

The EASA states mandatory compliance with inspections, modifications or technical directives and related time compliance by means of relevant Airworthiness Directives.

SERVICE BULLETIN (RECOMMENDED) N.: 80-0467 REV.2 ATA CHAPTER: 34-10

MODIFICATION N.: 80-0951; 80-1234

TITLE: P180 AVANTI II AIR DATA SYSTEM - SSEC UPGRADE

REVISION STATUS OF THE BULLETIN

This RECOMMENDED Service Bulletin (RSB) is at Revision 2 status and consists of 9 pages, plus Confirmation Slip.

This RSB is revised to:

- i) update the accomplishment instructions (§ 2), introducing also an alternative P/N of the Electronic Standby Instrument;
- ii) update references (§ 1.M.);
- iii) update publications affected (§ 1.N.), following the issue of new revisions of the applicable technical publications;
- iv) update format and content to current publication standards;
- v) make minor changes and corrections in the document.

This Revision supersedes the previous issue of this RSB.

Operators in compliance with the original issue of this Service Bulletin are required to verify the correctness of ADC configuration strapping in accordance with § 2, step 8) of this RSB, unless already performed.

No further action necessary for operators that have already accomplished to the previous issue of this RSB.

The parts which are affected by this Revision are marked with a vertical line on the right side of the page.

1. PLANNING INFORMATION

A. EFFECTIVITY

Piaggio Aero Industries (PAI) P180 Avanti II Manufacturer's Serial Number (MSN):
1002; 1105 thru 1234 and 3001 thru 3010.

B. CONCURRENT REQUIREMENTS

Not applicable.

C. REASON

This RSB improves the accuracy of altitude indication, reducing the Altimetry System Error.

The technical analysis and flight tests put in evidence the necessity of updating the Static Source Error Correction (SSEC) curves embedded in the A/C Air Data Computers (ADC-3000) and in the Electronic Standby Instrument System (ESIS, GH-3100).

This RSB provides, for the P.180 Avanti II fleet, the instructions necessary to replace the two (2) Air Data Computers (ADC-3000) and the Detachable Configuration Module (DCM-3100, part of the ESIS) with new P/Ns provided of updated SSEC.

Failure to comply this Service Bulletin may cause loss of RVSM capability, as per AFM Limitations (§ 1.M.).

Revision history:

Revision 1 (dated July 19th, 2019) was issued to update the accomplishment instructions (introducing the modification of the ADCs configuration strapping), the references and the publications affected.

D. DESCRIPTION

General

This RSB consists of the following:

- Radome nosecone removal.
- Removal of primary and secondary Air Data Computers (ADC).
- Removal of ESIS and detachment of related DCM.
- Installation of new P/N of the primary and secondary Air Data Computers.
- Modification of ADC configuration strapping.
- Installation of new DCM on ESIS.
- Installation of ESIS.
- Pitot-Static ports cleaning and leak test.
- RVSM - Testing, Checking.
- Radome nosecone installation.

E. COMPLIANCE

This RSB should be accomplished at the next scheduled maintenance stop, provided that the availability of parts (§ 3.A.) has been verified with Spares Procurement (§ 1.I.).

In compliance with this Service Bulletin, please complete the attached Confirmation Slip and send it back to Piaggio Aero Industries S.p.A. Customer Support Department.

F. APPROVAL

The technical content of this Service Bulletin has been approved under the Authority of the DOA ref. **EASA.21J.220**.

G. MANPOWER

This RSB may be accomplished in approximately 16 man-hours (MH).

H. TECHNICAL INFORMATION

For questions concerning the technical content of this Service Bulletin, please contact:

Piaggio Aero Industries – P180 Customer Support
Via Pionieri e Aviatori d'Italia, snc - 16154 Genoa, Italy
Fax No. : (+ 39) 010 099 8400
E-mail: technicalsupport@piaggioaerospace.it

I. MATERIAL – COST AND AVAILABILITY

For pricing, availability and scheduling, please contact:

- for customers and operators in Europe, Asia and RoW

e-mail: spareparts@piaggioaerospace.it

telephone: (+39) 335 810 59 20

- for customers and operators in the Americas

e-mail: spares@piaggioamerica.com

telephone : (+1) 561 253 0104

fax: (+1) 561 683 5513

J. TOOLING – COST AND AVAILABILITY

Not applicable.

