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| REV A | APPLICATION | | | REVISIONS | | |
| | PRODUCT LINE | REV | DESCRIPTION | DATE | APPROVED | APPROVED |
| SH 1 | IDU-III | A | Initial Release per DCN W4820 | 11/09/05 | R. DuRall | V. Wallace |
| DWG. NO. 150-045038 | | | | | | |
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| APPROVALS | | DATE | | TITLE: SERVICE BULLETIN WSB IDU-III-18 (GARMIN GDL-90 ADS-B INTERFACE PROVISIONS) | |
| DRAWN | Robert DuRall | 11/09/05 | | | |
| CHECKED | Dean R. Boston | 11/09/05 | | | |
| PRODUCT MANAGER | | | | | |
| ENGINEER | Robert DuRall | 11/09/05 | SIZE | CAGE CODE | DWG NO. |
| ISSUED | Vern Wallace | 11/09/05 | A | 1B7G3 | 150-045038 |
| Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona. | | | SCALE: NONE | | DO NOT SCALE DRAWING |
| | | | | REV | A |



Wulfsberg Electronics
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SERVICE BULLETIN

EQUIPMENT: IDU-III

DATE: November 9, 2005

BULLETIN NUMBER: WSB IDU-III-18 Revision A

EFFECTIVITY

This service bulletin applies to the following:

| LRU P/N | HDWR Mod | SWID |
|-----------------|----------|------|
| 401-045500-0101 | ANY | 5.0B |

REASON

This Service Bulletin provides wiring interface documentation that allows an installer to pre-wire the interconnect harnesses between the Chelton EFIS and the Garmin GDL-90 ADS-B sensor.

DESCRIPTION

This document describes the connection and checkout of the interconnect wiring between the Chelton EFIS and the Garmin GDL-90 ADS-B sensor. Activation of the ADS-B functionality in the Chelton EFIS will be addressed in a separate Service Bulletin.

COMPLIANCE

Optional for Capstone installations using the Garmin ADS-B sensor.

WARRANTY INFORMATION

This is an optional Service Bulletin and no warranty is allowed.

APPROVAL

This modification does not affect the original approval.

MANPOWER

4 Man-hours per aircraft.

REFERENCES

System Installation Instructions, 150-045264 and Garmin GDL-90 UAT Data Link Sensor Installation Manual, 560-1049-00.

MATERIAL INFORMATION

The parts required to modify an IDU-III installation in accordance with this Service Bulletin may be obtained as follows.

Items 1 and 2 may be purchased from any aviation hardware supplier.

Item 3 may be obtained from Chelton PFD Installation Kit 149-05264-01 or MFD Installation Kit 149-045264-02.

PARTS REQUIRED

| <u>ITEM</u> | <u>QTY</u> | <u>U/M</u> | <u>PART NUMBER</u> | <u>DESCRIPTION</u> |
|--------------------|-------------------|-------------------|---------------------------|------------------------------------|
| 1 | 2 | ea | AWG22SH3C | Wire, 22AWG, 3-Conductor, Shielded |
| 2 | 1 | ea | AWG22SH2C | Wire, 22AWG, 2-Conductor, Shielded |
| 3 | 11 | ea | MIL-C-39029/57-354 | Socket, Crimp, Female, 22D |

MODIFICATION PROCEDURE

1. Remove power from the aircraft and disconnect the aircraft battery.
2. Remove all required access panels and aircraft interior for installation.
3. Locate and install the Garmin GDL-90 ADS-B sensor per the Garmin Installation Manual.
4. Route one AWG22SH3C (Item 1) and one AWG22SH2C (Item 2) from the ADS-B sensor to the PFD tray assembly.
5. Secure wires to existing harnesses and structures per AC 42.13-1B, Chapter 11, Sections 8 through 12 as required.
6. Terminate wires in Step 2 at the GDL-90 using sockets provided in the Garmin Installation Kit and attach per Figure 1.

