER	MANPOWER UPDATED	R
MATERIAL INFORMATION		
MATERIAL - PRICE AND AVAILABILITY		
Procurement Addresses	PROCUREMENT ADDRESSES UPDATED	R
Price and Availability	PRICE AND AVAILABILITY UPDATED	R
INDUSTRY SUPPORT INFORMATION	INDUSTRY SUPPORT INFORMATION UPDATED	R
LIST OF MATERIALS - OPERATOR SUPPLIED		
Consumable Materials	CONSUMABLE MATERIALS UPDATED	R
Consumable CMLC01	CONSUMABLE MATERIAL SET DELETED	D
ACCOMPLISHMENT INSTRUCTIONS		
TASK 491107- 831-943-001-Replace the old ECB by a new one		
Subtask 491107-910-604-001	SUBTASK SOLUTION UPDATED QUANTITY UPDATED CONSUMABLE UPDATED MATERIAL LIST UPDATED	R
Subtask 491107-941-603-001	SUBTASK SOLUTION UPDATED	R
TASK 491107- 831-942-001-Modify/rework and re-identify the old ECB on-wing		

SERVICE BULLETIN
REVISION TRANSMITTAL SHEET

Subtask 491107-910-601-001	SUBTASK SOLUTION UPDATED QUANTITY UPDATED CONSUMABLE UPDATED MATERIAL LIST UPDATED	R
Subtask 491107-941-601-001	SUBTASK SOLUTION UPDATED	R
Subtask 491107-710-601-001	SUBTASK SOLUTION UPDATED	R
TASK 491107- 831-944-001-Modify/rework and re-identify the old ECB on shop		
Task associated data - 001	REFERENCED DOCUMENTATION UPDATED	R
Subtask 491107-910-605-001	SUBTASK SOLUTION UPDATED QUANTITY UPDATED CONSUMABLE UPDATED MATERIAL LIST UPDATED	R
Subtask 491107-941-604-001	SUBTASK SOLUTION UPDATED	R
Subtask 491107-020-607-001	SUBTASK SOLUTION UPDATED	R
Subtask 491107-831-603-001	SUBTASK SOLUTION UPDATED REFERENCED DOCUMENTATION UPDATED REFERENCES UPDATED	R
Subtask 491107-710-605-001	SUBTASK SOLUTION UPDATED	R

FILLING 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.

HISTORY OF PREVIOUS REVISIONS

Revision No. 01 issued to:

Update the effectivity.

Add the reference of the Inspection Service Bulletin No. A320-49-1068, cancelled by Service Bulletin No. A320-49-1075.

Add information of a potential erroneous mismatch of Auxiliary Power Unit (APU) - hours/cycles.

Remove configuration 002 to give the operators more flexibility.

REVISION SEQUENCE

ORIGINAL: Nov 05/13

REVISION No. : 01 - Jul 28/15

REVISION No. : 02 - May 10/16

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SERVICE BULLETIN
SUMMARY

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

ATA SYSTEM: 49

**TITLE: AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING -
MODIFY ELECTRONIC CONTROL BOX (ECB) SOFTWARE FOR
HONEYWELL APU 131-9A.**

****CONF ALL**

MODIFICATIONS

MODIFICATION CLASSIFICATION					
MAJOR	None				
MINOR	155015G0840	155095G0889			

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

Honeywell Auxiliary Power Unit (APU) 131-9A Electronic Control Box (ECB) experiences data saturation of APU hours and cycles, which are not transmitted after 16383.

Operators are unable to track APU hours and cycles for Life Limited Parts (LLP) through Aircraft Communication Addressing and reporting System (ACARS) and to utilize Predicted Trending Monitoring Deployment (PTMD) to schedule APU removals. Data saturation also disables Reports 13 generation.

ECB software modification is proposed to address the hour/cycle data saturation and to expand tracking capability up to 131071 hours/cycles. The modification comprises the incorporation of two additional variables for hours and cycles with an increased range. The data will be transmitted via Aeronautical Radio Incorporated (ARINC) 429 (Labels 135 and 136) and stored in Data Memory Module (DMM).

This Service Bulletin is published to advise all operators of A318, A319, A320 and A321 aircraft of the issue of HONEYWELL Service Bulletin No. 131-49-8104.

This Service Bulletin is published to advise all operators of A318, A319, A320 and A321 aircraft of the issue of DIEHL Service Bulletin No. 3888394-49-8107.

NOTE: In order to read the new ARINC Labels 135 and 136, for Aircraft which have a Teledyne Flight Data Interface and Management Unit (FDIMU) installed, Service Bulletin No. A320-31-1341 or Service Bulletin No. A320-31-1342 are required. Please refer to Operators Information Transmission (OIT) 15-0005 for further information.

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SERVICE BULLETIN
SUMMARY

NOTE: The APU exceeding the 16383 APU hours (Label 132) or 16383 APU cycles (Label 133) may experience potentially an erroneous mismatch of the APU-hours/cycles between values computed by the Data Management Unit/Flight Data Interface and Management Unit (DMU/FDIMU) and the values displayed on the Multipurpose Control & Display Unit (MCDU) APU SERVICE DATA page. Refer to TFU No. 49.73.00.003 for the necessary procedure ensuring the traceability of APU-hours/cycles monitoring.

The accomplishment of this Service Bulletin will expand the tracking capability of the ECB from 16383 to 131071 hours/cycles.

Additional software enhancements have been incorporated to address occasional P2 fault and sporadic APU cycle loss.

This SB includes the ECB software improvements of the Service Bulletin No. A320-49-1075 (AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING - INTRODUCE HONEWELL VECB WITH SOFTWARE -04), which cancels the requirements of Service Bulletin No. A320-49-1068 (AIRBORNE AUXILIARY POWER - STARTER MOTOR AND AIR INTAKE SYSTEM INSPECTION/CLEANING.), in accordance with the EASA Airworthiness Directive (AD) No. 2006-0153, at its latest approved revision.

GENERAL EVALUATION

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

NOTE (1): Service Bulletin recommended to be accomplished to prevent significant operational disruptions.

MATERIAL PRICE INFORMATION

MATERIAL PRICE INFORMATION TABLE			
MATERIAL SET	QTY PER A/C	PRICE PER A/C (USD)	MAIN PARTS
Equipment BFEC01	1	See SB	Electronic Control Box
Equipment BFEC02	1	See SB	Electronic Control Box

EFFECTIVITY

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

SERVICE BULLETIN SUMMARY

03Q	03X	11S	13Y	15T	16T	17R	17S	20Q	23R	27V	29S	31P
31V	31X	32Q	38W	40N	40S	41N	41S	43S	45O	46U	47P	48O
48P	48T	52T	53Z	59N	59Z	61W	66P	69X	73W	74T	76W	78X
79W	80X	81P	82U	83Q	85T	86P	86Z	87Q	89Q	89T	91X	94W
95V	95W	98W	98X	AAF	AAL	AAR	AAW	AAZ	ABL	ABQ	ABY	ACA
ACI	ADR	AEE	AFL	AFR	AHY	AIC	AIJ	AIQ	ALK	AMC	AMU	ANA
ANR	ANZ	AOJ	APJ	ART	ARU	ASL	ATR	AUA	AUH	AVA	AWC	AWM
AWW	AXM	AZA	AZI	B2V	BAW	BEC	BEL	BER	BGF	BGH	BHP	BIE
BJN	BKP	BRS	BSX	BTK	BTN	BUC	C2C	C9G	CBJ	CCA	CCM	CDC
CEB	CEF	CES	CFG	CHB	CQH	CQN	CRK	CSA	CSC	CSN	CSZ	CTN
CTV	DAL	DAT	DCS	DKH	DLH	DNU	DNV	DQA	DRK	DTR	DWI	EAA
EDW	EIN	ELB	ETD	ETJ	EVA	EVE	EWG	EZY	F2I	FCB	FFT	FHY
FIN	FJW	FLI	FRN	FTZ	G4I	GAF	GAP	GBB	GCR	GFA	GHT	GIA
GLG	GMI	GMR	GOW	GSW	GWI	GZQ	HDA	HFY	HIM	HKE	HKJ	HRM
HTU	HVN	I2L	I2T	IAW	IBE	IBS	IGO	IND	IRA	IRC	ISR	ISS
IYE	IZG	JAD	JAS	JAV	JBU	JBW	JJP	JSA	JST	JZR	KAC	KAY
KFR	KGL	KHO	KHV	KKK	KNE	KPM	KZR	LAA	LAN	LAO	LBT	LFO
LIM	LJB	LKE	LLC	LLM	LLP	LMJ	LMU	LWA	LZB	MAC	MAU	MEA
MHK	MJF	MJN	MLD	MLM	MLR	MMA	MON	MOV	MRJ	MSC	MSR	MXA
MYX	NIA	NKS	NLY	NMA	NMB	NVD	NVR	NWS	OAW	OBS	OHY	OLY
ONE	ORF	OZW	PAL	PGT	PIA	PIC	PKZ	PTI	QAF	QDA	QSM	QTR
R1T	RBA	RBG	RCT	RFJ	RJA	RJD	RNA	ROT	ROU	RYW	RZO	SAA
SAI	SAS	SBI	SDM	SEY	SFJ	SFW	SGD	SGG	SGQ	SHJ	SHU	SKU
SLK	SND	SNX	SOL	SUD	SVA	SVR	SVW	SWM	SWR	SYA	SYR	TAE
TAI	TAM	TAP	TAR	TBA	TBJ	TBZ	TCW	TCX	TDR	TGW	THA	THD
THY	TJS	TNA	TSO	TTW	TVS	TXP	UAE	UAL	UEA	UJX	UKN	UNA
USA	UZB	VAR	VAX	VIM	VIP	VIV	VJC	VKG	VLG	VNL	VOE	VOI
VRD	VRE	VTI	VVC	WGT	WHT	WOW	WRC	WZZ				

CONCURRENT REQUIREMENTS

None

REFERENCES / REPERCUSSIONS

TFU	49.61.00.026 49.73.00.003
OEB	None
AOT	None
SIL	None
ISI	None
LINE MAINTENANCE AFFECTED	No
LIFE LIMIT	None
OTHER	Operators Information Transmission (OIT) No. 15-0005

NATURE OF THE WORK

AIRCRAFT	NO
EQUIPMENT	YES
HARD	YES
SOFT	YES
OBRM	YES

A318/A319/A320/A321

SERVICE BULLETIN SUMMARY

MANPOWER

Task 491107-831-943-001: Replace the old ECB by a new one	
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00

Task 491107-831-942-001: Modify/rework and re-identify the old ECB on-wing	
TOTAL MANHOURS	3.00
ELAPSED TIME (HOURS)	3.00

Additional manhours related to Vendor SB; refer to:	
Remove the power from the ECB	DIEHL Service Bulletin No. 3888394-49-8107
Rework and re-identify the ECB on-wing	DIEHL Service Bulletin No. 3888394-49-8107
Restore the power to ECB	DIEHL Service Bulletin No. 3888394-49-8107 HONEYWELL Service Bulletin No. 131-49-7900

Task 491107-831-944-001: Modify/rework and re-identify the old ECB on shop	
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00
Additional manhours related to Vendor SB; refer to:	
Modify the retained ECB in accordance with the VSB	DIEHL Service Bulletin No. 3888394-49-8107

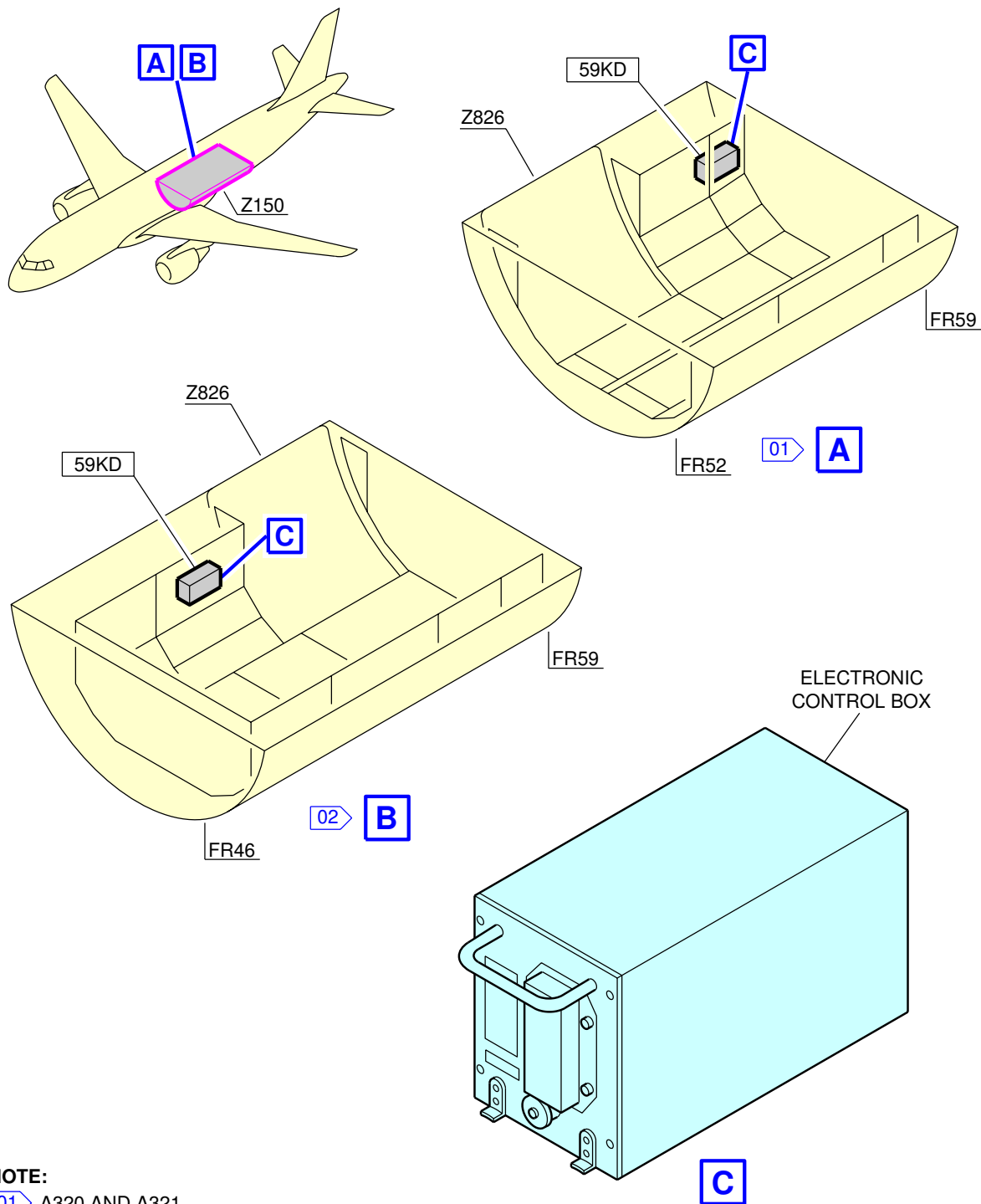
APPENDICES

None

A318/A319/A320/A321

SERVICE BULLETIN SUMMARY

****CONF ALL**



NOTE:

- 01** A320 AND A321
- 02** A318 AND A319

N_SB_491107_0_SAAA_01_01

Figure A-SSAAA - Sheet 01
- Location of the ECB

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**TITLE: AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING -
MODIFY ELECTRONIC CONTROL BOX (ECB) SOFTWARE FOR
HONEYWELL APU 131-9A.**

MODIFICATION No.: 155015G0840 155095G0889

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1. PLANNING INFORMATION

****CONF ALL**

A. EFFECTIVITY

NOTE: This Service Bulletin has been made applicable to aircraft with both HONEYWELL and APIC APUs due to the possibility to fit a HONEYWELL or an APIC APU through the RFC/RMO procedure. However this Service Bulletin can only be accomplished on aircraft fitted with the HONEYWELL APU 131-9.

NOTE: This Service Bulletin is only applicable to aircraft on which MOD No. 25888K4457 (INTRODUCE ALLIED SIGNAL APU 131-9(A)) is embodied.

(1) Models

318-111	318-112	318-121	318-122	319-111	319-112	319-113	319-114
319-115	319-131	319-132	319-133	320-211	320-212	320-214	320-216
320-231	320-232	320-233	321-111	321-112	321-131	321-211	321-212
321-213	321-231	321-232					

(2) Effectivity by MSN

0029 0045-0046 0049-0057 0059 0064-0073 0076-0078 0081-0087 0093-0094 0099
0104 0110-0113 0115-0119 0121-0127 0135 0137-0138 0140-0142 0148-0150
0152-0154 0157-0162 0164-0166 0168-0169 0171-0175 0178 0181-0183 0185 0189
0192 0194-0195 0197-0198 0200-0203 0205-0211 0213-0214 0216-0220 0224
0229-0232 0234 0237 0239 0242-0244 0248-0249 0251-0256 0259-0260 0262-0263

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0265-0269 0272-0273 0275-0277 0279 0281-0282 0284-0285 0287 0289-0298
 0300-0303 0306-0309 0311-0312 0314 0316-0322 0324-0325 0328-0332 0339-0343
 0345-0347 0350-0351 0353-0362 0364 0366-0368 0370-0373 0376 0378 0380-0383
 0385-0388 0390 0393 0395 0398-0410 0412-0418 0420-0424 0426-0432 0434-0436
 0438-0439 0441-0442 0444-0445 0447-0450 0452 0454 0456-0458 0460 0462-0466
 0468 0470 0472-0477 0479-0480 0482-0491 0493 0495-0514 0516-0535 0537-0546
 0548-0556 0558-0589 0591-0593 0595-0600 0603-0604 0607-0614 0616-0623 0625
 0627 0629-0631 0633-0673 0675-0706 0709 0711-0752 0754-0771 0773-0788
 0790-0798 0800-0898 0900-0955 0957-0977 0979-1043 1045-1067 1069-1073
 1075-1097 1099-1112 1114-1185 1187-1217 1219-1277 1279-1304 1306-1332
 1334-1373 1375-1463 1465-1607 1609-1659 1661-1675 1677-1697 1699-1726 1728
 1730-1767 1769-1812 1814-1821 1823-1829 1831-1918 1920-1929 1931-1938
 1940-1984 1986-1990 1993-2016 2018-2024 2026-2050 2052-2057 2059-2110
 2112-2127 2129-2217 2219-2275 2277-2423 2425-2499 2501-2721 2723-3037
 3039-3091 3093-3109 3111-3162 3164-3243 3245-3647 3649-4329 4331-6100
 6102-6285 6287-6418 6420-6463 6465-6619 6621-6641 6643-6672 6674-6719
 6721-6743 6745-6771 6773-6798 6800 6802-6818 6820-6828 6830-6832 6834-6838
 6840-6848 6850-6859 6861-6863 6865-6867 6869-6903 6905-6906 6908-6913
 6915-6919 6921-6945 6947-6951 6953-6966 6968-6974 6976-7000 7002-7010
 7012-7032 7034-7046 7048-7050 7052 7054-7059 7061-7073 7075-7077 7079-7082
 7084-7093 7095-7101 7104-7106 7108-7123 7125 7127-7128 7130-7139 7142-7146
 7148-7149 7151-7161 7163-7171 7173-7174 7176-7180 7182-7184 7187-7191
 7193-7194 7196-7204 7206-7208 7210-7235 7237-7248 7250-7251 7253-7268
 7270-7272 7274-7276 7278-7282 7284-7289 7292-7308 7310-7320 7322 7324-7328
 7332 7335-7340 7342 7344-7351 7353 7355-7358 7360-7366 7368-7379 7381-7385
 7388-7390 7392-7395 7397-7398 7400 7402-7408 7410-7416 7418