K. WEIGHT AND BALANCE

No effect.

L. ELECTRICAL LOAD DATA

No effect.

M. REFERENCES

Document Title	Document Number	Chapter/Section
Aircraft Maintenance Manual (AMM)	180-MAN-0200-01105 180-MAN-0200-01105(E)	20-00-00 34-12-00 24-00-00 34-13-00
Illustrated Parts Catalog (IPC)	180-MAN-0100-01103 180-MAN-0100-01103(E)	31-12-05 34-12-00 31-12-06 34-27-00
Wiring Manual (WM)	180-MAN-0150-01104 180-MAN-0150-01104(E)	34-11-00 34-12-00
Airplane Flight Manual (AFM)	180-MAN-0010-01100	Temporary Change no. 107 *
SB Rockwell Collins ADC-3000-34-509	523-0825031-001000	-

* Temporary Change will be incorporated into the relevant manual at the next regular revision.

N. PUBLICATIONS AFFECTED

Document Title	Document Number	Chapter/Section
Aircraft Maintenance Manual (AMM)	180-MAN-0200-01105(E) Rev. D0	TR-126
Illustrated Parts Catalog (IPC)	180-MAN-0100-01103 Rev. E0	TR-136 TR-137 TR-138
Illustrated Parts Catalog (IPC)	180-MAN-0100-01103(E) Rev. C0	TR-049 TR-050

The content of this Service Bulletin has been included in P180 Avanti II Wiring Manual (report no. 180-MAN-0150-01104 Rev. D0) chapter(s) 34-11-00 and 34-12-00; TR-315 in P180 Avanti II AMM (report no. 180-MAN-0200-01105 Rev. F0) chapter(s) 34-11-00, 34-13-00 and 34-22-00; TR-015 and TR-016 in P180 Avanti II EVO Wiring Manual (report no. 180-MAN-0150-01104(E) Rev. C0) chapter(s) 34-11-00 and 34-12-00.

2. ACCOMPLISHMENT INSTRUCTIONS

Procedure

NOTE 1: refer to AMM Chap. 20-00-00 for the standard practices airframe, taking care to the health and safety precautions.

NOTE 2: all work not explicitly described in this SB, must be performed in accordance with the referenced manuals and/or approved data.

NOTE 3: **incomplete review of all the information in this paragraph can cause errors. Read the entire procedure before beginning work to make sure you have a complete understanding of the requirements.**

- (1) Refer to AMM TASK 24-00-00-000-801 and TASK 24-00-00-000-802. Remove electrical power.
- (2) In the flight compartment put a warning notice to tell persons not to restore/apply the electrical power.
- (3) Make sure to open, tag and safety the following circuit breakers:

<i>CB PANEL</i>	<i>DESIGNATION</i>	<i>NO.</i>
PILOT	ADC 1	CB5001
PILOT	ADC 1 BACKUP	CB5003
PILOT	STANDBY INSTR	CB5013
CO-PILOT	ADC 2	CB5002
CO-PILOT	LTS DIM 1	CB4009

For CB numeration, refer also to IPC chap. 31-12-05 (pilot's side) and chap. 31-12-06 (co-pilot's side).

- (4) Refer to AMM TASK 53-10-00-000-801. Remove the Radome/nosecone.
- (5) Refer to AMM TASK 34-12-00-000-801. Remove the primary and secondary Air Data Computer P/N 822-1109-018.
- (6) Refer to AMM TASK 34-13-00-000-801. Remove the ESIS P/N 501-1860-0101 or P/N 501-1860-0103 and then the related DCM P/N 501-1870-31 or P/N 501-1870-51.
- (7) Refer to AMM TASK 34-12-00-400-801. Install the new primary and secondary Air Data Computer P/N 822-1109-144.

