

Title: Cavalon Magnetometer Re-Positioning		
AG-SB-2020-04-B-EN		Compliance Category: A – MANDATORY B – RECOMMENDED C – OPTIONAL
Applicability		
Aircraft type & model: Cavalon	Affected Serial number(s): All Cavalon fitted with a Garmin G3X glass cockpit	
The maintenance manual to be referenced is this stated or subsequent issue.		As per AutoGyro website
This form is the response from AutoGyro GmbH either against a problem found in the product in service requiring a containment or rectification action, or as service information for aircraft modification incorporation. For help, contact AutoGyro on 49(0)5121 88056-00, or email airworthiness@auto-gyro.com.		

Documentation (Service Bulletin Completion action)

The accomplishment of this Service Bulletin, or the decision of its rejection, must be properly documented, if such procedure is required by the relevant authority

Category Codes

- | | |
|-----------------|---|
| A – Mandatory | – failure to comply result in a significant reduction of flight safety, injury or death |
| B – Recommended | – failure to comply may result in reduced safety margin, injury and/or equipment damage |
| C - Optional | – improves operating behavior, reliability and/or maintainability |

Chief Certification Officer	Chief Technical Officer
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Reason and overview of the Service Bulletin (cause of problem if known)

AutoGyro has received feedback from the market that the current position of the Garmin G3X magnetometer under the centre console may lead to spurious readings in the G3X display.

AutoGyro has designed a modification kit (47742) to allow the magnetometer to be re-positioned to the interior cabin roof.

This service bulletin provides instructions on how to re-position the magnetometer.

Manpower estimates

The task may only be performed by an organization or individual entitled and trained to carry out maintenance on AutoGyro aircraft.

Estimated man-hours to complete the task as a stand-alone item is:

2.0 hrs.

Compliance

This bulletin is recommended and has no compliance timeline.

Failure to embody this service bulletin may result in:

- Possible damage to the aircraft
- Invalidation of the warranty on the items involved

Customer Support

Materials and labour hours are covered by this SB if the aircraft is within the warranty period.

A maximum of 2.0 hrs labour may be claimed.

The service bulletin reference AG-SB-2020-04-B-EN and gyro works number (V00XXX) is to be quoted on all parts orders and labour claim submissions related to this SB.

Tooling required

Standard tools.

Weight and Balance Effects

Nil

Manuals affected

POH & AMM AutoGyro is not affected.

Previous Modifications that affect the SB

None

Accomplishment instructions (Action required to implement this bulletin):

Effective date of this SB is 08 September 2020.

All work is to be carried out in accordance with the latest model-relevant AutoGyro Aircraft Maintenance Manual

