



A Textron Company

## TECHNICAL BULLETIN

**505-20-23**

17 April 2020

Revision A, 26 May 2020

**MODEL AFFECTED:** 505

**SUBJECT:** GARMIN G1000H SOFTWARE 006-B2472-02,  
INTRODUCTION OF.

**HELICOPTERS AFFECTED:** Serial numbers 65011 through 65132, 65134 through 65144, 65146 through 65148, 65151 through 65169, 65171 through 65185, 65187 through 65193, 65195 through 65205, 65207 through 65218, 65221 through 65224, 65227 through 65242, 65244 through 65258, 65261 through 65263, 65265 through 65270, 65272, 65276 through 65278, 65280 through 65281, 65283 through 65287, 65289 through 65291, 65294, 65296 through 65298, 65300.

[Serial numbers 65133, 65145, 65149, 65150, 65186, 65194, 65206, 65219, 65220, 65225, 65226, 65243, 65259, 65260, 65264, 65271, 65273 through 65275, 65279, 65282, 65288, 65292, 65293, 65295, and 65299 will have the intent of this bulletin accomplished prior to delivery.]

**COMPLIANCE:** Within 12 months following the release date of this bulletin.

### DESCRIPTION:

Bell is introducing the GARMIN software 006-B2472-02 to the model 505. This software introduces several product improvements that are highlighted below as well as addressing field reported ECU FAIL messages during operation that was highlighted in the Information Letter 505-19-04.

**PART I** of this Technical Bulletin (TB) provides instructions for a wiring change for the ECU FAIL CAS message logic update.

**PART II** of this bulletin provides instructions for the creation of the Software Loader and Maintenance Cards.

**PART III** of this TB provides the instructions to install the GARMIN G1000H software 006-B2472-02.

The software 006-B2472-02 provides the following changes and improvements:

**GARMIN G1000H software change:**

- OEM Diagnostics software update.
- GTS 800 (TAS) software update.
- GSU 75H (ADAHRS) software update.

**Additional configuration changes:**

- Modification of the activation logic for the ECU FAIL CAS message.
- Transmission (XMSN) oil pressure transducer common mode voltage gain adjustment.
- 5 second active debounce for DRIVE CD INOP caution message.
- 1 second active debounce for tail rotor gearbox and transmission (XMSN) chip messages.
- 2 second active debounce for BATTERY FAULT caution message.
- AVIONICS FAN output monitoring and caution message.
- GRA 55 Radar Altimeter Kit configuration update.
- Impending exceedance audio alert tone message logic update: alert tone activates during the last 30 seconds of the takeoff timer in all cases.
- Maintenance logging updates:
  - fix CAS messages logged incorrectly
  - 1 Hz data logging to record at power on
  - fix 1 Hz logging errors.

**Additional 505 Kit Options:**

- GDL 69AH SXM Capability (XM Weather and Radio).
- GDL 88H Capability (ADS-B IN and FIS-B Weather).

**Revision A** of this Technical Bulletin provides additional information for optional kit activation as well as improved testing procedures following customer feedback of initial bulletin release.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected helicopter.

**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: 450-437-2862 / 1-800-363-8023 / [productsupport@bellflight.com](mailto:productsupport@bellflight.com)

## MANPOWER:

Approximately 8 man-hours are required to complete 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 Materials:

The following materials are required for the accomplishment of this bulletin and may be obtained through your Bell Supply Center.

| <u>Part Number</u> | <u>Nomenclature</u>  | <u>Qty (Note)</u> |
|--------------------|----------------------|-------------------|
| SDSDB-016G-B35     | CARD, 16G SDHC SD    | 2 (1,2)           |
| SLS-075-219-109    | Maintenance Card     | 1 (3)             |
| 010-01656-02       | Software Loader Card | 1 (3)             |

### NOTES:

1. A SanDisk 4 to 16 gigabyte capacity SD card is recommended.
2. Required only if **PART II** of this TB **is** performed.
3. Required only if **PART II** of this TB **is not** performed.

### Consumable Materials:

The following materials are required to accomplish this bulletin but may not require ordering depending on the operator's consumable material stock levels. These materials may be obtained through your Bell Supply Center.

| <u>Part Number</u> | <u>Nomenclature</u> | <u>Qty (Note)</u> | <u>Reference *</u> |
|--------------------|---------------------|-------------------|--------------------|
| 2000-00731-00      | Insulation Tape     | 1 Roll (1)        | C-548              |
| 2000-09120-00      | Adhesive Tape       | 1 Roll (1)        | C-460              |

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

**NOTE 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.

## SPECIAL TOOLS:

Helicopter approved 28VDC Ground Power Unit (GPU).  
M81969/14-01 Insertion/Extraction tool (Green/White)

## **WEIGHT AND BALANCE:**

Not affected.

## **ELECTRICAL LOAD DATA:**

Not affected.

## **REFERENCES:**

BHT-505-MM, Maintenance Manual  
BHT-505-CMM-V, Component Maintenance Manual Vendor Data  
BHT-ELEC-SPM, Electrical Standard Practices Manual  
190-02064-00, Garmin Pilot Guide  
Information Letter 505-19-04  
Technical Bulletin 505-20-19

## **PUBLICATIONS AFFECTED:**

BHT-505-IPC, Illustrated Parts Catalogue  
BHT-505-MM, Maintenance Manual  
BHT-505-FM-1, Flight Manual  
BHT-505-WDM, Wiring Diagram Manual  
BHT-505-FIM, Fault Isolation Manual

## **ACCOMPLISHMENT INSTRUCTIONS:**

### **PART I: Wiring changes for the ECU FAIL Logic.**

1. Prepare helicopter for maintenance.
2. Remove electrical power from the helicopter.

### **WARNING**

Obey all the safety precautions when you do maintenance on or near electrical/electronic equipment. If you do not obey these precautions, injury to personnel and/or damage to equipment can occur ([BHT-ELEC-SPM, Chapter 2](#)).

3. Gain access to the following zones ([DMC-505-A-06-30-00-00A-030A-A](#)).
  - a. Zone 192 – Right aft fuselage.
  - b. Zone 433 – Lower main rotor drive compartment.

4. Perform specified wiring deletion as listed in Table 1 (Figure 1).
5. Re-Identify harness identification near 7600CM2P4 by adding the suffix letters “FM” to it (Field Modified).
6. Re-Identify harness identification near 3141CM1P4 by adding the suffix letters “FM” to it (Field Modified).
7. Inspect and close affected accessed zones ([DMC-505-A-05-40-00-00A-028A-A](#)).
  - a. Zone 192 – Right aft fuselage.
  - b. Zone 433 – Lower main rotor drive compartment.
8. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART I** of this Technical Bulletin.