(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
03Q	0584 0770
03X	2421
11S	4211
13Y	0371
15T	0764 1494 2910 3261
16T	4024 4679
17R	5768
17S	3333
20Q	4842
23R	1730
27V	3826
29S	0291 0292
31P	0229
31V	0164 0293 0332 0420 0436 0565 0579 0591 0855 0932 0943 1048
31X	4319
32Q	1228 1283

A318/A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
38W	1194
40N	0065 0077
40S	1973
41N	3164 6727
41S	0630
43S	4650
45O	3402 5040
46U	2906 2952 2982 3275 3296 3332 3674 3734 3986 4053 5218 5900 6032 6749
47P	0619
48O	3362 3412
48P	2192
48T	6756 6817 7037
52T	1599
53Z	1468
59N	1589
59Z	1556
61W	0112
66P	0295 0368
69X	0219 0300 0328 0449 0588
73W	0087
74T	2165 4768 5182
76W	0140 0157
78X	1081
79W	3751
80X	2748
81P	0308
82U	0189 0279 0677
83Q	0477 0495
85T	0234
86P	0913
86Z	1706 1750
87Q	0052
89Q	0142 0747
89T	3356
91X	2837
94W	1818
95V	3379
95W	2949 4199
98W	0434 0441 0516 0524
98X	0551
AAF	0639 2180 2870 3136 3242 3289 4268 4589 4675 6012

A318/A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
AAL	5327 5678 5698 5704 5745 5753 5761 5781 5786 5788 5789 5798 5810 5827 5834 5842 5860 5884 5895 5904 5932 5938 5946 5955 5975 5983 5991 6020 6040 6046 6063 6070 6085 6094 6150 6154 6162 6222 6227 6238 6252 6256 6263 6271 6272 6277 6310 6313 6334 6346 6349 6384 6393 6401 6407 6429 6437 6456 6472 6473 6482 6491 6495 6520 6532 6552 6595 6621 6644 6647 6650 6656 6667 6687 6711 6723 6745 6761 6783 6790 6802 6812 6828 6840 6866 6887 6908 6909 6928 6940 6956 6973 6983 6998 7009 7013 7034 7046 7069 7079 7085 7131 7154 7157 7188 7301 7307 7310 7336 7349 7407
AAR	0802 1174 1356 1511 2247 2397 2459 3297 3437 3483 3496 3641 3873 4112 4142 5035 5169 5173 5287 5350 5382 5462 5500 5636 5767 5774 6299 6395 6768 6796 7052 7133 7266
AAW	3224 3236 3615 3657 4004 4521 5414 5448
AAY	0706 0714 0716 0730 0745 1229 1255 1262 1288 1292 1318 1347 1467 1530 1540 1694 2224 2265 2271 2319 2387 2398 2420 2427 2450 2556 2586 2702 2709 2729 2821
ABL	1227 1636 1670 1734 1970 2041 2045 2110 2226 2290 2732 2808 2840 2943
ABQ	3974 5891 5943 5966 6016 6067 6119
ABY	4310 4468 4524 4806 4848 4890 4958 5017 5276 5307 5423 5452 5502 5576 5718 5772 5889 5903 5984 6000 6054 6080 6166 6176 6234 6293 6365 6430 6444 6481 6553 6665 6737 6942 7096 7225 7226 7315
ACA	0059 0068 0073 0084 0122 0126 0127 0141 0149 0150 0154 0159 0174 0175 0183 0210 0231 0232 0242 0248 0253 0254 0255 0265 0277 0284 0290 0309 0324 0330 0341 0378 0403 0404 0546 0572 0634 0656 0670 0672 0682 0688 0691 0693 0695 0697 0711 0719 0721 0728 0732 0736 0740 0742 0752 0757 0769 0773 0779 0785 0800 0813 0817 0829 0831 0840 0845 1299 1562 1577 1602 1611 1623 1632 1638 1673 1691 1719 1726 1742 1748 1772 1783 1787 1811 1853 1864 1874 1940 1975 2018 2145 3051 3401 3884 6844
ACI	2152 3547
ADR	1000 4282 4301
AEE	1428 1433 1856 1909 1996 2468 2828 3033 3066 3074 3162 3302 3316 3322 3365 3392 3423 3439 3462 3478 3484 3519 3526 3527 3709 3714 3745 3748 3753 3773 3785 3812 3820 3829 3850 3878 3990 4065 4094 4165 6611 6643 6655 6832 6961 6989 7014
AFL	2106 2116 2133 2144 2233 2330 2337 2875 2920 2947 2957 2965 3052 3063 3157 3267 3334 3373 3410 3511 3545 3574 3627 3631 3640 3644 3699 3711 3778 3786 3789 3823 3835 3923 3954 4058 4074 4099 4103 4116 4133 4148 4160 4453 4461 4498 4500 4579 4625 4649 4656 4684 4692 4712 4835 5044 5059 5271 5421 5536 5565 5572 5578 5580 5585 5614 5720 5755 5790 5873 5881 5913 5921 5967 5970 5974 5982 5989 6017 6022 6043 6044 6060 6071 6090 6945 6954 6963 7038 7071 7072 7137 7193 7202 7215 7240 7255 7275 7279 7295 7300

A318/A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
AFR	0115 0214 0237 0239 0285 0287 0498 0509 0521 0529 0544 0598 0600 0608 0618 0625 0637 0777 0796 0985 1020 1025 1036 1133 1151 1169 1176 1190 1201 1216 1267 1271 1344 1404 1415 1444 1449 1471 1476 1502 1505 1524 1616 1622 1640 1645 1658 1677 1699 1733 1859 1879 1894 1900 1924 1938 1949 2035 2059 2071 2081 2100 2109 2140 2317 2344 2350 2456 2582 2601 2686 2705 2716 2721 2750 2918 2938 2951 2961 2967 2972 3008 3009 3098 3372 3399 3419 3420 3441 3470 3777 3795 3814 3825 3859 3930 4063 4084 4105 4137 4139 4241 4251 4267 4295 4298 4335 4402 4601 4604 4664 4714 4747 4800 4820 4901 4908 5084 5129 5719 5802 5869
AHY	0331 2487 2516 2588 2685 2788 2846 2853 2865 2991 3006 6285
AIC	0045 0046 0049 0050 0051 0056 0057 0398 0416 0423 0431 0432 0486 0490 0499 2593 2624 2629 2907 3130 3146 3212 3271 3288 3300 3305 3326 3340 3344 3367 3498 3551 3557 3573 3619 3620 3687 3752 3792 3822 3874 3918 3955 3970 4002 4009 4020 4029 4052 4078 4089 4096 4121 4138 4155 4164 4201 4212 4236 4237 4280 6446 6690 6715 6724 6803
AIJ	0169 1132 1162 1179 1244 1259 1308 1322 1780 2048 2227 2539 2930 2964 3021 3044 3123 3149 3160 3286 3304 3312 3374 3508 3514 3667 3690 4235 4304 4411 4730 4733 4924 4933 5163 5221 5358 5372 5653 5665 5867 5878 5933 7238 7264 7311 7345 7348 7358
AIQ	7030 7057
ALK	2345 2584 3397 3636 4694 4869 4915 5086
AMC	2189 2291 2332 2382 2665 2768 3056 3068
AMU	0631 0908 0928 1758 1790 1850 1912 1926 1962 4197 5352 5459 5523 6324 6517 6827 6912 6934 6938
ANA	0383 0413 0482 0501 0507 0531 0534 0549 0554 0658 0669 0685 7346 7382
ANR	0488 0671 0726
ANZ	2085 2090 2112 2130 2148 2153 2173 2257 2297 2445 2533 2594 2663 4553 4584 4884 4926 5629 5682 5847 5962 5993 6182 6460 6471 6533 6694 6706 7086 7362
AOJ	4503
APJ	4887 4936 5015 5166 5304 5384 5440 5540 5640 5724 5874 6004 6107 6335 6640 6674 6824 7370
ART	0244 0359 0533 0566 0662 0936 0984 1823 1873 2211
ARU	0573 0582 0805
ASL	1140 1159 2277 2296 2335 2587 2621 2645 3252 3317
ATR	0314 0393
AUA	0552 0570 0581 0768 0776 0797 0920 0935 1137 1150 1189 1385 1387 1458 1478 1504 1553 1678 1735 1931 1937 2009 2131 2174 2262 2416 2494 2547 2652
AUH	2403

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SERVICE BULLETIN

OPERATOR	MSN
AVA	1634 2328 2333 2358 2367 2377 2394 2523 2544 2552 2575 2662 3408 3467 3518 3647 3664 3691 3961 3980 3988 3992 4001 4011 4026 4046 4051 4100 4167 4200 4281 4284 4345 4381 4567 4599 4763 4789 4821 4862 4939 5057 5119 5195 5360 5398 5454 5477 5622 5632 5840 5944 6138 6153 6167 6174 6209 6219 6399 6411 6511 6617 6692 6739 6746 6767 6862 7120
AWC	2564 2791 3830 4701
AWM	0765
AWW	0597
AXM	0667 0743 0872 0874 1286 2137 2141 2147 2425 2612 2633 2656 2683 2699 2760 2816 2826 2842 2881 2885 2956 2989 3000 3018 3064 3117 3140 3154 3173 3182 3194 3201 3223 3232 3277 3291 3299 3327 3338 3353 3370 3394 3404 3427 3448 3477 3486 3489 3505 3521 3536 3549 3568 3576 3582 3610 3628 3679 3701 3715 3729 3765 3776 3813 3875 3963 3997 4019 4035 4070 4079 4088 4098 4126 4147 4263 4278 4293 4302 4333 4346 4361 4367 4386 4390 4404 4426 4458 4462 4477 4486 4557 4571 4582 4793 4797 4807 4882 4889 4917 4964 4969 4979 4980 4989 5098 5137 5149 5153 5165 5200 5215 5272 5283 5325 5344 5347 5353 5359 5397 5420 5428 5430 5431 5468 5505 5547 5593 5619 5627 5657 5703 5706 5762 5812 5824 5839 5846 5851 5863 5866 5888 5897 5905 5908 5914 5918 5959 6015 6034 6048 6064 6075 6084 6088 6096 6105 6145 6149 6158 6170 6178 6204 6215 6240 6262 6405 6428 6492 6676 6702 6972 7136 7164
AZA	0513 0514 0526 0532 0576 0583 0586 0593 0599 0819 0848 0940 0951 0959 1138 1168 1217 1220 1226 1448 1457 1473 1480 1489 1722 1740 1745 1770 1779 2033 2057 2074 2083 2086 2101 2127 2869 2932 2995 3076 3079 3115 3138 3161 3343 3563 3598 3609 3643 3666 3695 3732 3815 3846 3885 3906 3921 3956 3976 3978 4075 4108 4119 4143 4152 4195 4249 4520 4523 4536 4759 4764 4859 4875 4910 5018 5130 5294 5383 5424
AZI	0527
B2V	0185
BAW	1014 1082 1115 1118 1142 1177 1193 1197 1222 1225 1232 1236 1239 1258 1261 1279 1295 1329 1338 1380 1384 1418 1423 1424 1440 1445 1466 1482 1509 1510 1513 1529 1537 1558 1574 1590 1594 1604 1606 1613 1661 1665 1672 1687 1689 1690 1696 1708 1711 1754 1760 1771 1782 1804 1814 1829 1834 1871 1883 1892 1899 1902 1907 1910 1958 1987 2038 2040 2098 2188 2190 2194 2305 2320 2323 2324 2351 2363 2389 2429 2441 2466 2536 2653 2694 2697 2720 2799 2981 3049 3081 3089 3235 3254 3290 3301 3314 3351 3468 3499 3512 3550 3607 3649 3697 3703 3721 3726 3912 3926 4007 4039 4185 4238 4265 4306 4464 4551 4725 4791 4975 5634 5784 5856 5948 5985 6028 6091 6129 6155 6290
BEC	3199 5538
BEL	1086 1102 1160 1336 1388 1441 1493 1797 1803 1838 1885 1963 2114 2196 2207 2230 2392 2400 2700 2763 2810 2925 3255 3790 3895 4243 4275

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SERVICE BULLETIN

OPERATOR	MSN
BER	1629 1717 1769 1775 1852 1889 1961 1966 1988 1994 2003 2005 2562 2591 2606 2619 2627 3055 3080 3178 3202 3213 3295 3328 3464 3482 3502 3515 3516 3532 3700 3704 3708 3749 3865 3945 4013 4101 4161 4269 4291 4329 4334 4433 4510 4565 4728 5038 5126 5133 5522 6168 6432 6454 6501 6629 6639 6719 6831 6856 6877 6892 6902 6927 6966 7119 7171 7224 7260 7312 7404
BGF	3188
BGH	1087 2844 2863 3125 3139
BHP	2968 3245 3422 3604 4033 4187 4294 4631
BIE	0519 0827 0891
BJN	3617 4956
BKP	2254 2273 2310 2362 2366 2417 2509 2531 2600 2634 2648 2660 2664 2783 3421 3424 3454 3694 3759 3911
BRS	2263
BSX	0648 0650
BTK	6164 6280 6309 6356 6361 6372 6505 6628 6695 6697 6722 6782 6823 6951 6962 6991 7002 7050 7160 7223 7231 7245 7289 7337 7365 7392
BTN	1541 1551
BUC	0256
C2C	5023 5088 5907
C9G	1747
CBJ	2557 2561 2611 2644 2733 2985 3285 3520 3548 3561 3578 3580 3638 3768 3842 3849 3851 3914 3958 3982 4042 4388 4410 4412 4428 4440 4471 4483 4505 4513 4522 4529 4540 4580 4602 4677 5008 5072 5114 5185 5216 5331 5471 5630 5656 5722 5848 5997 6041 6120 6198 6206 6212 6229 6426 6480 6580 6664 6730 6759 6763 6769 6818 6853 6863 6913 7076 7144 7173 7191 7220 7288
CCA	0876 0921 1296 2000 2007 2015 2172 2202 2205 2237 2269 2285 2293 2298 2454 2499 2508 2525 2532 2545 2551 2559 2614 2643 2805 2819 2839 2847 2890 3195 3200 3215 3221 3226 3250 3307 3329 3337 3461 3506 3523 3601 3623 3653 3655 3665 3678 3722 3725 3766 3806 3940 3973 4022 4031 4062 4091 4131 4180 4221 4283 4317 4318 4348 4377 4472 4473 4494 4538 4566 4593 4617 4719 4771 4775 4803 4829 4834 4873 4895 4900 4949 4963 4985 4997 5014 5032 5054 5091 5124 5174 5199 5265 5346 5386 5419 5432 5435 5568 5573 5600 5664 5690 5743 5771 6013 6159 6169 6196 6239 6251 6273 6283 6308 6319 6354 6466 6514 6567 6579 6603 6641 6699 6743 6882 6921 6932 7041 7134 7161 7234 7248 7324
CCM	3325 3882 3952 5887 5906
CDC	6026 6055 6065 6157 6600 6648 6671 6679 6714 6764 6789 6805 6847 6941 7025 7027 7070 7178 7258
CEB	2625 2638 2786 2790 2831 2852 2876 2994 3048 3272 3762 3767 4447 4508 4537 4574 4852 4861 4870 4927 4993 5045 5067 5250 5320 5381 5442 5498 5669 5687 5917 5934 6021 6051 6317 6325 6418 6441 6741 6777 6925 6929 7066
CEF	2801 3085

OPERATOR	MSN
CES	0665 0754 0838 0854 0897 0909 0925 0939 1028 1030 1070 1072 1093 1108 1285 1303 1312 1316 1330 1345 1357 1361 1377 1386 1532 1542 1601 1639 1906 1911 1964 1981 2022 2034 2036 2049 2056 2068 2219 2221 2235 2239 2244 2309 2315 2437 2451 2478 2493 2498 2543 2549 2693 2757 2825 2882 2895 3168 3170 3186 3197 3233 3247 3249 3262 3471 3481 3559 3593 3611 3612 3613 3639 3650 3677 3682 3692 3716 3775 3793 3797 3870 3904 3929 3937 3965 3969 4027 4037 4043 4045 4111 4144 4186 4198 4209 4220 4239 4240 4252 4297 4309 4340 4342 4355 4374 4423 4627 4638 4659 4685 4702 4709 4711 4718 4722 4723 4729 4746 4748 4765 4769 4776 4799 4831 4844 4857 4877 4886 4903 4938 4946 4967 4987 5047 5048 5053 5063 5135 5136 5144 5156 5192 5210 5227 5242 5267 5273 5309 5326 5330 5338 5363 5376 5380 5402 5412 5439 5461 5481 5508 5516 5519 5524 5527 5558 5575 5623 5628 5668 5691 5700 5705 5710 5711 5726 5735 5759 5770 5823 5826 5852 5864 5886 5920 5942 5973 5998 6052 6062 6089 6111 6116 6127 6137 6144 6151 6160 6180 6191 6199 6203 6213 6228 6250 6258 6260 6269 6274 6284 6298 6305 6307 6323 6340 6355 6368 6373 6379 6396 6431 6453 6469 6499 6519 6578 6582 6593 6624 6630 6649 6661 6668 6688 6752 6762 6774 6792 6794 6814 6836 6850 6854 6872 6890 6900 6901 6915 6950 6957 6959 6960 6971 7004 7023 7049 7090 7113 7130 7168 7189 7194 7212 7244 7253 7254 7265 7306 7339 7360 7371 7374 7400 7413
CFG	0774 0809 0884 0894 0905 0957 0971 1416 1437 1607 5969 6053 6376 6459 6590 6615
CHB	4231 4262 4452 4482 4569 4644 4686 4687 4995 5105 5246 5626 5679 5740 5912 6023 6076 6237 6870 6924 7406
CQH	2939 3014 3023 3747 3819 4072 4093 4168 4244 4331 4366 4373 4375 4499 4586 4738 4750 4760 4809 4816 4909 4978 4983 5022 5051 5108 5378 5403 5434 5446 5466 5562 5778 5816 5911 6073 6117 6216 6218 6220 6231 6318 6329 6358 6403 6410 6452 6497 6524 6591 6765 6786 6815 6826 6846 6858 6874 6881 6931 6964 7016 7099 7122 7159 7219 7282 7308 7325 7338 7385 7408
CQN	0696 0698 0704 0705 3828 3836 3876 3901 3903 3941 5645 5713 5930
CRK	5147 5189 5266 5341 5416 5514 5544 6003 6246 6442 6776 7035 7077
CSA	3043 3094 3406 3436 3452 3660 3892 4258 4713
CSC	0540 0556 0878 0915 0919 1013 2313 2348 2431 2510 2534 2597 2639 3114 3116 3124 3158 3167 3196 3210 3386 3449 3583 3591 3680 3730 3893 3962 3996 4018 4068 4288 4326 4378 4420 4424 4525 4575 4619 4642 4660 4707 4731 4824 4830 4856 4905 4911 4923 5041 5121 5141 5160 5197 5208 5233 5286 5303 5389 5470 5543 5609 5646 5647 5650 5670 5765 5868 5896 5910 5937 5953 5964 5977 6008 6030 6148 6303 6316 6339 6367 6369 6386 6397 6402 6421 6475 6486 6540 6581 6635 6654 6677 6703 6710 6713 6732 6937 6982 7010 7073 7198 7227 7276 7320 7328 7350 7369

