A Textron Company

ALERT SERVICE BULLETIN **505-25-50**

25 March 2026

MODEL AFFECTED: **505**

SUBJECT: **PRIMARY AND MULTIFUNCTIONAL FLIGHT DISPLAY (PFD AND MFD) ELECTRICAL BONDING, VERIFICATION AND CORRECTION OF.**

HELICOPTERS AFFECTED: **Serial numbers 65011 through 65505, 65507 through 65512, 65514 through 65601, 65603 through 65616, 65618 through 65620, 65623, 65624, 65626, 65628 through 65632, 65635, 65636, 65638, 65641, 65644, 65647, 65649, 65652 through 65663, 65665 through 65667, 65678, 65680, 65682, 65692, and 65694.**

[**Only** the helicopter serial numbers **listed above are affected** by this bulletin.]

COMPLIANCE: **PART I** – Prior to next flight.

PART II – At customers option, but not to exceed 330 flight hours or 12 months, whichever comes first, following the release date of this bulletin.

DESCRIPTION:

Bell has become aware that delivered Model 505 helicopters may not have the required electrical bonding between the airframe structure and the Primary and Multifunctional Flight Displays (PFD and MFD). There is a safety of flight concern if this condition exists and a suspect helicopter flies in a High Intensity Radiated Field (HIRF). This can potentially cause the Air Data Attitude Heading Reference System (ADAHRS – GSU 75H) to send erroneous signals to the PFD or MFD. For helicopters with an autopilot system installed and engaged this may cause uncommanded inputs to the autopilot control system or possibly a flight control hardover condition.

Bell is aware of two autopilot systems currently certified for installation and use on the Model 505, these are the Garmin GFC 600H and the Genesys Aerosystems' HeliSaS.

PART I of this ASB prohibits all 505s equipped with an autopilot system from being engaged during flight operations and must be accomplished prior to the next flight.

PART II of this bulletin provides instructions to verify the electrical bonding of the Garmin Display Units (GDU) and correct it if it does not meet the maximum requirements.

Accomplishment of **PART II** is a terminating action to **PART I** of this bulletin but also required to be accomplished on all delivered 505s within the **COMPLIANCE** period of this bulletin.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

MANPOWER:

Approximately 0.5 man-hours are required to complete **PART I** of this bulletin.
Approximately 2 man-hours are required to complete **PART II** of this bulletin.
This estimate is based on hands-on time and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIAL:

Required Material:
The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center.

Part Number	Nomenclature	Qty (Note)
LOCALLY MANUFACTURE	DECAL	1 (1)
MS20426AD4-8	RIVET	8 (2)

Part Number	Nomenclature	Qty (Note)
011-00821-21	GARMIN MOUNTING HARDWARE KIT	2 (3, 4)

NOTES:
1. Locally manufacture using details in Figure 1.
2. Only required if the PFD and MFD attaching hardware are required to have the electrical bonding done in the procedures of **PART II** of this bulletin.
3. Not likely required as existing hardware should be intact.
4. The kit contains four locking sockets (1, Figure 2).

Consumable Material:
The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Supply Center.

Part Number	Nomenclature	Qty (Note)	Reference *
2010-12792-01	Sealant	1 PT (1)	C-251
2010-06640-00	Edge Sealer	8 OZ (1)	C-349
2100-06673-00	Isopropyl Alcohol	1 GAL (1,2)	C-385
Commercially Available	Cloth, Cleaning, Low-Lint	A/R	C-516

* C-XXX numbers refer to the consumables list in the BHT-ALL-SPM, Standard Practices Manual

NOTES:
1. Quantity indicated is the format that the product is delivered in. Actual quantity required to accomplish the instructions in this bulletin may be less than what has been delivered.
2. Toluene 2110-06227-00 (C-306) or Ethyl Alcohol (C-339) can be used as an alternate.

SPECIAL TOOLS:

None required.

WEIGHT AND BALANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

505-MM Maintenance Manual, Chapters 25 and 31.
BHT-ALL-SPM, Standard Practice Manual, Chapter 8.
BHT-ELEC-SPM, Electrical Standard Practice Manual, Chapter 8.

PUBLICATIONS AFFECTED:

505-MM, Maintenance Manual, Chapter 31.
505-IPC, Illustrated Parts Catalogue, Chapter 31.

