G500H Flight Display System

Instructions for Continued Airworthiness

Bell 206L Series

Reg. No._____ S/N_____

STC SR02295LA

Dwg. Number:
190-01150-20 Rev. 4

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Record of Revision

Rev.	Date	Description of Change
1	04/05/10	Initial Release
2	11/24/15	Update to latest installation data revisions; added "*G500H GDL 88H Harness Assembly*".
3	11/25/16	Update to Table 2-2 GDU 620 Alert Troubleshooting Guide; update reference documents in Section 2.1; remove LRU location diagram in Section 2.2; add rotorcraft specific LRU location and wire routing diagram (Section 2.8); move circuit breaker diagram to Section 2.8.
4	02/11/2020	Update to include GSU 75H, GRS 79H, and GDC 72H

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1. INTRODUCTION

1.1 Purpose

This document is designed for use by the installing agency of the Garmin G500H PFD/MFD System as Instructions for Continued Airworthiness in response to Title 14 CFR Part 27.1529, Part 27 Appendix A.. This ICA includes information required by the operator to adequately maintain the Garmin G500H system installed under STC SR02295LA.

1.2 Scope

This document provides Instructions for Continued Airworthiness (ICA) for the G500H PFD/MFD system as installed under STC SR02295LA.

1.3 Document Control

This document shall be released, archived, and controlled in accordance with the Garmin document control system. When this document is revised, refer to Section 2.14 for information on how to gain FAA acceptance or approval and how to notify customers of changes.

1.4 Permission to Use Certain Documents

Permission is granted to any corporation or person applying for approval of a Garmin G500H system to use and reference appropriate STC documents to accomplish the Instructions for Continued Airworthiness and show compliance with STC engineering data. This permission does not construe suitability of the documents. It is the responsibility of the applicant to determine the suitability of the documents for the ICA.

1.5 Definitions

The following terminology is used within this document:

1) **ACO:** Aircraft Certification Office
2) **ADC:** Air Data Computer
3) **AEG:** Aircraft Evaluation Group
4) **AHRS:** Attitude Heading Reference System
5) **ADAHRS:** Air Data and Attitude Heading Reference System
6) **CFR:** Code of Federal Regulations
7) **FAA:** Federal Aviation Administration
8) **ICA:** Instructions for Continued Airworthiness
9) **MFD:** Multi-Function Display
10) **PFD:** Primary Flight Display
11) **PMI:** Principle Maintenance Inspector
12) **STC:** Supplemental Type Certificate

2. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

2.1 Introduction

Content, Scope, Purpose and Arrangement:	This document identifies the Instructions for Continued Airworthiness for the modification of the rotorcraft by installation of the Garmin G500H PFD/MFD System.
Applicability:	Applies to Bell models 206L, 206L-1, 206L-3, and 206L-4 rotorcraft altered by installation of the Garmin G500H PFD/MFD System.
Definition of Abbreviations:	See Section 1.5
Precautions:	None
Units of measurement:	None
Reference publications:	Garmin 190-01150-06 Rev. 5 *"G500H Rotorcraft STC Installation Manual"* or later FAA Approved Revisions Garmin 190-01150-02 Rev. C "*G500H PILOT GUIDE*" or later revision Garmin 190-01150-07 "*Installation Manual Addendum G500H Part 27 AML STC*" Bell BHT-ALL-SPM "*Bell Standard Practices Manual"*
Retention:	This document, or the information contained within, will be included in the rotorcraft's permanent records.

2.2 Description of Alteration

This STC upgrades existing avionics for the Bell 206L series rotorcraft as summarized below.

The Garmin G500H Flight Display System consists of an instrument panel mounted GDU 620 display and remote mounted LRUs which provide data to the display. The GDU 620 provides controls for the G500H system and a PFD and MFD in the pilot's primary field of view. The remote mounted LRUs include one GRS 77H/79H AHRS, one GMU 44 Magnetometer, one GDC 72H/74H ADC, and one GTP 59 OAT probe. Alternately, one GSU 75H ADAHRS can be installed in place of GRS and GDC unit combination.

Rotorcraft modified under this G500H STC are restricted to VFR only, including rotorcraft that may not have previously been restricted to VFR. To clarify this operation limitation, a placard with the text, "APPROVED FOR DAY/NIGHT VFR" is required to be in the pilot's view.

All installed G500H equipment is connected to a power bus that receives power as soon as the battery master switch is turned on.

Separate circuit breakers have been installed in the overhead circuit breaker panel for each for the GDU 620 (PFD), GRS 77H/79H + GMU 44 (AHRS), and GDC 72H/74H (ADC) (as circled in the diagram in Section 2.7.8). If a GSU 75H is installed in lieu of federated GRS/GDC units, it will have a single circuit breaker labeled ADAHRS.

2.2.1 .Weight and Balance Information

Weight and balance computation is required after the installation is complete. Follow the applicable procedures established in Chapter 8, *Weight and Balance*, of the Bell 206 Model 206L Series Maintenance Manual (BHT-206L-MM-1, BHT-206L1-MM-1, BHT-206L3-MM-1, or BHT-206L4-MM-2). Make applicable entries in the equipment list indicating items added, removed, or relocated along with the date the installation was accomplished.

G500H equipment weights and moment arms are provided below. Refer to section 2.2.2 for a sample calculation. Include a copy of the updated aircraft weight and balance in the aircraft POH/AFM.

Weight and Balance Bell 206 L				Moment arm (IN)	
Item	**Part Number**	**Equipment**	**Weight (LB)**	**Longitudinal**	**Lateral**
1	011-01264-50 OR 011-01264-60	GDU 620 (Unit Only)	6.38	38.6	6.3
		GDU 620 (Installed with rack and connector)	7.04		
2	011-00882-11	GDC 74H (Unit Only)	1.70	32.8	0.0
		GDC 74H (Installed with connector)	1.92		
3	011-00868-20	GRS 77H (Unit Only)	2.80	172.8 (Primary) OR 62.0 (Secondary)	-10.3 (Primary) OR -18.6 (Secondary)
		GRS 77H (Installed with rack and connector)	3.46		
4	011-00870-10	GMU 44 (Unit Only)	0.35	219.6 (Primary) OR 243.0 (Secondary)	0.0 (Primary) OR -3.1 (Secondary)
		GMU 44 (Installed with rack and connector)	0.50		
5	011-03734-20	GDC 72H (Unit Only)	1.26	32.8	0.0
		GDC 72H (Installed with rack and connector)	1.71		
6	011-03732-20	GRS 79H (Unit Only)	1.08	172.8 (Primary) OR 62.0 (Secondary)	-10.3 (Primary) OR -18.6 (Secondary)
		GRS 79H (Installed with rack and connector)	1.45		
7	011-03094-20	GSU 75H (Unit Only)	1.36	32.8	0.0
		GSU 75H (Installed with rack and connector)	1.72		

[1] The longitudinal arm is measured in terms of the fuselage station (FS) number.
[2] The lateral arm is measured in terms of the butt line (BL). The centerline of the helicopter is BL0.00. The moment arms to the left side (looking forward) are negative (-) and the moment arms to the right side are positive (+).

