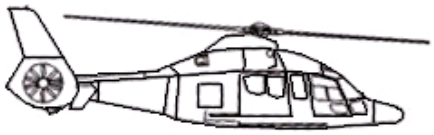


No. EC155-31-026

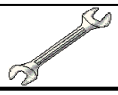
Civil version(s): B

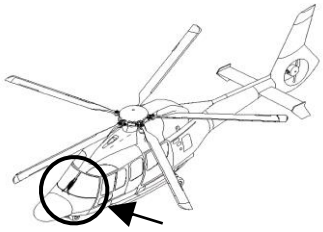
SERVICE BULLETIN

PRODUCT IMPROVEMENT

INDICATING AND RECORDING SYSTEMS - VEMD and CAD
VEMD and CAD obsolescence

Related to modification 0731C05

For the attention of




Revision No.	Date of issue
Revision 0	2021-12-20
Revision 1	2023-08-31

Summary:

The objective of this Service Bulletin is to allow the replacement of the "Old Generation (OG)" Vehicle and Engine Management Display (VEMD) with the "New Generation (NG)" VEMD because of obsolescence. With the introduction of a new Central Panel Display System (CPDS) software (from 03 to 04), it will also make the reliability and performance of the VEMD better.
This Service Bulletin allows the installation of Night Vision Goggles (NVG) CPDS on non-NVG Helicopters because the supportability of non-NVG equipment cannot be granted in all cases because of obsolescence on the non-NVG hardware.

Reason for last Revision:

The objective of revision 1 of this Service Bulletin is to add a configured CAD reference.

Compliance:

It is the operator's decision to comply or not to comply with this Service Bulletin.

1. PLANNING INFORMATION

CAUTION

MAKE SURE THAT THE MODIFICATIONS RELATED TO THIS SERVICE BULLETIN AGREE WITH THE HELICOPTER CONFIGURATION AT THIS TIME. IF THE MODIFICATIONS DO NOT AGREE WITH THE HELICOPTER CONFIGURATION:
- **PREPARE THE NECESSARY ADAPTATION WORK.**
- **GET THE APPROVAL BY THE APPLICABLE LOCAL AIR TRANSPORT AUTHORITIES.**
- **COMPLY WITH THE AIRWORTHINESS REQUIREMENTS.**

THIS SERVICE BULLETIN IS WRITTEN FOR THE INITIAL HELICOPTER CONFIGURATION SPECIFIED IN THE INDIVIDUAL INSPECTION LOG BOOK. IT INCLUDES ONLY THE POST-DELIVERY CONFIGURATION CHANGES THAT ARE KNOWN AND APPROVED BY AIRBUS HELICOPTERS.

1.A. EFFECTIVITY

1.A.1. Helicopters/installed equipment or parts

Helicopters:
- PRE MOD 0731C05
- That have a VEMD and a Caution and Advisory Display (CAD) with one of the references identified in paragraph 2.C.

NOTE 1

You can identify the delivery date of the helicopter in the Certificate of Conformity (included in the Individual Inspection Log Book).

NOTE 2

You can identify the modification status of the equipment in the Log Cards (FM).

For the operators who complied with revision 0 of this Service Bulletin, compliance with revision 1 is not necessary.

1.A.2. Non-installed equipment or parts

Non-NVG equipment

- Configured VEMD reference 365A61-1775-00
- Configured CAD reference 365A61-1775-01
- Configured CAD reference 365P61-4906-00
- Configured CAD reference 365P61-4908-00
- Configured CAD reference 365P61-4904-00
- Configured CAD reference 365P61-4908-05.

NOTE 3

The configured CAD references above contain CAD references C19243CB03 (704A47270164).

Or

NVG equipment

- Configured VEMD reference 365P61-4900-03
- Configured CAD reference 365P61-5537-01
- Configured CAD reference 365P61-4902-00
- Configured CAD reference 365P61-4900-04
- Configured CAD reference 365P61-4900-05.