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SERVICE BULLETIN

OPERATOR	MSN
CSN	0712 0718 0720 0722 0849 0859 0881 0895 0900 0950 0966 1035 1039 1057 1596 1614 1776 1788 1971 1974 1986 1995 2004 2008 2067 2080 2200 2203 2232 2354 2361 2371 2408 2426 2435 2484 2505 2506 2511 2519 2521 2530 2541 2546 2554 2555 2558 2574 2579 2637 2680 2689 2701 2708 2713 2714 2741 2743 2759 2767 2770 2772 2796 2809 2815 2824 2834 2855 2861 2877 2899 2901 2915 2936 2940 2948 2950 2960 2969 2971 2986 3020 3067 3075 3112 3144 3217 3241 3251 3258 3269 3311 3342 3459 3493 3507 3552 3566 3587 3645 3681 3764 3784 3847 3860 3867 3890 3910 3920 3934 3938 3951 3959 3981 3983 3999 4003 4017 4036 4038 4071 4140 4172 4184 4189 4194 4205 4217 4224 4225 4230 4232 4248 4260 4266 4271 4274 4279 4290 4292 4299 4322 4325 4338 4341 4350 4362 4365 4369 4370 4387 4396 4416 4430 4456 4507 4550 4613 4671 4696 4751 4782 4794 4808 4836 4854 4864 4880 4883 4912 4919 4928 4982 5061 5151 5168 5170 5183 5202 5214 5225 5237 5268 5279 5288 5410 5480 5484 5503 5506 5534 5561 5564 5579 5602 5611 5655 5671 5693 5730 5736 5750 5756 5797 5817 5832 5837 5875 5890 5945 5949 5976 6018 6049 6078 6104 6106 6146 6186 6205 6211 6233 6241 6261 6366 6385 6440 6461 6462 6504 6506 6530 6551 6556 6612 6645 6974 6996 7022 7039 7064 7142 7151 7187 7222 7250 7271 7332 7366
CSZ	2672 2684 2841 2905 2909 2935 2973 2980 3131 3132 3153 3206 3366 3383 3435 3440 3456 3528 3599 3696 3698 3756 3848 3855 3887 3898 3935 3971 4010 4028 4159 4176 4208 4214 4226 4300 4359 4407 4409 4435 4474 4514 4531 4620 4633 4666 4726 4845 4866 4876 4897 4920 4929 4977 4986 5002 5082 5110 5176 5369 5521 5550 5589 5639 5731 5766 5986 6019 6197 6217 6564 6686 6708 6721 6728 6742 6911 6984 7075 7190 7197 7232 7247 7270
CTN	0767 0833 1009 1029 1237 1252
CTV	0839 0892 1635 2598 2692 3147 3148 3861 4961 5351 5379 5394 5399 5415 5511 5541 5551 5556 5560 5571 5574 5597 5777 5830 6118 6207 6224 6243 6270 6322 6333 6408 6434 6503 6596 6753 6980
DAL	0118 0121 0125 0152 0153 0160 0171 0192 0197 0206 0208 0213 0262 0263 0272 0273 0281 0282 0297 0298 0306 0307 0318 0319 0329 0339 0340 0355 0358 0360 0367 0372 0380 0381 0387 0388 0399 0408 0410 0417 0418 0766 0778 0786 0801 0807 0818 0830 0832 0846 0903 0907 0911 0923 0962 0964 0981 0988 0996 1011 1037 1058 1062 1191 1230 1249 1324 1325 1346 1392 1414 1434 1453 1456 1483 1498 1501 1520 1535 1543 1549 1567 1570 1582 1633 1641 1646 1659 1662 1683 1685 1693 1709 1714 1738 1746 1752 1766 1774 1789 1796 1800 1810 1812 1815 1820 1824 1828 1833 1839 1875 1897 1923 1959 1976 1982 1990 2002 2013 2026 2039 2047 2082 2087 2092 2095 6923 7031 7061 7112 7149 7165 7214 7233 7268 7281 7293 7304 7327 7364 7373 7381
DAT	0342 0409 0427 2091
DCS	1053 3243

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SERVICE BULLETIN

OPERATOR	MSN
DKH	2975 3027 3234 3268 3368 3485 3596 3605 3967 3984 4064 4102 4154 4276 4401 4429 4573 4587 4652 4833 4840 4981 5013 5070 5071 5131 5226 5329 5339 5455 5491 5674 5737 5876 6172 6221 6315 6392 6433 6435 6477 6542 6627 6637 6701 6808 6843 6855 6879 6916 6944 7065 7116 7169 7199 7208 7229 7303 7322
DLH	0069 0070 0071 0072 0078 0083 0086 0093 0094 0104 0110 0111 0116 0172 0412 0458 0468 0473 0474 0484 0493 0502 0505 0518 0560 0563 0564 0567 0595 0609 0610 0616 0623 0627 0636 0641 0651 0652 0679 0689 0692 0694 0699 0700 0717 0723 0729 0738 0744 0853 0860 0875 0887 0901 1080 1161 1188 1214 1260 1273 1337 1365 1367 3265 3339 3360 3387 3434 3592 3625 3864 3936 3987 4005 4016 4047 4054 4073 4085 4097 4120 4141 4153 4182 4191 4261 4289 4324 4332 4360 4363 4398 4449 4455 4511 4545 4560 4585 4607 4626 4672 4710 4753 4792 4796 4819 4841 4881 4916 4976 4994 5028 5049 5087 5122 5181 5186 5203 5239 5284 5293 5413 5425 5441 5487 5694 5741 5769 5831 5935 5972 6006 6033 6092 6141 6202 6225 6265 6301 6415 6423 6451 6521 6549 6577 6636 6947 6985 7024 7115 7158 7174 7251 7256 7355
DNU	0113 0406
DNV	2241
DQA	2347 2599
DRK	2306 2346 6496
DTR	0444 0447 2102
DWI	0561
EAA	0386
EDW	0942 0947 1026 1951 2024 2134
EIN	0926 1023 1094 1242 1394 1443 1983 2001 2191 2206 2217 2250 2256 2272 2294 2364 2374 2399 2409 2411 2432 2486 2542 2583 2635 3129 3174 3318 3345 3501 3755 3781 3857 4572 4634 4678 4715
ELB	1703 3705
ETD	0350 1947 1955 2167 3004 3050 3676 3693 3713 3902 4066 4077 4124 4934 5095 5348 5407 5714 5791 5821 5836 5882 5924 6108 6134 6143 6226 6382 6527 6534 6554 6731 6760 6821 6842
ETJ	0325 0428
EVA	3363 3886 5261 5328 5354 5377 5485 5792 5808 5849 6024 6042 6087 6179 6276 6312 6488 6545 6585 6653 6707 6747 6935 6999 7054 7101 7317 7344
EVE	5642
EWG	5497 5525 5557 5601 5635 5658 6807 6953 6992 7012 7019 7056 7087 7121 7148 7210 7216 7259 7261 7263 7377 7393 7394 7398 7412

A318/A319/A320/A321

SERVICE BULLETIN

OPERATOR	MSN
EZY	2037 2043 2050 2053 2062 2120 2170 2181 2184 2245 2289 2300 2353 2360 2370 2385 2402 2412 2463 2471 2477 2481 2492 2495 2503 2512 2514 2527 2528 2538 2565 2578 2605 2636 2646 2677 2681 2691 2715 2727 2735 2742 2744 2754 2765 2769 2777 2779 2782 2795 2803 2812 2818 2827 2829 2854 2860 2866 2873 2884 2923 2946 2959 3003 3036 3041 3053 3059 3061 3082 3084 3088 3090 3118 3122 3134 3137 3176 3184 3411 3413 3426 3432 3442 3466 3537 3544 3555 3569 3571 3608 3634 3675 3683 3702 3720 3735 3742 3746 3754 3763 3774 3788 3799 3805 3808 3810 3824 3843 3844 3845 3854 3871 3888 3909 3913 3922 3946 3953 3975 3979 3991 4006 4012 4014 4034 4040 4048 4056 4069 4076 4080 4087 4125 4129 4132 4157 4179 4196 4219 4233 4234 4250 4286 4313 4327 4380 4385 4418 4425 4427 4437 4444 4451 4554 4556 4588 4591 4624 4635 4636 4640 4646 4667 4676 4680 4693 4705 4708 4717 4721 4740 4744 4749 4778 4781 4785 4787 4837 5019 5020 5046 5052 5056 5064 5104 5111 5113 5116 5138 5146 5150 5187 5201 5224 5236 5249 5289 5318 5319 5542 5592 5638 5688 5702 5739 5757 5785 5927 5981 6011 6047 6095 6177 6188 6192 6267 6353 6412 6416 6485 6502 6509 6525 6541 6546 6562 6565 6568 6572 6587 6605 6606 6633 6675 6680 6754 6788 6834 6837 6885 6918 6970 6977 6981 7040 7044 7067 7093 7104 7132 7177 7183 7228 7235 7243 7340 7372 7410
F2I	0082 0085 0099 0138 0148 0168 0203 0220 0230 0243 0249 0251 0294 0301 0317 0347 0373 0422 0460 0496 0497 0525 0538 0555 0653 0657 0724 0758 0793 0976 1010 1753 1846
FCB	0558
FFT	1515 1583 1615 1684 1759 1781 1786 1806 1860 1943 1980 1997 2010 2012 2019 2030 2103 2198 2209 2236 2258 2260 2287 2318 2406 2448 2483 2518 2695 2806 2836 2857 3205 3389 3431 4127 4204 4253 4254 4272 4307 4562 4641 4668 4688 4704 4727 4745 5526 5581 5661 6184 6773 6793 6825 6838 6845 6891 6926 7042 7095 7097 7179 7184 7204 7272 7286 7294 7313 7389
FHY	2524 2804 3025 3852 3891 4207 4658 5096
FIN	0941 0961 1073 1107 1184 1185 1241 1309 1352 1364 1405 1470 1544 1588 1712 1913 1916 1978 1989 2065 2124 2146 2154 2208 2266 5758 5803 5922 5961 6083
FJW	2281
FLI	2186 3905 5079
FRN	0647 0660
FTZ	1145 2176 2268 2308 2891
G4I	1157 1795 2507
GAF	3897 4060
GAP	2162 2183 3087 3187 3273 3310 3455 3731 4777 4984 5007 5012 5103 5310 6201 6539
GBB	0053 0054 0064 0081
GCR	2338 2475 4600 4739 4825 5006 5117 5760 5799 5835 5850 5853 5894 5928 5971 6348 6449 6570 6820 6851 6898 6919 7068
GFA	4030 4059 4083 4146 4158 4188 4218 4255 4502 4541 4780 4827 4860 4865 5025 5074 5171 5175 5180 5257 5321 5336

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SERVICE BULLETIN

OPERATOR	MSN
GHT	0438
GIA	7091 7221 7297 7319
GLG	1866 1872 1882 1925 2078 2126 4379 4487 4547
GMI	0684 0970 0995 3019 3407 3533 3560 3950 4663 4691 5085 6005
GMR	1407
GOW	3306 3597 3616 3798 3827 3900 3915 4399 4438 5016 5112 5232 5463 5552 5675 5809 5811 5990 6072
GSW	3589 3818 5843
GWI	0117 0135 0137 0161 0162 0200 0201 0202 0209 0216 0217 0218 0267 0268 0269 0346 0382 0401 0646 0654 0794 1016 1077 1084 1089 1136 1147 1155 1170 1172 1209 1277 2607 2628 2632 2813 2833 2976 3011 3128 3172 3193 3352 3358 3375 3500 3534 3839 3841 4166 4227 4256 4285 4998 5043 5457 5467 5535 5569 5941 5978
GZQ	1878
HDA	0633 0756 0784 0812 0930 0993 1024 1253 1695 1721 1984 2021 2229 2238 2428 3369 3669 4023 4247 5024 5030 5362 5429
HFY	1004
HIM	6626
HKE	2299 2322 2717 4445 4970 5260 5264 5685 5725 5738 6142 6302 7363 7403
HKJ	2706 3073 4228 4878
HRM	0642 0879 1422
HTU	6156 6268
HVN	2255 2974 3005 3013 3022 3198 3315 3355 3600 3737 3862 3964 3966 4136 4213 4277 4311 4315 4669 4703 4737 4783 4826 4863 4945 4971 5164 5241 5247 5251 5275 5297 5306 5340 5385 5392 5418 5438 5456 5469 5495 5555 5699 5709 5916 5958 5994 6266 6344 6748 6810 6880
I2L	0491 0620 0668 0760 0787 0816 0954
I2T	1631 1682
IAW	4044 4067 5115 5290 5464
IBE	0158 0173 0207 0224 0266 0356 0938 0998 1021 1027 1154 1362 1516 1572 1655 1674 1681 1716 1793 1809 1836 2115 2220 2225 2242 2264 2270 2311 2357 2365 2391 2472 2488 2563 2736 2756 2889 2897 2996 3078 3209 3320 3380 3443 3651 3744 5486 5570 5692 6244 6328
IBS	1047 1059 1067 1099 1101 1119 1125 1198 1439 1450 1736 2104 2143 2248 2381 2807 5501 5590 5729 5815
IGO	1920 2108 2204 2275 2334 2359 2649 3357 3414 3453 3457 3497 3541 3618 3782 3863 3943 4008 4113 4156 4216 4312 4328 4384 4481 4488 4506 4518 4535 4552 4603 4609 4614 4630 4637 4752 4757 4762 4812 4813 4818 4868 4888 4918 4947 4954 4965 4973 5027 5036 5073 5076 5080 5090 5092 5094 5120 5155 5158 5188 5190 5194 5228 5230 5231 5259 5262 5291 5298 5313 5335 5365 5375 5411 5426 5437 5449 5460 5473 5476 5507 5537 5577 5641 5676 5683 5712 5727 5744 5807 5829 5893 5898 5923 5952 5992 6010 6036 6208 6247 6275 6287 6289 6336

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SERVICE BULLETIN

OPERATOR	MSN
IND	0343
IRA	0303 0312 0345 0575 0857 2054
IRC	0354 0414 0480
ISR	4354 4413 7110
ISS	0737 0749
IYE	4653 4690
IZG	0376 0395 0400 0407 0430 0476 0999
JAD	2764 3246
JAS	5478
JAV	0029 0537 2061
JBU	1123 1156 1173 1235 1240 1257 1270 1280 1302 1327 1398 1446 1452 1506 1528 1546 1557 1610 1650 1705 1739 1784 1785 1849 1861 1898 1904 1915 1917 1927 1948 2006 2020 2031 2042 2063 2075 2099 2125 2132 2136 2149 2150 2159 2160 2177 2201 2215 2231 2246 2259 2280 2284 2286 2307 2314 2336 2352 2368 2384 2386 2415 2447 2449 2461 2489 2491 2504 2520 2535 2577 2580 2640 2647 2671 2710 2725 2755 2781 2802 2814 2832 2848 2871 2880 2900 2945 2970 2977 2992 3029 3039 3072 3091 3119 3150 3190 3228 3263 3287 3348 3381 3416 3451 3479 3488 3517 3554 3572 3622 3659 3707 3724 3760 3800 3811 4578 4612 4647 4904 5060 5142 5148 5302 5312 5349 5417 5677 5723 5782 5783 5854 5865 5909 5960 6031 6130 6185 6245 6279 6326 6359 6390 6425 6448 6512 6560 6575 6609 6663 6725 6757 6791 6809 6859 6903 6930 6988 7018 7230 7257 7305 7353 7390 7415
JBW	0445
JJP	5093 5145 5161 5245 5274 5281 5355 5492 5499 5520 5598 5618 5649 5695 5701 5717 5732 5796 6296 6381
JSA	2316 2356 2423 2453 2604 4443 4515 4772 4786 4872 4914 5305 5323 5390 5433 5472 5708 5813
JST	1195 1408 2169 2185 2197 2292 2329 2455 2515 2526 2537 2573 2608 2642 2651 2703 2766 2787 3474 3495 3668 3717 3783 3899 3916 3917 3948 4177 4178 4229 4245 4257 4303 4343 4356 4434 4460 4466 4495 4497 4527 4899 4922 5039 5211 5270 5311 5334 5482 5489 5532 5566 5631 5775 5780 5814 5858 5871 6362 7384
JZR	3919 3939 4162 5033 5625 5833 6124
KAC	0181 0182 0195 2046 3957 6350 6375 6458 6476 6500 6516 6538
KAY	3046 4470 5963
KFR	2650
KGL	0663 1554
KHO	0311 0426 0644 0937
KHV	2303 2480 5343 5427
KKK	0604 0614 0675 0761 0808 0823 0963 0968 0974 1008 1124 1390 1438 1451 1503 1624 1950 1953 2029 2077 2747 2753
KNE	1942 1965 2123 2171 2182 2199 2569 2776 3218 3238 3256 3361 3396 3425 3475 3530 3787 3802 3809 3817 3868 3889 3894 3933 4055 4061 4735 5716
KPM	0357

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SERVICE BULLETIN

OPERATOR	MSN
KZR	1042 1204 3141 3614 5357 5401 5404 5613 5734 5870 5968 6029 6037
LAA	4405 4450 4490 4526 5373 5405 5494
LAN	1304 1332 1351 1355 1491 1512 1526 1548 1568 1854 1858 1877 1903 2089 2096 2295 2304 2321 2572 2585 2845 2858 2864 2872 2886 2892 2894 3264 3280 3319 3330 3535 3556 3663 3671 3770 3772 3779 4383 4400 4439 4476 4509 4516 4543 4546 4549 4563 4576 4597 4598 4605 4657 4697 4758 4767 4815 4839 4871 4892 4896 4921 4943 4972 5005 5097 5125 5178 5213 5229 5234 5263 5316 5324 5364 5408 5443 5453 5483 5493 5548 5554 5583 5586 5654 5666 5686 5707 5748 5764 5801 5818 5859 5929 5965 6135 6183 6364 6398 6406 6484 6670 6685 6698 6718 6729 6780 6797 6798 6894 6899 7036 7127 7128 7176 7237 7239 7287 7298 7379
LAO	4596 4639 5356 5396
LBT	1121 1175 1597 1744 2158 3480 3487 4623
LFO	0659
LIM	0828
LJB	3985
LKE	2581 2617 2746 3240 5100 5172 5220 7405
LLC	0415 0967 0990 1041 1715 2987 4203 4489
LLM	1054 1918 1956 1967 1969 1993 2413 2419 2439
LLP	0739 0883 0914 1007 1411 1723 2016 2118 2342 2903 2912 3191
LMJ	1868
LMU	0852 0977 1366 1561
LWA	2878 2954
LZB	2540 2596 3309 3564 3780
MAC	4539 4568 5143 5206 6896
MAU	1592 1936
MEA	1977 2055 3736 3804 3837 4296 4339 4632 5000 5152 5162 5253 5746 6978 7006
MHK	0550
MJF	4353
MJN	3723 4117 4795
MLD	0622 0741 2849
MLM	2550 3932 4622
MLR	1893 1946 2731 3106
MMA	0316 0973 1180 1247 1791
MON	0864 0983 1015 1045 1153 1207 1320 1413 1421 1571 1605 1637 1707 1763 1794 1941 2105 2142 2234 2553 2610 2730 2793 3278 3293 3458 3522 3546 3575 5582 5606 6059 6126 6550
MOV	2442 2446 3364 3403
MRJ	0530 1202 1300 1353
MSC	2937 2966 3282 3323 3626 3840
MSR	0165 0166 0178 0194 0198 0322 0351 0366 0680 0687 0715 0725 2070 2073 2079 2088 2094
MXA	0252 0259 0260 0275 0276 0296 0320 0321 0353
MYX	0888 1896