2.2.2 Weight and Balance Calculation Sample

Previous Aircraft Weight and Balance	Useful Load (lb)	Empty Weight (lb)	C.G. (in)	Moment (lb-in)
Calculated: 06/29/15	1093.3	2306.70	138.83	320233.96
Description of Items removed from aircraft		**Weight (lb)**	**Arm (in)**	**Moment (lb-in)**
SL15 Audio Panel		1.00	55.00	55.00
GMX200		4.60	55.00	253.00
CNX80/GNS480 Color GPS/NAV/COM		6.10	55.00	335.50
SL30 NAV/COM		2.30	55.00	126.50
Total Removed:		14.00		770.00
Description of items added to aircraft		**Weight (lb)**	**Arm (in)**	**Moment (lb-in)**
GTN 750		9.30	54.90	510.57
GTN 650		7.00	54.90	384.30
GMA 35		2.20	52.90	116.38
Total Added:		18.50		1011.25
Change		4.50		241.25
New Aircraft Weight and Balance	**Useful Load (lb)**	**Empty Weight (lb)**	**C.G. (in)**	**Moment (lb-in)**
Calculated: 08/29/15	1088.8	2311.2	138.66	320475.21

2.3 Control, Operating Information

See the G500H Pilot's Guide or the G500H STC Installation Manual, listed under the reference documentation in paragraph 2.1 of this document, for system operation and self-test information.

2.4 Servicing Information

None. In the event of system failure, troubleshoot the G500H system in accordance with Section 2.6 Troubleshooting Information.

2.5 Periodic Maintenance Instructions

Maintenance of the components installed by this STC is on condition, except as noted in the following table.

Item	Interval	Description/Procedure
GRS 77H/79H AHRS GSU 75H ADAHRS	5 years	The GRS 77H/79H and GSU 75H utilize an Earth magnetic field model which is updated once every five years as part of the Aviation Database maintained by the owner/operator. If the magnetic model is not current, the unit will issue an alert upon startup indicating the model has expired. The model can be updated by inserting an aviation database card with an updated IGRF model and powering on the system. A prompt will direct the user to press ENT to update the model.
GDC 72H/74H ADC GSU 75H ADAHRS	On condition	Per Part 43 Appendix E, paragraph (b)(2), the GDC 72H/74H and GSU 75H must be checked using a test procedure equivalent to Part 43 Appendix E, paragraph (b)(1) with the following exception: The tests of sub-paragraphs (iv) (Friction) and (vi) (Barometric Scale Error) are not applicable because the digital outputs of the GDC 72H/74H and GSU 75H are not susceptible to these types of errors.
GDU 620 GRS 77H/79H GDC 72H/74H GSU 75H GMU 44 GTP 59	12 Calendar Months	Conduct a visual inspection (look for signs of wear, deterioration, or damage to wires, backshells, or connectors) on units and their wire harnesses to ensure installation integrity: 1. Gain access to LRU (see Section 2.8 for LRU locations) 2. Inspect each unit for security of attachment. 3. Inspect all knobs and buttons for legibility. 4. Inspect condition of wiring, routing and attachment/clamping. 5. Inspect integrity of shield terminations. 6. Inspect for signs of corrosion on equipment and their rack installations.

Item	Interval	Description/Procedure
GDU 620 GRS 77H/79H GDC 72H/74H GSU 75H GMU 44 GTP 59	Every 2000 flight hours or ten (10) years, whichever is first	Perform an electrical bonding test for each listed LRU: 1. Gain access to the LRU (see Section 2.8 for LRU location) 2. Disconnect all harness connectors from the LRU 3. Measure the resistance between the LRU and a nearby exposed portion of aircraft metallic structure. a. For the GDU 620, verify the resistance is less than or equal to 40 milliohms. If the resistance is greater than 40 milliohms, refer to Section 3.5 of the Installation Manual (190-01150-06) for the bonding preparation and maximum resistance values that must be met. b. For the GTP 59, verify the resistance is less than or equal to 5 milliohms. If the resistance is greater than 5 milliohms, refer to Section 3.5 of the Installation Manual (190-01150-06) for the bonding preparation and maximum resistance values that must be met. c. For the GSU 75H, GRS 79H, and GDC 72H, verify the resistance is less than or equal to 5 milliohms. If the resistance is greater than 5 milliohms, refer to Section 4.2 of the Installation Manual Addendum (190-01150-07) for the bonding preparation and the maximum resistance values that must be met. d. For the remaining LRUs, verify the resistance is less than or equal to 20 milliohms. If the resistance is greater than 20 milliohms, refer to Section 3.5 of the Installation Manual (190-01150-06) for the bonding preparation and maximum resistance values that must be met. 4. Reconnect all disconnected harness connectors and ensure they are secure Repeat for each listed LRU.
GDU 620	On Condition	Over time, the display backlight lamp may dim and the display may not perform as well in direct sunlight conditions. The user must determine by observation when the display brightness is not suitable for its intended use. Contact a Garmin factory repair station when the backlight lamp requires service.
GDU 620	On Condition	Over time, the GDU cooling fans may degrade in performance and need to be replaced in order to continue adequately cooling the display system. The cooling fan replacement procedure is contained in Section 2.7.2.
GTP 59 GMU 44	After a suspected or actual lightning strike	Conduct an inspection of the G500H system in accordance with Section 2.9.1.

Item	Interval	Description/Procedure
GDU 620 GRS 77H/79H GDC 72H/74H GSU 75H GMU 44 GTP 59	On Condition	Removal and replacement of the G500 system LRUs can be accomplished by referring to Section 2.7 for instructions.

2.6 Troubleshooting Information

If error indications are displayed on the GDU 620 display unit, consult the Troubleshooting section contained below:

2.6.1 G500H Troubleshooting

Table 2-1. GDU 620 Troubleshooting Guide

Problem	Cause	Solution
Unit does not power up – blank screen.	Improper wiring; circuit breaker open.	Ensure power is properly wired to the GDU 620 and the circuit breaker is closed.
	Unit intensity turned down.	Ensure that unit is not in manual intensity control mode with the intensity turned down.
All expected configuration pages are not displayed.	An Installer Unlock Card is not inserted into the GDU 620.	Insert the Installer Unlock Card P/N 010-00769-60 into the bottom slot of the GDU 620 and cycle power.
The GDC or GSU OAT probe type shows up as UNKNOWN	The RS-232 connection to the GDC 72H/74H or GSU 75H is not working.	Ensure that the GDC 72H/74H or GSU 75H RS-232 connection to the GDU is properly wired, and ensure that the GDC 72H/74H or GSU 75H circuit breaker is closed.
When loading software, the LRU software is not being displayed on the SOFTWARE UPLOAD page.	The software loader card is installed in the bottom slot of the GDU 620.	Insert the loader card in the top slot and cycle power to the GDU.
	The software loader card contains no information.	Repeat the process for making the software loader card.
Configuration errors are displayed on power-up, before the GDU enters normal mode.	The configuration module has not been updated.	Update the configuration module.
Vertical GPS deviation is not displayed on the GDU 620.	For 400W/500W Series units, the ARINC 429 vertical deviation labels are not being transmitted.	Enable Labels on the 400W/500W Series unit ARINC 429 configuration page.
Unable to control the GPS course when in OBS mode.	The GPS navigator is not correctly configures as LNAV1/2 or SYS1/2.	Configure the ARINC 429 inputs/outputs for LNAV1 (SYS1) or LNAV2 (SYS2) based upon whether the navigator is GPS1 or GPS2.
Data is not being received from an ARINC 429 device. (valid data is being received	ARINC 429 bus hi and low are swapped.	Verify wiring.