NOTE 4

The configured CAD references above contain CAD references C19243DB03 (704A47270166).

1.B. ASSOCIATED REQUIREMENTS

CAUTION

THIS SERVICE BULLETIN INSTALLS THE VEMD AND THE CAD. BEFORE YOU COMPLY WITH THIS SERVICE BULLETIN, MAKE SURE THAT THERE WAS NO ALERT SERVICE BULLETIN RELATED TO THIS INSTALLATION. IF THERE IS SUCH AN ALERT SERVICE BULLETIN, MAKE SURE THAT IT IS NOT ISSUED BETWEEN THESE DATES:
- THE DATE OF APPROVAL OF THIS SERVICE BULLETIN
- THE TIME YOU DO THE WORK (GIVEN IN THIS SERVICE BULLETIN) ON THE HELICOPTER.

1.C. REASON

Revision 0:

The objective of this Service Bulletin is to allow the replacement of the "Old Generation (OG)" Vehicle and Engine Management Display (VEMD) with the "New Generation (NG)" VEMD because of obsolescence.
With the introduction of a new Central Panel Display System (CPDS) software (from 03 to 04), it will also make the reliability and performance of the VEMD better.
This Service Bulletin allows the installation of Night Vision Goggles (NVG) CPDS on non-NVG Helicopters because the supportability of non-NVG equipment cannot be granted in all cases because of obsolescence on the non-NVG hardware.

Revision 1:

The objective of revision 1 of this Service Bulletin is to add a configured CAD reference.

Revision 1 of this Service Bulletin has no effect on the compliance with revision 0 of this Service Bulletin.

1.D. DESCRIPTION

This Service Bulletin includes the replacement of the former generation VEMD and CAD with the new generation VEMD and CAD.

1.E. COMPLIANCE

1.E.1. Compliance at H/C manufacturer level

Not applicable.

1.E.2. Compliance in service

It is the operator who does the work on the helicopter.

Helicopters/installed equipment or parts:

Comply with paragraph 3.

Non-installed equipment or parts:

It is the operator who makes the decision on the level of stock related to the compliance with this Service Bulletin.

For the helicopters that complied with the former revision of this Service Bulletin, no other action is necessary.

1.F. APPROVAL

The technical content of this document is approved under the authority of the Design Organization Approval ref. EASA. 21J. 700.
For helicopters operated outside the terrain regulated by the EASA, the application of this document is subject to validation provided by the responsible aviation authority of the state of the registry.

1.G. MANPOWER

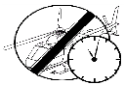
Airbus Helicopters recommends that the personnel who will do this Service Bulletin have these qualifications:

Qualification: 1 Avionics Technician.

Specialist: 1 Pilot.

The man-hours are an estimate given for information only and for a standard helicopter configuration.

Estimated Man-hours: - 3 hours for the Avionics Technician
- 30 minutes for the Pilot.



The helicopter downtime is an estimate given for information only and for a standard helicopter configuration.

The estimate of the helicopter downtime is half a day.

1.H. WEIGHT AND BALANCE

Not applicable.

1.I. POWER CONSUMPTION

Not applicable.

1.J. SOFTWARE UPGRADES/UPDATES

Not applicable.

1.K. REFERENCES

These documents are necessary to comply with this Service Bulletin:

Aircraft Maintenance Manual (AMM):

AMM: 24-00-00-911: General Safety Instructions - Electrical Power
AMM: 31-00-00-061: Removal / Installation Principle Applicable to a Part / LRU
AMM: 31-51-01-061: Removal / Installation - CAD
AMM: 31-60-01-061: Removal / Installation - VEMD
AMM: 34-00-00-911: General Safety Instructions - Navigation System

Standard Practices Manual (MTC):

