Diamond AIRCRAFT

SERVICE INFORMATION LETTER

TO: DA20 C-1 Operators	FROM: Technical Publications	CONTROL NO: SIL20C1-001	REVISION: NC
ATTN: All DA20 C-1 Operators	ORIGINATOR: Richard Gilbeau	PAGE: 1 of 1	
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DATE OF REQUEST: 06 January 2010	PUBLICATION AFFECTED: LOAP - Doc No. DA200-C1		

TITLE: Service Information Letter to introduce GARMIN Software Service Bulletin NO.: 0943 Rev A. This Service Bulletin announces the availability of new LRU GDU 620 Software Version 3.02, for G600 and G500 systems.

REFERENCE: GARMIN Software Service Bulletin NO.: 0943 Rev A, included with this Service Information Letter.

ISSUE: This software Service Bulletin announces the availability of new LRU GDU 620 Software Version 3.02, for G600 and G500 systems and describes the process for upgrading a G600 or G500 System's GDU 620 Main Software to Version 3.02.

RESOLUTION:

The GDU 620 Software Version 3.02 contains the following changes:

- PFD Wind Vector Style 4 displays a more accurate wind direction value
- Corrected issue where SVT, TAWS and annunciations on the HSI for WAAS Level of Service (e.g. LNAV, LNAV + V, VNAV) would not be displayed when WAAS was manually disabled on the GNS Navigator
- Improved TAWS performance (for G600 Systems)

PREPARED BY:		APPROVAL:		
Print Name:	Richard Gilbeau	Print Name:	Kevin Bruce	SIL Issue Date:
Signature:	R. Gilbeau	Signature of Manager:		11-JAN-10
Date:	11-Jan-10			

This document conveys information related to the concerned issue and the proposed resolution.

SOFTWARE SERVICE BULLETIN
NO.: 0943 Rev A

TO: All Garmin Aviation Service Centers
DATE: October 7, 2009

SUBJECT: G600 and G500 System's Software Upgrade for GDU 620 Software Version 3.02

PURPOSE

This Service Bulletin announces the availability of new LRU GDU 620 Software Version 3.02, for G600 and G500 systems.

The GDU 620 Software Version 3.02 contains the following changes:

- PFD Wind Vector Style 4 now displays a more accurate wind direction value
- Corrected issue where SVT, TAWS and annunciations on the HSI for WAAS Level of Service (e.g. LNAV, LNAV + V, VNAV) would not be displayed when WAAS was manually disabled on the GNS Navigator
- Improved TAWS performance (for G600 Systems)

DESCRIPTION

This software service bulletin describes the process for upgrading a G600 or G500 System's GDU 620 Main Software to Version 3.02.

This configuration includes the following LRU software changes:

System	Product Model	Software P/N	New Software Version
G500	GDU 620 Display	006-B1071-12	3.02
G600	GDU 620 Display	006-B0498-12	3.02

In addition to the new software versions listed above, the updated G500 and G600 downloadable system software includes the following existing LRU software versions:

System	Product Model	Software P/N	Software Version
G500/G600	GRS 77 AHRS	006-B0223-0A	2.12
G500/G600	GDC 74 ADC	006-B0261-12	3.02
G500/G600	GMU 44 Magnetometer	006-B0224-00	2.01
G500/G600	GDL 69 Data Link (optional)	006-B0317-14	3.20.00
G500/G600	GAD 43 Adapter (optional)	006-B0876-00	2.00

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In the event that any of the software versions listed in the previous table are not presently installed on the existing system LRUs, then they should also be selected for installation as part of the update.

As of the date of this software service bulletin, the software revisions listed above are the most recently approved versions. In the event that any of the software versions listed in the previous table are not presently installed on the existing system LRUs, then they should also be selected for installation as part of the update. An exception can be made in the case of the GDL 69, where software version 3.30.00 or later is acceptable. See the *G600 Installation Manual* (Garmin P/N 190-00601-06) or the *G500 Installation Manual* (Garmin P/N 190-01102-06) for more details on updating system LRU software.

APPROVAL

The GDU 620 Software Version 3.02 complies with applicable Federal Aviation Regulations and is FAA approved under TSOA for design approval. GDU 620 Software Version 3.02 has airworthiness approval when installed in accordance with STC SA02153LA-D for the G600 System and STC SA02015SE-D for the G500 System. The software changes for GDU 620 Software Version 3.02 are minor TSO and STC changes.

Other OEM or 3rd party TC or STC installations including the GDU 620 products may exist and are not covered under this service bulletin. For those other installations, the applicable certification holder is responsible for providing airworthiness approval associated with the installation of GDU Software version 3.02.

AFMS AND PILOT'S GUIDE CONSIDERATIONS

There were no changes to the Pilot's Guides for Software Version 3.02.

For G600 systems only: The AFMS has been revised. The existing AFMS (Garmin P/N 190-00601-01), Revision B, must be removed and replaced with Revision C.