Problem	Cause	Solution
on the 429 input port as shown on the GDU 620 PORT MONITORING page)	Wrong device is connected to port on GDU 620.	Use correct ports (refer to interconnect details in Appendix D of the installation manual).
Data is not being received from an ARINC 429 device. (no data is being received on the 429 input port as shown on the GDU 620 PORT MONITORING page)	On the transmitting LRU, the ARINC 429 transmitter speed is not set correctly.	Set the ARINC 429 transmitter speed to correct speed.
	Wiring is not correct.	Check for continuity/shorts and correct as required.
Attitude and heading on GDU 620 red 'X' / GRS 77H/79H or GSU 75H resets during air data ground testing.	Attitude and heading errors/resets are possible if the air data tests are conducted indoors without a good GPS signal. With marginal or no GPS signals present, sudden changes in airspeed caused by using a pressure tester may result in attitude and heading errors and possibly cause the GRS 77H/79H or GSU 75H to reset. This occurs because the artificial changes in airspeed cause disagreement with the other sensor measurements internal to the GRS 77H/79H or GSU 75H. This sensor disagreement will not occur in the normal conditions of flight.	This is expected behavior and no troubleshooting is required if this occurs. To reduce the chances of inducing attitude and heading errors/resets while conducting the air data tests, ensure that the G500H is receiving good GPS signals.
Heading red 'X' during air data ground testing	Invalidation of heading is possible if the air data tests are conducted indoors, due to typical magnetic anomalies, even with a good GPS signal.	This is expected behavior and no troubleshooting is required if this occurs.

2.6.2 G500H Alerts

The G500H will display a number of alerts on the GDU 620 MFD. These are listed in the following table.

Table 2-2. GDU 620 Alert Troubleshooting Guide

Alert Text	Cause	Solution
<LRU> CAL	Error in the calibration of a specific LRU, where "<LRU>" denotes a specific LRU.	Reference the respective LRU maintenance manual for calibration troubleshooting. If the problem persists, contact Garmin Technical Support.
<LRU> CONFIG	Error in the configuration of a specific LRU.	Verify proper LRU configuration. If the problem persists, contact Garmin Technical Support.
<LRU> DB ERR	<LRU> database error exists, where "<LRU> database" denotes a specific unit database.	Replace or update database.
<LRU> KEYSTK	The indicated LRU key is stuck.	Press the key again to cycle its operation. If the problem persists, contact Garmin Technical Support.
<LRU> SERVICE	The indicated LRU requires service.	Return indicated LRU to Garmin for service.
<LRU> VOLTAGE	<LRU> has low voltage. Reducing power usage by dimming display, where <LRU> denotes the specific LRU experiencing the power reduction.	Increase the supply voltage. This is common for 14V aircraft running on battery only. This alert should clear once the aircraft is running and loads are on the alternator/generator.
ADC CONFIG	The GDC or GSU ADC configuration information stored in the GDC or GSU and the GDU 620 configuration module do not match.	With the GDU 620 in configuration mode, go to the ADC page. Verify that the SET and ACTIVE configuration settings are the same. If not, use the SET>ACTV soft key to copy the configuration settings from the GDU 620 into the GDC or GSU.
AHRS CONFIG	The GDC or GSU AHRS configuration information stored in the GDC or GSU and the GDU 620 configuration module do not match.	With the GDU 620 in configuration mode, go to the AHRS page. Verify that the SET and ACTIVE configuration settings are the same. If not, use the SET>ACTV soft key to copy the configuration settings from the GDU 620 into the GDC or GSU.
AHRS (1/2) GPS – AHRS (1/2) using backup GPS source.	AHRS 1 or AHRS 2 is using the backup GPS information.	Verify GPS1 power and inspect wiring. If the problem persists, contact Garmin Technical Support.
AHRS (1/2) GPS - AHRS (1/2) is not receiving any GPS information	AHRS 1 or AHRS 2 is not receiving any GPS information.	Verify GPS1 power and inspect the wiring. If the problem persists, contact Garmin Technical Support.
AHRS (1/2) GPS – AHRS (1/2) operating exclusively	AHRS 1 or AHRS 2 is not receiving any GPS information.	Ensure that at least one GPS has acquired a valid position.

Alert Text	Cause		Solution
in no-GPS mode.			If GDU 620 does not have a valid position, inspect all wiring between the GDU and the GPS receiver. Verify the configuration of the GDU 620 and the GPS receiver.
			If the GDU has a valid GPS position, inspect all wiring between the GDU and the GRS. Verify time mark wiring.
AHRS(1/2) GPS – AHRS (1/2) not receiving backup GPS information.	AHRS 1 or AHRS 2 is not receiving GPS information from GPS2.		Verify GPS2 power and inspect wiring. If problem persists, contact Garmin Technical Support
AHRS MAG DB	AHRS / GDU magnetic model database version mismatch.		Update AHRS and/or GDU magnetic field model database. (current model is with aviation database). If the problem persists, contact Garmin Technical Support.
AHRS (1/2) SRVC	AHRS 1 or AHRS 2 magnetic field model requires update. (This alert appears on the ground only.)		Update the GRS 77H/79H or GSU 75H IGRF model (current model is with aviation database). If the problem persists, contact Garmin Technical Support.
AHRS(1/2) TAS – AHRS	AHRS 1 or AHRS 2 is not receiving true airspeed from the ADC.	GDC not powered up.	Close ADC C/B.
		GDC or GSU not receiving input from GTP 59 OAT probe.	Inspect all wiring from the GDC or GSU to the probe.
		ARINC 429 connection from GDC 72H/74H to GRS 77H/79H is not functioning.	Inspect all wiring between the GDC and the GRS. If problem persists, contact Garmin Technical Support.
ALT KEY INOP	The ALT key is disabled.		Contact Garmin Technical Support.
ARINC 708 CONFIG	ARINC 708 configuration error.		Inspect wiring. Contact Garmin Technical Support.
ARINC 429 CONFIG	ARINC 429 configuration error.		Inspect wiring. Contact Garmin Technical Support.
AUD NOT AVAIL	Audio system not available.		Contact Garmin Technical Support.
AUD SYS FAIL	Audio system failure		Contact Garmin Technical Support.
CAL LOST	Registry reports that it has lost calibration data.		Contact Garmin Technical Support.
CNFG MISMATCH – GDU 1-2 airframe configurations disagree.	GDU in normal mode has received updated crossfill tags for configuration registry entries. (Applicable only to dual GDU installations.)		Restart both GDUs in configuration mode to automatically synchronize settings.
CNFG MODULE	The configuration module is inoperative.		Inspect all wiring to configuration module