MTC: 20-02-05-404: Assembly by screws and nuts - Joining
MTC: 20-07-02-201: Helicopter parked in a repair shop - Safety instructions
MTC: 20-07-03-408: Appearance checks on an aircraft after inspection or repair - Technical instructions
MTC: 20-08-05-101: Drafting and updating the log card (FM) - General rules applicable to aircraft
MTC: 20-80-20-107: Identification of electrical systems - Standard Practices - Electrical Power

Information Notice (IN):

IN 3481-I-00: The Marketplace: an AirbusWorld eOrdering service
IN 3686-I-00: Publishing of complementary Instructions for Continued Airworthiness through Delivery Notes
IN 3785-I-00: Introduction of the digital Service Bulletin reporting service SB Insight

Delivery Note (DN):

DN: DN.105.0015: Instructions for Continued Airworthiness

Safety Promotion Notice (SPN):

SPN: 3703-P-00: Foreign Object Damage prevention

1.L. OTHER AFFECTED PUBLICATIONS

CAUTION

TO COMPLY WITH THIS SERVICE BULLETIN, THE OPERATOR MUST MAKE SURE THAT ALL THE MAINTENANCE DOCUMENTS NECESSARY FOR THE MAINTENANCE OF THIS INSTALLATION ARE AVAILABLE. IF THEY ARE NOT AVAILABLE, THE OPERATOR MUST CONTACT AIRBUS HELICOPTERS TO GET THESE DOCUMENTS.

Publication to be updated:

The Service Bulletin content for Illustrated Parts Catalog (IPC) information has to be considered as Instruction for Continued Airworthiness (ICA). Refer to DN.105.0015 until the information is available in the published technical documentation.

NOTE 5

You can find more information about Delivery Notes in Information Notice IN 3686-I-00.

1.M. PART INTERCHANGEABILITY OR MIXABILITY

Interchangeability:

The PRE MOD and POST MOD V.E.M.D/CAD equipment items are interchangeable if you replace them at the same time and as a couple. Refer to paragraph 2.C.

Mixability:

The mixability does not apply to this modification because of the replacement by couple of the V.E.M.D /CAD. Refer to paragraph 2.C.

2. EQUIPMENT OR PARTS INFORMATION

2.A. EQUIPMENT OR PARTS: PRICE - AVAILABILITY - PROCUREMENT

Contact THALES. Refer to paragraph 2.D.

In the purchase order, write the information that follows:
- The mode of transport
- The destination
- The serial numbers of the helicopters to change.

NOTE 1

The reference of the equipment item on the helicopter helps you select the CAD or VEMD for which you will send an order (paragraph 2.C.).

2.B. LOGISTIC INFORMATION

Not applicable.

2.C. EQUIPMENT OR PARTS REQUIRED PER HELICOPTER/COMPONENT

Kits to be ordered for one helicopter or one assembly:

Send an order for one of the VEMDs below and the CADs, as necessary.

Key Word	Qty	New Reference	Item	Former Reference →	Instruction
VEMD	1	B19030LB04 (704A47270176) or B19030LC04 (704A47270180)	1	B19030HB03 (704A47270163)	Send back. Refer to paragraph 2.D. See NOTE 2
VEMD configured file	info	707A49439394	-	707A49438039	
CAD indicator	1	C19243DB04 (704A47270177) or C19243DC04 (704A47270182)	2	C19243CB03 (704A47270164)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439387		707A49438040	
CAD indicator	1	C19243DB04 (704A47270177) or C19243DC04 (704A47270182)	2	C19243CB03 (704A47270164)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439388		707A49438050	
CAD indicator	1	C19243DB04 (704A47270177) or C19243DC04 (704A47270182)	2	C19243CB03 (704A47270164)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439389		707A49438060	
CAD indicator	1	C19243DB04 (704A47270177) or C19243DC04 (704A47270182)	2	C19243CB03 (704A47270164)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439391		707A49438072	

Kits to be ordered for one helicopter or one assembly (cont.):