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SERVICE BULLETIN

OPERATOR	MSN
NIA	2410 2874 3183 3219 3925
NKS	2433 2470 2473 2476 2485 2490 2560 2567 2590 2603 2622 2673 2679 2698 2704 2711 2723 2797 2893 2898 2929 2942 2963 2978 2983 3007 3017 3026 3165 3393 3395 4206 4264 4321 4431 4548 4592 4595 4902 4951 4996 5029 5042 5132 5159 5370 5387 5458 5517 5624 5672 5804 5861 5880 5954 5999 6082 6193 6300 6304 6327 6331 6345 6370 6383 6424 6436 6463 6487 6507 6566 6586 6616 6672 6736 6770 6804 6867 6897 6994 7008 7021 7045 7058 7062 7106 7135 7156 7246 7296 7395
NLY	2529 2668 2749 2867 2902 3093 3121 3415 3447 3504 3661 3689 3728 4316 4368 4581 4594 4606 4611 4648 5648 6979
NMA	1697 1732 2676
NMB	3346 3586 5366 5400
NVD	0211 0528 0709 0902 1005 1626 1778 1998
NVR	2216
NWS	1219 1233 1276 1843 2927 2933 3034 3120
OAW	1886
OBS	3758
OHY	0364 0385 0543 0580 0640 0661 0676 0771 0792 0806 0810 0811 0835 0912 0916 2571 2688
OLY	0517 0535 0666 1612 2396
ONE	3001 3030 3062 3214 3216 3371 3390 3438 3469 3509 3585 3602 3606 3635 3642 4222 4287 4336 4891 4913 4941 4942 5193 5278 5299 5754 5841 6050 6057 6103 6110 6125 6139 6173 6528 6536 6561 6598 6634 6651 6689 6712 6800 6806 6813 6871 6876
ORF	2566 4992
OZW	0429 1922
PAL	3553 3579 3652 5081 5140 5315 5371 5715 5747 5787 5820 5825 5838 6074 6253 6291 6295 6330 6363 6371 6493 6531 6573 6623 7015 7180 7285 7357 7388
PGT	3831 4175 5879 5902 5950 5995 6465 6597 6619 6666 7145 7200
PIA	2155 2212 2274 2719 2758 2789 2926 2944 3031 3060 3097
PIC	2261 2267 2331 2340 2517 2670 2922 3012 3621 4459 4533 6136 7213 7262 7378
PKZ	6069
PTI	1263
QAF	0927 1335 3994 4114 4170
QDA	6061 6102 6259 6413 6547 6608 6681 6784 6893 6993 6995 7082
QSM	0607 0617
QTR	1487 1566 1648 1656 1773 1895 1928 1957 2097 2107 2121 2138 2161 2288 2341 3274 4110 4130 4173 4183 4382 4406 4436 4479 4496 4530 4615 4700 4754 4784 4802 4810 4858 4930 4968 5010 5078 5127 5217 5255 5361 5395 6347 6467 6494 6529 6622 6646 6717 6811
R1T	1908 6112
RBA	2032 2135 2139 2195 3071 6771 6816
RBG	3152
RCT	0466 1017 2023

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SERVICE BULLETIN

OPERATOR	MSN
RFJ	0814
RJA	2953 3428 3685 3803 3832 4670 4817 4853 5099 5128 5177
RJD	1618 5277
RNA	6445 6555
ROT	2931 2955 3220 3225
ROU	6873 6884 6905 7117
RYW	0569 5367
RZO	2011 2325 2390
SAA	2326 2355 2375 2379 2418 2438 2469 2501 4990 5011 5637 5680 5956 6007 6147 6189 6200 6306 6439 6478
SAI	0542 0877 1497 2027 2496 2502 3105 3270
SAS	1183 1383 1587 1619 1642 1675 1798 1807 1817 1848 2817 2850 2856 2883 2888 2911 2958 2990 3086 3159 3192 3227 3231 3292 3335
SBI	1071 1078 1090 1091 1126 1129 1131 1149 1164 1167 1819 1870 2028 2064 2076 2279 2369 2373 2464 2474 2618 2623 2641 2726 3070 3446 3473 3490 3494 3866 3880 4032 4150 5001 5026 5031 5106 5134 5167 5559 5607 5779 5919 6066 6171
SDM	0649 1130 1200 1379 1488 1560 1630 1654 1679 1743 1761 1767 1805 1808 1841 1851 1863 1876 1890 2093 2151 2163 2179 2465 2497 2751 2879 2913 3065 3179 3794 3942 3998
SEY	1944 1945
SFJ	4555 4720 5102 5393 5512 5652 5773 5862 5931 7414
SFW	0734 0994 1018
SGD	0424
SGG	0076
SGQ	6455 6474 6583 6733
SHJ	0910 6659
SHU	2052 2069 2072 2222 2243 3108 3281 3298 3336 3838
SKU	1400 1523 2119 2129 2214 2249 2251 2283 2378 2380 2436 2460 2548 3171 3331
SLK	0969 2252 2568 2775 3104 3570 3821 4118 4215 4259 4457 5050 5089 5296 5531 5794
SND	1880 1999
SNX	0289
SOL	0302
SUD	3040
SVA	4015 4057 4081 4090 4092 4104 4115 4122 4135 4273 4314 4337 4349 4357 4364 4376 4391 4392 4393 4394 4397 4408 4414 4419 4432 4442 4454 4467 4484 4501 4517 4519 4542 4564 4577 4590 4811 4823 4838 4925 4955 4962 5009 5065 5223 5285 5314 5447 5509 5549 7383
SVR	0735 0775 0815 0841 0991 1012 1063 1152 1199 1484 1579 1603 1720 1751 1777 1884 1901 1905 2117 2166 2175 2187 2278 2327 2343 2349 2707 2862 2998 3099 3107 3189 3385 3388 3433 3472 3834
SVW	2592 2921 3100 3133 3542 3856 5445

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SERVICE BULLETIN

OPERATOR	MSN
SWM	0421 0986 1293
SWR	0520 0522 0541 0545 0553 0559 0562 0574 0577 0578 0585 0596 0603 0612 0621 0635 0643 0664 0673 0681 0701 0703 0713 0727 0782 0987 1144 1762 4534 4618 4673 5037 5069 5518 5567 7007
SYA	3853 3872
SYR	0886 0918 1032 1076 1085 1117
TAE	0934 0946 0949 1339 1368 1500 1934 2084 2659
TAI	1066 1334 1598 1625 1952 2282 2301 2339 2434 2444 2687 2917 3042 3057 3103 3113 3248 3276 3378 3418 3510 3538 3869 4906 4944 5068 5219 5238 5243 5280 5333 5406 5936 6002 6068 6099 6132 6190 6861 7284 7318 7418
TAM	1092 1096 1103 1139 1143 1158 1215 1246 1251 1376 1459 1486 1518 1575 1580 1591 1593 1595 1628 1652 1692 1801 1802 1825 1826 1827 1831 1832 1835 1837 1855 1857 1888 1891 2014 2044 2372 2393 2467 2513 2661 2734 2737 2784 2838 2859 2887 2896 2904 2924 3002 3032 3035 3047 3058 3111 3156 3180 3211 3222 3229 3266 3284 3294 3313 3391 3540 3565 3588 3594 3595 3630 3658 3662 3710 3727 3733 3750 3761 3816 3908 3972 4000 4163 4171 4192 4320 4352 4358 4389 4441 4446 4465 4544 4570 4662 4734 4756 4773 4953 4974 5066 5101 5107 5109 5184 5209 5222 5240 5342 5345 5528 5591 5621 5643 5749 5752 5845 5883 5947 5987 6097 6121 6163 6165 6409 6414 6592 6632 6658 6895 6949 7005 7081 7098
TAP	0629 0750 0755 0763 0790 0821 0837 0870 0906 0917 0933 0945 0960 0979 0982 1034 1100 1106 1120 1127 1165 1181 1206 1231 1307 1399 1667 1668 1713 1718 1756 1765 1799 1816 2178 2792 2822 3769 3883 4021 4095 4106 4145
TAR	0119 0123 0124 0205 0370 0390 0402 0511 0869 0880 0958 0975 1187 1479 1700 3096 4344 4689 5204 5474 5610 6338
TBA	4766 4801 4846 5157 5256 5451 5529 5563 5855 6380 6391 6404 6588 6716 6986 7059 7092 7302 7361
TBJ	1485
TBZ	0361 0362 0405
TCW	1381 1402 1929 1954 1968
TCX	1006 1238 1250 1881 1887 1921 1972 2060 5603 5872 6038 6056 6114 6122 6515 6526 6548 6968 7003 7048 7055
TDR	0795
TGW	2724 2728 3757 3801 4181 4210 4421 4469 4491 4493 4532 4561 4608 4645 4879 4931 5496 5596 5605 5662 5697 5721 5805 5915 7203
THA	5198 5248 5258 5301 5436 5553 5806 5828 5857 5892 5951 5979 6113 6140 6254 6297 6374 6417
THD	6775 6795

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SERVICE BULLETIN

OPERATOR	MSN
THY	1002 2156 2164 2395 2401 2404 2414 2452 2522 2602 2609 2626 2631 2655 2738 2739 2823 2868 2916 2919 2928 2934 2941 2984 2999 3010 3015 3126 3142 3185 3207 3208 3239 3257 3259 3283 3303 3308 3341 3350 3382 3405 3429 3525 3539 3558 3567 3603 3637 3654 3673 3688 3718 3719 3738 3896 3931 3949 4629 4643 4654 4665 4682 4695 4698 4706 4755 4761 4774 4779 4788 4790 5077 5083 5118 5154 5205 5254 5388 5450 5465 5490 5546 5584 5633 5663 5667 5689 6508 6563 6599 6652 6657 6682 6709 6751 6758 6766 6781 6822 6869 6987 6990 7029 7089 7139 7146 7166 7242 7274 7299
TJS	3513 3632 4169
TNA	0731 0746 0791 0822 2376 2914 3577 6693 6734 7206 7375
TSO	6678 6726 7084
TTW	4804 4874 6187 6522 6604 6700 6917 6943
TVS	4699
TXP	0611
UAE	4822
UAL	0435 0439 0442 0450 0452 0454 0456 0457 0462 0463 0464 0465 0470 0472 0475 0479 0483 0485 0487 0489 0500 0503 0504 0506 0508 0510 0512 0523 0539 0568 0571 0587 0589 0592 0613 0638 0655 0678 0683 0686 0690 0702 0748 0751 0759 0780 0783 0788 0798 0804 0820 0824 0825 0826 0834 0836 0842 0843 0847 0850 0851 0858 0862 0865 0867 0871 0873 0882 0893 0898 0944 0948 0952 0955 0965 0980 0989 1001 1022 1031 1104 1105 1128 1146 1163 1192 1211 1243 1248 1266 1272 1282 1290 1291 1321 1341 1343 1359 1363 1401 1409 1420 1426 1427 1432 1435 1460 1469 1474 1475 1477 1495 1507 1508 1514 1522 1533 1538 1545 1555 1559 1569 1573 1581 1584 1585 1586 1600 1609 1617 1620 1627 1647 1649 1653 1664 1669 1671 1680 1688 1702 1728 1731 1737 1741 1755 1821 1840 1842 1845 1847 1865 2667
UEA	2654 2696 2762 2774 2820 2835 3024 3706 4347 4743 4988 5003 5191 5252 5957 6248 6281 6292 6357 6830 6922 7111 7201 7211 7292 7314 7397
UJX	0733 1213 1663
UKN	3260
UNA	4583 4732 5545

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SERVICE BULLETIN

OPERATOR	MSN
USA	0055 0066 0448 0762 0803 0844 0856 0861 0863 0866 0868 0885 0889 0890 0896 0904 0922 0924 0929 0931 0953 0972 0997 1003 1019 1033 1038 1040 1043 1046 1049 1050 1051 1052 1055 1056 1061 1064 1065 1069 1075 1079 1083 1088 1095 1097 1109 1110 1111 1112 1114 1116 1122 1134 1135 1141 1148 1166 1178 1182 1196 1203 1205 1223 1224 1234 1245 1254 1264 1265 1268 1269 1274 1275 1281 1284 1287 1289 1294 1297 1298 1301 1310 1311 1313 1314 1315 1317 1319 1323 1326 1328 1331 1340 1342 1348 1350 1354 1358 1360 1369 1371 1373 1375 1378 1382 1389 1391 1393 1395 1397 1403 1406 1410 1412 1417 1419 1425 1431 1436 1442 1447 1455 1462 1463 1465 1472 1481 1490 1492 1496 1499 1517 1519 1521 1525 1527 1531 1534 1536 1539 1547 1552 1563 1565 1576 1621 1643 1644 1651 1666 1701 1704 1710 1724 1764 1792 1844 1935 2193 2302 2312 2405 2422 2430 2458 2482 2570 2595 2613 2615 2630 2669 2690 3584 3629 3633 3712 3740 3796 3858 3879 3881 3924 3928 3944 3960 3977 3989 3993 4025 4041 4050 4082 4086 4107 4123 4134 4149 4202 4242 4843 4847 4850 4885 4893 4898 4932 4935 4940 4957 4960 4966 5235 5244 5269 5282 5292 5300 5317 5332 5368 5374 5409 5422 5444 5475 5504 5513 5588 5594 5644 5659 5684 5696 5728 5751 5763 5795 5800 5899 5939 5980 6027 6035 6100 6133 6152 6175 6181 6194 6214 6230 6236 6249 6255 6264 6337 6387 6420 6427 6443 6479 6490 6523 6537 6543 6569 6613 6618 6625
UZB	4371 4395 4417 4485 4492 4528 4651 4724 4770 4952
VAR	2383 2718
VAX	3581 5055 6009 6294 7356
VIM	1060 2457
VIP	4151
VIV	2157 2210 2443 2576 2752 2908 3743 6574 6602 6750 6755 6857 6875 6886 6888 6955 7020 7043 7153
VJC	2712 2745 3646 3739 3791 4049 4190 4193 4415 4475 4504 4512 4907 5295 5742 5822 6025 6242 6341 6378 6457 6498 6584 6696 6738 6779 6852 6878 6936 6958 6997 7143 7167 7170 7241 7278 7342
VKG	1932 1960 6314 6342 6351 6389 6438 6468
VLG	0992 1171 1208 1210 1221 1349 1372 1396 1430 1461 1550 1749 1862 1914 1933 1979 2168 2223 2388 2407 2479 2589 2620 2658 2678 2761 2785 2794 2798 2843 2962 2988 3028 3054 3083 3095 3102 3109 3145 3151 3169 3203 3237 3321 3376 3377 3400 3444 3476 3492 3529 3833 3907 3995 4128 4463 4478 4661 4674 4681 4742 4849 4855 4937 5479 5530 5533 5587 5599 5612 5616 5620 5673 5877 5885 5925 5940 6039 6045 6079 6081 6123 6128 6377 6400 6450 6483 6510 6518 6535 6557 6571 6594 6607 6638 6660 6684 6691 6740 6841 6883 6933 7017 7026 7028 7105 7108 7109 7152 7218 7351 7402
VNL	5844 5901 5926 6257 6282 6320 6422 6447 7080 7411
VOE	2113 2122 2240 2253

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SERVICE BULLETIN

OPERATOR	MSN
VOI	2657 2666 2771 2780 2979 2997 3045 3069 3077 3175 3253 3279 3450 3463 3491 3524 3543 3590 3624 3672 4403 4422 4741 4798 4828 4832 4950 5062 5207 5212 5308 5322 5337 5391 5488 5510 5595 5651 5776 5793 5819 5988 5996 6014 6109 6161 6288 6321 6332 6470 6558 6601 6610 6705 6778 6906 6948 6969 7000 7088 7118 7123 7125 7196 7326 7335 7368 7376 7416
VRD	2616 2674 2740 2773 2778 2800 2811 2830 2851 2993 3016 3037 3101 3135 3155 3181 3204 3230 3324 3347 3349 3359 3398 3417 3445 3460 3465 3503 3656 3670 3684 3686 4448 4480 4558 4559 4610 4616 4655 4805 4814 4851 4867 4894 4948 4959 4991 4999 5004 5034 5058 5179 5515 6669 6704 6787 6835 6889 6939 6965 7063 7138 7207
VRE	0067 1429 2066 2213 2228
VTI	6223 6278 6311 6343 6388 6513 6735 6785 6865 7100 7163 7267 7347
VVC	1306 1370 1454 1564 1578 1657 1686 1725 1757 1867
WGT	1212
WHT	0548 1256 2440 2675
WOW	4270 4305 5681 5733 6210 6232
WRC	0645 0781 1869 2462 2682
WZZ	3127 3143 3166 3177 3354 3384 3409 3430 3531 3562 3741 3771 3807 3877 3927 3947 3968 4109 4174 4223 4246 4308 4323 4351 4372 4621 4628 4683 4716 4736 5021 5075 5123 5139 5196 5539 5604 5608 5615 5617 5660 6001 6058 6077 6086 6093 6098 6115 6131 6195 6235 6352 6360 6394 6489 6544 6559 6576 6589 6614 6631 6662 6683 6848 6910 6976 7032 7114 7155 7182 7217 7280 7316

(4) Configuration by MSN

MSN	CONFIGURATION
0029 0045 0046 0049 0050 0051 0052 0053 0054 0055 0056 0057 0059 0064 0065 0066 0067 0068 0069 0070 0071 0072 0073 0076 0077 0078 0081 0082 0083 0084 0085 0086 0087 0093 0094 0099 0104 0110 0111 0112 0113 0115 0116 0117 0118 0119 0121 0122 0123 0124 0125 0126 0127 0135 0137 0138 0140 0141 0142 0148 0149 0150 0152 0153 0154 0157 0158 0159 0160 0161 0162 0164 0165 0166 0168 0169 0171 0172 0173 0174 0175 0178 0181 0182 0183 0185 0189 0192 0194 0195 0197 0198 0200 0201 0202 0203 0205 0206 0207 0208 0209 0210 0211 0213 0214 0216 0217 0218 0219 0220 0224 0229 0230 0231 0232 0234 0237 0239 0242 0243 0244 0248 0249 0251 0252 0253 0254 0255 0256 0259 0260 0262 0263 0265 0266 0267 0268 0269 0272 0273 0275 0276 0277 0279 0281 0282 0284 0285 0287 0289 0290 0291 0292 0293 0294 0295 0296 0297 0298 0300 0301 0302 0303 0306 0307 0308 0309 0311 0312 0314 0316 0317 0318 0319 0320 0321 0322 0324 0325 0328 0329 0330 0331 0332 0339 0340 0341 0342 0343 0345 0346 0347 0350 0351 0353 0354 0355 0356 0357 0358 0359 0360 0361 0362 0364 0366 0367 0368 0370 0371 0372 0373 0376 0378 0380 0381 0382 0383 0385 0386 0387 0388 0390 0393 0395 0398 0399 0400 0401 0402 0403 0404 0405 0406 0407 0408 0409 0410 0412 0413 0414 0415 0416 0417 0418 0420 0421 0422 0423 0424 0426 0427 0428 0429 0430 0431 0432 0434 0435 0436 0438 0439 0441 0442 0444 0445 0447 0448 0449 0450 0452 0454 0456 0457 0458 0460 0462 0463 0464 0465 0466 0468 0470 0472 0473 0474 0475 0476 0477 0479 0480 0482 0483 0484 0485 0486 0487 0488 0489 0490 0491 0493 0495 0496 0497 0498 0499 0500 0501 0502 0503 0504 0505 0506 0507 0508 0509 0510 0511 0512 0513 0514 0516 0517 0518 0519 0520 0521 0522 0523 0524 0525 0526 0527 0528 0529 0530 0531 0532 0533 0534 0535 0537 0538 0539 0540 0541 0542 0543 0544 0545 0546 0548 0549 0550 0551 0552 0553 0554 0555 0556 0558 0559 0560 0561 0562 0563 0564 0565 0566 0567 0568 0569 0570 0571 0572 0573 0574 0575 0576 0577 0578 0579 0580 0581 0582 0583 0584 0585 0586 0587 0588 0589 0591 0592 0593 0595 0596 0597 0598 0599 0600 0603 0604 0607 0608 0609 0610 0611 0612 0613 0614 0616 0617 0618 0619 0620 0621 0622 0623 0625 0627 0629 0630 0631 0633 0634 0635 0636 0637 0638 0639 0640 0641 0642 0643 0644 0645 0646 0647 0648 0649 0650 0651 0652 0653 0654 0655 0656 0657 0658 0659 0660 0661 0662 0663 0664 0665 0666 0667 0668 0669 0670 0671 0672 0673 0675 0676 0677 0678 0679 0680 0681 0682 0683 0684 0685 0686 0687 0688 0689 0690 0691 0692 0693 0694 0695 0696 0697 0698 0699 0700 0701 0702 0703 0704 0705 0706 0709 0711 0712 0713 0714 0715 0716 0717 0718 0719 0720 0721 0722 0723 0724 0725 0726 0727 0728 0729 0730 0731 0732 0733 0734 0735 0736 0737 0738 0739 0740 0741 0742 0743 0744 0745 0746 0747 0748 0749 0750	001