Instructions

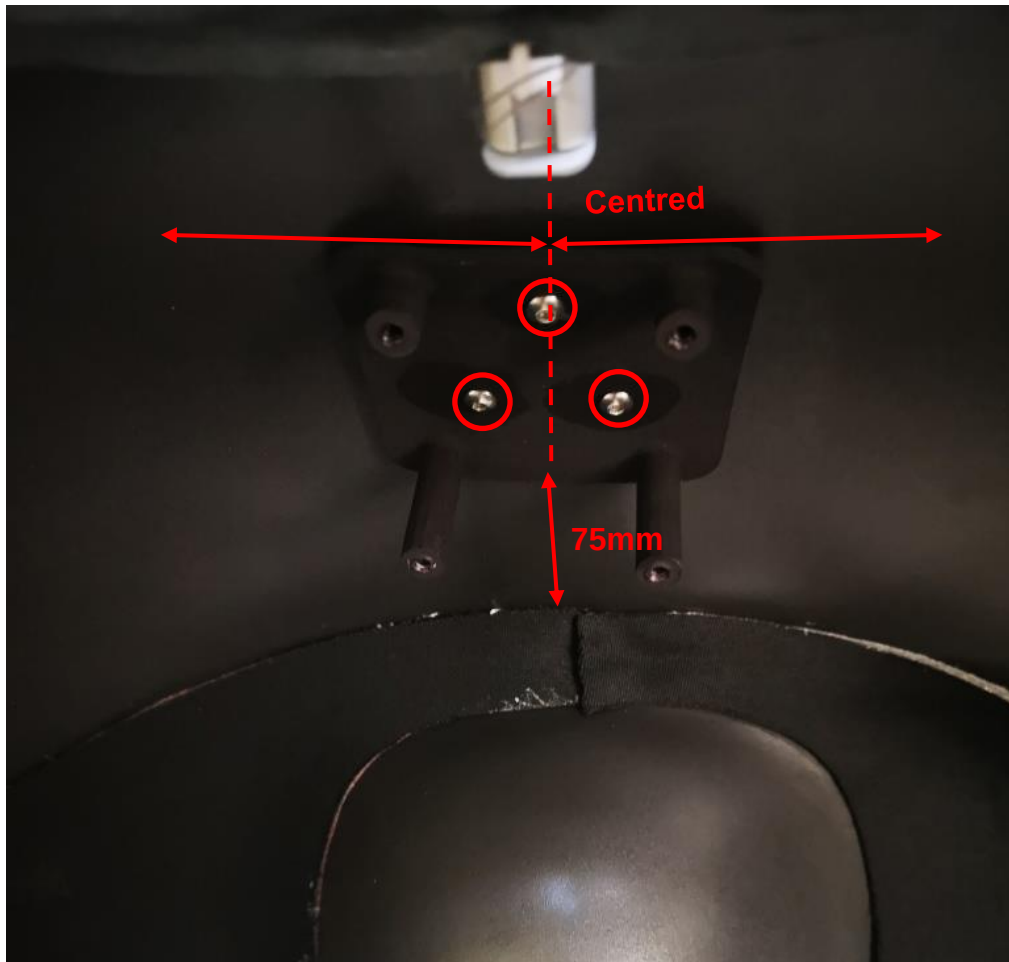
1. Ensure the wheel brakes are applied and the mag switches/ignition are switched in the "off" position.
2. Position the magnetometer bracket (47741) on the cabin roof approximately 75mm from upper edge of rear bulkhead foam to rear edge of mounting bracket and mark the 3 alu countersunk rivet nut hole positions on the cabin roof. The mount should be positioned exactly on the centerline of the aircraft for optimum sensor operation (Pic. 1)
3. Using a suitably adapted 6mm drill (Pic. 2), drill the 3 previously marked holes to M6.
NOTE: ensure that the outer fuselage is not contacted!
4. Countersink the holes and assemble the countersunk rivet nuts in the cabin roof using M4 rivet nut pliers (Pic. 3).
5. Assemble the bracket (47741) to the cabin roof using the 3 x Mx10 A2 screws and Loctite 221 red (30488) (Pic. 4).
6. Remove the throttle/brake center console iaw AMM Job Card 67-10-00 4-1.
7. Remove the magnetometer from its current position in the center channel, disconnect the Sub D plug and re-route the cable so that the plug is positioned as in Pic. 7.
8. Remove the rear bulkhead PPC cover (Pic. 5, item A) & intercom panel (Pic. 5, item B).
9. Screw the 2 connecting nuts onto the Sub D plug from set 47742 (Pic. 6).
10. Connect the Sub D plug from the adapter cable to the existing magnetometer Sub D plug in the center channel (Pic. 7).
11. Route the cable along the left side of the center channel rearwards, between the tanks, behind the intercom console.
12. Remove enough of the upper left side of the rear bulkhead foam to route the cable behind it to the magnetometer.
13. Assemble the magnetometer to the mounting bracket (47741) using the 4 self-tapping stainless-steel 4.8x16 screws, and connect the Sub D plug from the extension cable (Pic. 8).
14. Route the cable behind the rear bulkhead foam, and re-adhere the foam to the bulkhead using contact glue Würth High-adhesion Spray Adhesive (31299) or similar (Pic. 9).
15. Secure the extension cable to the main wiring harness & roll PPC using cable-ties as required (Pic. 7 & 9).
16. Turn on the Garmin G3X in configuration mode.
17. Under Magnetometer Calibration/Magnetometer Orientation, change the orientation from 'Aft' to 'Port' (Pic. 10) and 'save'.
18. Re-assemble the throttle/brake center console in accordance with AMM Job Card 67-10-00 4-1.
19. Re-assemble the intercom console and PPC cover.
20. Carry out a loose tool and article check.
21. Carry out post-installation procedures in accordance with the Garmin G3X user manual section 9.
22. Carry out a test flight for a functional check of the Garmin G3X.

Contact & Info:

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Illustrations



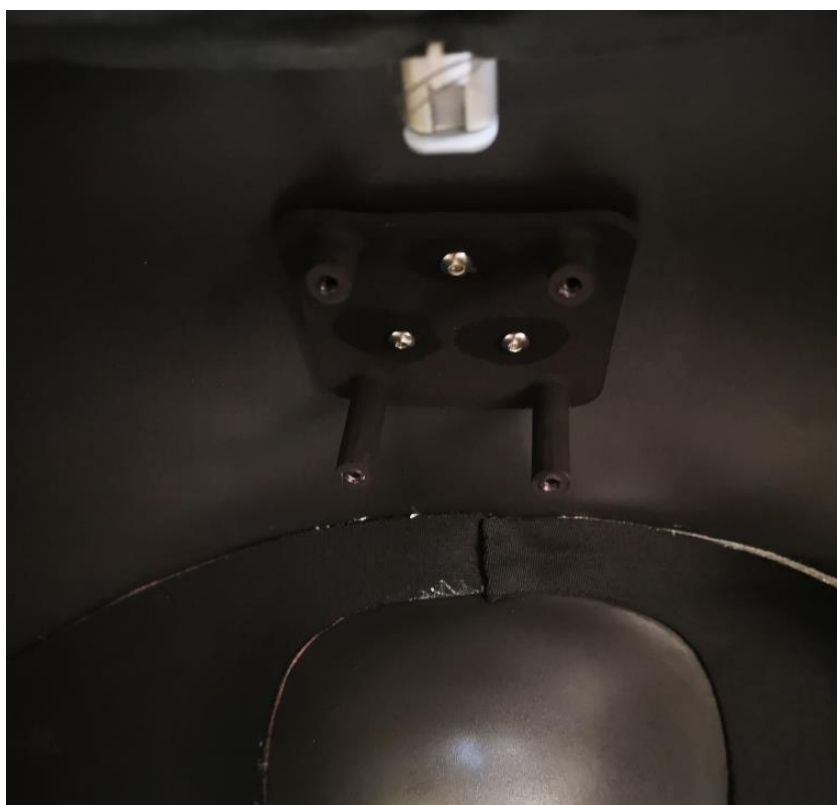
(Pic. 1)



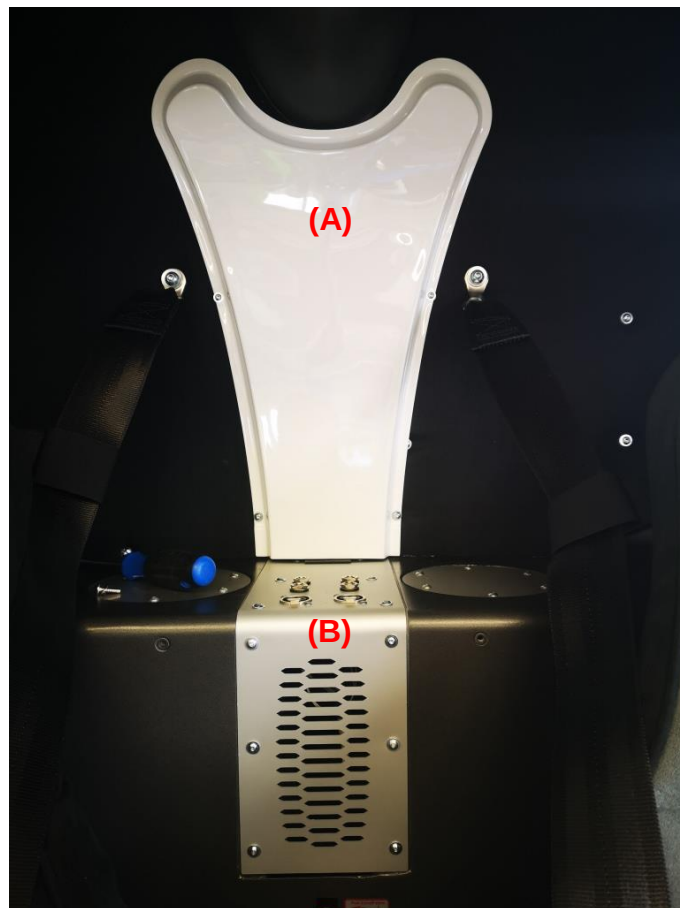
(Pic. 2)



(Pic. 3)



(Pic. 4)



(Pic. 5)

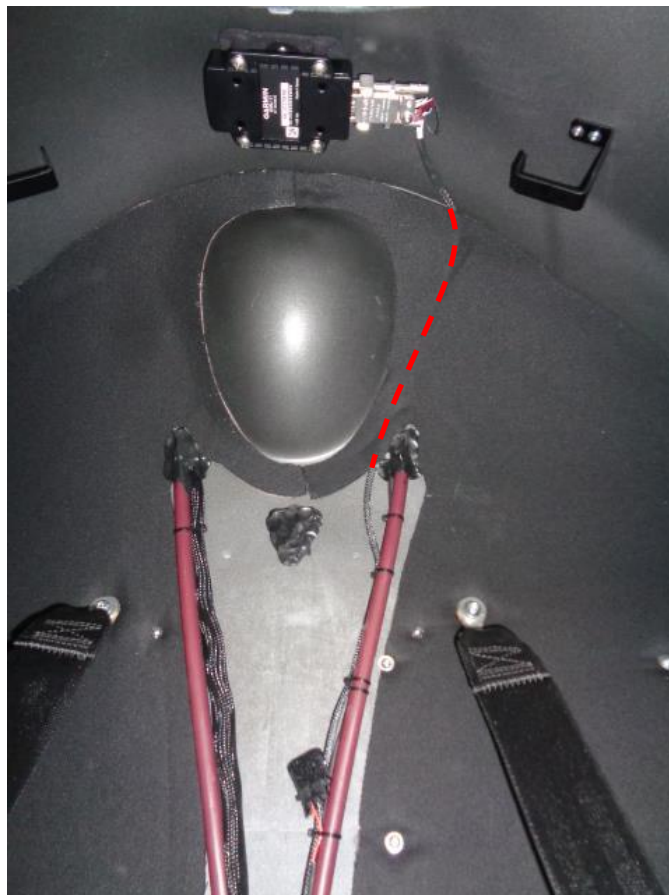


(Pic. 7)