Key Word	Qty	New Reference	Item	Former Reference →	Instruction
CAD indicator	1	C19243DB04 (704A47270177) or C19243DC04 (704A47270182)	2	C19243CB03 (704A47270164)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439392		707A49438080	
VEMD	1	B19030LB04 (704A47270176) or B19030LC04 (704A47270180) or B19030LD04 (704A47270224) or B19030LE04 (704A47270238)	1	B19030LB03 (704A47270165)	Send back. Refer to paragraph 2.D. See NOTE 3
VEMD configured file	info	707A49439394		707A49438039	
CAD indicator	1	C19243DB04 (704A47270177)	2	C19243DB03 (704A47270166)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439387		707A49438040	
CAD indicator	1	C19243DB04 (704A47270177)	2	C19243DB03 (704A47270166)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439391		707A49438072	
CAD indicator	1	C19243DB04 (704A47270177)	2	C19243DB03 (704A47270166)	Send back. Refer to paragraph 2.D. See NOTE 4 See NOTE 5
Configuration file	info	707A49439393		707A49438291	

Kits to be ordered for one helicopter or one assembly (cont.):

Key Word	Qty	New Reference	Item	Former Reference →	Instruction
CAD indicator	1	C19243DB04 (704A47270177)	2	C19243DB03 (704A47270166)	Send back. Refer to paragraph 2.D. See NOTE 4
Configuration file	info	707A49439709		707A49438385	See NOTE 5

NOTE 2

The combination of VEMD (1) references B19030LB04 (704A47270176) and its configured file reference is configuration 365P61-4960-08.

The combination of VEMD (1) references B19030LC04 (704A47270180) and its configured file reference is configuration 365P61-4960-09.

NOTE 3

The combination of the VEMD (1) references B19030LB04 (704A47270176) and its configured file reference is configuration 365P61-4960-08.

The combination of the VEMD (1) references B19030LC04 (704A47270180) and its configured file reference is configuration 365P61-4960-09.

The combination of the VEMD (1) references B19030LD04 (704A47270224) and its configured file reference is configuration 365P61-4960-10.

The combination of the VEMD (1) references B19030LE04 (704A47270238) and its configured file reference is configuration 365P61-4960-07.

NOTE 4

If the VEMD is references B19030LD04 (704A47270224) or references B19030LE04 (704A47270238), you will use the CAD references C19243DB04 (704A47270177).

If the VEMD is references B19030LB04 (704A47270176) or references B19030LC04 (704A47270180), you will use the CAD references C19243DB04 (704A47270177) or references C19243DC04 (704A47270182).

NOTE 5

The combination of the CAD indicator (2) references C19243DC04 (704A47270182) and its configured file reference 707A49439387 is configuration 365P61-4961-00

The combination of the CAD indicator (2) references C19243DC04 (704A47270182) and its configured file reference 707A49439388 is configuration 365P61-4961-01

The combination of the CAD indicator (2) references C19243DC04 (704A47270182) and its configured file reference 707A49439389 is configuration 365P61-4961-02

The combination of the CAD indicator (2) references C19243DC04 (704A47270182) and its configured file reference 707A49439391 is configuration 365P61-4961-04

The combination of the CAD indicator (2) references C19243DC04 (704A47270182) and its configured file reference 707A49439392 is configuration 365P61-4961-05

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439387 is configuration 365P61-4961-08

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439388 is configuration 365P61-4961-09

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439389 is configuration 365P61-4961-10

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439391 is configuration 365P61-4961-12

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439392 is configuration 365P61-4961-13

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439393 is configuration 365P61-4961-14

The combination of the CAD indicator (2) references C19243DB04 (704A47270177) and its configured file reference 707A49439709 is configuration 365P61-4961-15

Consumables to be ordered separately:

Refer to the Work Cards and Tasks identified in this Service Bulletin.

You can send an order for the consumables from the AirbusWorld Marketplace through e-ordering (IN 3481-I-00).
If you cannot get access to e-ordering, please contact your Logistic Focal Point.

Special tools:

Refer to the Work Cards and Tasks identified in this Service Bulletin.