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SERVICE BULLETIN

MSN	CONFIGURATION
0751 0752 0754 0755 0756 0757 0758 0759 0760 0761 0762 0763 0764 0765 0766 0767 0768 0769 0770 0771 0773 0774 0775 0776 0777 0778 0779 0780 0781 0782 0783 0784 0785 0786 0787 0788 0790 0791 0792 0793 0794 0795 0796 0797 0798 0800 0801 0802 0803 0804 0805 0806 0807 0808 0809 0810 0811 0812 0813 0814 0815 0816 0817 0818 0819 0820 0821 0822 0823 0824 0825 0826 0827 0828 0829 0830 0831 0832 0833 0834 0835 0836 0837 0838 0839 0840 0841 0842 0843 0844 0845 0846 0847 0848 0849 0850 0851 0852 0853 0854 0855 0856 0857 0858 0859 0860 0861 0862 0863 0864 0865 0866 0867 0868 0869 0870 0871 0872 0873 0874 0875 0876 0877 0878 0879 0880 0881 0882 0883 0884 0885 0886 0887 0888 0889 0890 0891 0892 0893 0894 0895 0896 0897 0898 0900 0901 0902 0903 0904 0905 0906 0907 0908 0909 0910 0911 0912 0913 0914 0915 0916 0917 0918 0919 0920 0921 0922 0923 0924 0925 0926 0927 0928 0929 0930 0931 0932 0933 0934 0935 0936 0937 0938 0939 0940 0941 0942 0943 0944 0945 0946 0947 0948 0949 0950 0951 0952 0953 0954 0955 0957 0958 0959 0960 0961 0962 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972 0973 0974 0975 0976 0977 0979 0980 0981 0982 0983 0984 0985 0986 0987 0988 0989 0990 0991 0992 0993 0994 0995 0996 0997 0998 0999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1069 1070 1071 1072 1073 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1099 1100 1101 1102 1103 1104 1105 1106 1107 1108 1109 1110 1111 1112 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123 1124 1125 1126 1127 1128 1129 1130 1131 1132 1133 1134 1135 1136 1137 1138 1139 1140 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1187 1188 1189 1190 1191 1192 1193 1194 1195 1196 1197 1198 1199 1200 1201 1202 1203 1204 1205 1206 1207 1208 1209 1210 1211 1212 1213 1214 1215 1216 1217 1219 1220 1221 1222 1223 1224 1225 1226 1227 1228 1229 1230 1231 1232 1233 1234 1235 1236 1237 1238 1239 1240 1241 1242 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1260 1261 1262 1263 1264 1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317 1318 1319 1320 1321 1322 1323 1324 1325 1326 1327	001

SERVICE BULLETIN

MSN	CONFIGURATION
1328 1329 1330 1331 1332 1334 1335 1336 1337 1338 1339 1340 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350 1351 1352 1353 1354 1355 1356 1357 1358 1359 1360 1361 1362 1363 1364 1365 1366 1367 1368 1369 1370 1371 1372 1373 1375 1376 1377 1378 1379 1380 1381 1382 1383 1384 1385 1386 1387 1388 1389 1390 1391 1392 1393 1394 1395 1396 1397 1398 1399 1400 1401 1402 1403 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1415 1416 1417 1418 1419 1420 1421 1422 1423 1424 1425 1426 1427 1428 1429 1430 1431 1432 1433 1434 1435 1436 1437 1438 1439 1440 1441 1442 1443 1444 1445 1446 1447 1448 1449 1450 1451 1452 1453 1454 1455 1456 1457 1458 1459 1460 1461 1462 1463 1465 1466 1467 1468 1469 1470 1471 1472 1473 1474 1475 1476 1477 1478 1479 1480 1481 1482 1483 1484 1485 1486 1487 1488 1489 1490 1491 1492 1493 1494 1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530 1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560 1561 1562 1563 1564 1565 1566 1567 1568 1569 1570 1571 1572 1573 1574 1575 1576 1577 1578 1579 1580 1581 1582 1583 1584 1585 1586 1587 1588 1589 1590 1591 1592 1593 1594 1595 1596 1597 1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1609 1610 1611 1612 1613 1614 1615 1616 1617 1618 1619 1620 1621 1622 1623 1624 1625 1626 1627 1628 1629 1630 1631 1632 1633 1634 1635 1636 1637 1638 1639 1640 1641 1642 1643 1644 1645 1646 1647 1648 1649 1650 1651 1652 1653 1654 1655 1656 1657 1658 1659 1661 1662 1663 1664 1665 1666 1667 1668 1669 1670 1671 1672 1673 1674 1675 1677 1678 1679 1680 1681 1682 1683 1684 1685 1686 1687 1688 1689 1690 1691 1692 1693 1694 1695 1696 1697 1699 1700 1701 1702 1703 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1714 1715 1716 1717 1718 1719 1720 1721 1722 1723 1724 1725 1726 1728 1730 1731 1732 1733 1734 1735 1736 1737 1738 1739 1740 1741 1742 1743 1744 1745 1746 1747 1748 1749 1750 1751 1752 1753 1754 1755 1756 1757 1758 1759 1760 1761 1762 1763 1764 1765 1766 1767 1769 1770 1771 1772 1773 1774 1775 1776 1777 1778 1779 1780 1781 1782 1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802 1803 1804 1805 1806 1807 1808 1809 1810 1811 1812 1814 1815 1816 1817 1818 1819 1820 1821 1823 1824 1825 1826 1827 1828 1829 1831 1832 1833 1834 1835 1836 1837 1838 1839 1840 1841 1842 1843 1844 1845 1846 1847 1848 1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901	001

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SERVICE BULLETIN

MSN	CONFIGURATION
1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1931 1932 1933 1934 1935 1936 1937 1938 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1986 1987 1988 1989 1990 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2018 2019 2020 2021 2022 2023 2024 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2052 2053 2054 2055 2056 2057 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477	001

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SERVICE BULLETIN

MSN	CONFIGURATION
2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808 2809 2810 2811 2812 2813 2814 2815 2816 2817 2818 2819 2820 2821 2822 2823 2824 2825 2826 2827 2828 2829 2830 2831 2832 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842 2843 2844 2845 2846 2847 2848 2849 2850 2851 2852 2853 2854 2855 2856 2857 2858 2859 2860 2861 2862 2863 2864 2865 2866 2867 2868 2869 2870 2871 2872 2873 2874 2875 2876 2877 2878 2879 2880 2881 2882 2883 2884 2885 2886 2887 2888 2889 2890 2891 2892 2893 2894 2895 2896 2897 2898 2899 2900 2901 2902 2903 2904 2905 2906 2907 2908 2909 2910 2911 2912 2913 2914 2915 2916 2917 2918 2919 2920 2921 2922 2923 2924 2925 2926 2927 2928 2929 2930 2931 2932 2933 2934 2935 2936 2937 2938 2939 2940 2941 2942 2943 2944 2945 2946 2947 2948 2949 2950 2951 2952 2953 2954 2955 2956 2957 2958 2959 2960 2961 2962 2963 2964 2965 2966 2967 2968 2969 2970 2971 2972 2973 2974 2975 2976 2977 2978 2979 2980 2981 2982 2983 2984 2985 2986 2987 2988 2989 2990 2991 2992 2993 2994 2995 2996 2997 2998 2999 3000 3001 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013 3014 3015 3016 3017 3018 3019 3020 3021 3022 3023 3024 3025 3026 3027 3028 3029 3030 3031 3032 3033 3034 3035 3036 3037 3039 3040 3041	001

A318/A319/A320/A321

SERVICE BULLETIN

MSN	CONFIGURATION
3042 3043 3044 3045 3046 3047 3048 3049 3050 3051 3052 3053 3054 3055 3056 3057 3058 3059 3060 3061 3062 3063 3064 3065 3066 3067 3068 3069 3070 3071 3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090 3091 3093 3094 3095 3096 3097 3098 3099 3100 3101 3102 3103 3104 3105 3106 3107 3108 3109 3111 3112 3113 3114 3115 3116 3117 3118 3119 3120 3121 3122 3123 3124 3125 3126 3127 3128 3129 3130 3131 3132 3133 3134 3135 3136 3137 3138 3139 3140 3141 3142 3143 3144 3145 3146 3147 3148 3149 3150 3151 3152 3153 3154 3155 3156 3157 3158 3159 3160 3161 3162 3164 3165 3166 3167 3168 3169 3170 3171 3172 3173 3174 3175 3176 3177 3178 3179 3180 3181 3182 3183 3184 3185 3186 3187 3188 3189 3190 3191 3192 3193 3194 3195 3196 3197 3198 3199 3200 3201 3202 3203 3204 3205 3206 3207 3208 3209 3210 3211 3212 3213 3214 3215 3216 3217 3218 3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230 3231 3232 3233 3234 3235 3236 3237 3238 3239 3240 3241 3242 3243 3245 3246 3247 3248 3249 3250 3251 3252 3253 3254 3255 3256 3257 3258 3259 3260 3261 3262 3263 3264 3265 3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3279 3280 3281 3282 3283 3284 3285 3286 3287 3288 3289 3290 3291 3292 3293 3294 3295 3296 3297 3298 3299 3300 3301 3302 3303 3304 3305 3306 3307 3308 3309 3310 3311 3312 3313 3314 3315 3316 3317 3318 3319 3320 3321 3322 3323 3324 3325 3326 3327 3328 3329 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340 3341 3342 3343 3344 3345 3346 3347 3348 3349 3350 3351 3352 3353 3354 3355 3356 3357 3358 3359 3360 3361 3362 3363 3364 3365 3366 3367 3368 3369 3370 3371 3372 3373 3374 3375 3376 3377 3378 3379 3380 3381 3382 3383 3384 3385 3386 3387 3388 3389 3390 3391 3392 3393 3394 3395 3396 3397 3398 3399 3400 3401 3402 3403 3404 3405 3406 3407 3408 3409 3410 3411 3412 3413 3414 3415 3416 3417 3418 3419 3420 3421 3422 3423 3424 3425 3426 3427 3428 3429 3430 3431 3432 3433 3434 3435 3436 3437 3438 3439 3440 3441 3442 3443 3444 3445 3446 3447 3448 3449 3450 3451 3452 3453 3454 3455 3456 3457 3458 3459 3460 3461 3462 3463 3464 3465 3466 3467 3468 3469 3470 3471 3472 3473 3474 3475 3476 3477 3478 3479 3480 3481 3482 3483 3484 3485 3486 3487 3488 3489 3490 3491 3492 3493 3494 3495 3496 3497 3498 3499 3500 3501 3502 3503 3504 3505 3506 3507 3508 3509 3510 3511 3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529 3530 3531 3532 3533 3534 3535 3536 3537 3538 3539 3540 3541 3542 3543 3544 3545 3546 3547 3548 3549 3550 3551 3552 3553 3554 3555 3556 3557 3558 3559 3560 3561 3562 3563 3564 3565 3566 3567 3568 3569 3570 3571 3572 3573 3574 3575 3576 3577 3578 3579 3580 3581 3582 3583 3584 3585 3586 3587 3588 3589 3590 3591 3592 3593 3594 3595 3596 3597 3598 3599 3600 3601 3602 3603 3604 3605 3606	001

A318/A319/A320/A321

SERVICE BULLETIN

MSN	CONFIGURATION
3607 3608 3609 3610 3611 3612 3613 3614 3615 3616 3617 3618 3619 3620 3621 3622 3623 3624 3625 3626 3627 3628 3629 3630 3631 3632 3633 3634 3635 3636 3637 3638 3639 3640 3641 3642 3643 3644 3645 3646 3647 3649 3650 3651 3652 3653 3654 3655 3656 3657 3658 3659 3660 3661 3662 3663 3664 3665 3666 3667 3668 3669 3670 3671 3672 3673 3674 3675 3676 3677 3678 3679 3680 3681 3682 3683 3684 3685 3686 3687 3688 3689 3690 3691 3692 3693 3694 3695 3696 3697 3698 3699 3700 3701 3702 3703 3704 3705 3706 3707 3708 3709 3710 3711 3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724 3725 3726 3727 3728 3729 3730 3731 3732 3733 3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746 3747 3748 3749 3750 3751 3752 3753 3754 3755 3756 3757 3758 3759 3760 3761 3762 3763 3764 3765 3766 3767 3768 3769 3770 3771 3772 3773 3774 3775 3776 3777 3778 3779 3780 3781 3782 3783 3784 3785 3786 3787 3788 3789 3790 3791 3792 3793 3794 3795 3796 3797 3798 3799 3800 3801 3802 3803 3804 3805 3806 3807 3808 3809 3810 3811 3812 3813 3814 3815 3816 3817 3818 3819 3820 3821 3822 3823 3824 3825 3826 3827 3828 3829 3830 3831 3832 3833 3834 3835 3836 3837 3838 3839 3840 3841 3842 3843 3844 3845 3846 3847 3848 3849 3850 3851 3852 3853 3854 3855 3856 3857 3858 3859 3860 3861 3862 3863 3864 3865 3866 3867 3868 3869 3870 3871 3872 3873 3874 3875 3876 3877 3878 3879 3880 3881 3882 3883 3884 3885 3886 3887 3888 3889 3890 3891 3892 3893 3894 3895 3896 3897 3898 3899 3900 3901 3902 3903 3904 3905 3906 3907 3908 3909 3910 3911 3912 3913 3914 3915 3916 3917 3918 3919 3920 3921 3922 3923 3924 3925 3926 3927 3928 3929 3930 3931 3932 3933 3934 3935 3936 3937 3938 3939 3940 3941 3942 3943 3944 3945 3946 3947 3948 3949 3950 3951 3952 3953 3954 3955 3956 3957 3958 3959 3960 3961 3962 3963 3964 3965 3966 3967 3968 3969 3970 3971 3972 3973 3974 3975 3976 3977 3978 3979 3980 3981 3982 3983 3984 3985 3986 3987 3988 3989 3990 3991 3992 3993 3994 3995 3996 3997 3998 3999 4000 4001 4002 4003 4004 4005 4006 4007 4008 4009 4010 4011 4012 4013 4014 4015 4016 4017 4018 4019 4020 4021 4022 4023 4024 4025 4026 4027 4028 4029 4030 4031 4032 4033 4034 4035 4036 4037 4038 4039 4040 4041 4042 4043 4044 4045 4046 4047 4048 4049 4050 4051 4052 4053 4054 4055 4056 4057 4058 4059 4060 4061 4062 4063 4064 4065 4066 4067 4068 4069 4070 4071 4072 4073 4074 4075 4076 4077 4078 4079 4080 4081 4082 4083 4084 4085 4086 4087 4088 4089 4090 4091 4092 4093 4094 4095 4096 4097 4098 4099 4100 4101 4102 4103 4104 4105 4106 4107 4108 4109 4110 4111 4112 4113 4114 4115 4116 4117 4118 4119 4120 4121 4122 4123 4124 4125 4126 4127 4128 4129 4130 4131 4132 4133 4134 4135 4136 4137 4138 4139 4140 4141 4142 4143 4144 4145 4146 4147 4148 4149 4150 4151 4152 4153 4154 4155 4156 4157 4158 4159 4160 4161 4162 4163 4164 4165 4166 4167 4168	001

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SERVICE BULLETIN

MSN	CONFIGURATION
4169 4170 4171 4172 4173 4174 4175 4176 4177 4178 4179 4180 4181 4182 4183 4184 4185 4186 4187 4188 4189 4190 4191 4192 4193 4194 4195 4196 4197 4198 4199 4200 4201 4202 4203 4204 4205 4206 4207 4208 4209 4210 4211 4212 4213 4214 4215 4216 4217 4218 4219 4220 4221 4222 4223 4224 4225 4226 4227 4228 4229 4230 4231 4232 4233 4234 4235 4236 4237 4238 4239 4240 4241 4242 4243 4244 4245 4246 4247 4248 4249 4250 4251 4252 4253 4254 4255 4256 4257 4258 4259 4260 4261 4262 4263 4264 4265 4266 4267 4268 4269 4270 4271 4272 4273 4274 4275 4276 4277 4278 4279 4280 4281 4282 4283 4284 4285 4286 4287 4288 4289 4290 4291 4292 4293 4294 4295 4296 4297 4298 4299 4300 4301 4302 4303 4304 4305 4306 4307 4308 4309 4310 4311 4312 4313 4314 4315 4316 4317 4318 4319 4320 4321 4322 4323 4324 4325 4326 4327 4328 4329 4331 4332 4333 4334 4335 4336 4337 4338 4339 4340 4341 4342 4343 4344 4345 4346 4347 4348 4349 4350 4351 4352 4353 4354 4355 4356 4357 4358 4359 4360 4361 4362 4363 4364 4365 4366 4367 4368 4369 4370 4371 4372 4373 4374 4375 4376 4377 4378 4379 4380 4381 4382 4383 4384 4385 4386 4387 4388 4389 4390 4391 4392 4393 4394 4395 4396 4397 4398 4399 4400 4401 4402 4403 4404 4405 4406 4407 4408 4409 4410 4411 4412 4413 4414 4415 4416 4417 4418 4419 4420 4421 4422 4423 4424 4425 4426 4427 4428 4429 4430 4431 4432 4433 4434 4435 4436 4437 4438 4439 4440 4441 4442 4443 4444 4445 4446 4447 4448 4449 4450 4451 4452 4453 4454 4455 4456 4457 4458 4459 4460 4461 4462 4463 4464 4465 4466 4467 4468 4469 4470 4471 4472 4473 4474 4475 4476 4477 4478 4479 4480 4481 4482 4483 4484 4485 4486 4487 4488 4489 4490 4491 4492 4493 4494 4495 4496 4497 4498 4499 4500 4501 4502 4503 4504 4505 4506 4507 4508 4509 4510 4511 4512 4513 4514 4515 4516 4517 4518 4519 4520 4521 4522 4523 4524 4525 4526 4527 4528 4529 4530 4531 4532 4533 4534 4535 4536 4537 4538 4539 4540 4541 4542 4543 4544 4545 4546 4547 4548 4549 4550 4551 4552 4553 4554 4555 4556 4557 4558 4559 4560 4561 4562 4563 4564 4565 4566 4567 4568 4569 4570 4571 4572 4573 4574 4575 4576 4577 4578 4579 4580 4581 4582 4583 4584 4585 4586 4587 4588 4589 4590 4591 4592 4593 4594 4595 4596 4597 4598 4599 4600 4601 4602 4603 4604 4605 4606 4607 4608 4609 4610 4611 4612 4613 4614 4615 4616 4617 4618 4619 4620 4621 4622 4623 4624 4625 4626 4627 4628 4629 4630 4631 4632 4633 4634 4635 4636 4637 4638 4639 4640 4641 4642 4643 4644 4645 4646 4647 4648 4649 4650 4651 4652 4653 4654 4655 4656 4657 4658 4659 4660 4661 4662 4663 4664 4665 4666 4667 4668 4669 4670 4671 4672 4673 4674 4675 4676 4677 4678 4679 4680 4681 4682 4683 4684 4685 4686 4687 4688 4689 4690 4691 4692 4693 4694 4695 4696 4697 4698 4699 4700 4701 4702 4703 4704 4705 4706 4707 4708 4709 4710 4711 4712 4713 4714 4715 4716 4717 4718 4719 4720 4721 4722 4723 4724 4725 4726 4727 4728 4729 4730	001