**Table 1 – Wiring Modification Instruction Table**

| Action | Wire #  | Connector (pin location) | Extraction Tool | Notes |
|--------|---------|--------------------------|-----------------|-------|
| Delete | K025A24 | 7600CM2P4 (5) (ECU)      | M81969/14-01    | 1     |
| Delete | K025C24 | 3141CM1P4 (14) (GIA)     | M81969/14-01    | 1     |

**NOTE 1:** Cap and stow wires at connector's end. Refer to Figure 2 or BHT-ELEC-SPM for additional information on connector termination.

## **PART II: Software Loader Card and Maintenance Card creation.**

-NOTE-

As an alternate to the procedures provided below, the Software Loader Card 010-01656-02 and Maintenance Card SLS-075-219-109 can be purchased through the MARKETPLACE of the [mybell.com](#) portal.

-NOTE-

The GARMIN G1000H software 006-B2472-02 and Bell maintenance software SLS-770-011-105 may be downloaded from the [mybell.com](#) portal for the purpose of creating the cards required for the upgrade to the helicopter.

1. Create and identify the Main Software Loader Image SD card 010-01656-02 for software 006-B2472-02.

-NOTE-

A SanDisk SD card with a minimum of 4GB memory and a maximum of 16GB memory capacity is recommended to install software. The use of other brand cards is not recommended as the display units may not recognize them.

- a. Obtain a blank SD card (SDSDB-016G-B35 card is recommended).

CAUTION

Ensure to have a stable highspeed internet connection throughout the download procedure. Loss of power or internet connection during download may result in corrupted unusable software.

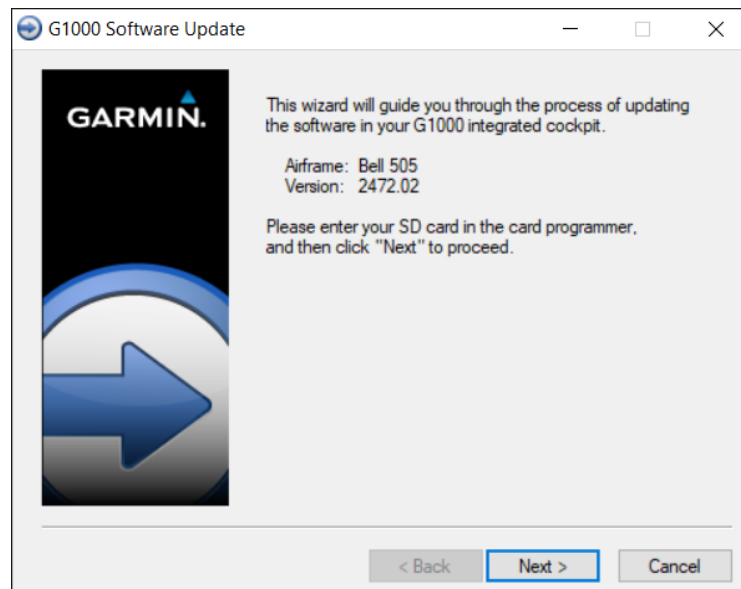
- b. Download the 006-B2472-02 software version loader image file and the authorized release certificate Form 1 from the [mybell.com](http://mybell.com) portal under the model 505, then "[Software Downloads](#)", onto the computer's local drive. Note the folder location where the files are being saved.

-NOTE-

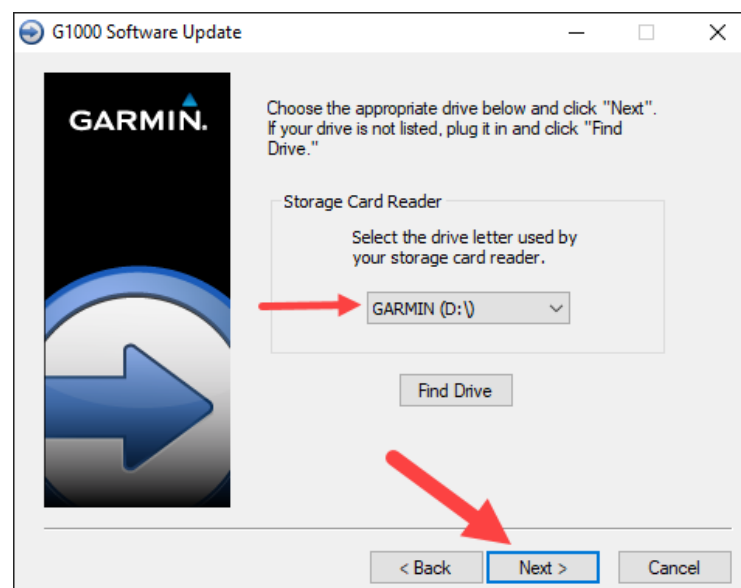
It is recommended that the computer is equipped with an SD card slot reader, otherwise an external SD card reader is required to proceed. The computer being used will also require software to be able to read and extract ZIP file formats (ex. Certain computer operating systems have the capability build in, otherwise use an aftermarket software with that capability).

- c. Insert the SD card SDSDB-016G-B35 into the SD card slot of the computer, or SD card reader. Make sure that the computer recognizes the SD card and note the SD card drive letter.
- d. Format the SD card using FAT32 file allocation table type (default on most operating systems).
- e. On the computer, access the local drive letter and/or folder that the software loader image file was saved to (from step 1.b.). Un-Zip (extract) the executable software loader file (note the folder location where the executable file is being saved).

- f. Access the folder location noted in step 1.e. Double-click on the applicable software version executable file to run it.
- g. Click “Yes” to install the software. Ensure that the executable file is now being extracted.
- h. On the G1000 Software Update window, confirm that the Airframe is Bell 505 and the software is Version is 2472.02, and click the “Next >” button (see screenshot below).