2.D. EQUIPMENT OR PARTS TO BE RETURNED

Send the material back to:

SDV Aerospace c/o Thales Avionics
Zone de Fret 3 - SAGAFRO
3 Rue du Remblai
BP 16355
95706 Roissy Charles de Gaulle Cedex
FRANCE

Or

Thales Avionics, Inc.
140 Centennial Ave
Piscataway, NJ 08854
USA

Or

Thales Solutions ASIA PTE. LTD
21 Changi North Rise
498788 SINGAPORE
SINGAPORE

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL

- Comply with the general electrical instructions. Refer to Task 24-00-00-911 (AMM).
- Comply with the general instructions on the removal and installation principle for a part or LRU. Refer to Task 31-00-00-061 (AMM).
- Comply with the general instructions on the navigation system. Refer to Task 34-00-00-911 (AMM).
- Comply with the general instructions on the identification of electrical installations. Refer to Work Card 20-80-20-107 (MTC).

Unless specified differently, apply the standard tightening torque values. Refer to Work Card 20-02-05-404 (MTC).

3.B. WORK STEPS

CAUTION

MAKE SURE THAT YOU PREVENT ALL POSSIBLE FOREIGN OBJECT DAMAGE (FOD). REFER TO SPN 3703-P-00.

3.B.1. Preliminary steps

- Park the helicopter in a hangar. Refer to Work Card 20-07-02-201 (MTC).
- Install the applicable access equipment.
- Disconnect all the electrical power supplies.
- Remove and/or open all applicable cowlings, panels, doors and other items of equipment to get access to the different work areas.

3.B.2. Procedure

Before you remove the equipment items, do a check of the PRE MOD reference of the CAD (a) and the VEMD (b). Refer to paragraph 2.C.

Refer to Figure 1
- Remove the VEMD (b) and the CAD (a). Refer to Task 31-60-01-061 (AMM) and Task 31-51-01-061 (AMM).
- Send back the VEMD (b) and the CAD (a). Refer to paragraph 2.D.
- Make sure that the VEMD (2) and the CAD (1) references sent back by the manufacturer are correct. Refer to paragraph 2.C.
- Install the VEMD (2) and the CAD (1). Refer to Task 31-60-01-061 (AMM) and Task 31-51-01-061 (AMM).

3.B.3. Tests

- Set the helicopter to test condition.
- Connect all the electrical power supplies again.
- Energize the helicopter electrical systems.
- Do a test of VEMD and CAD. Refer to Task 31-60-01-061 (AMM) and Task 31-51-01-061 (AMM).
- De-energize the helicopter electrical systems.

3.B.4. Final steps

- Clean and apply the close-up procedure to the work areas and the helicopter. Refer to Work Card 20-07-03-408 (MTC).
- Install or close all cowlings, panels, doors and items of equipment that you removed and/or opened during the preliminary steps (paragraph 3.B.1. of this Service Bulletin).
- Remove the access equipment.

3.B.5. Ground run-up / Flight test

Do two run-ups to update the NG cycles (Gas generator rpm) and the NF cycles (Free Turbine rpm). Refer to the Flight Manual (FLM).

NOTE 1

It is necessary to disconnect the electrical power supply at the "BAT/ESS" button on the "12 ALPHA" control panel between the two run-ups.

3.C. RECORD OF COMPLIANCE

Compliance with this document:

- Record the full compliance with this Service Bulletin, with the revision number, in the helicopter documents.

- Record compliance with this Service Bulletin (see IN 3785-I-00 for instructions):
  QR code or hypertext link

NOTE 2

The recording of compliance with Service Bulletins in the SB Insight tool does not replace the recording in the helicopter documents.