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SERVICE BULLETIN

MSN	CONFIGURATION
4731 4732 4733 4734 4735 4736 4737 4738 4739 4740 4741 4742 4743 4744 4745 4746 4747 4748 4749 4750 4751 4752 4753 4754 4755 4756 4757 4758 4759 4760 4761 4762 4763 4764 4765 4766 4767 4768 4769 4770 4771 4772 4773 4774 4775 4776 4777 4778 4779 4780 4781 4782 4783 4784 4785 4786 4787 4788 4789 4790 4791 4792 4793 4794 4795 4796 4797 4798 4799 4800 4801 4802 4803 4804 4805 4806 4807 4808 4809 4810 4811 4812 4813 4814 4815 4816 4817 4818 4819 4820 4821 4822 4823 4824 4825 4826 4827 4828 4829 4830 4831 4832 4833 4834 4835 4836 4837 4838 4839 4840 4841 4842 4843 4844 4845 4846 4847 4848 4849 4850 4851 4852 4853 4854 4855 4856 4857 4858 4859 4860 4861 4862 4863 4864 4865 4866 4867 4868 4869 4870 4871 4872 4873 4874 4875 4876 4877 4878 4879 4880 4881 4882 4883 4884 4885 4886 4887 4888 4889 4890 4891 4892 4893 4894 4895 4896 4897 4898 4899 4900 4901 4902 4903 4904 4905 4906 4907 4908 4909 4910 4911 4912 4913 4914 4915 4916 4917 4918 4919 4920 4921 4922 4923 4924 4925 4926 4927 4928 4929 4930 4931 4932 4933 4934 4935 4936 4937 4938 4939 4940 4941 4942 4943 4944 4945 4946 4947 4948 4949 4950 4951 4952 4953 4954 4955 4956 4957 4958 4959 4960 4961 4962 4963 4964 4965 4966 4967 4968 4969 4970 4971 4972 4973 4974 4975 4976 4977 4978 4979 4980 4981 4982 4983 4984 4985 4986 4987 4988 4989 4990 4991 4992 4993 4994 4995 4996 4997 4998 4999 5000 5001 5002 5003 5004 5005 5006 5007 5008 5009 5010 5011 5012 5013 5014 5015 5016 5017 5018 5019 5020 5021 5022 5023 5024 5025 5026 5027 5028 5029 5030 5031 5032 5033 5034 5035 5036 5037 5038 5039 5040 5041 5042 5043 5044 5045 5046 5047 5048 5049 5050 5051 5052 5053 5054 5055 5056 5057 5058 5059 5060 5061 5062 5063 5064 5065 5066 5067 5068 5069 5070 5071 5072 5073 5074 5075 5076 5077 5078 5079 5080 5081 5082 5083 5084 5085 5086 5087 5088 5089 5090 5091 5092 5093 5094 5095 5096 5097 5098 5099 5100 5101 5102 5103 5104 5105 5106 5107 5108 5109 5110 5111 5112 5113 5114 5115 5116 5117 5118 5119 5120 5121 5122 5123 5124 5125 5126 5127 5128 5129 5130 5131 5132 5133 5134 5135 5136 5137 5138 5139 5140 5141 5142 5143 5144 5145 5146 5147 5148 5149 5150 5151 5152 5153 5154 5155 5156 5157 5158 5159 5160 5161 5162 5163 5164 5165 5166 5167 5168 5169 5170 5171 5172 5173 5174 5175 5176 5177 5178 5179 5180 5181 5182 5183 5184 5185 5186 5187 5188 5189 5190 5191 5192 5193 5194 5195 5196 5197 5198 5199 5200 5201 5202 5203 5204 5205 5206 5207 5208 5209 5210 5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229 5230 5231 5232 5233 5234 5235 5236 5237 5238 5239 5240 5241 5242 5243 5244 5245 5246 5247 5248 5249 5250 5251 5252 5253 5254 5255 5256 5257 5258 5259 5260 5261 5262 5263 5264 5265 5266 5267 5268 5269 5270 5271 5272 5273 5274 5275 5276 5277 5278 5279 5280 5281 5282 5283 5284 5285 5286 5287 5288 5289 5290 5291	001

A318/A319/A320/A321

SERVICE BULLETIN

MSN	CONFIGURATION
5292 5293 5294 5295 5296 5297 5298 5299 5300 5301 5302 5303 5304 5305 5306 5307 5308 5309 5310 5311 5312 5313 5314 5315 5316 5317 5318 5319 5320 5321 5322 5323 5324 5325 5326 5327 5328 5329 5330 5331 5332 5333 5334 5335 5336 5337 5338 5339 5340 5341 5342 5343 5344 5345 5346 5347 5348 5349 5350 5351 5352 5353 5354 5355 5356 5357 5358 5359 5360 5361 5362 5363 5364 5365 5366 5367 5368 5369 5370 5371 5372 5373 5374 5375 5376 5377 5378 5379 5380 5381 5382 5383 5384 5385 5386 5387 5388 5389 5390 5391 5392 5393 5394 5395 5396 5397 5398 5399 5400 5401 5402 5403 5404 5405 5406 5407 5408 5409 5410 5411 5412 5413 5414 5415 5416 5417 5418 5419 5420 5421 5422 5423 5424 5425 5426 5427 5428 5429 5430 5431 5432 5433 5434 5435 5436 5437 5438 5439 5440 5441 5442 5443 5444 5445 5446 5447 5448 5449 5450 5451 5452 5453 5454 5455 5456 5457 5458 5459 5460 5461 5462 5463 5464 5465 5466 5467 5468 5469 5470 5471 5472 5473 5474 5475 5476 5477 5478 5479 5480 5481 5482 5483 5484 5485 5486 5487 5488 5489 5490 5491 5492 5493 5494 5495 5496 5497 5498 5499 5500 5501 5502 5503 5504 5505 5506 5507 5508 5509 5510 5511 5512 5513 5514 5515 5516 5517 5518 5519 5520 5521 5522 5523 5524 5525 5526 5527 5528 5529 5530 5531 5532 5533 5534 5535 5536 5537 5538 5539 5540 5541 5542 5543 5544 5545 5546 5547 5548 5549 5550 5551 5552 5553 5554 5555 5556 5557 5558 5559 5560 5561 5562 5563 5564 5565 5566 5567 5568 5569 5570 5571 5572 5573 5574 5575 5576 5577 5578 5579 5580 5581 5582 5583 5584 5585 5586 5587 5588 5589 5590 5591 5592 5593 5594 5595 5596 5597 5598 5599 5600 5601 5602 5603 5604 5605 5606 5607 5608 5609 5610 5611 5612 5613 5614 5615 5616 5617 5618 5619 5620 5621 5622 5623 5624 5625 5626 5627 5628 5629 5630 5631 5632 5633 5634 5635 5636 5637 5638 5639 5640 5641 5642 5643 5644 5645 5646 5647 5648 5649 5650 5651 5652 5653 5654 5655 5656 5657 5658 5659 5660 5661 5662 5663 5664 5665 5666 5667 5668 5669 5670 5671 5672 5673 5674 5675 5676 5677 5678 5679 5680 5681 5682 5683 5684 5685 5686 5687 5688 5689 5690 5691 5692 5693 5694 5695 5696 5697 5698 5699 5700 5701 5702 5703 5704 5705 5706 5707 5708 5709 5710 5711 5712 5713 5714 5715 5716 5717 5718 5719 5720 5721 5722 5723 5724 5725 5726 5727 5728 5729 5730 5731 5732 5733 5734 5735 5736 5737 5738 5739 5740 5741 5742 5743 5744 5745 5746 5747 5748 5749 5750 5751 5752 5753 5754 5755 5756 5757 5758 5759 5760 5761 5762 5763 5764 5765 5766 5767 5768 5769 5770 5771 5772 5773 5774 5775 5776 5777 5778 5779 5780 5781 5782 5783 5784 5785 5786 5787 5788 5789 5790 5791 5792 5793 5794 5795 5796 5797 5798 5799 5800 5801 5802 5803 5804 5805 5806 5807 5808 5809 5810 5811 5812 5813 5814 5815 5816 5817 5818 5819 5820 5821 5822 5823 5824 5825 5826 5827 5828 5829 5830 5831 5832 5833 5834 5835 5836 5837 5838 5839 5840 5841 5842 5843 5844 5845 5846 5847 5848 5849 5850 5851 5852	001

A318/A319/A320/A321

SERVICE BULLETIN

MSN	CONFIGURATION
5853 5854 5855 5856 5857 5858 5859 5860 5861 5862 5863 5864 5865 5866 5867 5868 5869 5870 5871 5872 5873 5874 5875 5876 5877 5878 5879 5880 5881 5882 5883 5884 5885 5886 5887 5888 5889 5890 5891 5892 5893 5894 5895 5896 5897 5898 5899 5900 5901 5902 5903 5904 5905 5906 5907 5908 5909 5910 5911 5912 5913 5914 5915 5916 5917 5918 5919 5920 5921 5922 5923 5924 5925 5926 5927 5928 5929 5930 5931 5932 5933 5934 5935 5936 5937 5938 5939 5940 5941 5942 5943 5944 5945 5946 5947 5948 5949 5950 5951 5952 5953 5954 5955 5956 5957 5958 5959 5960 5961 5962 5963 5964 5965 5966 5967 5968 5969 5970 5971 5972 5973 5974 5975 5976 5977 5978 5979 5980 5981 5982 5983 5984 5985 5986 5987 5988 5989 5990 5991 5992 5993 5994 5995 5996 5997 5998 5999 6000 6001 6002 6003 6004 6005 6006 6007 6008 6009 6010 6011 6012 6013 6014 6015 6016 6017 6018 6019 6020 6021 6022 6023 6024 6025 6026 6027 6028 6029 6030 6031 6032 6033 6034 6035 6036 6037 6038 6039 6040 6041 6042 6043 6044 6045 6046 6047 6048 6049 6050 6051 6052 6053 6054 6055 6056 6057 6058 6059 6060 6061 6062 6063 6064 6065 6066 6067 6068 6069 6070 6071 6072 6073 6074 6075 6076 6077 6078 6079 6080 6081 6082 6083 6084 6085 6086 6087 6088 6089 6090 6091 6092 6093 6094 6095 6096 6097 6098 6099 6100 6102 6103 6104 6105 6106 6107 6108 6109 6110 6111 6112 6113 6114 6115 6116 6117 6118 6119 6120 6121 6122 6123 6124 6125 6126 6127 6128 6129 6130 6131 6132 6133 6134 6135 6136 6137 6138 6139 6140 6141 6142 6143 6144 6145 6146 6147 6148 6149 6150 6151 6152 6153 6154 6155 6156 6157 6158 6159 6160 6161 6162 6163 6164 6165 6166 6167 6168 6169 6170 6171 6172 6173 6174 6175 6176 6177 6178 6179 6180 6181 6182 6183 6184 6185 6186 6187 6188 6189 6190 6191 6192 6193 6194 6195 6196 6197 6198 6199 6200 6201 6202 6203 6204 6205 6206 6207 6208 6209 6210 6211 6212 6213 6214 6215 6216 6217 6218 6219 6220 6221 6222 6223 6224 6225 6226 6227 6228 6229 6230 6231 6232 6233 6234 6235 6236 6237 6238 6239 6240 6241 6242 6243 6244 6245 6246 6247 6248 6249 6250 6251 6252 6253 6254 6255 6256 6257 6258 6259 6260 6261 6262 6263 6264 6265 6266 6267 6268 6269 6270 6271 6272 6273 6274 6275 6276 6277 6278 6279 6280 6281 6282 6283 6284 6285 6287 6288 6289 6290 6291 6292 6293 6294 6295 6296 6297 6298 6299 6300 6301 6302 6303 6304 6305 6306 6307 6308 6309 6310 6311 6312 6313 6314 6315 6316 6317 6318 6319 6320 6321 6322 6323 6324 6325 6326 6327 6328 6329 6330 6331 6332 6333 6334 6335 6336 6337 6338 6339 6340 6341 6342 6343 6344 6345 6346 6347 6348 6349 6350 6351 6352 6353 6354 6355 6356 6357 6358 6359 6360 6361 6362 6363 6364 6365 6366 6367 6368 6369 6370 6371 6372 6373 6374 6375 6376 6377 6378 6379 6380 6381 6382 6383 6384 6385 6386 6387 6388 6389 6390 6391 6392 6393 6394 6395 6396 6397 6398 6399 6400 6401 6402 6403 6404 6405 6406 6407 6408 6409 6410 6411 6412 6413 6414 6415	001

A318/A319/A320/A321

SERVICE BULLETIN

MSN	CONFIGURATION
6416 6417 6418 6420 6421 6422 6423 6424 6425 6426 6427 6428 6429 6430 6431 6432 6433 6434 6435 6436 6437 6438 6439 6440 6441 6442 6443 6444 6445 6446 6447 6448 6449 6450 6451 6452 6453 6454 6455 6456 6457 6458 6459 6460 6461 6462 6463 6465 6466 6467 6468 6469 6470 6471 6472 6473 6474 6475 6476 6477 6478 6479 6480 6481 6482 6483 6484 6485 6486 6487 6488 6489 6490 6491 6492 6493 6494 6495 6496 6497 6498 6499 6500 6501 6502 6503 6504 6505 6506 6507 6508 6509 6510 6511 6512 6513 6514 6515 6516 6517 6518 6519 6520 6521 6522 6523 6524 6525 6526 6527 6528 6529 6530 6531 6532 6533 6534 6535 6536 6537 6538 6539 6540 6541 6542 6543 6544 6545 6546 6547 6548 6549 6550 6551 6552 6553 6554 6555 6556 6557 6558 6559 6560 6561 6562 6563 6564 6565 6566 6567 6568 6569 6570 6571 6572 6573 6574 6575 6576 6577 6578 6579 6580 6581 6582 6583 6584 6585 6586 6587 6588 6589 6590 6591 6592 6593 6594 6595 6596 6597 6598 6599 6600 6601 6602 6603 6604 6605 6606 6607 6608 6609 6610 6611 6612 6613 6614 6615 6616 6617 6618 6619 6621 6622 6623 6624 6625 6626 6627 6628 6629 6630 6631 6632 6633 6634 6635 6636 6637 6638 6639 6640 6641 6643 6644 6645 6646 6647 6648 6649 6650 6651 6652 6653 6654 6655 6656 6657 6658 6659 6660 6661 6662 6663 6664 6665 6666 6667 6668 6669 6670 6671 6672 6674 6675 6676 6677 6678 6679 6680 6681 6682 6683 6684 6685 6686 6687 6688 6689 6690 6691 6692 6693 6694 6695 6696 6697 6698 6699 6700 6701 6702 6703 6704 6705 6706 6707 6708 6709 6710 6711 6712 6713 6714 6715 6716 6717 6718 6719 6721 6722 6723 6724 6725 6726 6727 6728 6729 6730 6731 6732 6733 6734 6735 6736 6737 6738 6739 6740 6741 6742 6743 6745 6746 6747 6748 6749 6750 6751 6752 6753 6754 6755 6756 6757 6758 6759 6760 6761 6762 6763 6764 6765 6766 6767 6768 6769 6770 6771 6773 6774 6775 6776 6777 6778 6779 6780 6781 6782 6783 6784 6785 6786 6787 6788 6789 6790 6791 6792 6793 6794 6795 6796 6797 6798 6800 6802 6803 6804 6805 6806 6807 6808 6809 6810 6811 6812 6813 6814 6815 6816 6817 6818 6820 6821 6822 6823 6824 6825 6826 6827 6828 6830 6831 6832 6834 6835 6836 6837 6838 6840 6841 6842 6843 6844 6845 6846 6847 6848 6850 6851 6852 6853 6854 6855 6856 6857 6858 6859 6861 6862 6863 6865 6866 6867 6869 6870 6871 6872 6873 6874 6875 6876 6877 6878 6879 6880 6881 6882 6883 6884 6885 6886 6887 6888 6889 6890 6891 6892 6893 6894 6895 6896 6897 6898 6899 6900 6901 6902 6903 6905 6906 6908 6909 6910 6911 6912 6913 6915 6916 6917 6918 6919 6921 6922 6923 6924 6925 6926 6927 6928 6929 6930 6931 6932 6933 6934 6935 6936 6937 6938 6939 6940 6941 6942 6943 6944 6945 6947 6948 6949 6950 6951 6953 6954 6955 6956 6957 6958 6959 6960 6961 6962 6963 6964 6965 6966 6968 6969 6970 6971 6972 6973 6974 6976 6977 6978 6979 6980 6981 6982 6983 6984 6985 6986 6987 6988 6989 6990 6991 6992 6993 6994 6995 6996 6997 6998 6999 7000 7002 7003	001

SERVICE BULLETIN

MSN	CONFIGURATION
7004 7005 7006 7007 7008 7009 7010 7012 7013 7014 7015 7016 7017 7018 7019 7020 7021 7022 7023 7024 7025 7026 7027 7028 7029 7030 7031 7032 7034 7035 7036 7037 7038 7039 7040 7041 7042 7043 7044 7045 7046 7048 7049 7050 7052 7054 7055 7056 7057 7058 7059 7061 7062 7063 7064 7065 7066 7067 7068 7069 7070 7071 7072 7073 7075 7076 7077 7079 7080 7081 7082 7084 7085 7086 7087 7088 7089 7090 7091 7092 7093 7095 7096 7097 7098 7099 7100 7101 7104 7105 7106 7108 7109 7110 7111 7112 7113 7114 7115 7116 7117 7118 7119 7120 7121 7122 7123 7125 7127 7128 7130 7131 7132 7133 7134 7135 7136 7137 7138 7139 7142 7143 7144 7145 7146 7148 7149 7151 7152 7153 7154 7155 7156 7157 7158 7159 7160 7161 7163 7164 7165 7166 7167 7168 7169 7170 7171 7173 7174 7176 7177 7178 7179 7180 7182 7183 7184 7187 7188 7189 7190 7191 7193 7194 7196 7197 7198 7199 7200 7201 7202 7203 7204 7206 7207 7208 7210 7211 7212 7213 7214 7215 7216 7217 7218 7219 7220 7221 7222 7223 7224 7225 7226 7227 7228 7229 7230 7231 7232 7233 7234 7235 7237 7238 7239 7240 7241 7242 7243 7244 7245 7246 7247 7248 7250 7251 7253 7254 7255 7256 7257 7258 7259 7260 7261 7262 7263 7264 7265 7266 7267 7268 7270 7271 7272 7274 7275 7276 7278 7279 7280 7281 7282 7284 7285 7286 7287 7288 7289 7292 7293 7294 7295 7296 7297 7298 7299 7300 7301 7302 7303 7304 7305 7306 7307 7308 7310 7311 7312 7313 7314 7315 7316 7317 7318 7319 7320 7322 7324 7325 7326 7327 7328 7332 7335 7336 7337 7338 7339 7340 7342 7344 7345 7346 7347 7348 7349 7350 7351 7353 7355 7356 7357 7358 7360 7361 7362 7363 7364 7365 7366 7368 7369 7370 7371 7372 7373 7374 7375 7376 7377 7378 7379 7381 7382 7383 7384 7385 7388 7389 7390 7392 7393 7394 7395 7397 7398 7400 7402 7403 7404 7405 7406 7407 7408 7410 7411 7412 7413 7414 7415 7416 7418	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 BFEC01	1	
Equipment BFEC02	1	
Reidentified part set REIDC01	1	
Reidentified part set REIDC02	1	

B. CONCURRENT REQUIREMENTS

None

0 DATE: Nov 05/13

SERVICE BULLETIN No.: A320-49-1107

REVISION No.: 02 - May 10/16

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C. REASON**(1) History**

Honeywell Auxiliary Power Unit (APU) 131-9A Electronic Control Box (ECB) experiences data saturation of APU hours and cycles, which are not transmitted after 16383.