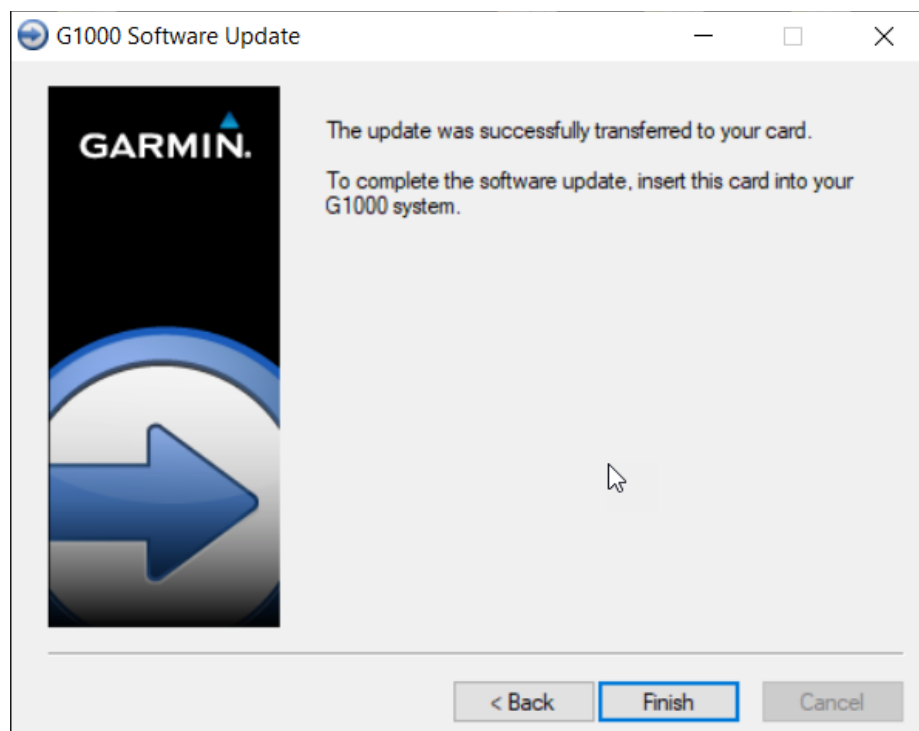
- i. On the G1000 Software Update window, make sure that the Storage Card Reader drive letter matches the drive letter noted in 1.c. Otherwise, change the drive letter to match the drive letter noted in 1.c. If so, click the “Next >” button (see screenshot below).



## CAUTION

All existing data on the SD card is erased when transferring the software loader image files onto the SD card. This ensures that only one software version can be installed onto a single SD card. If you need to keep the existing data on the SD card, use a different SD card for this procedure.

- j. Click the “Next >” button to transfer the software loader image files onto the SD card. Verify that the software loader image files are being transferred to the SD card.
- k. Verify that the software loader image files were successfully transferred to the SD card. Click the “Finish” button (see screenshot below).



- l. Eject the SD card from the computer and identify the SD card as follows:
  - (1) Identify Software Loader Card as: 010-01656-02.
  - (2) Identify Software version on card as: SW 006-B2472-02.

2. Create and identify a Maintenance Card SLS-075-219-109, which is compatible with software 006-B2472-02.

-NOTE-

A SanDisk SD card with a minimum of 4GB memory and a maximum of 16GB memory capacity is recommended to install software. The use of other brand cards is not recommended as the display units may not recognize them.

- a. Obtain a blank SD card (SDSDB-016G-B35 card recommended).
- b. Download the SLS-770-011-105 maintenance software file from the [mybell.com](http://mybell.com) portal under the model 505, then "[Software Downloads](#)", onto the computer's local drive. Note the folder location where the file is being saved.

-NOTE-

It is recommended that the computer is equipped with an SD card slot reader, otherwise an external SD card reader is required to proceed. The computer being used will also require software to be able to read and extract ZIP file formats (ex. Certain computer operating systems have the capability build in, otherwise use an aftermarket software with that capability).

- c. Insert the SD card into the SD card slot of the computer or card reader. Make sure that the computer recognizes the SD card and note the SD card drive letter.
- d. Format the SD card using FAT32 file allocation table type (default on most operating systems).
- e. On the computer, access the location where the maintenance software file SLS-770-011-105 was saved (from step 2.b.). Double-click to open the file.
- f. Un-Zip (extract) the files to the computer (note the folder location where the executable file is being saved to). Copy the extracted "html" folder to the SD card.
- g. Eject the SD card from the computer and identify the SD card as follows:
  - (1) Maintenance Card: SLS-075-219-109,
  - (2) Maintenance Software version: SW SLS-770-011-105.

### PART III: Software 006-B2472-02 installation.

-NOTE-

For helicopter serial numbers 65011 through 65024, compliance with the TB 505-20-19 shall be accomplished prior to, or concurrently with, this Technical Bulletin.

-NOTE-

Electronic copies of the [GARMIN](#) G1000H Integrated Flight Deck Pilot's Guide and Cockpit Reference Guide may be viewed and downloaded from the TECHNICAL PUBLICATIONS section of the [mybell.com](#) portal under the model 505.

-NOTE-

Once **PART III** is completed, refer to Table 2 for the approved software version configuration information.

**Table 2 – Software 006-B2472-02 version configuration**

| Bell Maintenance Card<br>Part Number /<br>Maintenance Software | GARMIN Software<br>Card Part Number /<br>Software Version | Effectivity                          | G1000H – Pilot's Guide /<br>Cockpit Reference Guide |
|----------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------|-----------------------------------------------------|
| SLS-075-219-109 /<br>SLS-770-011-105                           | 010-01656-02 /<br>006-B2472-02                            | 65011 thru 65169<br>65171 thru 65300 | 190-02064-00 Version A<br>190-02065-00 Version A    |

1. Prepare helicopter for maintenance.
2. Ensure original Maintenance Card SLS-075-219-101 is installed in the top SD card slot of the MFD (Maintenance Software SLS-770-011-101).
3. Connect helicopter approved 28VDC Ground Power UNIT (GPU) and apply electrical power to the helicopter. ([DMC-505-A-24-40-00-00A-722A-A](#))