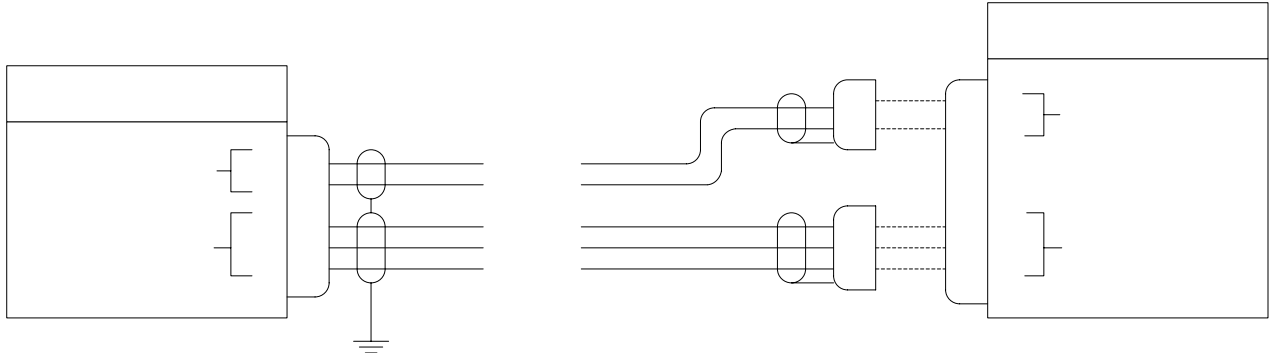


Figure 1 GDL-90 to PFD Interface

7. Terminate the shield per Garmin Installation Manual, Doc. 560-1049-00, Chapter 2.
8. Terminate wires in Step 2 at the PFD using sockets (Item 3) per Chelton EFIS Installation Instructions, Doc. 150-045264, Chapter 2 and attach per Figure 1.
9. Terminate the shield per Chelton EFIS Installation Instructions, Doc. 150-045264, Chapter 2 and attach per Figure 1.
10. Disconnect the EFIS Interconnect Cable by removing PFD P4 and MFD P3 from the tray.

**GDL-90
ADS-B**

P2

11. Route one AWG22SH3C (Item 1) between the interconnect plugs.
12. Terminate the wires in Step 10 using sockets (Item 3) per Chelton EFIS Installation Instructions, Doc. 150-045264, Chapter 2.
13. Terminate the shield per Chelton EFIS Installation Instructions, Doc, 150-045264, Chapter 2.
14. Add new wires per Figure 2.

(429) COM2

RXA

14

RXB

32

RXB

28

TYD

29

24

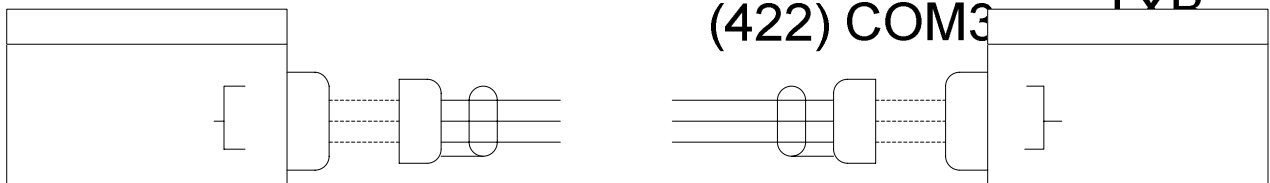


Figure 2 PFD to MFD EFIS Interconnect Cable

15. Secure new wire to the EFIS Interconnect Cable.
16. Install EFIS Interconnect Cable into aircraft.

TESTING PROCEDURE

1. Remove the PFD and MFD from their associated trays.
2. Remove the GDL-90 from its tray.
3. Using a DMM, perform a continuity test of the PFD to GDL-90 wiring. Verify all wires are installed correctly per Figure 1.
4. Using a DMM, perform a continuity test of the PFD to MFD EFIS Interconnect. Verify all wires are installed correctly per Figure 2.
5. Install the PFD, MFD, and GDL-90 into their associated trays.
6. Secure all access panels and aircraft interior removed for installation.
7. Connect the aircraft battery.