SB EC155-31-026

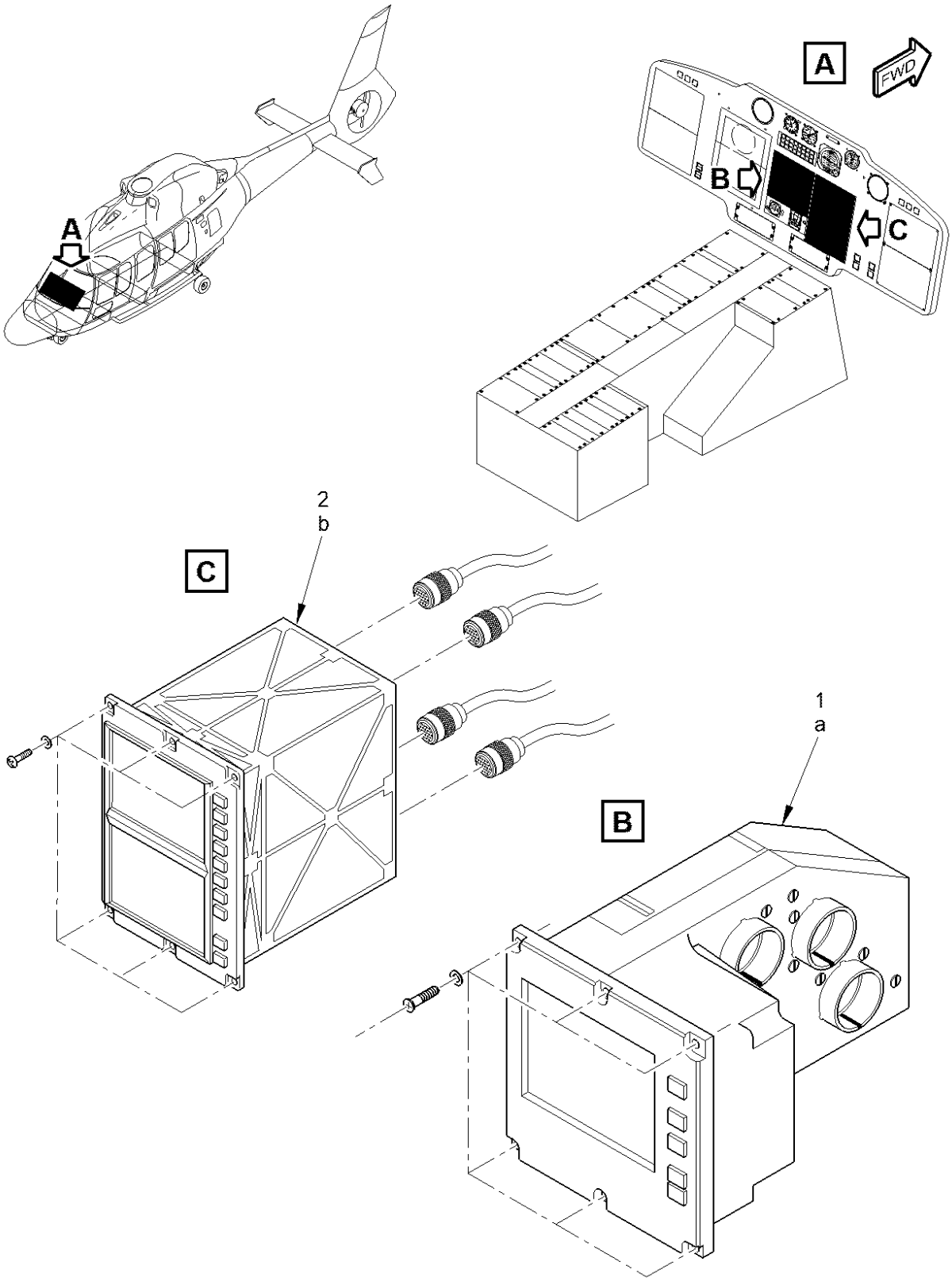
Tracking of modifications in the documentation:

- Record the modification 0731C05 in the helicopter documents.

- Record the removal / installation of the VEMD and CAD in its Log Card. Refer to Work Card 20-08-05-101 (MTC).

3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Not applicable.



Back to paragraph 3.B.2.

Figure 1