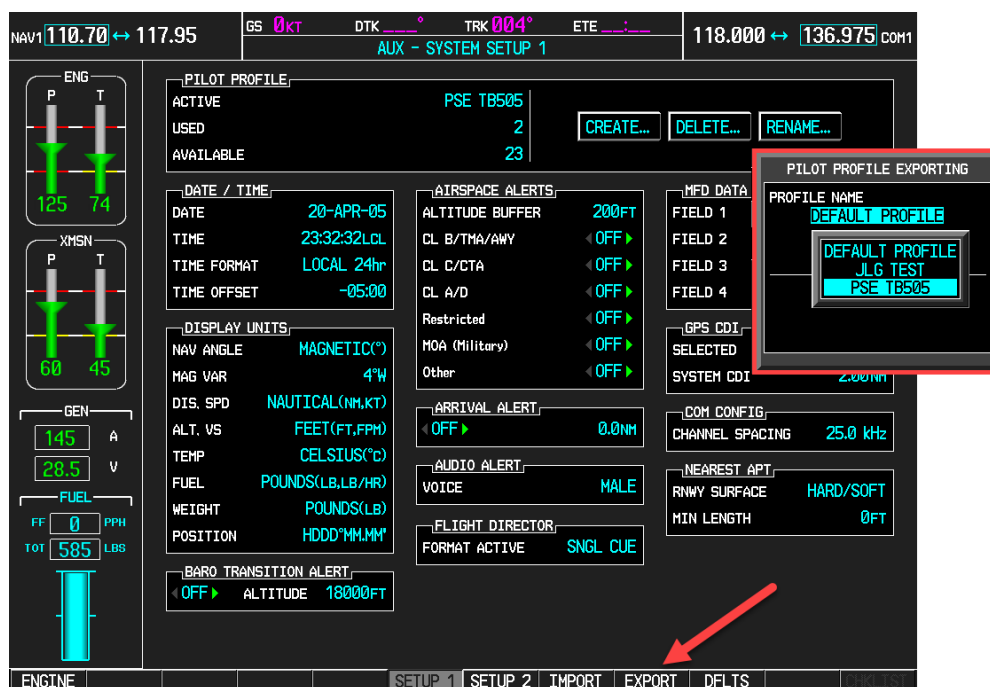
-NOTE-

User settings will be cleared with the installation of software version 006-B2472-02. Take appropriate steps to ensure that user defined waypoints and pilot profile settings are saved or recorded prior to software installation.

- Export any saved Flight Plan(s) by accessing the FPL – Flight Plan Catalog page. Select and export any desired flight plans from the Flight Plan List by highlighting them, then pressing EXPORT softkey #11. Select desired file name and press ENT to export (see screenshot below).



- Export any saved Pilot Profile(s) by accessing AUX – SYSTEM SETUP page, press EXPORT softkey #9. Select and export any desired saved profiles by selecting the profile name then pressing ENT and again ENT on Export box (see screenshot below).



-NOTE-

The following step may take some additional time to accomplish. Time may vary depending on logs to be exported. Ensure to have sustained power throughout the procedure (use helicopter approved 28VDC Ground Power Unit ([DMC-505-A-24-40-00-00A-722A-A](#))).

6. Access the AUX – MAINTENANCE LOGS page. Export all logs to the Maintenance Card by pressing the MENU button and selecting “Save All Logs In Folder”. Do this for each of the folders identified below.
  - a. Folder 1, Exceedances.
  - b. Folder 2, Faults.
  - c. Folder 7, 1Hz Log.
  - d. Folder 8, CAS History.



7. Remove electrical power from Primary Flight Display (PFD) (pull PFD circuit breaker 3160CB1).

8. Apply electrical power to PFD in [configuration mode](#). Press and hold the ENT key until "INITIALIZING SYSTEM" message is displayed after pushing in PFD 3160CB1.
9. On the PFD under SYSTEM - AIRCRAFT CONFIGURATION, record the following information: (It is recommended to take a picture for future reference):

Aircraft registration: \_\_\_\_\_  
 ICAO Address: \_\_\_\_\_  
 ICAO Region: \_\_\_\_\_  
 Country Code: \_\_\_\_\_  
 VFR Code: \_\_\_\_\_

AIRCRAFT CONFIGURATION

AIRCRAFT CONFIGURATION

AIRCRAFT REGISTRATION XXXXXX

ICAO ADDRESS XXXXXX

ICAO REGION XXXXXX

DOMAIN IDENTIFIER

IATA AIRLINE DESIGNATOR

COUNTRY CODE XXXXXX

VFR CODE 1200

10. On the PFD under SYSTEM - WEIGHT & BALANCE CONFIGURATION, record the following information: (Also note any additional weight data if applicable) (It is recommended to take a picture for future reference)

Aircraft Empty Weight: \_\_\_\_\_  
 Aircraft Arm: \_\_\_\_\_  
 Aircraft BL: \_\_\_\_\_

AIRCRAFT DATA

BASIC EMPTY WEIGHT XXXX LB

LON STA  
MOMENT

| PRESENT | TITLE    | EMPTY WEIGHT | ARM     | BL      |
|---------|----------|--------------|---------|---------|
| YES     | COPILOT  | 0LB          | 98.0IN  | -13.0IN |
| YES     | PILOT    | 0LB          | 98.0IN  | 14.0IN  |
| YES     | PSNGR1   | 0LB          | 135.0IN | -18.5IN |
| YES     | PSNGR2   | 0LB          | 135.0IN | 0.0IN   |
| YES     | PSNGR3   | 0LB          | 135.0IN | 18.5IN  |
| YES     | BAGS     | 0LB          | 168.0IN | 0.0IN   |
| YES     | AIRCRAFT | XXXX LB      | XXXX IN | XXXX IN |
| NO      | -----    | -----LB      | 140.0IN | -----IN |
| NO      | -----    | -----LB      | 140.0IN | -----IN |

11. On the PFD under the GDU – AIRFRAME CONFIGURATION, record the following information: (It is recommended to take a picture for future reference)

Aircraft SN: \_\_\_\_\_  
 Engine SN: \_\_\_\_\_

**AIRFRAME CONFIGURATION**

**IDENTIFICATION**  
 AIRCRAFT Jet Ranger X

**ENGINE**  
 ENGINE TYPE TURBOPROP  
 NUM ENGINES 1  
 NUM CYLINDERS 0  
 OVERSPEED WARNING RPM 0  
 MIN TACH TIMER RPM 1  
 TACH TIMER 1:1 RPM 0

**AIRSPEEDS**

**NAVIGATION CENTER OFFSET**  
 VERTICAL 0 FT

**AIRFRAME**  
 AIRCRAFT SN 65xxx  
 ENGINE SN xxxxxxxx

12. On the PFD under the GTX – TRANSPONDER CONFIGURATION, record the following information: (It is recommended to take a picture for future reference)

Address Type: \_\_\_\_\_  
 Flight ID Type: \_\_\_\_\_  
 Flight ID: \_\_\_\_\_

**TRANSPONDER CONFIGURATION**

**SELECT UNIT**  
 XPDR1

**CONFIGURATION**  
 LATERAL OFFSET FROM CENTER (M) 0  
 LONGITUDINAL OFFSET FROM NOSE (M) 2

**AIRFRAME CONFIGURATION**  
 VFR CODE 1200  
 AIRCRAFT WEIGHT ROTORCRAFT  
 MAX AIRSPEED <= 150 KTS  
 ADDRESS TYPE XXXXX  
 ICAO ADDRESS XXXXX  
 FLIGHT ID TYPE XXXXX  
 FLIGHT ID XXXXX