ACCOMPLISHMENT INSTRUCTIONS:

PART I – Prohibition of engagement of autopilot system.

CAUTION

Having the autopilot system ON and engaged while flying in High Intensity Radiated Field (HIRF) can potentially cause the Air Data Attitude Heading Reference System (ADAHRS) to send erroneous signals to the PFD or MFD causing uncommanded inputs to the autopilot control system or possibly causing a flight control hardover condition. **DO NOT ENGAGE THE AUTOPILOT SYSTEM**.

1. Prepare the helicopter for maintenance.

2. Verify if an autopilot system is installed in the helicopter.

   a. If an autopilot system **is not** installed go to step 3.

-NOTE-

It is acceptable to ferry the helicopter to a location where the steps below can be accomplished.

   b. If there **is** an autopilot installed, perform the following:

      (1) Prepare decal (1, Figure 1).

         (a) Letters to be RED on WHITE background in Arial Black size 14 font.

      (2) Install decal (1) in location on pedestal (Figure 1) (BHT-ALL-SPM, Chapter 8).

      (3) Apply clear edge sealer (C-349) over the decal and around edges.

3. Make an entry in the helicopter logbook indicating compliance with **PART I** of this Alert Service Bulletin.

4. Accomplish **PART II** within the **COMPLIANCE** period indicated.

PART II – Verification of PFD and MFD electrical bonding, and correction of.

1. Prepare the helicopter for maintenance.

2. Remove glareshield assembly (DMC-505-A-25-10-01-00A-520A-A).

3. Disconnect the connector (3160DS2P1) from the PFD (3160DS2).

4. Disconnect the connector (3160DS1P1) from the MFD (3160DS1).

5. Verify the electrical bonding of the PFD and MFD to the instrument panel structure (Figure 2). Check between the back casing of the PFD and MFD and local ground hardware (3) on the instrument panel.

   a. For helicopters **without** an autopilot system installed, electrical bonding resistance is to be **20 milliohms or less**. If the electrical bonding resistance is greater than 20 milliohms, go to step 6, otherwise go to step 10.

   b. For helicopters **with** an autopilot system installed, electrical bonding resistance is to be **10 milliohms or less**. If the electrical bonding resistance is greater than 10 milliohms, go to step 6, otherwise go to step 10.

6. Remove the PFD and/or the MFD, as applicable (DMC-505-A-31-60-01-00A-520A-A and DMC-505-A-31-60-02-00A-520A-A).

7. Measure the electrical bonding resistance of each of the locking sockets (1, Figure 2) to the instrument panel ground hardware (3), or other instrument panel assembly grounding locations (DMC-505-A-31-60-01-00A-520A-A and DMC-505-A-31-60-02-00A-520A-A).

   a. If the resistance is **more than 2.5 milliohms**, remove the locking socket (1) by removing rivet (2) and go to step 7.a.(1).

      (1) Perform the electrical bonding of the locking socket (1) to the instrument panel (4) and install the locking socket (1) using rivet (2) and go to step 7. (BHT-ELEC-SPM, Chapter 8).

   b. If the electrical bonding resistance is **2.5 milliohms or less** at all locking socket (1) locations, go to step 8.

8. Install the PFD and MFD (DMC-505-A-31-60-01-00A-720A-A and DMC-505-A-31-60-02-00A-720A-A) without connecting the connector (3160DS2P1) to the PFD (3160DS2) and the connector (3160DS1P1) from the MFD (3160DS1).

9. Verify the electrical bonding of PFD and MFD to the instrument panel structure (Figure 2). Check between the back casing of the PFD and MFD and local ground hardware (3) on the instrument panel.

   a. For helicopters **without** an autopilot system installed, electrical bonding resistance is to be **20 milliohms or less**. If the electrical bonding resistance is greater than 20 milliohms, go to step 6, otherwise go to step 10.

   b. For helicopters **with** an autopilot system installed, electrical bonding resistance is to be **10 milliohms or less**. If the electrical bonding resistance is greater than 10 milliohms, go to step 6, otherwise go to step 10.