Alert Text	Cause	Solution
		Replace configuration module
DATALINK	GDL 88 ADS-B Failure. Unable to transmit ADS-B messages.	Contact Garmin Technical Support.
DATALINK	GDL 88 ADS-B fault.	Contact Garmin Technical Support.
DATALINK	ADS-B fault: UAT receiver.	Contact Garmin Technical Support.
DATALINK	ADS-B fault: 1090 receiver.	Contact Garmin Technical Support.
DATALINK	GDL 88 needs service.	Contact Garmin Technical Support.
DATALINK	GDL 88 ADS-B is not transmitting position.	Check GPS devices. If the problem persists, contact Garmin Technical Support.
DATALINK	GDL 88 control panel input fault.	Check transponder mode. If the problem persists, contact Garmin Technical Support.
DATALINK	GDL 88 ADS-B fault. Pressure altitude source inoperative.	Contact Garmin Technical Support.
DATALINK	GDL 88 external traffic system inoperative or connection lost.	Contact Garmin Technical Support.
DATALINK	GDL 88 configuration module needs service.	Contact Garmin Technical Support.
DATALINK	GDL 88 is inoperative or connection to GDU is lost.	Contact Garmin Technical Support.
DATALINK	GDL 88 CSA Failure.	Contact Garmin Technical Support.
DATALINK	GDL 88 external traffic system has a low battery.	Contact Garmin Technical Support.
DATALINK	GDL 88 ADS-B traffic has failed.	Contact Garmin Technical Support.
DATALINK	GDL 88 external traffic system in standby for more than 60 seconds.	Contact Garmin Technical Support.
DATALINK	FIS-B weather has failed.	Contact Garmin Technical Support.
DATA LOST	Pilot stored data was lost.	Verify data was lost, recheck data and settings. Reconfigure all personal settings.
DB ERR	Database found on top card.	Remove database or move to bottom slot. Contact Garmin Technical Support.
DB SYNC COMPLETE	Database sync complete.	Restart required to use new databases
DB SYNC DISABLED	No database card found to receive databases	Contact Garmin Technical Support.
DB SYNC ERROR	Not enough space to receive one or more databases.	Contact Garmin Technical Support.
DIAG MODE	System is in diagnostic mode.	Contact Garmin Technical Support.

Alert Text	Cause	Solution
DSCRT CONFIG – Discrete input/output configuration error.	A discrete input or output required by an interfaced system has not been configured.	Use the DISCRETE CONFIGURATION page in the SYS page group to configure the discrete outputs to match the installation.
		Verify wiring to the discrete
EXTERNAL TAWS FAIL	External TAWS device has failed.	Verify all wiring between the TAWS device and the GDU. Contact Garmin Technical Support.
FAN (1/2) FAIL	Fan 1 or Fan 2 has reported 0 RPM when it was powered with a PWM duty cycle higher than or equal to 10%.	Inspect the GDU fan for an obstruction. If the problem persists, contact Garmin Technical Support.
GDL69	GDL 69H has failed.	Verify wiring between the GDU and the GDL 69H.
		Check power and ground wires on GDL 69H. If the problem persists, contact Garmin Technical Support.
GDL69 CONFIG	The GDL 69H configuration information stored in the GDL 69H and the GDU 620 configuration module do not match.	Ensure that the GDU 620 is in configuration mode. Go to the GDL 69 page of the GDL page group. Verify that the SET and ACTIVE configuration settings are the same. If they are not the same, touch the SET>ACTV soft key. The configuration settings are copied from the GDU 620 to the GDL 69H.
	The GDL 69H configuration was updated using another LRU (e.g. the GMX 200 or 400W/500W).	Update the GDL 69H configuration using the GDU 620.
GDU CONFIG	This alert appears whenever the GDU is replaced with a GDU not configured for this installation.	Cycle power to the GDU. This error automatically clears on the second power up with a different configuration module.
	Error in the configuration of the GDU 620.	Check GDU 620 configuration in accordance with the section 5 of the installation manual.
GDU (1/2) COOLING	Specific GDU has poor cooling, and power usage is being reduced.	Ensure fans on indicated GDU are functioning.
		Ensure fans on indicated GDU are not obstructed.
GDU (1/2) DB ERR	Error in the indicated database.	Verify the correct card is installed. Reload the DB on the card.
GDU KEYSTK	The indicated GDU key is stuck	Press the key again to cycle its operation. If the problem persists contact Garmin Technical Support.

Alert Text	Cause	Solution
GDU (1/2) VOLTAGE	GDU supply voltage is below 12 VDC.	Increase the supply voltage above 12VDC. This alert is normal in 14V aircraft that are running on the battery only and should clear once the aircraft engine is started and the alternator/generator is carrying the load.
GPS (1/2) FAIL	Communication with GPS1 or GPS2 lost. No GPS1 or GPS2 data is available.	Ensure that the indicated GPS is turned on.
		Verify RS-232 wiring from the GPS to the GDU 620.
GPS2 FPL USED	The GPS1 has failed and GPS2 is configured and operating.	Verify GPS 1 power and inspect wiring. Check configuration settings and formats. Go to the Diagnostics page and verify that data is being received by the configured port.
GPS (1/2) PPS Failure	Timing data from GPS 1 or GPS 2 is lost. PPS signal is not received before 5 second timer expires.	Ensure that the indicated GPS is turned on.
		Verify PPS wiring from the indicated GPS to the GDU 620.
GSR FAIL	GSR has failed.	Check if GSR power discrete is on and GSR status discrete is off at the same time.
		Verify wiring between the GDU and the GSR.
		Check power and ground wires on GSR 56. If the problem persists, contact Garmin Technical Support.
HDG FAULT	AHRS magnetometer fault has occurred. AHRS not receiving information from the GMU 44.	Inspect all wiring to GMU 44.
HDG LOST	Heading from the ADAHRS/AHRS/GMU 44 is not valid. This problem is caused by a local magnetic anomaly.	No action required.