**ENHANCED SURVEIL**

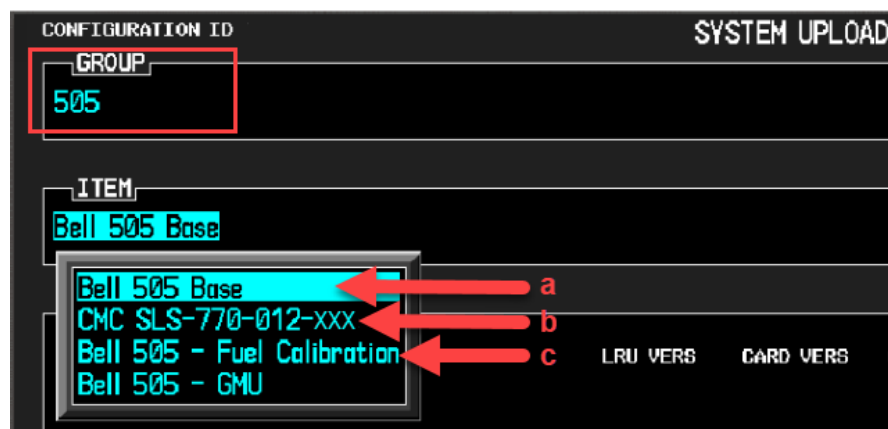
13. Remove electrical power from the helicopter.

14. Remove all SD cards from Multi-Function Display (MFD) and PFD (keep original Maintenance Card SLS-075-219-101 containing logs, profiles and flight plans for future reference). Identify Database card (lower SD card slot) with their PFD and MFD position to re-install them following software load procedure (step 34).

**CAUTION**

Loss of power during software upgrade may result in corrupted software or unusable Line Replacement Units (LRU). Ensure to have sustained power throughout the procedure (use helicopter approved 28VDC Ground Power Unit ([DMC-505-A-24-40-00-00A-722A-A](#))).

15. Before proceeding to loading software, take note of the present configuration of the helicopter including all kits, customizing, and other third-party options installed (refer to the Weight and Balance Section 5 of the Flight Manual and/or helicopter build configuration from manufacture).
16. Also make sure to have any GARMIN enablement card(s) that were previously activated available (ex. Synthetic Vision System, HTAWS, Chartview, etc.).
17. Perform software installation using 010-01656-02 Main Software Loader card containing software version 006-B2472-002 (BHT-505-CMM-V, [505-IAS-LMM-G1000H, Part 3](#)).
  - a. Load all “Bell 505 Base” (BHT-505-CMM-V, 505-IAS-LMM-G1000H, Part 3.1 thru Part 3.3).
  - b. Load CMC SLS-770-012-104 (select Group 505 – item “CMC SLS-770-012-104”), then press CHK ALL softkey #1, LOAD softkey #6, and ENT button.
  - c. Load Bell 505 – Fuel Calibration (select Group 505 – item “Bell 505 – Fuel Calibration”), then press CHK ALL softkey #1, LOAD softkey #6, and ENT button.



18. Load applicable installed 505 options (kit) previously noted in step 15 from the SYSTEM UPLOAD 505 Options group. (BHT-505-CMM-V, [505-IAS-LMM-G1000H, Part 3.4](#)).

-NOTE-

If loading the optional GTS 800 kit, a GTS CONFIG FAILED error message is expected. In order to complete the Bell 505 Option – GTS800 TAS load, the following steps 19-23 will be required.

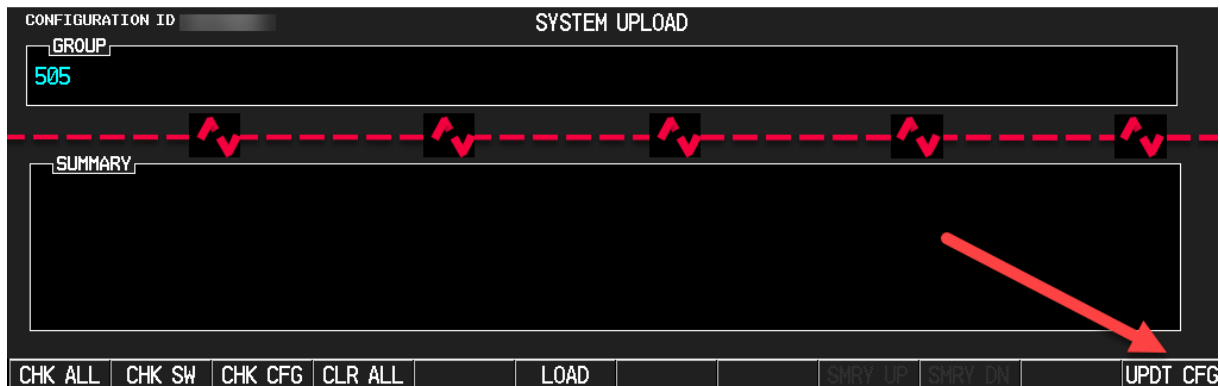
19. If loading GTS800 TAS option, once you get the GTS CONFIG FAILED message, remove power from helicopter.
20. Apply electrical power to PFD in [configuration mode](#). Press and hold the ENT key until “INITIALIZING SYSTEM” message is displayed.
21. From the PFD in configuration mode, access the GTS – GTS CONFIGURATION page.
22. Press the ACTV>SET softkey #2.
23. From the PFD in Configuration mode, access the SYSTEM – SYSTEM UPLOAD page. Select GROUP 505 Options, ITEM Bell 505 Options – GTS800 TAS and reload GTS CONFIGURATION file.