10. Remove the PFD and the MFD (DMC-505-A-31-60-01-00A-520A-A and DMC-505-A-31-60-02-00A-520A-A).

11. Fillet seal each of the locking sockets (1) using sealant (C-251).

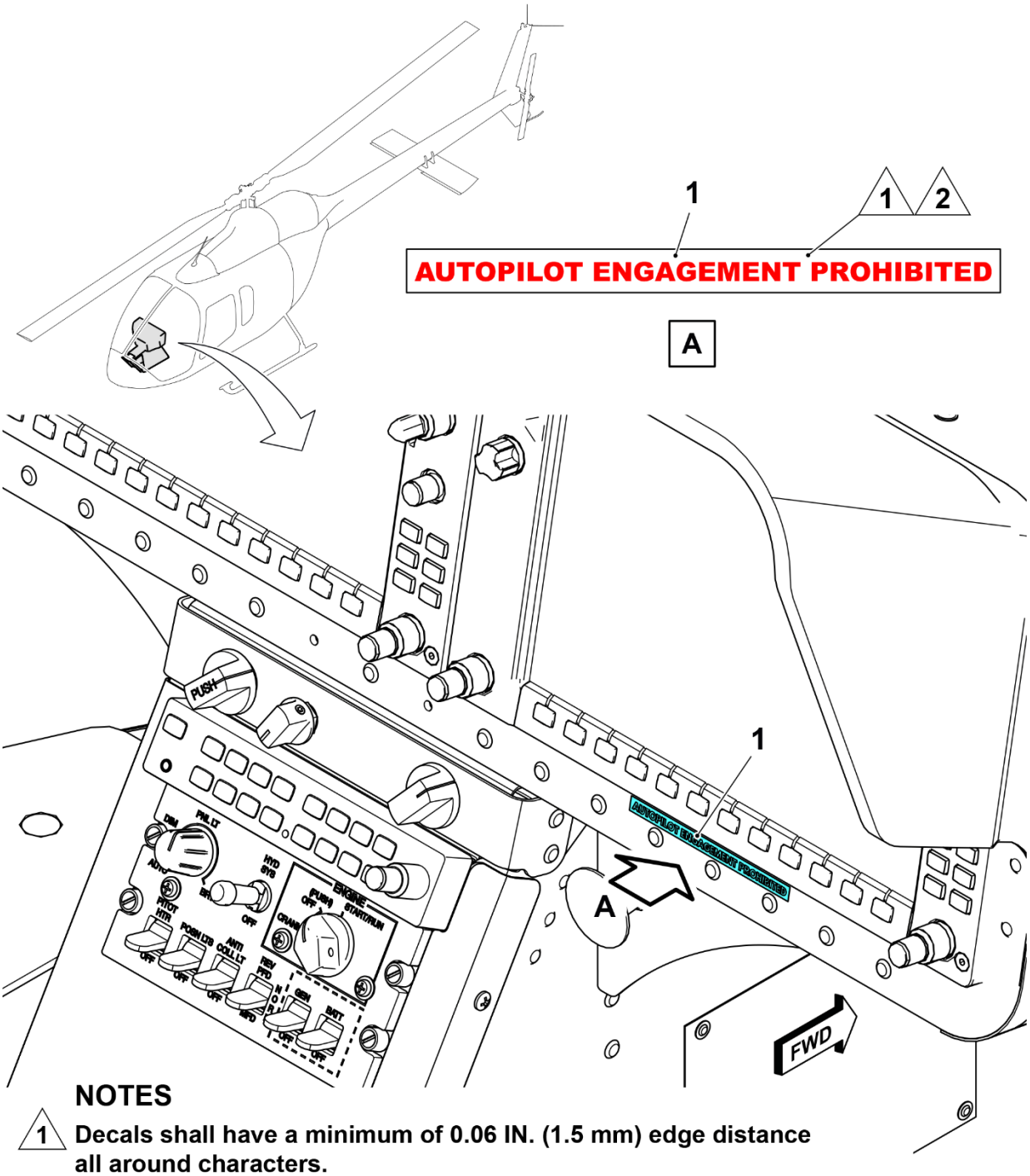
12. Install PFD and MFD (DMC-505-A-31-60-01-00A-720A-A and DMC-505-A-31-60-02-00A-720A-A).

13. Install glareshield (DMC-505-A-25-10-01-00A-720A-A).

14. If a decal (1, Figure 1) was installed as part of the requirements of **PART I** of this bulletin, remove the decal. Clean surface with cleaning cloth (C-516) dampened with isopropyl alcohol (C-385).