Operators are unable to track APU hours and cycles for Life Limited Parts (LLP) through Aircraft Communication Addressing and reporting System (ACARS) and to utilize Predicted Trending Monitoring Deployment (PTMD) to schedule APU removals. Data saturation also disables Reports 13 generation.

(2) Objective/Action

ECB software modification is proposed to address the hour/cycle data saturation and to expand tracking capability up to 131071 hours/cycles. The modification comprises the incorporation of two additional variables for hours and cycles with an increased range. The data will be transmitted via Aeronautical Radio Incorporated (ARINC) 429 (Labels 135 and 136) and stored in Data Memory Module (DMM).

This Service Bulletin is published to advise all operators of A318, A319, A320 and A321 aircraft of the issue of HONEYWELL Service Bulletin No. 131-49-8104.

This Service Bulletin is published to advise all operators of A318, A319, A320 and A321 aircraft of the issue of DIEHL Service Bulletin No. 3888394-49-8107.

NOTE: In order to read the new ARINC Labels 135 and 136, for Aircraft which have a Teledyne Flight Data Interface and Management Unit (FDIMU) installed, Service Bulletin No. A320-31-1341 or Service Bulletin No. A320-31-1342 are required. Please refer to Operators Information Transmission (OIT) 15-0005 for further information.

NOTE: The APU exceeding the 16383 APU hours (Label 132) or 16383 APU cycles (Label 133) may experience potentially an erroneous mismatch of the APU-hours/cycles between values computed by the Data Management Unit/Flight Data Interface and Management Unit (DMU/FDIMU) and the values displayed on the Multipurpose Control & Display Unit (MCDU) APU SERVICE DATA page. Refer to TFU No. 49.73.00.003 for the necessary procedure ensuring the traceability of APU-hours/cycles monitoring.

(3) Advantages

The accomplishment of this Service Bulletin will expand the tracking capability of the ECB from 16383 to 131071 hours/cycles.

Additional software enhancements have been incorporated to address occasional P2 fault and sporadic APU cycle loss.

(4) Operational/Maintenance Consequences

This SB includes the ECB software improvements of the Service Bulletin No. A320-49-1075 (AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING - INTRODUCE HONEYWELL VECB WITH SOFTWARE -04), which cancels the requirements of Service Bulletin No. A320-49-1068 (AIRBORNE AUXILIARY POWER - STARTER MOTOR AND AIR INTAKE SYSTEM INSPECTION/CLEANING.), in accordance with the EASA Airworthiness Directive (AD) No. 2006-0153, at its latest approved revision.

D. DESCRIPTION

NOTE: To accomplish this Service Bulletin operators have three possibilities:

- Either operators can replace the old ECB by a new one
or
- Modify/rework the old ECB on-wing
or
- Modify the retained ECB in accordance with the VSB.

For the first possibility, refer to HONEYWELL Service Bulletin No. 131-49-8104 and for the second and third possibilities, refer to DIEHL Service Bulletin No. 3888394-49-8107.

To accomplish this Service Bulletin it is necessary to :

Task 491107-831-943-001: Replace the old ECB by a new one

- (1) Remove the ECB
- (2) Install the ECB

Task 491107-831-942-001: Modify/rework and re-identify the old ECB on-wing

- (1) Remove the power from the ECB
- (2) Rework and re-identify the ECB on-wing
- (3) Restore the power to ECB

Task 491107-831-944-001: Modify/rework and re-identify the old ECB on shop

- (1) Remove the ECB on shop
- (2) Modify the retained ECB in accordance with the VSB
- (3) Install the modified ECB

E. COMPLIANCE

(1) Classification

RECOMMENDED: Service Bulletin recommended to be accomplished to prevent significant operational disruptions.

(2) Accomplishment Timescale

Accomplishment of this Service Bulletin is recommended at the earliest opportunity where manpower and facilities are available.

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 491107-831-943-001: Replace the old ECB by a new one	
Get Access	1.00
On Aircraft	
Remove the ECB	1.00
Install the ECB	1.00
Tests	1.00
Close-Up	1.00
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00

Task 491107-831-942-001: Modify/rework and re-identify the old ECB on-wing	
Get Access	1.00
Tests	1.00
Close-Up	1.00
TOTAL MANHOURS	3.00
ELAPSED TIME (HOURS)	3.00
Additional manhours related to Vendor SB; refer to:	

Task 491107-831-942-001: Modify/rework and re-identify the old ECB on-wing	
Remove the power from the ECB	DIEHL Service Bulletin No. 3888394-49-8107
Rework and re-identify the ECB on-wing	DIEHL Service Bulletin No. 3888394-49-8107
Restore the power to ECB	DIEHL Service Bulletin No. 3888394-49-8107 HONEYWELL Service Bulletin No. 131-49-7900

Task 491107-831-944-001: Modify/rework and re-identify the old ECB on shop	
Get Access	1.00
On Aircraft	
Remove the ECB on shop	1.00
Install the modified ECB	1.00
Tests	1.00
Close-Up	1.00
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00
Additional manhours related to Vendor SB; refer to:	
Modify the retained ECB in accordance with the VSB	DIEHL Service Bulletin No. 3888394-49-8107

H. WEIGHT AND BALANCE

Not Changed

I. ELECTRICAL LOAD DATA

Not Changed

J. REFERENCES

Aircraft Maintenance Manual (AMM)	06-20-00 12-34-24 31-36-00 49-00-00 49-61-34
Consumable Material List (CML)	
ATA Common Support Data Dictionary (CSDD), Chapter 2	
Elec. Std. Practices Manual (ESPM)	20-55-00
Service Bulletin (SB)	A320-31-1341 A320-31-1342 A320-49-1068 A320-49-1075
Trouble Shooting Manual (TSM)	49-70-00
Vendor Service Bulletin (VSB)	HONEYWELL Service Bulletin No. 131-49-7900 HONEYWELL 131-49-8104 DIEHL Service Bulletin No. 3888394-49-8107

K. PUBLICATION AFFECTED

Aircraft Maintenance Manual (AMM)	49-61-00	49-73-00
Illustrated Parts Catalog (IPC)	49-61-09	49-61-34

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
ECB-Electronic Control Box	3888394-121204	3888394-121205	02	Not Applicable	(1) (2) (3)
ECB-Electronic Control Box	3888394-221204	3888394-221205	02	Not Applicable	(1) (2) (4)

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

NOTE (1): The ECB PN 3888394-221205 and the ECB PN 3888394-121205 are two ways interchangeable (INT 02).

NOTE (2): ECB PN 3888394-121205 is non-procurable.

NOTE (3): ECB previous PN interchangeability:

- ECB PN 3888394-121202 and PN 3888394-121203 are one way interchangeable with 3888394-121205 (INT 01).
- ECB PN 3888394-121202 and PN 3888394-121203 are one way interchangeable with 3888394-221205 (INT 01).
- ECB PN 3888394-121204 is two ways interchangeable with PN 3888394-221205 (INT 02).

NOTE (4): ECB previous PN interchangeability:

- ECB PN 3888394-221202 and PN 3888394-221203 are one way interchangeable with PN 3888394-221205 (INT 01).
- ECB PN 3888394-221202 and PN 3888394-221203 are one way interchangeable with 3888394-121205 (INT 01).
- ECB PN 3888394-221204 is two ways interchangeable with PN 3888394-121205 (INT 02).

M. SPARES

ECB-Electronic Control Box	3888394-121202
ECB-Electronic Control Box	3888394-121203
ECB-Electronic Control Box	3888394-121204
ECB-Electronic Control Box	3888394-221202

ECB-Electronic Control Box 3888394-221203
ECB-Electronic Control Box 3888394-221204

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2. MATERIAL INFORMATION****CONF ALL****A. MATERIAL - PRICE AND AVAILABILITY****(1) Procurement Addresses**

Modification of removed equipment should be negotiated directly with HONEYWELL as per instructions given in HONEYWELL Service Bulletin No. 131-49-8104.

Equipment BFEC01 Equipment BFEC02	HONEYWELL INTERNATIONAL INC. DBA HONEYWELL DIV AEROSPACE 111 S 34TH ST 85034-2802, PHOENIX UNITED STATES For ordering by phone: (+1) 8006013099 For ordering by fax: (+1) 4805921535 For ordering by E-mail: Nancy.Luna@Honeywell.com
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(2) Price and Availability

Equipment BFEC01

No AIRBUS kit will be provided.

Refer to the HONEYWELL Service Bulletin No. 131-49-8104 for the equipment modification sales terms.

Equipment BFEC02

No AIRBUS kit will be provided.

Refer to the HONEYWELL Service Bulletin No. 131-49-8104 for the equipment modification sales terms.

B. INDUSTRY SUPPORT INFORMATION

Refer to the HONEYWELL Service Bulletin No. 131-49-8104 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 BFEC01

ITEM	NEW PART N°	QTY (UM)	KEYWORD	ITEM	OLD PART N°	INT	SEE NOTES
	3888394-121205	1	ECB		3888394-121204	02	(1)

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 (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-121202 and ECB PN 3888394-121203 are one way interchangeable with ECB PN 3888394-121205.

The ECB PN 3888394-121204 and ECB PN 3888394-121205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

Equipment BFEC02

ITEM	NEW PART N°	QTY (UM)	KEYWORD	ITEM	OLD PART N°	INT	SEE NOTES
	3888394-221205	1	ECB		3888394-221204	02	(1)

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 (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-221202 and ECB PN 3888394-221203 are one way interchangeable with ECB PN 3888394-221205.

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The ECB PN 3888394-221204 and ECB PN 3888394-221205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

E. PARTS TO BE RE-IDENTIFIED BY OPERATOR

Reidentified part set REIDC01

ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	3888394-121205	ECB		3888394-121202	(1)
				3888394-121203	
				3888394-121204	

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-121202 and ECB PN 3888394-121203 are one way interchangeable with ECB PN 3888394-121205.

The ECB PN 3888394-121204 and ECB PN 3888394-121205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

Reidentified part set REIDC02

ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	3888394-221205	ECB		3888394-221202	(1)
				3888394-221203	
				3888394-221204	

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-221202 and ECB PN 3888394-221203 are one way interchangeable with ECB PN 3888394-221205.

The ECB PN 3888394-221204 and ECB PN 3888394-221205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

F. TOOLING

- (1) Tooling - Price and Availability

Refer to DIEHL Service Bulletin No. 3888394-49-8107.

- (2) Tools

None

- (3) Special Tools

None

3. ACCOMPLISHMENT INSTRUCTIONS**Task 491107-831-943-001 - Replace the old ECB by a new one**

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.

Task Associated Data

Zone	
150	
Modified FIN	
59KD	
Manpower	
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00

A. GENERAL

NOTE: To accomplish this Service Bulletin operators can do one of these three

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possible procedures:

- Operators can replace the Electronic Control Box (ECB), refer to TASK 491107-831-943 001 Replace the old ECB by a new one .
- Modify the old ECB on-wing, refer to TASK 491107-831-942 001 Modify/rework and re-identify the old ECB on-wing .
or
- Modify the retained ECB in accordance with the VSB, refer to TASK 491107-831-944 001 Modify/rework and re-identify the old ECB on shop .

(1) Subtask 491107-910-604-001 - Standard Practices

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001
Consumable Material List (CML)	

- (a) For the specification of materials (Mat. No.) given in this Service Bulletin refer to Consumable Materials List (CML).
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.
- (c) Put blanking caps on disconnected electrical connectors.

(2) Subtask 491107-839-602-001 - 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 491107-941-603-001 - Job Set-up**

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-869-002 Task 49-00-00-710-010 Task 49-61-34-000-003

NOTE: The items given in this note shall be considered as the basic Aircraft configuration before you start a maintenance task:

- Aircraft on the ground resting on landing gear (the ground safety locks and the wheel chocks are in position on the landing gear)
- Engine shut down, thrust reversers closed and locked
- Aircraft in clean configuration
- Parking brake applied
- Aircraft electrical network de-energized
- Hydraulic systems depressurized
- Access to the cockpit and cabin is available
- All circuit breakers are in closed position
- All controls in NORM, AUTO or OFF position.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-869-002-A.
- (b) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (c) Do the Job Set-up procedure for the removal of the ECB, refer to AMM Task 49-61-34-000-003-A.

C. **PROCEDURE**

(1) **Subtask 491107-020-605-001 - Remove the ECB**

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Manhours	1.00
Minimum number of person	1
Subtask elapsed time	1.00
Skills	ELECTRICAL

References	
Aircraft Maintenance Manual (AMM)	Task 49-61-34-000-003

References	
Trouble Shooting Manual (TSM)	Task 49-70-00-810-821
Vendor Service Bulletin (VSB)	HONEYWELL 131-49-8104

WARNING: **SUPPORT THE ECB DURING REMOVAL/INSTALLATION OR IT WILL FALL AND BECOME DAMAGED OR INJURE PERSONNEL. THE UNIT IS HEAVY.**

- (a) Remove the ECB from the aircraft, refer to AMM Task 49-61-34-000-003-A and HONEYWELL Service Bulletin No. 131-49-8104:

NOTE: It is recommended to check that there is no Class 3 Data Memory Module (DMM) fault before replacing the ECB. If there is any DMM Class 3 fault, do the applicable Trouble Shooting procedure, refer to TSM Task 49-70-00-810-821.

FIN 59KD

1 ECB-Electronic Control 3888394-121202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121204 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221204 Retain
Box

NOTE: Retained for modification.

(2) Subtask 491107-420-603-001 - Install the ECB

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Manhours	1.00
Minimum number of person	1
Subtask elapsed time	1.00
Skills	ELECTRICAL

Material necessary to do the job

Equipment BFEC01				
ITEM	NEW PART N°	QTY (UM)	KEYWORD	SEE NOTES
	3888394-121205	1	ECB	(1)

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

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-121202 and ECB PN 3888394-121203 are one way interchangeable with ECB PN 3888394-121205.

The ECB PN 3888394-121204 and ECB PN 3888394-121205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

Equipment BFEC02				
ITEM	NEW PART N°	QTY (UM)	KEYWORD	SEE NOTES
	3888394-221205	1	ECB	(1)

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

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

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The ECB PN 3888394-221202 and ECB PN 3888394-221203 are one way interchangeable with ECB PN 3888394-221205.

The ECB PN 3888394-221204 and ECB PN 3888394-221205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

References	
Aircraft Maintenance Manual (AMM)	Task 31-36-00-740-011 Task 31-36-00-740-013 Task 49-61-34-400-003
Vendor Service Bulletin (VSB)	HONEYWELL 131-49-7900

- (a) Install the ECB on the aircraft, refer to AMM Task 49-61-34-400-003-A.

FIN 59KD

- 1 ECB-Electronic Control 3888394-121205
Box

or

FIN 59KD

- 1 ECB-Electronic Control 3888394-221205
Box

- (b) Compare the APU hours and cycles from the MCDU APU Service Data Page with the DMU/FDIMU APU hours and cycles as follows:

- 1 On the MCDU Display, select Centralized Fault Display System (CFDS) and System/Report Test menu. Then select APU page and APU Service Data page. Check the APU hours and cycles displayed.
- 2 Print-out and read the APU MES/IDLE Report <13> manually requested, refer to AMM Task 31-36-00-740-011-A.

To read the hours and cycles in the DMU/FDIMU, check the following values on Report <13>:

- a AHRS: APU hours computed by the DMU/FDIMU.
 - b ACYC: APU cycles computed by the DMU/FDIMU.
 - 3 If there is a disagreement between ECB and FDMU/FDIMU values, it is recommended to update the DMU/FDIMU computed hours, by resetting the DMU/FDIMU hours and cycles offsets. Follow AMM Task 31-36-00-740-013-A.
- (c) Any modification of the APU performance adjustments can be accomplished using HONEYWELL Service Bulletin No. 131-49-7900.
- (d) Make a record of the Service Bulletin number and/or revision number in the engine log book.

D. TEST**(1) Subtask 491107-710-603-001 - Test Operational**

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 49-00-00-710-010

- (a) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (b) Do a check of the "LAST LEG REPORT" and the "CLASS 3 FAULTS" from the APU system menu page via the CFDS to make sure that there is no fault.
- (c) Select "LRU IDENT" on the APU menu page via the CFDS to check that the ECB is PN 3888394-121205 or PN 3888394-221205 and the S/W version 010A.

E. CLOSE-UP**(1) Subtask 491107-942-603-001 - Close-up**

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 49-61-34-400-003

- (a) Make sure that the work areas are clean and clear of tools and other items of equipment.
- (b) Do the Close-up procedure after the installation of the ECB, refer to close-up section in the AMM Task 49-61-34-400-003-A.
- (c) Put the aircraft back to its initial configuration.

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Task 491107-831-942-001 - Modify/rework and re-identify the old ECB on-wing

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.

Task Associated Data

Zone	
150	
Modified FIN	
59KD	
Manpower	
TOTAL MANHOURS	3.00
ELAPSED TIME (HOURS)	3.00
Additional manhours related to Vendor SB; refer to:	
DIEHL Service Bulletin No. 3888394-49-8107	
HONEYWELL Service Bulletin No. 131-49-7900	

A. GENERAL

NOTE: To accomplish this Service Bulletin operators can do one of these three possible procedures:

- Operators can replace the Electronic Control Box (ECB), refer to TASK 491107-831-943 001 Replace the old ECB by a new one .
- Modify the old ECB on-wing, refer to TASK 491107-831-942 001 Modify/rework and re-identify the old ECB on-wing .
or
- Modify the retained ECB in accordance with the VSB, refer to TASK 491107-831-944 001 Modify/rework and re-identify the old ECB on shop .