Alert Text	Cause	Solution
HTAWS	External HTAWS not available. Internal TERRAIN-HSVT alerting enabled.	Ensure TAWS unit is wired as GPS 1 source. Verify the required software versions (refer to section 5.8.7 in the installation manual). If the problem persists, contact Garmin Technical Support.
	External TAWS Configuration mismatch	Verify all configuration settings. For more information refer to table 2-7 in the installation manual. If the problem persists, contact Garmin Technical Support.
MANIFEST	GDU has received product data for an LRU that should have a manifest entry, but is not in the manifest.	Ensure the manifest is properly configured. For additional information refer to section 5.5.5 in the installation manual.
	The LRU software P/N and version number in the manifest does not match the values being reported by that LRU.	Update the LRU software to match the manifest
		Update the manifest to match the LRU software
NAV(1/2)	Communication with NAV1 or NAV 2 is lost. No data from the indicated navigation receiver.	Verify NAV RCVR (1/2) is configured and operating correctly. Inspect all wiring.
REGISTER GFDS	Data services are inoperative.	Register the GSR 56 with Garmin Flight Data Services (GFDS) to receive weather data.
RS-485 CONFIG	RS-485 configuration error.	Contact Garmin Technical Support.
RS-232 CONFIG	RS-232 configuration error.	Contact Garmin Technical Support.
SD CARD 1	Top SD card disabled due to errors.	Replace card.
SD CARD 2	Bottom SD card disabled due to errors.	Replace card.
SIMULATOR	The simulator mode is active.	Ensure P6202-36 is not grounded.
SVT DISABLED - Out of available terrain region.	Location is beyond region covered by terrain database.	Ensure the terrain database includes the region of operation.
SVT DISABLED - Terrain DB resolution too low.	A 30 arc-second terrain database is being used.	Update the Supplemental Data card with the 9 arc-second terrain database.
SW MISMATCH	GDU software version strings do not match.	Verify the correct SW is loaded.
TERRAIN DSP	Terrain, Airport Terrain, or Obstacle database error.	Update or reload database. If the problem persists, contact Garmin Technical Support.
TRAFFIC	ADS-B in traffic alerting has failed.	Verify that ADS-B In traffic is properly installed and configured, and that the display source, heading source, and GPS source are all configured properly.
		Verify that a valid GPS antenna has clear view of the sky.

Alert Text	Cause	Solution
		Ensure that the position source is available, properly configured and powered.
		Reset configuration and the configuration module, then reconfigure the unit.
		Reload software. If the problem persists, contact Garmin Technical Support.
TRAFFIC	ADS-B in traffic has failed.	Verify that the position source is available, powered on and properly configured.
		Inspect the compatibility of the transponder antenna and its connections.
		Reset configuration and the configuration module, then reconfigure the unit.
		Reload software. If the problem persists, contact Garmin Technical Support.
TRAFFIC	TAS/TCAS has been in standby for more than 60 seconds.	Verify that the TAS/TCAS system has the required and valid data (i.e. Position, altitude, Heading, etc.)
		Verify that the TAS/TCAS is configured properly. If the problem persists, contact Garmin Technical Support.
TRAFFIC	TAS/TCAS inoperative or connection lost.	Verify that TAS/TCAS is getting power and verify proper wiring between TAS/TCAS and GDU 620. If the problem persists, contact Garmin Technical Support.
TRAFFIC	TAS/TCAS has failed.	Verify the wiring of the TAS/TCAS system.
		Verify that the TAS/TCAS system has the required and valid data (i.e. Position, altitude, Heading, etc.)
		Verify that the TAS/TCAS is configured properly. If the problem persists, contact Garmin Technical Support.
TRAFFIC	Traffic device is inoperative or connection to GDU is lost.	Verify that traffic device is getting power and verify proper wiring between traffic device and GDU 620. If the problem persists, contact Garmin Technical Support.
TRAFFIC CONFIG	ADS-B traffic data does not match configuration.	Verify configuration settings. If the problem persists, contact Garmin Technical Support.

Alert Text	Cause		Solution
TRAFFIC FAIL	The traffic information system has failed.	The GDU 620 is not receiving traffic information from the traffic sensor.	Verify wiring between GDU 620 and traffic sensor.
		The GDU 620 is receiving information from the traffic sensor, but the information is indicating that the traffic sensor has failed.	Troubleshoot traffic system.
TRAFFIC STDBY	The traffic information system is in Standby mode while the aircraft is In-Air.		Check traffic system controls on MFD traffic page or traffic system. If the problem persists, contact Garmin Technical Support.
TRK LOST	GPS1 TRK lost. HSI defaulted to GPS2 TRK.		Ensure the GPS has a valid position.
TRK TRAFFIC	Heading Lost. Traffic is now based on track.		See HDG FAULT and HDG LOST alerts. If the problem persists, contact Garmin Technical Support.
XPDR1	GTX1 needs service.		Return unit for repair.
XPDR1	GTX1 is inoperative or connection to GDU is lost.		Verify that GTX1 is getting power and verify proper wiring between GTX1 and GDU. If the problem persists, contact Garmin Technical Support.
XPDR2	GTX2 needs service.		Return unit for repair.
XPDR2	GTX2 is inoperative or connection to GDU is lost.		Verify that GTX2 is getting power and verify proper wiring between GTX2 and GDU. If the problem persists, contact Garmin Technical Support.

2.7 Removal and Installation Information

If any G500H LRUs are removed and reinstalled or a new unit is installed, verify that the LRU unit power-up self-test sequence is successfully completed and no failure messages are annunciated on the GDU 620 display.

If any work has been done on the rotorcraft that could affect the system wiring or any interconnected equipment, verify the G500H system unit power-up self-test sequence is successfully completed and no failure messages are annunciated on the GDU 620 display.

Whenever removing or installing units, remove power from the LRU by removing aircraft power or opening the LRU circuit breaker.

2.7.1 GDU™ 620 Unit

2.7.1.1 Removal

1. Remove the six mounting screws from the bezel of the GDU 620.
2. Pull the GDU 620 far enough out from the instrument panel to access the three rear connectors.
3. Disconnect the rear connectors.
4. Remove the GDU 620.

2.7.1.2 Installation

1. Visually inspect the connectors to ensure that there are no bent or damaged pins. Repair any damage.
2. Connect the rear connectors, ensuring that each slidelock is secured on both sides.
3. Set the GDU 620 into place.
4. Install the six mounting screws into the bezel of the GDU 620.

NOTE

The installation configuration settings are stored in the configuration module and will be retained when the GDU 620 is replaced with a new unit. User settings, such as map orientation preferences, are stored internally and will be lost when the GDU 620 is replaced with a new unit.

Original GDU 620 is Reinstalled

If the original GDU 620 is reinstalled, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair process. No configuration is required.

New, Repaired or Exchange GDU 620 is Installed

If a new, repaired, or exchange GDU 620 unit is installed, then software must be loaded. No configuration is required.

NOTE

Upon first power-up after installing a new GDU 620, it is normal to see a series of "LOADING…" messages appear on the screen. These messages indicate that the GDU 620 is updating its configuration settings from the configuration module.

Refer to Section 5 of the G500H STC Installation Manual for the GDU 620 Software Loading procedure (5.4.1), followed by the Manifest Configuration (5.5.5) and the Configuration Module Update (5.5.12).

GDU 620 Configuration Module is Replaced

If the GDU 620 Configuration Module is replaced, the GDU 620 will update the configuration module from its internally-stored settings when the UPDT CFG soft key is pressed If the GDU 620 is replaced at the same time as the Configuration Module, then the System Setup will need to be performed per Section 5.5 of the G500H STC Installation Manual.

2.7.1.3 Return to Service

After removing and reinstalling the GDU 620 per the instructions above, a simple return-to-service check should be performed.

1. Power up the GDU 620 and all interfaced systems in normal mode.
2. Verify that there are no red-Xs and that no alerts are present. If red Xs or alerts are present, troubleshoot using Section 2.6 of this ICA.