15. Perform the operation test of the central display system (DMC-505-A-31-60-00-00A-320A-A).

16. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART II** of this Alert Service Bulletin.



NOTES

1. Decals shall have a minimum of 0.06 IN. (1.5 mm) edge distance all around characters.

2. Letters to be gloss red on white background in arial black size 14 font.

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Figure 1 – Decal Installation

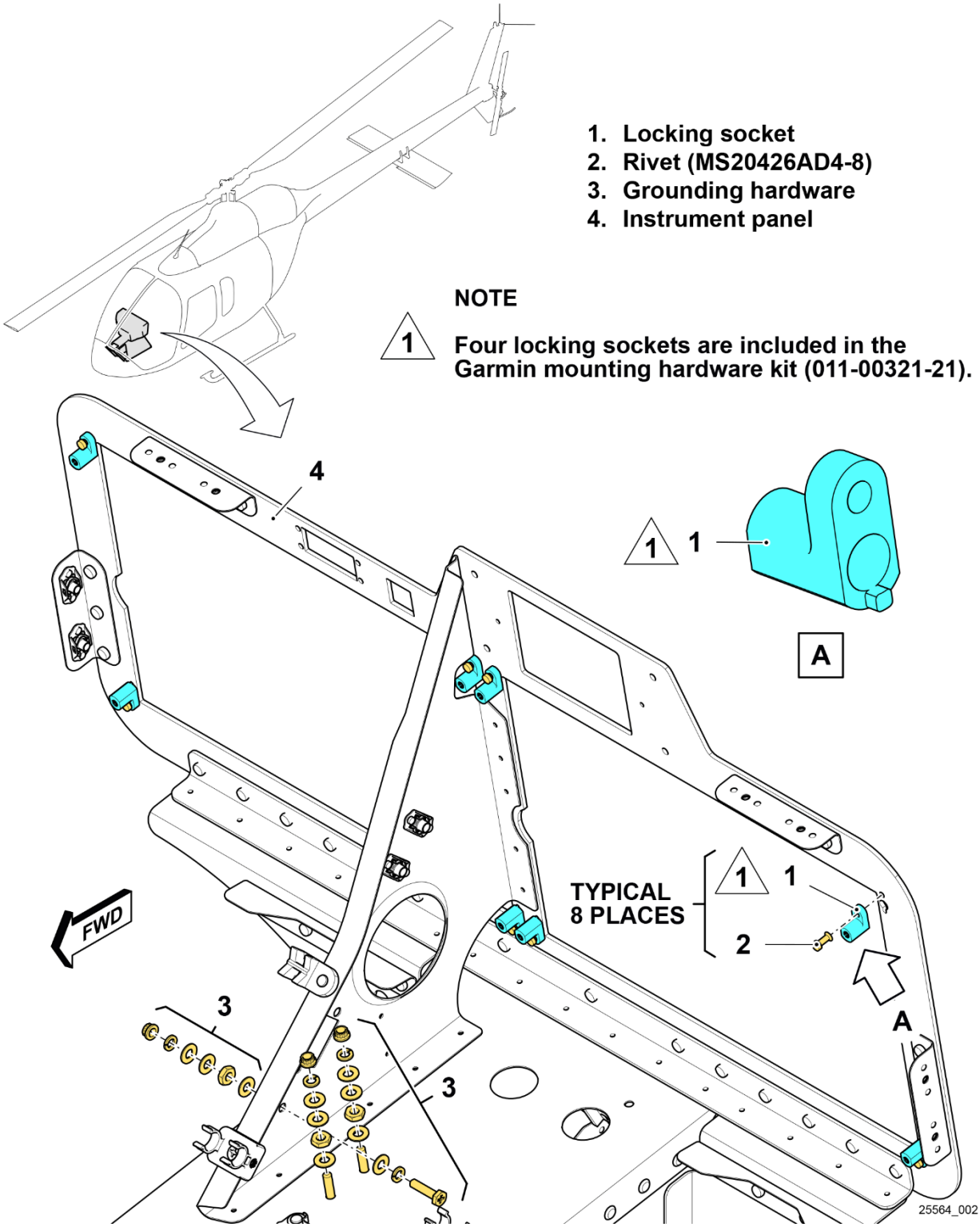

Figure 2 – Electrical Bonding Verification Locations