PRODUCTS AFFECTED

System	Model	Product P/N	Software Version
G600	GDU 620 Display	011-01264-0( )	3.01 or earlier
G600	GDU 620 Display	011-01264-1( )	3.01 or earlier
G500	GDU 620 Display	011-01264-5( )	3.01

COMPLIANCE

Recommended. It is recommended that the software be upgraded; however, the decision to modify the software is at the owner's discretion and is not warranty reimbursable.

Note: For G600 installations where TAWS will be enabled, this GDU 620 software version 3.02 update is required.

REFERENCES

G600 Installation Manual (Garmin P/N 190-00601-06) Rev D or later
GDU 620 Installation Manual (Garmin P/N 190-00601-04) Rev E or later
G500 Installation Manual (Garmin P/N 190-01102-06) Rev 1 or later

The required STC documents are available from:
www.garmin.com, within the Dealer Resource section of the web site

MANPOWER

One hour (1) labor

WARRANTY INFORMATION

This modification is a customer option and is not warranty reimbursable.

SOFTWARE MODIFICATION INSTRUCTIONS

The following items are required to complete this software upgrade. Refer to the Material Information Section of this bulletin for more information on these items.

An Installer Unlock Card and:

A Downloadable SW Card Used to download the full System Software from the Garmin website.

OR

A Software Loader Card: Contains the full System Software. This card is only needed when choosing to **not** download the software from the Garmin website.

Part One: Software Modification, GDU 620 to 3.02

1) The field-loadable Software Version 3.02 may be downloaded from the Garmin website onto the Downloadable SW Card, prior to performing the following procedure. Refer to Section 2.4.3 of the *G600 Installation Manual* (Garmin P/N 190-00601-06 Rev D or later), or the *G500 Installation Manual* (Garmin P/N 190-01102-06, Rev 1 or later), for the software download instructions. If preferred, a Software Loader Card may be purchased to complete the software upgrade.

Note: Record any configuration settings before uploading the new software to ensure the unit is properly re-configured during the checkout procedure.

2) Attach the aircraft to ground power before starting this procedure and take appropriate precautions to prevent inadvertent power disruption to the unit being updated during the software loading process.
3) With the unit powered off, remove the Database card from the bottom card slot in the front of the unit by pressing on the card and then releasing.
4) Insert the Downloadable Software Loader Card in the top card slot of the GDU 620 unit. Note: The Software Loader Card may also be used.
5) Insert the Installer Unlock Card in the bottom card slot of the GDU 620 unit.
6) While holding the ENT key, restore power to the unit.
7) When the words “INITIALIZING SYSTEM” appear, release the ENT key.
8) Press the ENT key to acknowledge the following prompt:

“DO YOU WANT TO UPDATE SYSTEM FILES?
PRESS ENT KEY FOR YES OR CLR KEY FOR NO
NO WILL BE ASSUMED IN 20 SECONDS.”

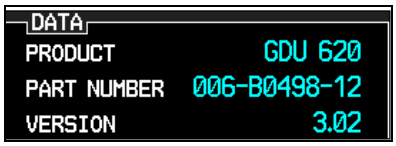
Note: After 20 seconds the unit will power up normally if ENT is not pressed. Restart the unit, if needed.

9) After pressing ENT, the following message will be displayed:

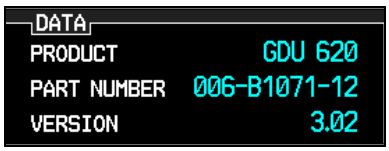
"UPDATING SYSTEM FILES
DO NOT TURN OFF THE POWER"

10) When the software prompts to do so, press any key to continue.

11) Once the software installation process has completed, the unit will start up in the configuration mode. Verify the DATA box on the left side of the GDU 620 unit displays the following information:



G600 System



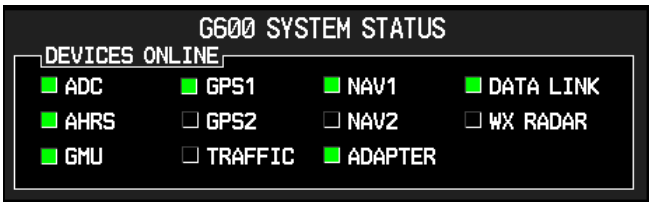
G500 System

Part Two: Updating the Manifest

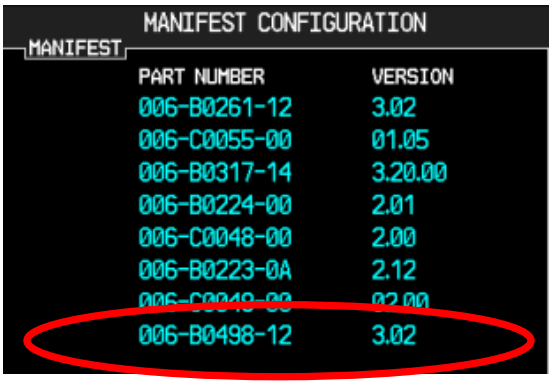
Navigate to the Manifest Configuration Page in the SYS Page Group by turning the outer MFD knob to the SYS Page Group, then turn the inner MFD knob to reach the Manifest Configuration Page.

1) Power on the GDC74A, GRS77, GMU44 and optional GAD 43, GWX 68 and GDL69/69A (if installed).