2.7.2 Cooling Fans

NOTE

The GDU cooling fan replacement kit (P/N K00-00683-10) must be obtained from an authorized Garmin dealer. In order for the GDU warranty to remain valid, this procedure must be accomplished by an authorized Garmin dealer.

2.7.2.1 Removal

1. Place the GDU 620 on a flat surface with the fan cover plate assembly facing up
2. Remove and discard the six Torx® screws with a T10 driver.
3. Lift fan cover assembly and disconnect fan connectors. Set aside.

2.7.2.2 Installation

1. Place replacement fan cover assembly over unit.
2. Connect both fan connectors, noting plate orientation to match recess in unit. Ensure connectors are fully engaged.
3. Lower fan cover assembly into place while being careful to not pinch fan wires.
4. Secure fan cover assembly with six provided Torx® screws. Torque each screw to 8 in-lbs, +/- 1 in-lb.

2.7.2.3 Return to Service

After removing and reinstalling the GDU cooling fans, the following return-to-service checks should be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the newly-installed cooling fans are operating correctly.
3. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section **Error! Reference source not found.** of this ICA.

2.7.3 GRS 77H Unit

2.7.3.1 Removal

1. Disconnect the GRS 77H connector.
2. Loosen the four Phillips thumbscrews with a screwdriver.
3. Gently lift the GRS 77H from the mounting plate (if the supports for the mounting plate are removed, the GRS 77H must be recalibrated)

2.7.3.2 Installation

1. Place the GRS 77H on the mounting plate, ensuring the orientation is correct.
2. Fasten the unit to the plate using the Phillips thumbscrews. Required torque is 22-25 inch pounds.
3. Visually inspect the connectors to ensure there are no bent or damaged pins. Repair any damage.
4. Connect the connector to the GRS 77H, ensuring that each slidelock is secured on both sides.

Original GRS 77H is Reinstalled

If the original GRS 77H is reinstalled, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process. Reference Table 2-3 to determine whether recalibration is required.

New, Repaired, or Exchange GRS 77H is Installed

If a new, repaired, or exchange GRS 77H unit is installed then software must be loaded per Section 5.4.2 of the G500H STC Installation Manual. Reference Table 2-3 to determine whether re-calibration is required.

GRS 77H Configuration Module is Replaced

If the GRS 77H Configuration Module is replaced, the GRS 77H must be re-calibrated. Reference Table 2-3.

2.7.3.3 Return to Service

After removing and reinstalling the GRS 77H, the following return-to-service checks should be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid heading and attitude within approximately one minute. Note that heading can remain invalid if the magnetometer is near a large metal structure such as a hangar wall or if the magnetometer is close to a large ground power cart.
3. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.

Table 2-3. GRS 77H Calibration Criteria

Condition	Calibrations Required	
	GRS 77H Pitch/Roll Offset See Section 5 of the G500H STC Installation Manual	**GRS/GMU Magnetic Calibration** See Section 5 of the G500H STC Installation Manual
GRS 77H AHRS was removed and/or replaced. The mounting tray was NOT removed and the mounting tray bolts were NOT loosened.	None Required.	
GRS 77H AHRS was removed and/or replaced. The mounting tray WAS removed and/or mounting tray bolts WERE loosened.	X	X
GRS 77H AHRS Configuration Module was replaced.	X	X

2.7.4 GRS 79H Unit

2.7.4.1 Removal

1. Disconnect the GRS 79H connector.
2. Turn each retention screw counterclockwise until they disconnect from the remote rack.
3. Slide the GRS 79H unit forward to remove from the remote rack (if the fasteners for the rack are removed, the GRS 79H must be recalibrated)

2.7.4.2 Installation

1. Place the GRS 79H on the remote rack, ensuring the orientation is correct.
2. Slide the GRS 79H back until the feet are fully engaged with the remote rack.
3. Push down and simultaneously turn each retention screw clockwise. Torque each retention screw to 15-20 in-lbs.
4. Visually inspect the connectors to ensure there are no bent or damaged pins. Repair any damage.
5. Connect the connector to the GRS 79H, ensuring that each jackscrew is secured.

Original GRS 79H is Reinstalled

If the original GRS 79H is reinstalled, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process. Reference Table 2-4 to determine whether recalibration is required.

New, Repaired, or Exchange GRS 79H is Installed

If a new, repaired, or exchange GRS 79H unit is installed then software must be loaded per Section 5.4.2 of the G500H STC Installation Manual. Reference Table 2-4 to determine whether re-calibration is required.

GRS 79H Configuration Module is Replaced

If the GRS 79H Configuration Module is replaced, the GRS 79H must be re-calibrated. Reference Table 2-4.

2.7.4.3 Return to Service

After removing and reinstalling the GRS 79H, the following return-to-service checks should be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid heading and attitude within approximately one minute. Note that heading can remain invalid if the magnetometer is near a large metal structure such as a hangar wall or if the magnetometer is close to a large ground power cart.
3. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.

Table 2-4. GRS 79H Calibration Criteria

Condition	Calibrations Required	
	GRS 79H Pitch/Roll Offset See Section 6 of the G500H STC Installation Manual Addendum	**GRS/GMU Magnetic Calibration** See Section 6 of the G500H STC Installation Manual Addendum
GRS 79H AHRS was removed and/or replaced. The mounting tray was NOT removed and the mounting tray bolts were NOT loosened.	None Required.	
GRS 79H AHRS was removed and/or replaced. The mounting tray WAS removed and/or mounting tray bolts WERE loosened.	X	X
GRS 79H AHRS Configuration Module was replaced.	X	X

2.7.5 GMU 44 Unit

2.7.5.1 Removal

1. Gain access to the GMU 44 magnetometer.
2. Unscrew the three screws that hold the GMU 44 to its mounting rack.
3. Carefully lift the GMU 44 from the rack.
4. Disconnect the wiring harness.

2.7.5.2 Installation

1. Visually inspect the connectors to ensure there are no bent or damaged pins. Repair any damage.
2. Connect the wiring harness to the GMU 44.
3. Lower the GMU 44 into the rack and secure the plate with the three Phillips screws.

Original GMU 44 is Reinstalled

If the original GMU 44 was reinstalled, then software loading is not required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process. Recalibration is required only if the mount for the magnetometer was changed. If the magnetometer mount was changed, refer to Section 5.6.2 of the G500H STC Installation Manual / Section 6.3 of the G500H STC Installation Manual Addendum for the GRS 77H/79H or GSU 75H and GMU 44 Magnetic Calibration.

New, Repaired or Exchange GMU 44 is Installed

If a new, repaired, or exchange GMU 44 unit is installed, then software must be loaded and the AHRS or ADAHRS and GMU 44 Magnetic Calibration must be performed. Refer to Section 5 of the G500H STC Installation Manual / Section 6 of the G500H STC Installation Manual Addendum for instructions on software loading and Magnetic Calibration.

2.7.5.3 Return to Service

After removing and reinstalling the GMU 44, the following return-to-service checks should be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid heading within approximately one minute. Note that heading can remain invalid if the magnetometer is near a large metal structure such as a hangar wall or if the magnetometer is close to a large ground power cart.
3. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.