(1) Subtask 491107-910-601-001 - Standard Practices

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001
Consumable Material List (CML)	

- (a) For the specification of materials (Mat. No.) given in this Service Bulletin refer to Consumable Materials List (CML).
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.
- (c) Put blanking caps on disconnected electrical connectors.

(2) Subtask 491107-839-601-001 - 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 491107-941-601-001 - Job Set-up

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-869-002
	Task 49-00-00-710-010
	Task 49-61-34-000-003

NOTE: The items given in this note shall be considered as the basic Aircraft configuration before you start a maintenance task:

- Aircraft on the ground resting on landing gear (the ground safety locks and the wheel chocks are in position on the landing gear)
- Engine shut down, thrust reversers closed and locked
- Aircraft in clean configuration
- Parking brake applied
- Aircraft electrical network de-energized
- Hydraulic systems depressurized
- Access to the cockpit and cabin is available
- All circuit breakers are in closed position
- All controls in NORM, AUTO or OFF position.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-869-002-A.
- (b) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (c) Do the Job Set-up procedure for the removal of the ECB, refer to AMM Task 49-61-34-000-003-A.

C. PROCEDURE

(1) Subtask 491107-020-603-001 - Remove the power from the ECB

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

References	
Trouble Shooting Manual (TSM)	Task 49-70-00-810-821
Vendor Service Bulletin (VSB)	DIEHL 3888394-49-8107

(a)

NOTE: It is recommended to check that there is no Class 3 Data Memory Module (DMM) fault before removing power from the ECB. If there is any DMM Class 3 fault, do the applicable Trouble Shooting

procedure TSM Task 49-70-00-810-821

Remove the power from the ECB (APU master switch off) and power it during the update procedure, refer to DIEHL Service Bulletin No. 3888394-49-8107.

(2) Subtask 491107-831-601-001 - Rework and re-identify the ECB on-wing

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Material necessary to do the job

Reidentified part set REIDC01					
ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	3888394-121205	ECB		3888394-121202	(1)
				3888394-121203	
				3888394-121204	

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-121202 and ECB PN 3888394-121203 are one way interchangeable with ECB PN 3888394-121205.

The ECB PN 3888394-121204 and ECB PN 3888394-121205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

Reidentified part set REIDC02					
ITEM	NEW PART N°	KEYWORD	ITEM	OLD PART N°	SEE NOTES
	3888394-221205	ECB		3888394-221202	(1)
				3888394-221203	
				3888394-221204	

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-221202 and ECB PN 3888394-221203 are one way interchangeable with ECB PN 3888394-221205.

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The ECB PN 3888394-221204 and ECB PN 3888394-221205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

References	
Vendor Service Bulletin (VSB)	DIEHL 3888394-49-8107

- (a) Rework and re-identify the ECB on-wing, refer to DIEHL Service Bulletin No. 3888394-49-8107:

1 For PN 3888394-121205:

FIN 59KD

1 ECB-Electronic Control 3888394-121202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121204 Retain
Box

NOTE: Retained for modification.

becomes:

FIN 59KD

1 ECB-Electronic Control 3888394-121205
Box

2 For PN 3888394-221205:

FIN 59KD

1 ECB-Electronic Control 3888394-221202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221204 Retain
Box

SERVICE BULLETIN

NOTE: Retained for modification.

becomes:

FIN 59KD

1 ECB-Electronic Control 3888394-221205
Box

(3) Subtask 491107-835-601-001 - Restore the power to ECB

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

References	
Aircraft Maintenance Manual (AMM)	Task 31-36-00-740-011 Task 31-36-00-740-013
Vendor Service Bulletin (VSB)	HONEYWELL 131-49-7900 DIEHL 3888394-49-8107

- (a) Restore power to the ECB, refer to DIEHL Service Bulletin No. 3888394-49-8107.
- (b) Compare the APU hours and cycles from the MCDU APU Service Data Page with the DMU/FDIMU APU hours and cycles as follows:
- 1 On the MCDU Display, select CFDS and System/Report Test menu. Then select APU page and APU Service Data page. Check the APU hours and cycles displayed.
 - 2 Print-out and read the APU MES/IDLE Report <13> manually requested, refer to AMM Task 31-36-00-740-011-A.

To read the hours and cycles in the DMU/FDIMU, check the following values on Report <13>:
 - a AHRS: APU hours computed by the DMU/FDIMU.
 - b ACYC: APU cycles computed by the DMU/FDIMU.
 - 3 If there is a disagreement between ECB and FDMU/FDIMU values, it is recommended to update the DMU/FDIMU computed hours, by resetting the DMU/FDIMU hours and cycles offsets. Follow AMM Task 31-36-00-740-013-A.
- (c) Any modification of the APU performance adjustments can be accomplished using HONEYWELL Service Bulletin No. 131-49-7900.
- (d) Make a record of the Service Bulletin number and/or revision number in the engine log book.

D. TEST

(1) Subtask 491107-710-601-001 - Test Operational

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 49-00-00-710-010

- (a) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (b) Do a check of the "LAST LEG REPORT" and the "CLASS 3 FAULTS" from the APU system menu page via the CFDS to make sure that there is no fault.
- (c) Select "LRU IDENT" on the APU menu page via the CFDS to check that the ECB is PN 3888394-121205 or PN 3888394-221205 and the S/W version 010A.

E. CLOSE-UP

(1) Subtask 491107-942-601-001 - Close-up

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 49-61-34-400-003

- (a) Make sure that the work areas are clean and clear of tools and other items of equipment.
- (b) Do the Close-up procedure after the installation of the ECB, refer to close-up section in the AMM Task 49-61-34-400-003-A.
- (c) Put the aircraft back to its initial configuration.

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Task 491107-831-944-001 - Modify/rework and re-identify the old ECB on shop

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.

Task Associated Data

Zone	
150	
Modified FIN	
59KD	
Manpower	
TOTAL MANHOURS	5.00
ELAPSED TIME (HOURS)	5.00
Additional manhours related to Vendor SB; refer to:	
DIEHL Service Bulletin No. 3888394-49-8107	

A. GENERAL

NOTE: To accomplish this Service Bulletin operators can do one of these three possible procedures:

- Operators can replace the Electronic Control Box (ECB), refer to TASK 491107-831-943 001 Replace the old ECB by a new one .
- Modify the old ECB on-wing, refer to TASK 491107-831-942 001 Modify/rework and re-identify the old ECB on-wing .
or
- Modify the retained ECB in accordance with the VSB, refer to TASK 491107-831-944 001 Modify/rework and re-identify the old ECB on shop .

(1) Subtask 491107-910-605-001 - Standard Practices

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	06-20-00, Page Block 001
Consumable Material List (CML)	

- (a) For the specification of materials (Mat. No.) given in this Service Bulletin refer to Consumable Materials List (CML).
- (b) For the identification of zones, refer to AMM 06-20-00, Page Block 001.
- (c) Put blanking caps on disconnected electrical connectors.

B. PREPARATION

(1) Subtask 491107-941-604-001 - Job Set-up

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 12-34-24-869-002 Task 49-00-00-710-010 Task 49-61-34-000-003

NOTE: The items given in this note shall be considered as the basic Aircraft

configuration before you start a maintenance task:

- Aircraft on the ground resting on landing gear (the ground safety locks and the wheel chocks are in position on the landing gear)
- Engine shut down, thrust reversers closed and locked
- Aircraft in clean configuration
- Parking brake applied
- Aircraft electrical network de-energized
- Hydraulic systems depressurized
- Access to the cockpit and cabin is available
- All circuit breakers are in closed position
- All controls in NORM, AUTO or OFF position.

- (a) Make sure that the aircraft is electrically grounded, refer to AMM Task 12-34-24-869-002-A.
- (b) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (c) Do the Job Set-up procedure for the removal of the ECB, refer to AMM Task 49-61-34-000-003-A.

C. PROCEDURE

(1) Subtask 491107-020-607-001 - Remove the ECB on shop

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Manhours	1.00
Minimum number of person	1
Subtask elapsed time	1.00
Skills	ELECTRICAL

References	
Aircraft Maintenance Manual (AMM)	Task 49-61-34-000-003
Trouble Shooting Manual (TSM)	Task 49-70-00-810-821

WARNING: SUPPORT THE ECB DURING REMOVAL/INSTALLATION OR IT WILL FALL AND BECOME DAMAGED OR INJURE PERSONNEL. THE UNIT IS HEAVY.

- (a) Remove the ECB from the aircraft, refer to AMM Task 49-61-34-000-003-A:

NOTE: It is recommended to check that there is no Class 3 Data Memory Module (DMM) fault before replacing the ECB. If there is any DMM Class 3 fault, do the applicable Trouble Shooting procedure, refer to TSM Task 49-70-00-810-821.

FIN 59KD

1 ECB-Electronic Control 3888394-121202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121204 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221204 Retain
Box

NOTE: Retained for modification.

(2) Subtask 491107-831-603-001 - Modify the retained ECB in accordance with the VSB

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

References	
Vendor Service Bulletin (VSB)	DIEHL 3888394-49-8107

SERVICE BULLETIN

- (a) Modify and re-identify the ECB (FIN 59KD) in accordance with DIEHL Service Bulletin No. 3888394-49-8107:

FIN 59KD

1 ECB-Electronic Control 3888394-121202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-121204 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221202 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221203 Retain
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221204 Retain
Box

NOTE: Retained for modification.

(3) Subtask 491107-420-604-001 - Install the modified ECB

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Manhours	1.00
Minimum number of person	1
Subtask elapsed time	1.00
Skills	ELECTRICAL

SERVICE BULLETIN

Material necessary to do the job

Equipment BFEC01				
ITEM	NEW PART N°	QTY (UM)	KEYWORD	SEE NOTES
	3888394-121205	1	ECB	(1)

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

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-121202 and ECB PN 3888394-121203 are one way interchangeable with ECB PN 3888394-121205.

The ECB PN 3888394-121204 and ECB PN 3888394-121205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

Equipment BFEC02				
ITEM	NEW PART N°	QTY (UM)	KEYWORD	SEE NOTES
	3888394-221205	1	ECB	(1)

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

NOTE (1): The re-identification by the operator is only needed in case of modifying/reworking the old ECB on-wing.

The ECB PN 3888394-221205 and ECB PN 3888394-121205 are two ways interchangeable.

The ECB PN 3888394-221202 and ECB PN 3888394-221203 are one way interchangeable with ECB PN 3888394-221205.

The ECB PN 3888394-221204 and ECB PN 3888394-221205 are two ways interchangeable.

Parts are re-identified in accordance with the DIEHL Service Bulletin No. 3888394-49-8107.

References	
Aircraft Maintenance Manual (AMM)	Task 31-36-00-740-011 Task 31-36-00-740-013 Task 49-61-34-400-003

References	
Vendor Service Bulletin (VSB)	HONEYWELL 131-49-7900

- (a) Install the ECB on the aircraft, refer to AMM Task 49-61-34-400-003-A.

FIN 59KD

1 ECB-Electronic Control 3888394-121205
Box

or

FIN 59KD

1 ECB-Electronic Control 3888394-221205
Box

- (b) Compare the APU hours and cycles from the MCDU APU Service Data Page with the DMU/FDIMU APU hours and cycles as follows:

- 1 On the MCDU Display, select CFDS and System/Report Test menu. Then select APU page and APU Service Data page. Check the APU hours and cycles displayed.
- 2 Print-out and read the APU MES/IDLE Report <13> manually requested, refer to AMM Task 31-36-00-740-011-A.

To read the hours and cycles in the DMU/FDIMU, check the following values on Report <13>:

- a AHRS: APU hours computed by the DMU/FDIMU.
 - b ACYC: APU cycles computed by the DMU/FDIMU.
 - 3 If there is a disagreement between ECB and FDMU/FDIMU values, it is recommended to update the DMU/FDIMU computed hours, by resetting the DMU/FDIMU hours and cycles offsets. Follow AMM Task 31-36-00-740-013-A.
- (c) Any modification of the APU performance adjustments can be accomplished using HONEYWELL Service Bulletin No. 131-49-7900.
- (d) Make a record of the Service Bulletin number and/or revision number in the engine log book.

D. TEST**(1) Subtask 491107-710-605-001 - Test Operational**

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

References	
Aircraft Maintenance Manual (AMM)	Task 49-00-00-710-010

- (a) Do an APU operational test to make sure that the ECB operates, refer to AMM Task 49-00-00-710-010-A.
- (b) Do a check of the "LAST LEG REPORT" and the "CLASS 3 FAULTS" from the APU system menu page via the CFDS to make sure that there is no fault.
- (c) Select "LRU IDENT" on the APU menu page via the CFDS to check that the ECB is PN 3888394-121205 or PN 3888394-221205 and the S/W version 010A.

E. CLOSE-UP**(1) Subtask 491107-942-604-001 - Close-up**

Work Zones and Access Panels		
	Zone	Access/Work location
	150	

Manpower Resources	
Skills	NON SPECIFIC

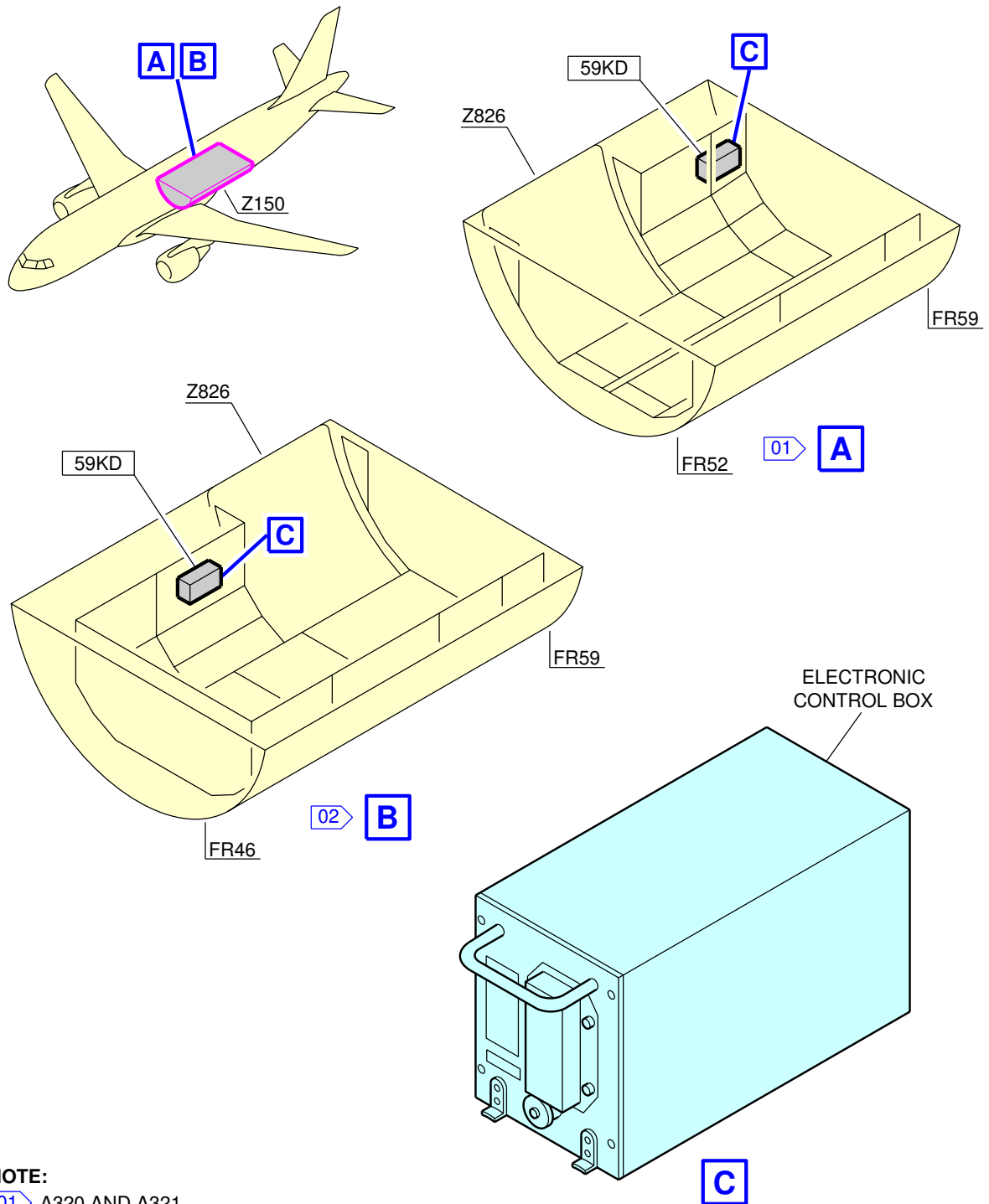
References	
Aircraft Maintenance Manual (AMM)	Task 49-61-34-400-003

- (a) Make sure that the work areas are clean and clear of tools and other items of equipment.
- (b) Do the Close-up procedure after the installation of the ECB. refer to close-up section in the AMM Task 49-61-34-400-003-A.
- (c) Put the aircraft back to its initial configuration.

A318/A319/A320/A321

SERVICE BULLETIN

****CONF ALL**



NOTE:

- 01 A320 AND A321
- 02 A318 AND A319

N_SB_491107_0_BAAA_01_01

Figure A-SBAAA - Sheet 01
Location of the ECB

0 DATE: Nov 05/13

SERVICE BULLETIN No.: A320-49-1107

REVISION No.: 02 - May 10/16

Page: 69

SERVICE BULLETIN
REPORTING SHEET

**TITLE: AIRBORNE AUXILIARY POWER - CONTROL AND MONITORING -
MODIFY ELECTRONIC CONTROL BOX (ECB) SOFTWARE FOR
HONEYWELL APU 131-9A.**

MODIFICATION No.: 155015G0840 155095G0889

Please complete the appropriate item (A or B):

A - SB WILL BE embodied

YES/NO (if NO please comment)

If YES, aircraft concerned (as per SB effectivity by default) and planned dates (month/year) of embodiment:

B - SB HAS BEEN embodied on aircraft:

Operator comments:

From Airline:

Name/Title:

Signature:

Date:

If operational documentation is affected (see Paragraph 1.K of this SB): If information is needed prior to next normal revision or prior to SB embodiment, please indicate required service(s):

Either: Modification Operational Impact (MOI), if available

YES/NO

Or : Intermediate revision

YES/NO

Important Information: This SB will only be incorporated in your maintenance and operational documentation if this sheet is returned to Airbus and signed by a duly authorised representative. With the next feasible revision, this will result in

- Updating of maintenance documentation to show pre and post SB data.
- Updating of maintenance and operational documentation to show post SB data after embodiment.

If this SB requires previous or simultaneous accomplishment of other SBs, Airbus shall automatically include them in the manual revisions. Refer to SIL 00-037 for detailed information.

Please return this completed sheet to:

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31707 BLAGNAC CEDEX FRANCE

Attn: SDC32 Technical Data and Documentation Services

FAX: (+33) 5 61 93 28 06

e-mail: sb.reporting@airbus.com

or via your Resident Customer Support Office.

Alternatively, SB lists via letters or fax are also accepted.

SERVICE BULLETIN
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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:

Operator:

Date:

Name/Title:

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