-NOTE-

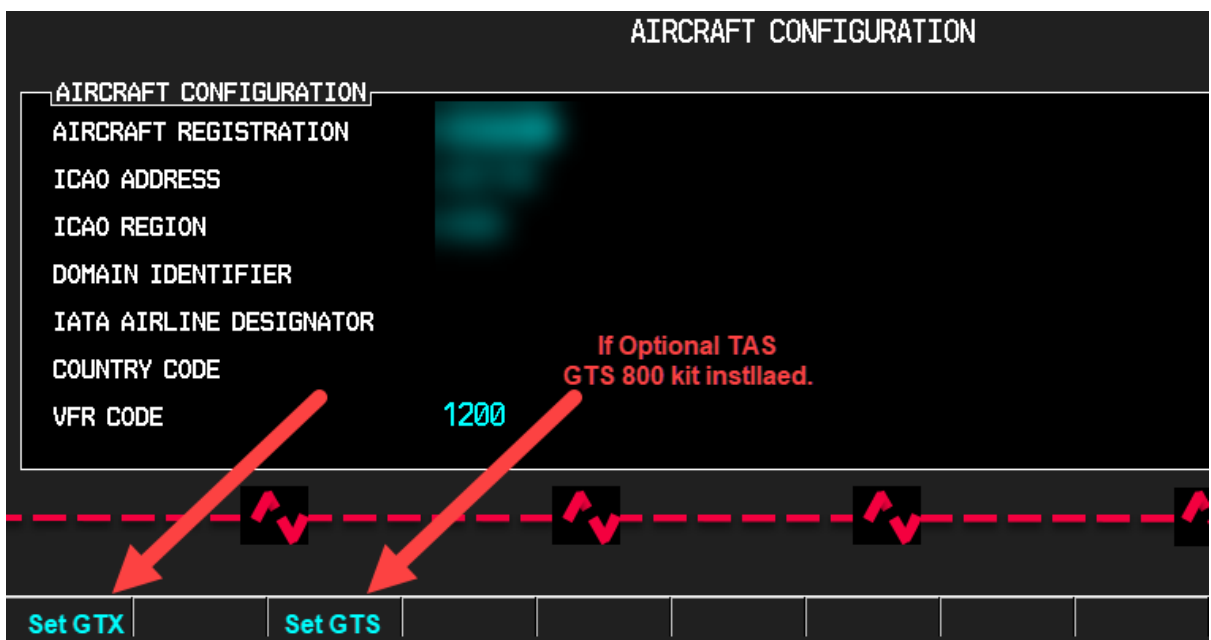
To configure the GIA 63H RS-232 Channel 8 Output to be compatible with ACK ELT kit and/or Second VHF COMM kit (GTR-225B), please refer to the following Instructions for Continued Airworthiness (steps 24 and 25).

24. For ACK ELT kit 505-014-001 and 505-014-003, refer to [Aeronautical Accessories](#) ICA AA-14021 Appendix B.4 Table 7.
25. For Second VHF COMM kit 505-001-001 (GTR-225B), refer to [Aeronautical Accessories](#) ICA AA-14043 Appendix B3.0 Table 10.
26. Load applicable GARMIN enablement cards previously noted in step 16 (BHT-505-CMM-V, [505-IAS-LMM-G1000H, Part 3.5](#)).
27. Verify or, if needed, re-program the configurations noted in steps 9, 10, 11, and 12 (BHT-505-CMM-V, [505-IAS-LMM-G1000H, Part 3.6](#)).

28. Once completed, access the SYSTEM - SYSTEM UPLOAD page. Press the UPDT CFG softkey #12 (lower right button) (BHT-505-CMM-V, [505-IAS-LMM-G1000H, Part 3.6.2](#)).



29. Once the data in step 20 is verified, with the PFD still in configuration mode, access the SYSTEM - AIRCRAFT CONFIGURATION page. Press Set GTX softkey #1 (lower left corner) to activate transponder settings. If GTS 800 (TAS) kit is installed and loaded, also press Set GTS softkey #3.

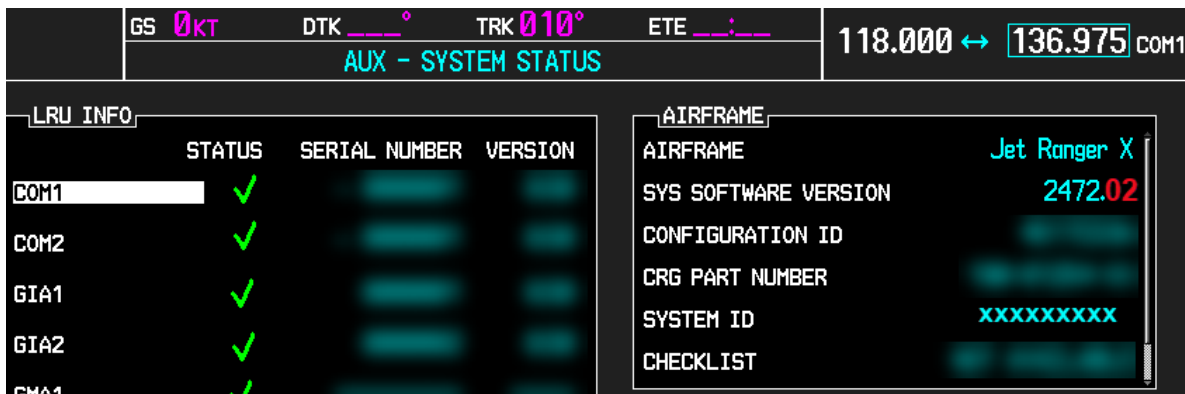


30. Remove electrical power from the helicopter.

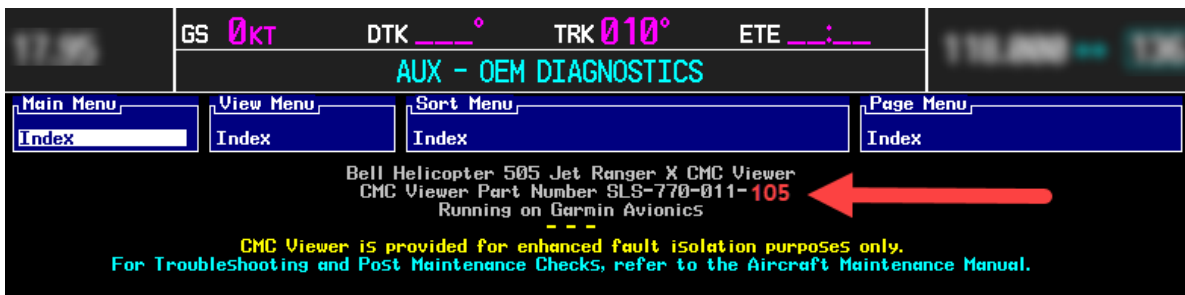
31. If applicable, remove Software Loader or enablement SD cards from top SD card slot of PFD.

32. If applicable, using a computer, copy any saved Pilot Profiles (profiles folder) and/or Flight Plans (\*.fpl file(s)) previously saved to Maintenance Card SLS-075-219-101 in steps 4 and 5 to the Maintenance Card SLS-075-219-109 containing the maintenance software SLS-770-011-105.