2.7.6 GDC 72H Unit

2.7.6.1 Removal

1. Disconnect the pitot/static plumbing from the rear of the unit. Disconnect the single connector.
2. Turn the retention screw counterclockwise to disconnect from the remote rack
3. Slide the GDC 72H forward to remove from the remote rack.

2.7.6.2 Installation

1. Place the unit on the remote rack.
2. Slide the GDC 72H back until the feet are fully engaged with the remote rack.
3. Push down and simultaneously turn the retention screw clockwise. The recommended torque is 16 to 22 in-lbs.
4. Connect the pitot/static plumbing.
5. Inspect the connector and pins for damage. Repair any damage.
6. Connect the connector to the unit, ensuring that each jackscrew is secured.

Original GDC 72H is Reinstalled

If the original GDC 72H is re-installed, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process.

New, Repaired or Exchange GDC 72H is Installed

If a new, repaired, or exchange GDC 72H unit is installed, then software must be loaded to the unit. Refer to Section 6.1 of the G500H STC Installation Manual Addendum for more information.

GDC 72H Configuration Module is Replaced

If the GDC 72H Configuration Module is replaced, the GDC 72H must be configured. Refer to Section 6.2.2 of the G500H STC Installation Manual Addendum.

2.7.6.3 Return to Service

After removing and reinstalling the GDC 72H, the following return-to-service checks must be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid air data within approximately one minute.
1. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.
2. Perform a leak check of the pitot-static system and observe the airspeed, altitude, and vertical speed for proper operation.

2.7.7 GDC 74H Unit

2.7.7.1 Removal

1. Disconnect the pitot/static plumbing from the rear of the unit. Disconnect the single connector.
2. Remove the two (2) screws on the mounting plate near the pitot/static ports. Loosen the other two (2) screws.
3. Carefully remove the unit from its mounting location.

2.7.7.2 Installation

1. Place the unit in the mounting tray.
2. Position the unit and fasten using the four (4) screws.
3. Connect the pitot/static plumbing.
4. Inspect the connector and pins for damage. Repair any damage.
5. Connect the connector to the unit, ensuring that each jackscrew is secured.

Original GDC 74H is Reinstalled

If the original GDC 74H is re-installed, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process.

New, Repaired or Exchange GDC 74H is Installed

If a new, repaired, or exchange GDC 74H unit is installed, then software must be loaded to the unit. Refer to Section 5.4.2 of the G500H STC Installation Manual for more information.

GDC 74H Configuration Module is Replaced

If the GDC 74H Configuration Module is replaced, the GDC 74H must be configured. Refer to Section 5.5.8 of the G500H STC Installation Manual

2.7.7.3 Return to Service

After removing and reinstalling the GDC 74H, the following return-to-service checks must be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid air data within approximately one minute.
3. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.
4. Perform a leak check of the pitot-static system and observe the airspeed, altitude, and vertical speed for proper operation.

2.7.8 GSU 75H Unit

2.7.8.1 Removal

1. Disconnect the pitot/static plumbing from the rear of the unit. Disconnect the single connector.
2. Turn the retention screws counterclockwise to disconnect from the remote rack
3. Slide the GSU 75H forward to remove from the remote rack.

2.7.8.2 Installation

1. Place the unit on the remote rack.
2. Slide the GSU 75H back until the feet are fully engaged with the remote rack.
3. Push down and simultaneously turn each retention screw clockwise. Torque each retention screw to 15-20 in-lbs.
4. Connect the pitot/static plumbing.
5. Inspect the connector and pins for damage. Repair any damage.
6. Connect the connector to the unit, ensuring that each jackscrew is secured.

Original GSU 75H is Reinstalled

If the original GSU 75H is re-installed, then no software loading is required. This does not include units that were returned for repair as their software and configuration files are deleted during the repair testing process. Reference Table 2-5 to determine whether recalibration is required.

New, Repaired or Exchange GSU 75H is Installed

If a new, repaired, or exchange GSU 75H unit is installed, then software must be loaded to the unit. Refer to Section 6.1 of the G500H STC Installation Manual Addendum for more information. Reference Table 2-5 to determine whether recalibration is required.

GSU 75H Configuration Module is Replaced

If the GSU 75H Configuration Module is replaced, the GSU 75H must be configured. Refer to Section 6.2.2 of the G500H STC Installation Manual Addendum. Reference Table 2-5.

2.7.8.1 Return to Service

After removing and reinstalling the GSU 75H, the following return-to-service checks must be performed.

1. Power up the G500H system with the GDU 620 in normal mode.
2. Verify that the GDU displays valid air data within approximately one minute.
3. Verify that the GDU displays valid heading and attitude within approximately one minute. Note that heading can remain invalid if the magnetometer is near a large metal structure such as a hangar wall or if the magnetometer is close to a large ground power cart.
4. Verify that no unexpected alerts are present. If alerts are present, troubleshoot using Section 2.6 of this ICA.
5. Perform a leak check of the pitot-static system and observe the airspeed, altitude, and vertical speed for proper operation.

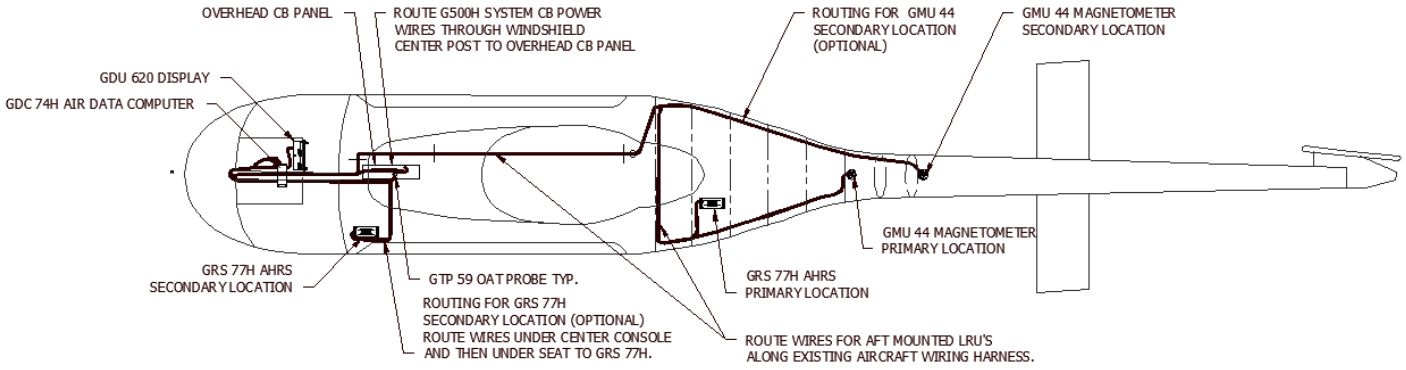
Table 2-5. GSU 75H Calibration Criteria

Condition	Calibrations Required	
	GSU 75H Pitch/Roll Offset See Section 6 of the G500H STC Installation Manual Addendum	**GSU/GMU Magnetic Calibration** See Section 6 of the G500H STC Installation Manual Addendum
GSU 75H ADAHRS was removed and/or replaced. The mounting tray was NOT removed and the mounting tray bolts were NOT loosened.	None Required.	
GSU 75H ADAHRS was removed and/or replaced. The mounting tray WAS removed and/or mounting tray bolts WERE loosened.	X	X
GSU 75H ADAHRS Configuration Module was replaced.	X	X