(8) Refer to WM chap. 34-11-00 and 34-12-00 for pre-mod and post-mod configurations and modify the ADCs strapping as follows:

- for Primary ADC, pre-mod configuration strapping from P5103 to SP5520 was 1 – 4 – 9 – 17 - 18 and now post-mod is 1 – 7 – 8 – 17 – 18 ;
- for Secondary ADC, pre-mod configuration strapping from P5104 to SP5645 was 1 – 4 – 9 – 17 - 19 and now post-mod is 1 – 7 – 8 – 17 – 19 .

(9) Refer to AMM TASK 34-13-00-400-801. Install the new DCM P/N 501-1870-188 and install the ESIS P/N 501-1860-0101 or P/N 501-1860-0103 on the instrument panel.

NOTE 4: if DCM P/N 501-1870-51 was installed on ESIS, remove from the cockpit the label (P/N 80-118997-007) asserting: “HDG information show on to the integrated STAND-BY instrument must be disregarded because not reliable”.

(10) Refer to AMM TASK 34-11-00-100-801, TASK 34-11-00-100-802, TASK 34-11-00-100-803, TASK 34-11-00-100-804. Perform pitot and static port cleaning on both pilot and copilot sides.

(11) Refer to AMM TASK 34-11-00-790-801. Perform leak test.

(12) Referring to the Diagnostic Information provided on AMM chap. 34-12-00 “Air Data System Description and Operation”, perform the Air Data Computer operational test in accordance with TASK 34-12-00-710-801, for both primary and secondary Air Data Computers.

(13) Refer to AMM TASK 34-13-00-720-801. Perform the Standby instrument functional test.

(14) Refer to AMM TASK 34-11-00-700-802. Perform the RVSM testing-checking.

(15) Ascertain that the following and Temporary Revision(s) is(are) included in the manuals as follows:

- Temporary Revision no. 136, 137 and 138 to the Avanti II Illustrated Parts Catalog (Report no. 180-MAN-0100-01103, Rev. E0).
- Temporary Revision no. 126 to the Avanti II EVO Maintenance Manual (Report no. 180-MAN-0200-01105(E), Rev. D0).
- Temporary Revision no. 049 and 050 to the Avanti EVO Illustrated Parts Catalog (Report no. 180-MAN-0100-01103(E), Rev. C0).

NOTE: Temporary Revision(s) will be incorporated into the relevant manual(s) at the next regular revision.

- (16) **Complete the attached Confirmation Slip and send it back to Piaggio Aero Industries S.p.A.– Product Support Department.**
- (17) **Make an appropriate entry in the airplane logbook to show compliance with this Service Bulletin.**

3. MATERIAL INFORMATION

A. LIST OF MODIFICATION KIT COMPONENTS

Part/Number Specification		Supplier	Qty.	Type	Designation [Note]
<i>SB80-0467 Rev.2</i>		<i>Piaggio Aerospace</i>	<i>1</i>	<i>Kit</i>	<i>Service Bulletin</i>
1	822-1109-144	Rockwell Collins	2	Part	ADC-3000 Air Data Computer [A]
2	501-1870-188	L-3 Communications	1	Part	DCM-3100 Detachable Configuration Module
Note [A] The old P/N 822-1109-018 may be upgraded to the new P/N by embodying Rockwell-Collins SB no. ADC-3000-34-509. This service bulletin may be installed only by Rockwell Collins, Inc. or an authorized Rockwell Collins, Inc. Service Center.					

B. LIST OF MATERIALS – OPERATOR SUPPLIED

Not applicable.

C. LIST OF TOOLS

Use of standard tooling is necessary for the implementation of this RSB.
 No special tooling and/or other specialized equipment are required.

D. DISPOSAL OF REMOVED PARTS

Unless a direct agreement with Rockwell Collins for the ADC-3000 upgrade is made by the operator, removed parts shall be returned to Piaggio Aero Industries – Product Support Department.

E. WARRANTY CREDIT PROGRAM

There are no active commercial support campaigns for this RSB.

4. WARNING - PROPRIETARY RIGHTS

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Product Support Department

CONFIRMATION SLIP

Service Bulletin Accomplishment			SB-80-0467 Rev.2
A/C S/N:	A/C Flight Hours:	A/C LGDS:	A/C Registration:
Date			
Accomplished by:			
Signature			