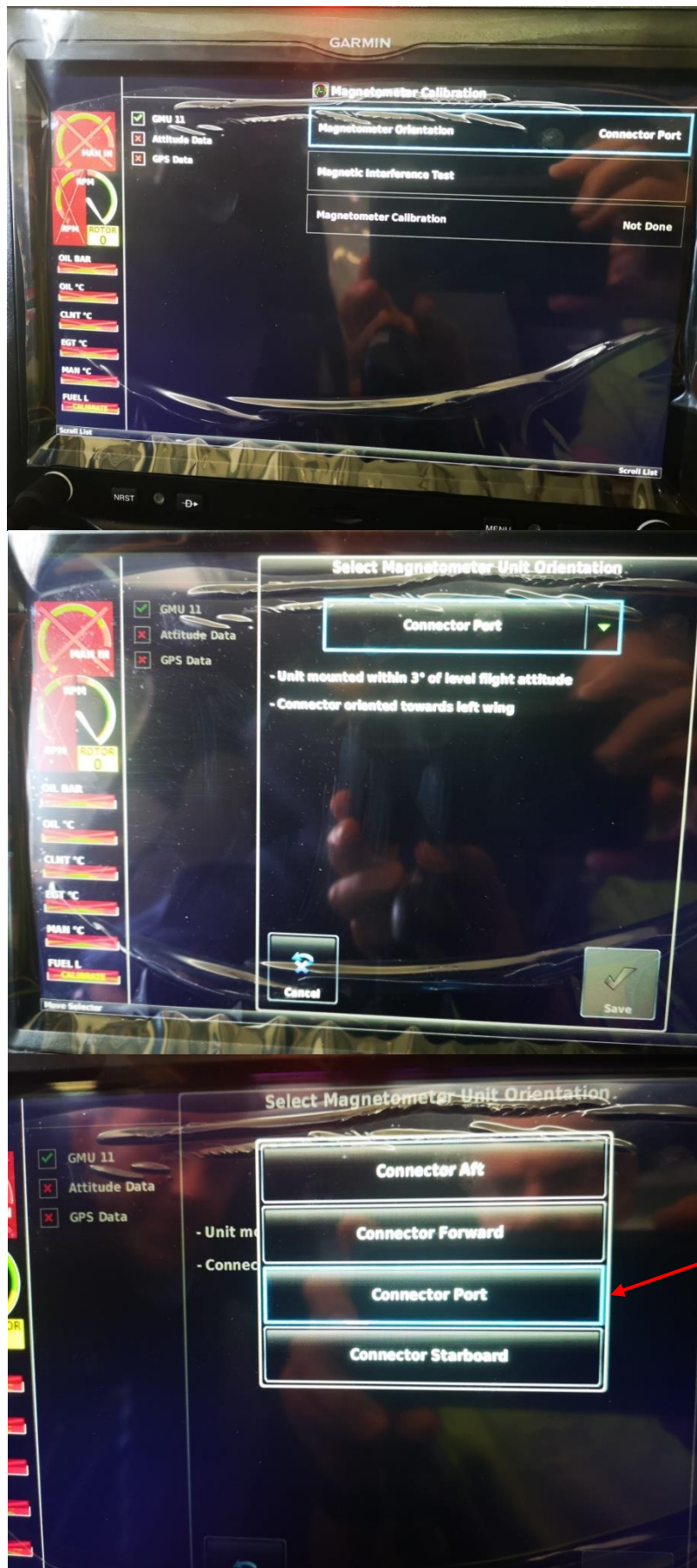
(Pic. 6)



(Pic. 8)



(Pic. 9)



(Pic.10)

Completion of this Service Bulletin must be recorded within the aircraft documentation, in line with the requirements of the country of operation.

Material information (Parts required to be made to implement this service bulletin):

Nil

List of components (with purchasable part numbers)

47742 Garmin G5 GMU11 conversion kit ETFE
30488 Loctite 221 red

Interchangeability

Not affected

Parts disposition

- a) Disposal requirements – Nil
- b) Environmental hazards of parts containing hazardous materials – Nil
- c) Scrap requirements (e.g. mutilate scrapped items beyond use) – Nil

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