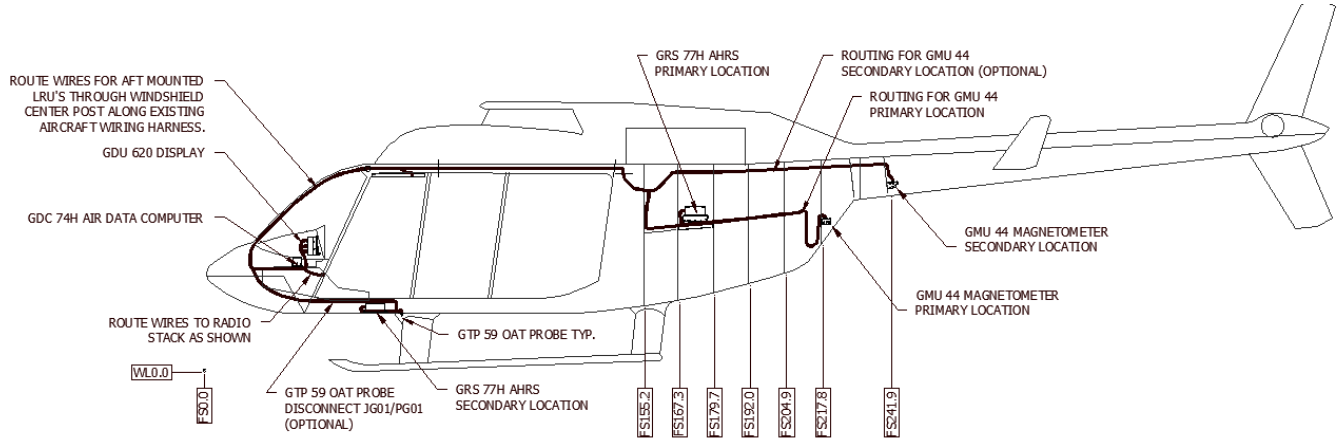
2.8 Diagrams

A rotorcraft specific LRU location and wire routing diagram is included below. A circuit breaker table is included below. Installation locations for the GRS 79H and GSU 75H are the same as the GRS 77H, in addition, installation locations for the GDC 72H are the same as the GDC 74H. Point to point wiring diagrams are in Appendix D of the G500H STC Installation Manual and Appendix C of the G500H STC Installation Manual Addendum. Refer to the G500H Post-Installation Checkout Log retained in the rotorcraft permanent records for a list of the interfaced equipment and port configurations.

Top View:



Side View:



The installed G500H equipment can be accessed as described below:

LRU	FS	WL	BL	Location	Notes
GDU 620	38.6	43.3	6.3	Primary	Access or remove by removing the six screws in the bezel of the GDU 620
GDC 72H/74H	32.8	37.6	0.0	Primary	Access or remove by lowering instrument console at its hinge point and removing the top instrument console cowling
GRS 77H/79H	172.8	54.7	-10.3	Primary	Access or remove by opening the baggage compartment and removing the access panel located on the ceiling of the baggage compartment
GSU 75H	62.0	21.7	-18.6	Secondary	Access or remove by removing the cushion from the co-pilots seat and the panel on top of the seat pedestal
GMU 44	219.6	59.5	0.0	Primary	Access or remove by opening the baggage compartment, removing the screws on the aft wall of the baggage compartment which hold in place the plastic baggage compartment extension
	243.0	70.5	-3.1	Secondary	Access or remove by removing the bolts from the access panel on the pilots side of the aircraft at the juncture of the tail boom and fuselage.

Table 2-6: Circuit Breaker Labels

LRU	Circuit Breaker Label
GDU 620	PFD
GDC 72H/74H	ADC
GRS 77H/79H	AHRS
GSU 75H	ADAHRS

2.9 Special Inspection Requirements

2.9.1 Post-Lightning Strike Inspection

In the event of a suspected or actual lightning strike to the aircraft, both the GTP 59 OAT Probe and GMU 44 Magnetometer shall be inspected.

2.9.1.1 GTP 59 OAT

The probe and the surrounding installation shall be inspected to ensure that there is no structural damage around the areas where lightning may have attached. If there is visible sign of damage to the probe then it must be replaced.

Verify that OAT is displayed on the GDU 620 PFD normally.

2.9.1.2 GMU 44

A magnetic inference check shall be performed in accordance with Section 6.3.7 of the *Installation Manual Addendum G500H Part 27 AML STC*. The purpose of this check is to ensure the structure around the GMU 44 did not get magnetized by the lightning event to the point of affecting GMU 44 performance.

2.10 Application of Protective Treatments

For detail on protective treatments, see the Bell Standard Practices Manual BHT-ALL-SPM, Chapter 3 for corrosion protection and Chapter 4 for painting.

2.11 Special Tools

For electrical bonding testing, a milliohm meter with an accuracy of $\pm$ 0.1 milliohms or better is required.

2.12 Additional Instructions

None

2.13 Overhaul Period

The system does not require overhaul at a specific time period. Power on self-test and continuous BIT will monitor the health of the G500H system. If any LRU indicates an internal failure, the unit may be removed and replaced. See the troubleshooting section contained in Section 2.6 of this document or Section 6 of the G500H STC Installation Manual, listed under reference documentation in paragraph 2.1 of this document.

2.14 ICA Revision and Distribution

This document is required for maintaining the continued airworthiness of the rotorcraft. Garmin Dealers may obtain the latest revision of this document at the Garmin Dealer Resource Center website.

Dealers are notified of manual revision changes by way of a Garmin Service Bulletin.

Owners and operators may obtain the latest revision of this document at www.flyGarmin.com or by contacting a Garmin dealer. Garmin contact information is available at www.flyGarmin.com.

2.15 Assistance

FAA Flight Standards Inspectors or the certificate holder's PMI have the required resources to respond to questions regarding this ICA. In addition, the customer may refer questions regarding this equipment and its installation to the manufacturer, Garmin. Garmin customer assistance may be contacted during

normal business hours via telephone 913-397-8200 or email from the Garmin web site at www.garmin.com.

2.16 Implementation and Record Keeping

Modification of an rotorcraft by this Supplemental Type Certificate obligates the rotorcraft operator to include the maintenance information provided by this document in the operator's rotorcraft maintenance manual and/or the operator's rotorcraft scheduled maintenance program.

3. AIRWORTHINESS LIMITATIONS

There are no new (or additional) airworthiness limitations associated with this equipment and/or installation.

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

FAA APPROVED

JR Brownell

JR Brownell
ODA STC Unit Administrator
ODA-240087-CE

2/11/2020
Date