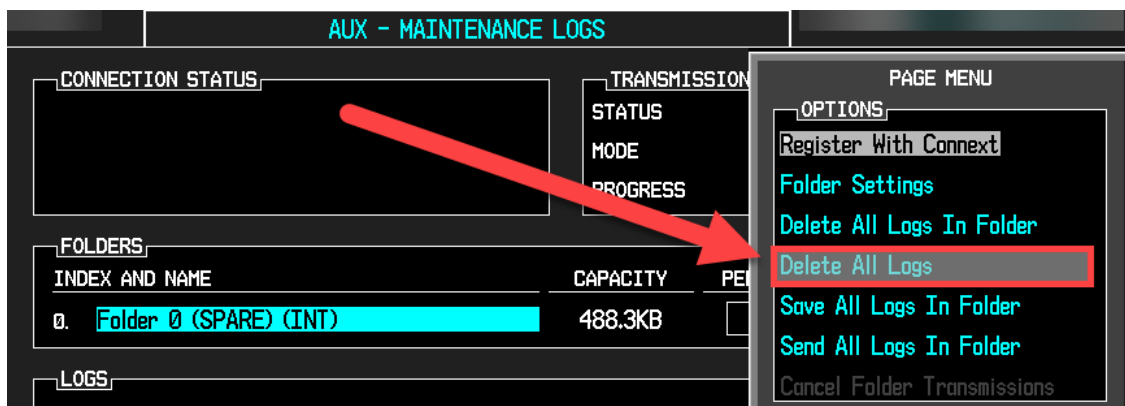
33. Insert the Maintenance Card SLS-075-219-109 in the MFD top SD card slot.
34. Install previously removed Database cards (step 14) in their respective displays.
35. Apply electrical power to the helicopter.
36. If applicable, import any previously saved Pilot Profiles and/or Flight Plans.
37. From the MFD, verify on AUX – SYSTEM STATUS that LRU INFO status are checked green and the top right AIRFRAME box is showing SYS SOFTWARE VERSION 2472.02.



38. From the MFD, verify that AUX – OEM DIAGNOSTICS page can be accessed.

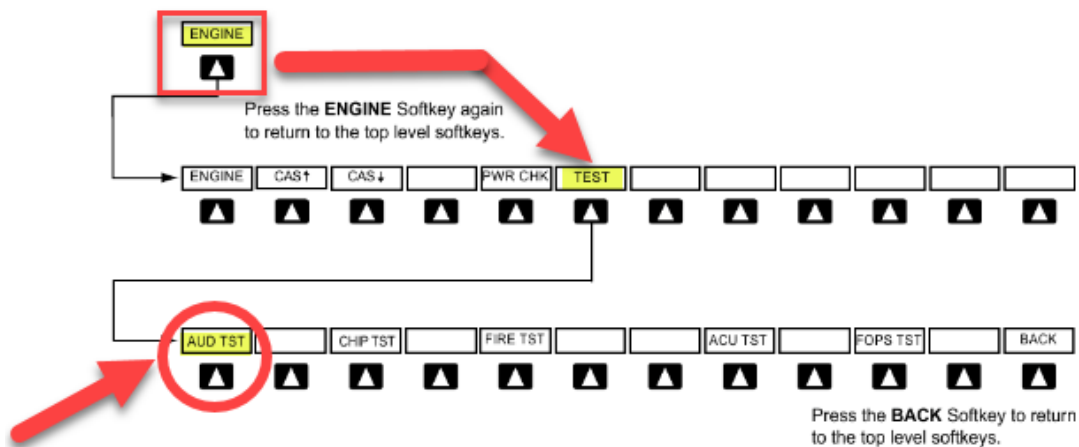


39. From the MFD, verify that AUX – MAINTENANCE LOGS page can be accessed. Delete all previous logs by pressing the MENU button and selecting “Delete All Logs”.



40. Pull out (open) FANS circuit breaker 2132CB1.

41. From MFD access EIS – ENGINE page (PSI), Press TEST softkey #6. In the second menu press AUD TST softkey #1.



42. Wait for approximately 20 secs and confirm AVIONICS FAN caution is displayed in CAS message boxes.

43. Remove electrical power from the helicopter.

44. Push in (close) FANS breaker 2132CB1.

45. Apply electrical power to the helicopter.

46. On MFD from EIS (Engine) page, Press TEST softkey #6. In the second menu press AUD TST softkey #1.

47. Wait for approximately 20 secs and confirm AVIONICS FAN caution is no longer displayed in the CAS message boxes.

48. Confirm ECU FAIL CAS message is not displayed.

49. Pull out (open) both ECU CH A (7600CB1) and ECU CH B (7600CB2) circuit breakers.

50. Confirm red ECU FAIL CAS message is displayed on both PFD and MFD.

51. Push in (close) both ECU CH A (7600CB1) and ECU CH B (7600CB2) circuit breakers.

52. Confirm ECU FAIL CAS message extinguishes (no longer displayed).

53. Confirm no other unusual CAS messages are displayed.

54. Confirm no unusual GARMIN error messages are displayed on PFD lower right corner (softkey #12).
55. Remove electrical power from the helicopter.
56. Insert [BHT-505-FM-1](#) Revision 6 (or later) in the Rotorcraft Flight Manual.

-NOTE-

It is recommended to perform a Main Rotor Drive operation test Steps 1 through 3 ([DMC-505-A-63-00-00-00A-320A-A Steps 1-3](#)) following the software 006-B2472-02 embodiment to assess general helicopter behavior.

57. Make an entry in the helicopter logbook and historical service records indicating compliance with **PART III** of this Technical Bulletin.