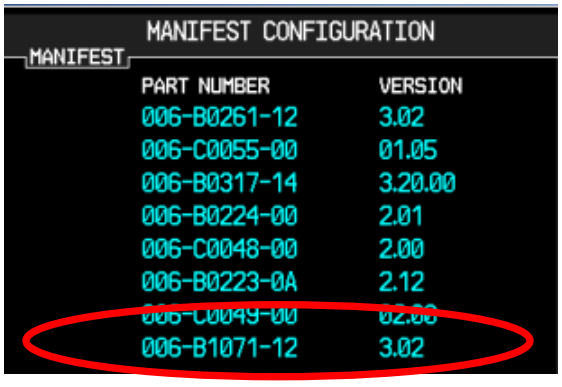
2) Verify that on the AUX/Status Page of the PFD there is a green status box for each LRU: ADC, AHRS, GMU, ADAPTER (GAD 43 if installed), DATA LINK (if installed) and WX RADAR (if installed).



3) Press the MANIFEST soft key to automatically populate the manifest.
4) Ensure that the Manifest Configuration Page displays the correct software part number and version numbers for the following item:



G600 System:
Part Number 006-B0498-12, Version 3.02



G500 System:
Part Number 006-B1071-12, Version 3.02

5) Turn to the “Software Upload Page and then press the “UPDT CFG” soft key. Press the Enter key at the popup window “Update Config Module?” Press the Enter Key at the popup window “Config Module Update Complete.”

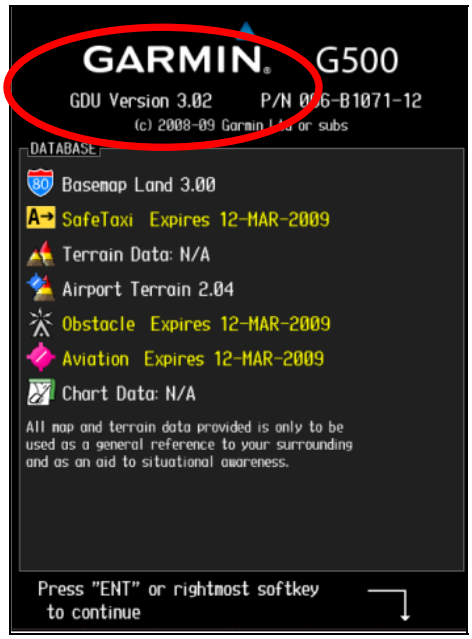
CAUTION

If using the MANIFEST soft key to automatically enter the manifest information, ensure that each LRU has the correct software loaded prior to pressing the MANIFEST soft key. Also ensure that the LRUs identified above are powered up prior to pressing the MANIFEST soft key. Failure to do so will result in an incomplete list of software part numbers and version numbers being stored in the manifest. If an incomplete list of software part numbers or version numbers is stored in the manifest, the MANIFEST soft key can be pressed again to reflect the current information.

Part Three: GDU 620 Software Verification

1) Power down the unit and remove the Software Loader SD Card from the top card slot and the Installer Unlock SD card from the bottom card slot of the unit.
2) Insert the Database SD Card into the bottom card slot of the unit.
3) Apply power to the unit.
4) Verify that “GDU Version 3.02” is displayed on the GDU 620.

G600 System



G500 System

5) Press “ENT” or the rightmost soft key to continue.

DOCUMENTATION UPDATE PROCEDURE

1) Make an entry in the aircraft maintenance records to indicate that GDU 620 V3.02 has been installed in accordance with this Service Bulletin (0943).
2) Replace the existing AFMS with the updated AFMS. Refer to the AFMS and Pilot's Guide Considerations section of this bulletin.

MATERIAL INFORMATION

For G600 Software Upgrades: An Installer Unlock Card, (Garmin P/N 010-00769-60) and a G600 Downloadable SW Card, (Garmin P/N 010-00768-00), are required to install the GDU 620 Software Version 3.02 from the Garmin website. Both of these cards are included in the Garmin G600/G500 Installer Kit (Garmin P/N K00-00447-00). If necessary, contact Garmin International to order a replacement Installer Unlock Card or a G600 Downloadable SW Card.

A G600 Software V3.02 Loader Card, (Garmin P/N 010-00771-11) can be purchased to complete the software upgrade for GDU 620 3.02, instead of accessing the Garmin website to download the software. The Software Loader card carries a charge of $50.00. Contact Garmin International to order a software loader card.

For G500 Software Upgrades: An Installer Unlock Card, (Garmin P/N 010-00769-60) and a G500 Downloadable SW Card, (Garmin P/N 010-00844-00), are required to install the GDU 620 Software Version 3.02 from the Garmin website. Both of these cards are included in the Garmin G600/G500 Installer Kit (Garmin P/N K00-00447-00). If necessary, contact Garmin International to order a replacement Installer Unlock Card or a G500 Downloadable SW Card.

A G500 Software Loader Card, (Garmin P/N 010-00841-11) can be purchased to complete the software upgrade for GDU 620 3.02, instead of accessing the Garmin website to download the software. The Software Loader card carries a charge of $50.00. Contact Garmin International to order a software loader card.