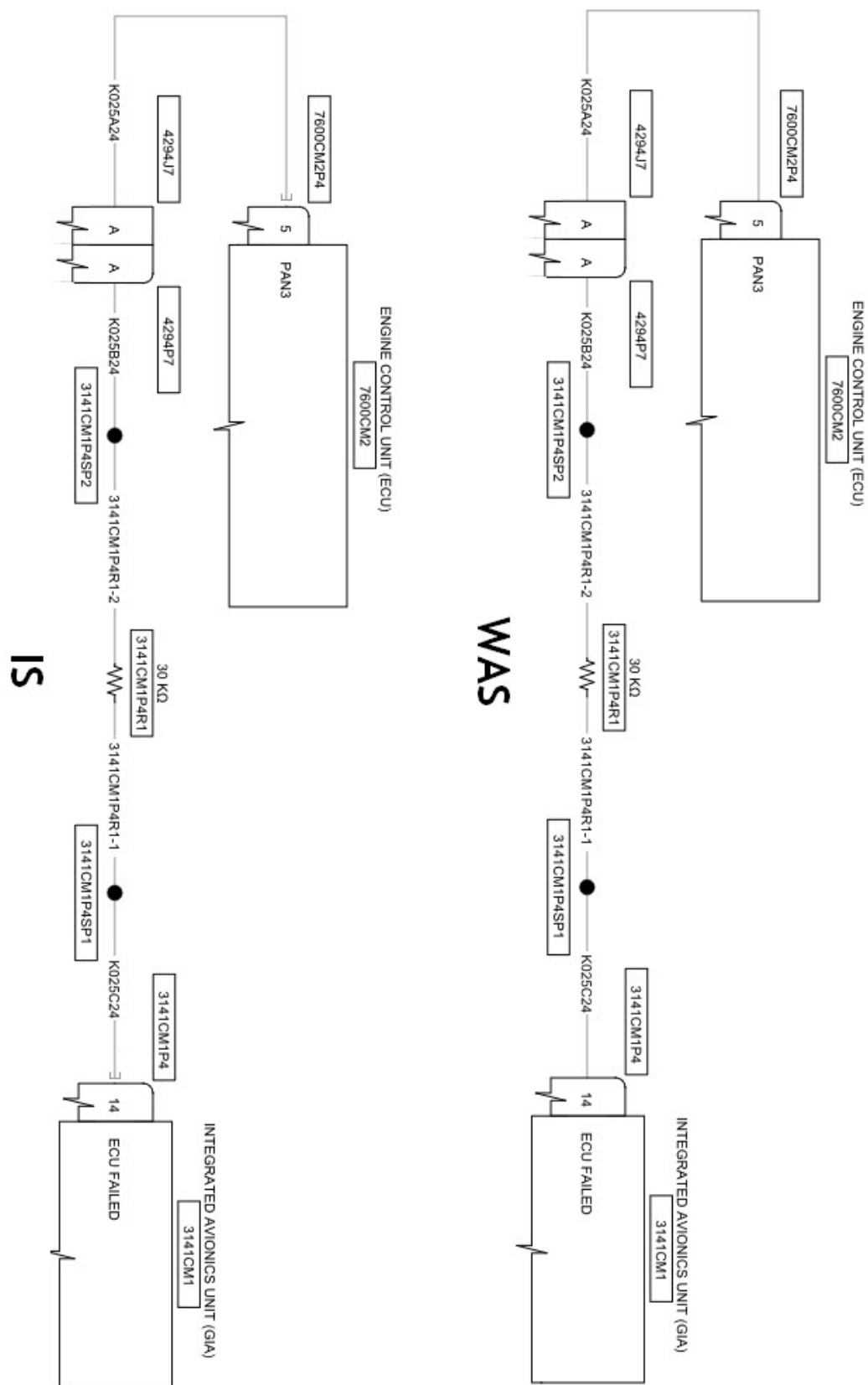
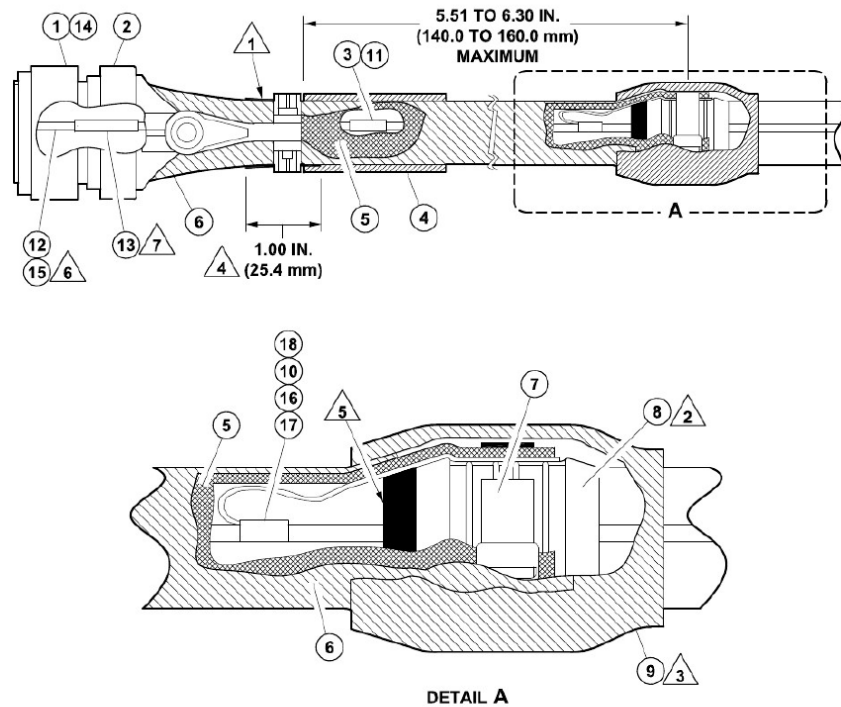


Figure 1 - ECU Fail Wiring Diagram



#### NOTES

1. Connector (Ref)
  2. Adapter (Ref)
  3. Insulation sleeving (130-005-4-2)
  4. Identification sleeve (Ref)
  5. Braid sock (Ref)
  6. Braided sleeve (Ref)
  7. Band (20-108-1)
  8. Shield support ring (Ref)
  9. Insulation sleeving (Ref)
  10. Solder sleeve (S200-2-01-100HN)
  11. Insulation sleeving (130-005-3-2)
  12. Contact (Ref)
  13. Insulation sleeving (130-005-3-1)
  14. Receptacle (Ref)
  15. Sealing plug (Ref)
  16. Solder sleeve (S200-3-01-100HN)
  17. Solder sleeve (S200-5-01-100HN)
  18. Shield termination (S200-2-W1-22-9)
- 1 Use insulation tape (C-548) to build the wire bundle diameter (BHT-ELEC-SPM, Chapter 6).
  - 2 Select the shield support ring M85049/93-12
  - 3 Insulation tape (C-548) may be used as an alternate for replacement of insulation sleeving.
  - 4 Wrap 1.5 to 2 turns of adhesive tape (C-460) between the wire bundle and braid sock (5) for protection against chafing.
  - 5 Use adhesive tape (C-460) around the wire bundle to ensure a snug fit for the shield support ring (8).
  - 6 Sealing plugs (15) are to be used in every empty hole in connectors.
  - 7 When installing 24 gauge wire into 20 gauge contacts (12) and when specified in the instructions, a piece of insulation sleeving (13) shall be shrunk into position on the wire where it enters the connector grommet to effect a good environmental seal. The tubing shall not protrude more than 1 inch (25.4 mm) out of the connector grommet and shall fit snug tight on the wire insulation when shrunk. If a single piece of insulation sleeving does not provide sufficient diameter, then a second piece shall also be installed. Ensure that the insulation sleeving is not applied on any portion of the contact.

| Connector Ref Des | Connector P/N   | Insert / Extract Tool         |
|-------------------|-----------------|-------------------------------|
| 3141CM1P4         | 330-00185-44    | M81969/14-01<br>(Green/White) |
| 7600CM2P4         | D38999/26MF35SA | M81969/14-01<br>(Green/White) |

**Figure 2 - Additional BHT-ELEC-SPM Information**